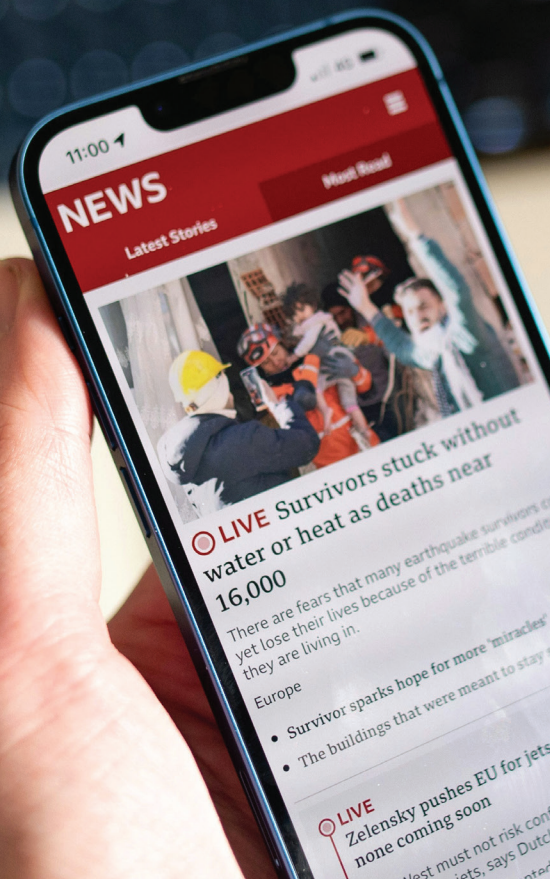




cogitatio

MEDIA AND COMMUNICATION

Journalism in the Hybrid Media System

Edited by Silke Fürst, Florian Muhle,
and Colin Porlezza

Volume 13

2025

Open Access Journal

ISSN: 2183-2439



Media and Communication, 2025, Volume 13
Journalism in the Hybrid Media System

Published by Cogitatio Press
Rua Fialho de Almeida 14, 2º Esq.,
1070-129 Lisbon
Portugal

Design by Typografia®
<http://www.typografia.pt/en/>

Cover image: © Photo by Rich Tervet on Unsplash

Academic Editors
Silke FÜRST (University of Zurich)
Florian Muhle (Zeppelin University Friedrichshafen)
Colin Porlezza (Università della Svizzera italiana)

Available online at: www.cogitatiopress.com/mediaandcommunication

This issue is licensed under a Creative Commons Attribution 4.0 International License (CC BY). Articles may be reproduced provided that credit is given to the original and *Media and Communication* is acknowledged as the original venue of publication.

Table of Contents

Journalism in the Hybrid Media System: Editorial

Silke Fürst, Florian Muhle, and Colin Porlezza

Ensuring News Quality in Platformized News Ecosystems: Shortcomings and Recommendations for an Epistemic Governance

Pascal Schneiders and Birgit Stark

Historical Roots of Information Flows in Hybrid Media Systems

Silke Fürst

Network Analysis for Media Ownership: A Methodological Proposal

Mariia Alekseyevych and Tales Tomaz

A See-Through Curtain of Varying Texture: Negotiating Power and Material Realities in Engaged Journalism

Bissie Anderson

Fact-Checkers as New Journalistic Mediators: News Agencies' Verification Units and Platform Dynamics

Regina Cazzamatta

Search in the Newsroom: How Journalists Navigate Google's Dominance in a Hybrid Media System

Daniel Trielli

Media Hybridization and the Strategic Value of Political Incivility: Insights From Italian Journalists

Rossella Rega

Artificial Amplification and Intermedia Dynamics in the Hybrid Media System: The Case of #LaschetLacht

Florian Muhle and Indra Bock

Climate Communication in the Hybrid Media System: Media and Stakeholder Logics on Social Media

Simon M. Luebke, Nadezhda Ozornina, Mario Haim, and Jörg Haßler

Issue Attention and Semantic Overlap in Vaccination Coverage Within Switzerland's Hybrid Media System

Dario Siegen and Daniel Vogler

Journalism in the Hybrid Media System: Editorial

Silke Fürst¹ , Florian Muhle² , and Colin Porlezza³ 

¹ Department of Communication and Media Research, University of Zurich, Switzerland

² Department of Cultural Studies and Communication Studies, Zeppelin University Friedrichshafen, Germany

³ Institute of Media and Journalism, Università della Svizzera italiana, Switzerland

Correspondence: Silke Fürst (s.fuerst@ikmz.uzh.ch)

Submitted: 28 August 2025 **Published:** 16 October 2025

Issue: This editorial is part of the issue “Journalism in the Hybrid Media System” edited by Silke Fürst (University of Zurich), Florian Muhle (Zeppelin University Friedrichshafen), and Colin Porlezza (Università della Svizzera italiana), fully open access at <https://doi.org/10.17645/mac.i494>

Abstract

This thematic issue examines journalism’s role within complex, hybridized media environments shaped by platforms, algorithms, shifting logics of attention, and various actors. Bringing together empirical, theoretical, methodological, and historical perspectives from across three continents, the contributions reveal both enduring structures and transformative dynamics, offering nuanced insights into journalism’s evolving practices, societal functions, and current—as well as future—challenges.

Keywords

algorithms; attention dynamics; hybridity; hybrid media system; journalism; media logic; news media; platform power; political communication; social media

1. Introduction

Digitalization has not only changed the ways in which journalism is produced, disseminated, consumed, and financed but has also challenged the central position of journalism in the public sphere, making it one communicative form among many competing for attention and authority (Carlson et al., 2021). We live in a complex media ecosystem where human and algorithmic actors, legacy and alternative media, as well as newer and older media, observe, compete, influence, and interact with each other (Fürst & Oehmer, 2021; Reese, 2022). This leads to blurred boundaries and communication logics, raising questions about the societal function, relevance, and value of journalism, how users discern and experience journalism and its actors, and how journalists distinguish themselves, their practices, and their products from non-journalistic modes of content production (Edgerly & Vraga, 2020; Splendore & Iannelli, 2022).

In his seminal book *The Hybrid Media System*, Chadwick (2017) encouraged scholars to understand the changing logics of attention and news production, as well as shifting power dynamics within the public sphere, through the lens of a networked media environment (Russell, 2020). This thematic issue takes up this invitation and aims to bring together conceptual, methodological, historical, and empirical contributions that reflect on the changing role of journalism in the hybrid media system.

We received 45 abstracts, of which 16 were selected for full paper submissions. After a double-blind peer review and thorough evaluation by the academic editors, 10 articles were accepted for publication in this thematic issue.

2. Articles Included in This Thematic Issue

The contributions span a wide geographical range, drawing on data from various countries across three continents. Methodologically, the issue showcases the diversity of approaches in researching the role of journalism in the hybrid media system: Several studies are based on qualitative interviews, offering in-depth insights into new types of journalistic organizations, changing journalistic practices and roles (e.g., fact-checkers), the role of audience engagement and audience metrics, and the (re)negotiation of professional norms and news values amid market and platform pressures. Other articles employ quantitative and mixed methods, including network analyses as well as content analyses of news reports and social media posts to explore the alignment and attention dynamics between traditional and newer media or the characteristics of content from different actors on different media channels. The thematic issue also includes methodological and conceptual contributions aimed at better understanding media ownership concentration, power relations, and the governance of epistemic threats to news quality in the hybrid media system. While most studies draw on data from the 2020s, the issue also includes two contributions that examine shorter- and longer-term developments, highlighting both current trends and historical trajectories.

The thematic issue opens with a theoretical contribution. Schneiders and Stark (2025) develop a three-stage framework—encompassing production, distribution, and reception—to analyze threats to news quality in platformized news ecosystems. Addressing the rise of new epistemic authorities and journalism’s dependency on dominant platforms, they introduce the concept of epistemic governance. Their holistic approach provides a timely tool for both research and policy to assess existing and potential media and platform governance measures aimed at safeguarding news quality and reinforcing citizens’ epistemic rights. This article deepens our understanding of journalism’s role and challenges in the hybrid media system, particularly in light of shifting power dynamics and evolving standards of news quality.

The second article, authored by Fürst (2025), examines information flows from a historical perspective. Combining a literature review with a longitudinal analysis of newspaper content from three German-language newspapers, the study investigates key phenomena characterizing information flows, such as media events, scandals, intermedia agenda-setting, and metaphors of public response. The findings reveal that terms such as “media frenzy” have been increasingly used since the mid-20th century to describe cross-media dynamics due to the diversification of mass media and digitalization. The study highlights the importance of historical perspectives for understanding the current hybrid media system.

Aleksevykh and Tomaz (2025) propose a novel methodological framework for assessing media ownership concentration in the hybrid media system. Moving beyond traditional revenue-based concentration metrics, they combine network analysis with attention-based measures to capture media power across sectors. Applying this approach to Denmark and Greece, they demonstrate its effectiveness in revealing complex ownership structures and owners' potential influences on public opinion. Their contribution offers journalism scholars and policymakers a valuable tool to analyze power relations in the hybrid media system and to discuss potential measures that could foster structural media pluralism, media quality, and journalistic autonomy.

Drawing on qualitative interviews with media professionals, the next four articles explore diverse types of journalistic organizations and examine their evolving structures and practices within the hybrid media system.

Anderson (2025) explores practices of participatory journalism based on interviews with journalists from media startups in Pakistan, Romania, Malaysia, and the United Kingdom. The comparative study shows how journalistic organizations shape their relationships with their (active) audiences and delineates the structural constraints that limit the possibilities of audience participation. On the one hand, the interviews reveal how startups aim to foster community agency and empowerment. On the other hand, they also show that the possibilities for audience participation are systematically limited by structural political, economic, and sociocultural factors.

Cazzamatta (2025) investigates how the fact-checking practices of European news agencies differ by applying a content analysis of 860 articles from fact-checking units from Reuters, Agence France-Presse, Deutsche Presse-Agentur, and EFE. The study also explores motivations for establishing fact-checking units based on expert interviews. The results reveal that fact-checking has become an integral part of news agencies' practices that aims to distinguish facts from falsehoods. In terms of falsehoods, the vast majority of articles deal with verifying (or falsifying) online rumors that spread on social media which shows how the agencies have established their new role as "gatebouncers" in the hybrid media system.

Trielli (2025) analyzes how journalists deal with Google's role as an external algorithmic editor in the hybrid media system. Drawing on 18 interviews with US journalists from news organizations across diverse newsroom types and regions, the study shows how professionals respond to algorithmic influence through resistance, relinquishment, and renegotiation. Reporters resist by upholding editorial values against algorithmic pressure, relinquish control by producing tailored "search work," and renegotiate their roles to align professional journalistic values with commercial imperatives. The study highlights shifting power dynamics between human and machine logics and demonstrates how newswork shifts in algorithmic media environments.

Rega (2025) addresses the issue of political incivility in the hybrid media system. While this phenomenon is often problematized in scholarly discourse as indicative of a deteriorating culture of political online debate, Rega focuses on the use of incivility by political journalists in the Italian context. Her study demonstrates that economic pressures as well as platform logics play a significant role in driving the adoption of incivility, which in turn gives rise to journalistic role conflicts. These conflicts are negotiated and resolved in diverse ways by the journalists involved, which goes along with a hybridization of journalistic roles.

The thematic issue concludes with three articles that present quantitative and mixed-methods research at the intersection of journalism and political communication. Focusing on specific cases and topics, these studies offer valuable insights into the dynamics and structures of the hybrid media system and the relations between news media and social media.

Muhle and Bock (2025) explore how artificial amplification and intermedia dynamics shape public discourse in the hybrid media system. By combining content and network analyses, the authors show how social media users strategically pushed a political faux pas into journalistic coverage during the 2021 German federal election. The study reveals the responsiveness of legacy media to trending topics on social media and the influence of hyperactive and automated accounts in driving visibility. It illuminates intermedia dynamics and underscores the need for greater awareness of manipulated online trends in contemporary political communication.

Luebke et al. (2025) explore to what extent media organizations and political stakeholders in Germany follow different (or similar) communication strategies on social media. Using the case of social media communication during the 2023 UN Climate Change Conference in Dubai, the authors reveal that hybridization of communication logics occurs only to a limited extent. Political actors still predominantly adhere to a political logic whereas media organizations continue to follow traditional media logic in their social media activities. This indicates that distinct media and political logics still persist in the hybrid media system.

Rounding off the thematic issue, Siegen and Vogler (2025) present a study on vaccination debates in Switzerland, analyzing intermedia agenda-setting between news outlets and social media. Drawing on 77,798 news articles and 929,431 tweets published between April 2019 and June 2022, the study employs time-series analysis to compare issue attention dynamics and their semantics. The findings show that while news media and Twitter discourses diverged before and after the Covid-19 pandemic, they closely aligned during the crisis, both in attention and semantics. The study highlights how communication flows converge toward dominant issues in times of crisis, supporting previous research on issue agendas in the hybrid media system.

3. Conclusion

Taken together, the empirical, theoretical, methodological, and historical contributions in this thematic issue offer a nuanced understanding of the transformations affecting organizations, power relations, communication logics, and attention dynamics within the hybrid media system. At the same time, they highlight the enduring influence of traditional logics and structures as well as ongoing negotiation processes that warrant further scholarly attention and investigation. Finally, the findings also imply that there is a need for regulatory frameworks that create conditions supporting high-quality news production, dissemination, and (scholarly) monitoring in the increasingly complex hybrid media system. However, journalists also need to cultivate greater professional distance from manipulated dynamics and treat online trends as “matters of concern” rather than a reflection of public opinion.

Acknowledgments

We would like to take this opportunity to thank all authors for their valuable contributions that made this thematic issue possible and enriched the study of journalism and the hybrid media system. Our gratitude also goes to the reviewers, whose careful and constructive evaluations were instrumental in ensuring the high quality of the published articles.

Conflict of Interests

The authors declare no conflict of interests.

LLMs Disclosure

ChatGPT-4o was used in part for brainstorming initial ideas for the structure and for improving grammar and style. Microsoft Copilot was used to translate parts of the manuscript from German into English. All outputs were thoroughly checked, modified, and refined by the authors.

References

- Aleksevykh, M., & Tomaz, T. (2025). Network analysis for media ownership: A methodological proposal. *Media and Communication*, 13, Article 10141. <https://doi.org/10.17645/mac.10141>
- Anderson, B. (2025). A see-through curtain of varying texture: Negotiating power and material realities in engaged journalism. *Media and Communication*, 13, Article 10027. <https://doi.org/10.17645/mac.10027>
- Carlson, M., Robinson, S., & Lewis, S. C. (2021). *News after Trump: Journalism's crisis of relevance in a changed media culture*. Oxford University Press. <https://doi.org/10.1093/oso/9780197550342.001.0001>
- Cazzamatta, R. (2025). Fact-checkers as new journalistic mediators: News agencies' verification units and platform dynamics. *Media and Communication*, 13, Article 9867. <https://doi.org/10.17645/mac.9867>
- Chadwick, A. (2017). *The hybrid media system: Politics and power* (2nd. ed.). Oxford University Press. <https://doi.org/10.1093/oso/9780190696726.001.0001>
- Edgerly, S., & Vraga, E. K. (2020). Deciding what's news: News-ness as an audience concept for the hybrid media environment. *Journalism & Mass Communication Quarterly*, 97(2), 416–434. <https://doi.org/10.1177/1077699020916808>
- Fürst, S. (2025). Historical roots of information flows in hybrid media systems. *Media and Communication*, 13, Article 10375. <https://doi.org/10.17645/mac.10375>
- Fürst, S., & Oehmer, F. (2021). Attention for attention hotspots: Exploring the newsworthiness of public response in the metric society. *Journalism Studies*, 22(6), 799–819. <https://doi.org/10.1080/1461670X.2021.1889396>
- Luebke, S. M., Ozornina, N., Haim, M., & Haßler, J. (2025). Climate communication in the hybrid media system: Media and stakeholder logics on social media. *Media and Communication*, 13, Article 9892. <https://doi.org/10.17645/mac.9892>
- Muhle, F., & Bock, I. (2025). Artificial amplification and intermedia dynamics in the hybrid media system: The case of #LaschetLacht. *Media and Communication*, 13, Article 10244. <https://doi.org/10.17645/mac.10244>
- Reese, S. D. (2022). The institution of journalism: Conceptualizing the press in a hybrid media system. *Digital Journalism*, 10(2), 253–266. <https://www.tandfonline.com/doi/abs/10.1080/21670811.2021.1977669%4010.1080/tfocoll.2022.0.issue-best-paper-bob-franklin-longlist>
- Rega, R. (2025). Media hybridization and the strategic value of political incivility: Insights from Italian journalists. *Media and Communication*, 13, Article 10236. <https://doi.org/10.17645/mac.10236>

- Russell, A. (2020). Coming to terms with dysfunctional hybridity: A conversation with Andrew Chadwick on the challenges to liberal democracy in the second-wave networked era. *Studies in Communication Sciences (SComS)*, 20(2), 211–225. <https://doi.org/10.24434/j.scoms.2020.02.005>
- Schneiders, P., & Stark, B. (2025). Ensuring news quality in platformized news ecosystems: Shortcomings and recommendations for an epistemic governance. *Media and Communication*, 13, Article 10042. <https://doi.org/10.17645/mac.10042>
- Siegen, D., & Vogler, D. (2025). Issue attention and semantic overlap in vaccination coverage within Switzerland's hybrid media system. *Media and Communication*, 13, Article 10040. <https://doi.org/10.17645/mac.10040>
- Splendore, S., & Iannelli, L. (2022). Non-elitist truth? The epistemologies of Italian journalists in the hybrid media system. *Social Media + Society*, 8(3). <https://doi.org/10.1177/20563051221118378>
- Trielli, D. (2025). Search in the newsroom: How journalists navigate Google's dominance in a hybrid media system. *Media and Communication*, 13, Article 9975. <https://doi.org/10.17645/mac.9975>

About the Authors



Silke Fürst is senior research and teaching associate at the Department of Communication and Media Research (IKMZ), University of Zurich in Switzerland. Her research focuses on journalism, datafication, mediatization, discourses about media audiences, science communication and higher education studies, open science, media history, and media ethics. She serves on the editorial boards of *Media and Communication* and *Medien Journal*.



Florian Muhle is professor of communication studies with a focus on digital communication at Zeppelin University Friedrichshafen in Germany. His research focuses on automation of communication and the digital transformation of the public sphere. Florian is an affiliate at the Virtual Observatory for the Study of Online Networks (VOSON) Lab at the Australian National University and a member of the editorial boards of *Bielefeld University Press* and *Forum Qualitative Sozialforschung/Forum: Qualitative Research*.



Colin Porlezza is associate professor of digital journalism and head of the Institute of Media and Journalism (IMeG) at the Università della Svizzera italiana (USI) in Switzerland. His research focuses on automated journalism, the datafication of journalism, journalism ethics, as well as media accountability. He is also a senior honorary research fellow with the Department of Journalism at City St George's, University of London. He also serves on the editorial board of *Digital Journalism*.

Ensuring News Quality in Platformized News Ecosystems: Shortcomings and Recommendations for an Epistemic Governance

Pascal Schneiders  and Birgit Stark 

Department of Communication, Johannes Gutenberg University Mainz, Germany

Correspondence: Pascal Schneiders (pascal.schneiders@uni-mainz.de)

Submitted: 31 January 2025 **Accepted:** 16 June 2025 **Published:** 23 July 2025

Issue: This article is part of the issue “Journalism in the Hybrid Media System” edited by Silke Füst (University of Zurich), Florian Muhle (Zeppelin University Friedrichshafen), and Colin Porlezza (Università della Svizzera italiana), fully open access at <https://doi.org/10.17645/mac.i494>

Abstract

Social media platforms are fundamentally disrupting public communication in two ways. First, non-journalistic actors, such as social media influencers, now have easier access to audiences, increasing the range of epistemic authorities. Second, established news outlets are increasingly reliant on platforms, pressuring them to adapt to the demands of social media. This platformization threatens the quality of public communication and citizens' realization of their epistemic rights. Drawing on these concerns, this article offers a holistic approach to systematically analyze and practically govern epistemic threats to news quality in the platform-driven hybrid news ecosystem by developing a comprehensive three-stage framework that distinguishes between the production, distribution, and reception of news quality. News quality needs not only to be produced (input) but also to be made visible on platforms (throughput) and processed by audiences (output) in order to contribute to an informed public discourse. Focusing on the EU, the article then discusses current regulatory shortcomings and the need for additional measures to safeguard news quality along its three dimensions.

Keywords

epistemic authority; epistemic rights; governance; media policy; media regulation; news quality; platformization; social media platforms

1. Introduction: Social Media Platforms and the Quality of Public Communication

Social media platforms such as Instagram, Facebook, and TikTok have not only become central places for their users to create and engage with personal content (Mellado & Hermida, 2022; Newman, 2023, 2024a) but have also established themselves as essential data- and algorithm-driven infrastructure for public

communication (Staab & Thiel, 2022). This platformization of the public sphere(s) fundamentally affects the quality of public, especially journalistic, communication in two ways: First, social media platforms' relative openness allows a heterogeneous field of actors to self-publish content and potentially reach, produce, and engage with large audiences without having to pass through the filter of news media (Napoli, 2019). As a result, to keep up with current events, younger users especially do not necessarily rely on the accounts of mainstream news outlets but follow new "epistemic authorities" (Bartsch et al., 2025) involved in the production and distribution of (supposedly) credible descriptions of reality. Such information sources include professional commercial content creators, ordinary people, celebrities, political activists, and politicians (Wunderlich et al., 2022). More concretely, across all countries studied in the *Digital News Report 2024*, more YouTube, Instagram, and TikTok news users pay attention to online influencers and personalities than to journalists or news media when it comes to news (Newman, 2024b). Second, as social media platforms have become indispensable for news media looking for new target groups and revenue streams (Nielsen & Ganter, 2022), the latter are largely dependent on powerful platforms to produce, distribute, analyze, and monetize their products (Kristensen & Hartley, 2023; Poell et al., 2022). While some publishers manage to counterbalance platform power (Chua & Westlund, 2022), local, resource-poor news media in particular, having few or no alternatives to platform offerings, are pressured to adapt their professional norms and standards (such as independence and objectivity) to the logic of social media platforms (Broersma & Eldridge, 2019; Nielsen & Ganter, 2022).

These logics are characterized by (a) the affordances or technological architecture of the platforms and (b) algorithmic personalization serving data-driven personalized advertising marketing (van der Vlist & Helmond, 2021):

1. The platform architecture is the result of its technical features and design decisions. It determines who is granted access to the platform, which rules apply to participation, how content can be communicated, how usage activities are measured, which data can be viewed by whom, and how any costs and revenues are allocated (Bossetta, 2018). The platform architecture thus enables, restricts, and favors certain behaviors of its users.
2. Algorithmic decision-making processes involve the filtering, sorting, and personalization of information that is considered individually relevant to users. They, therefore, influence which posts are ultimately visible to the user. For this purpose, implicitly and explicitly generated personal and contextual data are extracted and used (Bozdag, 2013).

Furthermore, although social media platforms sometimes perform functions similar to those of the news media (e.g., providing citizens with relevant information and providing a forum for societal debate; Seignani, 2022), platforms largely neglect their opinion power, with existing regulation falling short in addressing the dependence on, and the power of, platforms (Royal & Napoli, 2022; Seipp et al., 2024). This makes it easier for platforms to achieve their strategic goal of establishing a hegemonic position in the ecosystem "in terms of control over knowledge, information, and data flows" (Seignani & Theine, 2024, p. 9).

Taken together, platformization has become an important factor in the consolidation of a news ecosystem that is hybrid and correspondingly complex and dynamic in terms of actors and their goals, norms, communicative practices, and content (Chadwick, 2017), but also characterized by asymmetrical power relations (Nielsen & Ganter, 2022). On the one hand, social media platforms promote the institutionalization

of new epistemic authorities, such as social media influencers. These are now achieving significant relevance in the mediation of current information, thus competing with the previously dominant players. On the other hand, social media platforms are putting pressure on established news media to adapt due to their success and their central position in the ecosystem, with their algorithmic values and digital architectural standards threatening the autonomy of journalism (van Drunen, 2021; Figure 1). These developments drive digital media concentration (Seipp et al., 2024) and catalyze long-standing journalistic failings. That is, commercial news media themselves aim to maximize data and revenues, have biases in their reporting, and often fail to meet normative expectations regarding their democratic role in public debate (e.g., Garnier et al., 2020). However, they also create new challenges. From a functional perspective, the news ecosystem's platformization is often associated with negative consequences for the quality of public communication and, thus, for the fulfillment of democratic functions of public spheres (Bimber & Gil de Zúñiga, 2020; R. Fischer & Jarren, 2023; Habermas, 2022; Saurwein & Spencer-Smith, 2021; Seipp, 2023; Smyrniaios & Baisnée, 2023). For example, informed opinion-forming and decision-making of citizens, the representation of social heterogeneity, and a common meeting ground, as well as journalism's exercise of independent control and criticism, are said to be at risk (Schneiders et al., 2023).

These epistemic threats increase both academic (Lyubareva & Rochelandet, 2021; Napoli & Royal, 2023) and media policy (Council of Europe, 2022a, 2022b; Council of Europe's Steering Committee on the Media and Information Society [CDMSI], 2023) calls for governance measures—no longer based on competition law alone—to ensure that citizens can realize their epistemic rights in the platformized news ecosystem. Epistemic rights include “equality in access to and availability of all relevant and truthful information that concerns issues of will formation and decision-making” (Nieminen, 2024, p. 14). Accordingly, epistemic governance comprises measures that guarantee the basic media supply of socially relevant and truthful information to the population (Flew, 2024). Napoli and Royal (2023, p. 187) even assume that “news quality is a concept that may then become a central component of media policymaking.” To date, regulatory efforts in Western countries have focused on safeguarding media diversity and communicative freedom (Just, 2022; Kim & Kwak, 2017) but not the safeguarding of quality or even epistemic rights (e.g., Giotis, 2023). Figure 1 brings together the central concepts.

To what extent could policy interventions promote the quality of journalistic or quasi-journalistic output and the use of people's information in the platform society? Taking up this central question, our article first discusses news quality and synthesizes the body of research on how social media platforms' logic and practices impact news quality. Proposing a three-stage approach to news quality in the hybrid news ecosystem, a distinction is made between the production, distribution, and reception of news quality (Schneiders & Stark, 2025). Second, on this basis, this article offers a framework for epistemic governance. The framework serves two primary purposes at the intersection of news quality and platform governance: First, it provides a foundation for critically examining current regulations governing social media platforms, highlighting potential shortcomings in existing policies. Second, it equips research and policy with a comprehensive tool to propose risk-based targeted measures for safeguarding news quality across production, distribution, and reception in an increasingly platformized news ecosystem. Previous analyses are usually limited to one of the three quality dimensions instead of examining them in conjunction. As such, this article is among the first to systematically address and translate the idea of epistemic rights in the context of platformization and news quality.

Hybrid news ecosystem

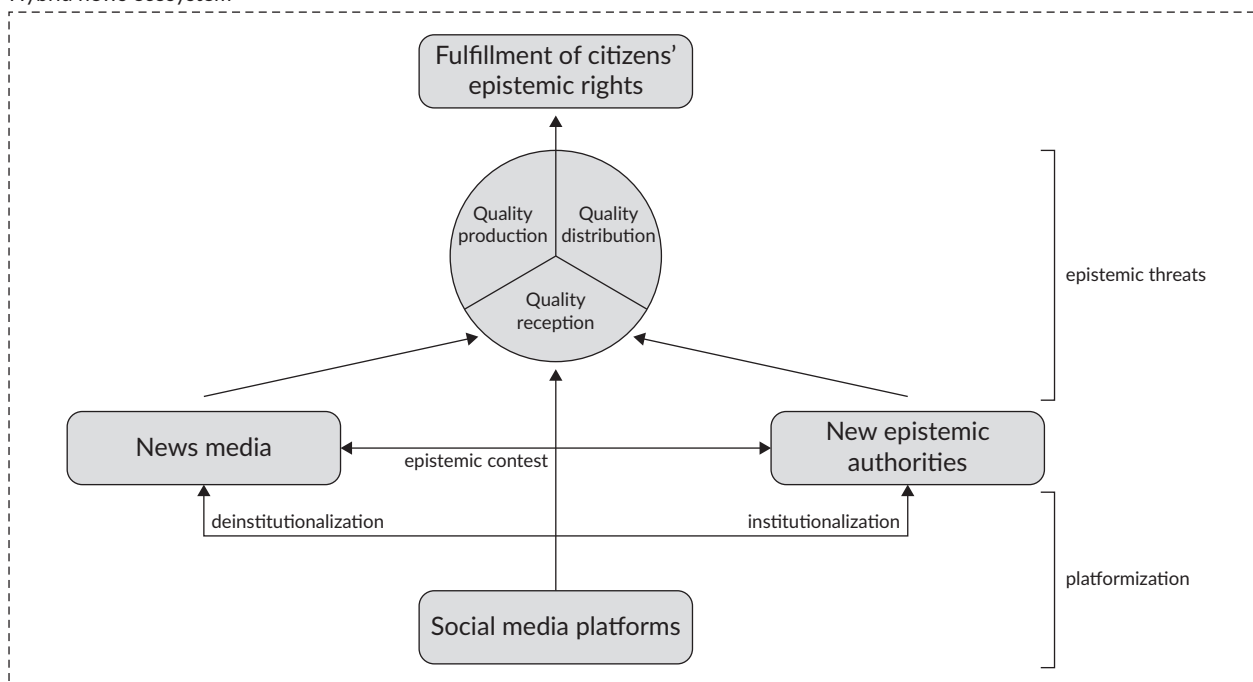


Figure 1. Platformization of the news ecosystem and its impact on citizens' epistemic rights.

2. News Quality and How it is Threatened in a Platformized News Ecosystem

2.1. Defining News Quality

Determining and defining news quality is no easy task (e.g., Bachmann et al., 2022; Meier, 2019). However, media regulation must face up to this challenge because “without any clear definition and measure of quality, media regulation will be difficult to build” (Lyubareva & Rochelandet, 2021, p. 118). What is considered to be of high quality is the result of an evaluation process and differs depending on the object under consideration, the normative foundation, and the context of the quality assessment (Bachmann et al., 2022). In addition, criteria differ depending on the genre under consideration (e.g., information or entertainment), meaning that quality is relational. For this reason, and because there can be no fixed definition of the term or universally valid criteria, quality analyses of media products require a decision on the perspective to be used, e.g., which model of democracy should be drawn on to examine media content. According to a liberal model of democracy, news media:

Should inform the citizens about societally relevant problems and solutions proposed by political actors, control the elites, make politics and the elites' actions and decisions transparent for the citizenry, enable citizens' opinion formation by presenting different positions, and articulate different interests. (Magin et al., 2023, p. 672)

The deliberative model requires that news media actively involve society in dialogue and the civil exchange of arguments (Magin et al., 2023). Ideally, the public debate should lead to a social consensus (see also Bachmann et al., 2022; Habermas, 2022). From an agonistic understanding, news should activate, challenge hegemonic structures, and empower underrepresented groups in the public sphere (Sax, 2022). Depending on which

democratic model is referred to, very different sets of criteria are applied. This, in turn, has an impact on the expectations of media performances, the perception of threats to news quality, and the requirements and design of governance measures. For example, depending on the theory of democracy, emotional language is seen as less objective or more accessible (Jandura & Friedrich, 2014; Magin et al., 2023).

This article defines news quality as “relatively accurate, accessible, diverse, relevant, and timely independently produced information about public affairs” (Nielsen, 2017, p. 1259; see also Shapiro, 2014). This definition comes closest to a liberal model of democracy, fits with the epistemic right to relevant and truthful information, and is an expression of the “democratic realism” approach. The latter criticizes excessive normative demands on journalism that are based on abstract ideals rather than social practices. Instead, Nielsen (2017) argues in favor of a pragmatic-realistic approach to the distinctive performance of journalism. The primary purpose of journalism is, therefore, to keep people informed (see also Kovach & Rosenstiel, 2021). Relative accuracy means that news attempts to ensure that all presented factual statements, “at the time of reporting, most faithfully reflect (or construct) the characteristics of phenomena or events in social reality at a certain point of time” (Bogdanić, 2022, p. 498). Consequently, content should not be misleading (Giotis, 2023). The pursuit of accuracy requires information to be verified, for example, through practices such as seeking multiple witnesses to an event or disclosing as much as possible about sources (Kovach & Rosenstiel, 2021). Accuracy can also be achieved by separating facts from inferences, conclusions, interpretations, or opinions based on those facts (Bogdanić, 2022). Accessibility should be ensured, among other things, by the choice of topics, perspectives, and language of news items so that they appeal to a large audience (Shapiro, 2014). Social relevance as a news factor is ideally the benchmark and result of an appropriate journalistic reduction of complexity in the form of journalistic selection decisions. A fact is never considered relevant on its own, but only if it has a potential or actual impact on other events, conditions, or actions and, therefore, is important to the audience (Schatz & Schulz, 1992, pp. 691–696). Content diversity can be characterized by the variety of topics, actors, and viewpoints (Napoli, 1999). It is an essential factor in the public function of journalism, which is to reflect social heterogeneity and to enable informed opinion-forming processes (Bachmann et al., 2022). At the same time, this means that the diversity norm can be in tension with the relevance norm (Vos & Wolfgang, 2018). Ascribing the same weight to every possible view or opinion on an issue is neither possible nor functional (Boudana, 2016). In contrast, too much diversity may prove counterproductive if it results in a diminished focus on the most pressing issues. That is, news should narrow down topic diversity to a certain extent in order to foster a common social reality of the problems that require attention (Magin et al., 2023). Timeliness, that is, focusing on current or recent events, is “a distinctive feature of news,” as news “is not feasible without the value of timeliness” (Bogdanić, 2022, p. 498). News should be published as soon as practicable (after fact-checking; Giotis, 2023). Finally, the independent production of news items involves “an original act of creation” (Shapiro, 2014, p. 558) and the preparation and presentation of topics according to certain self-defined institutional norms and standards. This distinguishes news from commissioned work in pursuit of externally defined goals.

The above definition leaves open whether the contributions fulfill deliberative requirements for detached, non-emotional language. In this respect, different ideas on the role of emotions exist depending on the theoretical approach to democracy (Magin et al., 2023). In our understanding, however, quality does not only include the ability to fulfill certain content and stylistic requirements, such as accuracy and social relevance (input). Equally important is that the quality produced gains visibility on the platforms (throughput) and is processed by the users (as unbiased as possible; output) in order to fulfill its information function.

How does platformization threaten news quality, and what can be done? To answer these questions systematically, this article proposes a three-stage analytical framework that distinguishes between the production, distribution, and reception of news quality in terms of threats to news quality and governance measures. In doing so, the framework builds on the mass-media era policy principle of source, content, and exposure diversity (Moe et al., 2021; Napoli, 1999) as well as on conceptualizations of diversity that differentiate between supply, exposure, and consumption diversity (Loechebach et al., 2020). For each of the three quality dimensions, the extent to which platformization jeopardizes news quality is examined. Ultimately, the tripartite framework makes it possible to delineate specific challenges unique to each quality dimension and to derive an interconnected bundle of customized epistemic governance measures.

2.2. Threats to News Quality

2.2.1. Production Quality: (De)institutionalization of Information Offerings, News Shortening, and Softening

To what extent do social media platforms and their logic promote or inhibit the production of quality news? First, it should be noted that the low access barriers to social media platforms lead to the institutionalization of a heterogeneous group of (new) epistemic authorities (Schneiders et al., 2023). Traditional, unrecognized, or false epistemic authorities are actors who participate in the production and distribution of (supposedly) credible knowledge and descriptions of reality and, in this process, strive for trust and legitimacy (Bartsch et al., 2025). These actors can now bypass journalistic gatekeeping positions and have different identities, resources, and degrees of professionalism. They range from alternative media to corporate publishing, activists, eyewitnesses, public authorities, alternative political commentators such as Ben Shapiro, political social media influencers, and news influencers. New epistemic authorities have the advantage of being less bound by the established rules and norms of a field. They can, therefore, introduce new or alternative logics and ideas into the ecosystem more easily than established actors and play a role as “agents of change” (Bannerman & Haggart, 2015), making ecosystems more hybrid. From a traditional understanding of quality, new epistemic authorities can be classified as non-journalistic, pseudo-journalistic, or quasi-journalistic (Neuberger et al., 2023). Some of them engage in “acts of journalism” (Örnebring et al., 2018, p. 418), share professional norms and standards such as factuality and objectivity (Maares & Hanusch, 2023), exhibit performances equivalent to journalistic functions (Leckner et al., 2019)—even if they sometimes use more unconventional communication styles (Riedl et al., 2023)—and are located in the periphery of the journalistic field (Hanusch & Löhmann, 2023). For example, political influencers contribute to content diversity (Peter & Muth, 2023) by giving a voice to topics, perspectives, and actors that have been little represented so far. Furthermore, news influencers help their audiences to better understand current events and civic issues (Stocking et al., 2024). Others enter into an epistemic contest with traditional news media for the production and interpretation of descriptions of reality (Carlson, 2025; Valaskivi & Robertson, 2022). They are characterized by strong opinions, affective wording, and attacks on political outgroups (T.-S. Fischer et al., 2022), challenge the logic and epistemic authority of journalism altogether, or even deliberately produce false or misleading information (Neuberger et al., 2023; Strömbäck et al., 2022). As social media platforms do not carry out quality control, “‘quality’ must prove itself after publication, at best in public discussion” (Sevignani, 2022, p. 92). The use of artificial intelligence is expected to contribute to the mass production of false or misleading information (Jungherr & Schroeder, 2023). In total, the platformized long-tail public tends towards not independently produced but interest-driven communication of widely varying quality or to a dissonant cacophony of different, juxtaposed voices, topics, information, and opinions (Eisenegger, 2021;

Pfetsch, 2018). It intensifies competition for the limited attention and loyalty of (new) target groups (Krebs et al., 2021).

In addition to the institutionalization of various actors, platforms increase the deinstitutionalization of news media (Schneiders et al., 2023). This means that their own norms and standards are becoming less important for news media compared to the social media logic. To avoid being algorithmically devalued, many news media are forced to incorporate the demands of the technological architecture and the presumed algorithmic values and audience metrics, such as shares, clicks, views, and comments, into their editorial decisions (Belair-Gagnon et al., 2020; Lamot, 2022). Newsrooms largely anticipate the (supposed) social media logic not only during distribution but also during the production of their journalistic contributions (Anter, 2023; Dodds et al., 2023). This has an impact on (a) journalistic selection rules and (b) the presentation of news and can drive social news softening, an editorial strategy to generate maximum audience attention (Klein et al., 2023). In terms of content, news softening manifests itself in an entertainment-oriented selection of topics. In terms of presentation, subjective and opinionated perspectives, visual elements, affect-oriented language, a focus on people and sensations, and the use of interactive platform elements are typical (Steiner, 2020). Moreover, most social media platforms' architectures incentivize short-form, audiovisual posts (Poell et al., 2023). For example, the length of an individual Instagram video is limited to 60 seconds, which is sometimes too short to depict diversity and convey background information (Fürst, 2020). The focus on soft topics such as celebrity news, sports, or criminal cases, and social news' limited length, conflict with the news quality requirement for relevance described above. So far, empirical studies have shown a contradictory picture of the extent of social news softening (Hase et al., 2023; Lamot, 2022; Steiner, 2020). Some social media newsrooms seem to adapt uncritically to the platform logic (Dodds et al., 2023). Other newsrooms, however, balance social media logics with professional journalistic norms and strategic objectives, trying to retain the information value of social news (e.g., Degen et al., 2024; Laaksonen et al., 2022; Peterson-Salahuddin & Diakopoulos, 2020; S. Wu et al., 2019). The extent to which social news softening manifests itself depends not least on the brand identity, the (presumed) audience preferences, and the revenue model of a news medium (Anter, 2023). What is more, as the logics of the individual platforms differ—for example, in terms of the possibilities for linking, the preferred modalities, or the intensity of algorithmic personalization (Hase et al., 2023)—serving the platforms can tie up considerable editorial resources. For Instagram and TikTok, in particular, social media posts are produced natively, i.e., exclusively for the platform, and are, therefore, more closely aligned with the logics of social media (Anter, 2023). As a result, there is sometimes less time for journalistic research and editing and, consequently, for producing quality content (Fürst, 2020).

To summarize: Social media platforms are intensifying competition for attention and favor short-form, soft formats. This entails the risk of news losing relevance, diversity, and depth. However, the adaptation of social media logic in editorial offices is not a deterministic but a negotiation process. While some new epistemic authorities contribute to accessibility and content diversity, others undermine the quality requirements of accuracy, diversity, and independently produced information.

2.2.2. Distribution Quality: Marginality and Discrimination of News Brands and Limited Exposure Diversity

What significance and visibility do quality news items have on social media? In terms of format and context, news posts are usually embedded between other, not necessarily journalistic content from various sources. That is, on social media platforms, news is part of a continuous stream of ephemeral, hybrid, and dislocated

snippets of information that are beyond the control of news media (Carlson, 2020). Furthermore, the presence of (hard) news in news feeds is a highly individual result of algorithmic values, user preferences, and users' networks. In contrast to news media, algorithmic values are not aimed at a dispersed audience that is to be informed about generally relevant topics but at individual consumers who are to be satisfied (Sevignani, 2022). Platforms are "radically indifferent" to the origin and quality of the content presented, whether journalistic or not (Zuboff, 2019, pp. 579–580). Their recommender systems are optimized to maximize data-generating user engagement and time spent (Lazar, 2022). Accordingly, the algorithmic attribution of relevance is fed, among other things, by the social proximity to the account posting a contribution, the previous interactions with the post, as well as the topicality and modality of the post (DeVito, 2017). This reduces the incentives for epistemic authorities to disseminate hard news. On YouTube, for example, news items are recommended less frequently than entertainment content. As a result, algorithmic recommendations are increasingly redirecting users from news to entertainment (Huang & Yang, 2024). Regarding news content features, Vermeer et al. (2020) show that Facebook and X (formerly Twitter) are more likely to expose users to entertainment news than to political, business, and other news. Similarly, the algorithmic recommendations on TikTok predominantly lead to entertainment and omit hard news and news organizations, even when providing explicit news interest signals to the algorithm (Hagar & Diakopoulos, 2023). In this context, there is a risk that social media platforms predominantly expose those users to the news that they are already interested in, which could widen the gap between better and less informed citizens (Thorson, 2020).

Algorithmic values are not static. In the past, there have been frequent unannounced changes to the opaque criteria for the algorithmic selection and weighting of news. For example, in 2018, Facebook announced that it would boost the content of family and friends over other content, such as news (Bailo et al., 2021). Meta has already made it clear on several occasions that news is not economically relevant to the company and can, therefore, be dispensed with (Meta, 2023). Other platforms have changed their algorithmic content moderation and recommender systems as a reaction to public accusations that they amplify harmful content. YouTube, for example, weights so-called "authoritative news sources" higher in search results and video recommendations for recent and relevant news events (Google, n.d.; see also Matamoros-Fernández et al., 2021). Congruently, studies conducted in Germany, Switzerland, and the US show that established, national (conservative) news media dominate search results and algorithmic recommendations related to breaking events on social media platforms (Krebs et al., 2021; Nechushtai & Lewis, 2019; Nechushtai et al., 2023; Toff & Mathews, 2024). At the beginning of 2025, Meta announced that it would be reducing its moderation efforts, as is already the case with X and YouTube (Hendrix, 2025). In this regard, there is a risk that platforms will abuse their opinion power by emphasizing or suppressing certain epistemic authorities, topics, or perspectives in line with their economic or political interests (Seipp, Helberger, et al., 2023). Such algorithmic changes have feedback effects on the two other news quality dimensions. On the one hand, they create uncertainty among many news media, compelling them to continually adapt their strategies to align with opaque algorithmic modifications (Nielsen & Ganter, 2022). On the other hand, declining social media traffic to news sites leads to declining consumption of and participation with news items (Altay, Fletcher, & Nielsen, 2024) from established news media (Bailo et al., 2021). As already mentioned, besides algorithmic values, user behavior and social recommendations influence the visibility of news quality. On Facebook, for example, users tend to interact with and to share articles about emotional and moralized issues rather than factual (background) articles (e.g., Brady et al., 2017, 2020; Kalsnes & Larsson, 2018; Rathje et al., 2021). Consequently, users and their (supposed) need for affective, negative, sensationalist,

group-identity-reinforcing messages contribute to the low visibility of quality news on social media (Dunaway & Ray, 2023; González-Bailón et al., 2023). In addition, there is a risk that users' selectivity, in conjunction with social recommendations and algorithmic personalization, can expose citizens to topical, ideological, or otherwise homogenous environments or echo chambers. Empirically, these threats are hardly evident. Only a small minority of the users—most probably the ones who already hold extreme opinions—end up in echo chambers (Stegmann et al., 2022). However, Wojcieszak et al. (2021) show that social media, while driving exposure to both dissimilar and congenial news, do not drive exposure to centrist news sources—that is, sources that appeal to broad audiences present balanced news from both sides and give equal voice to various political factions. In consequence, social media platforms have a potentially politically polarizing nature as they tend to expose users to partisan outlets from both sides rather than to less extreme news.

To sum up: On social media platforms, news is distributed primarily as dislocated snippets of information. Algorithmic recommendation systems largely steer their users away from hard news. Established news brands (now) enjoy relatively higher visibility than non-journalistic or pseudo-journalistic epistemic authorities. Among the news media, national outlets achieve disproportionately high visibility, indicating a lack of media source diversity. Users' selectivity, in conjunction with social recommendations and algorithmic personalization, can increase the risk of narrowing exposure to a diversity of issues and perspectives and of political polarization.

2.2.3. Reception Quality: Lack of Source Recognition and Credibility Cues, Self-Confirmative, and Superficial Processing

To what extent do news users perceive, select, and process quality news on social media platforms? First, information about current, socially relevant events is only a secondary motive for using social media (Cotter & Thorson, 2022). While social media users welcome the convenient opportunity to be informed quickly and in an entertaining way (Ehrlén et al., 2023), news access tends to be unreflective, incidental, and highly selective (Cotter & Thorson, 2022). Younger age groups, in particular, expect personally relevant but also reliable and diverse news to find them, for example, via algorithmic or social recommendations (Newman, 2023; Vraga & Edgerly, 2023). Whether news is produced by professional journalists or media outlets is of secondary importance (Loecherbach et al., 2024). Accordingly, the headline and illustration seem to play a greater role in the selection of news articles than the news media source behind them (Vergara et al., 2021). Consequently, a “separation of news from journalism” (Steensen & Westlund, 2021, p. 103) is unfolding on social media. Regarding content features, research indicates that many people prefer entertainment news over other news topics in hybrid media systems (Vermeer et al., 2020). Furthermore, individuals tend to favor such issues, epistemic authorities, or perspectives that confirm their existing beliefs (Knobloch-Westerwick et al., 2020).

However, it is not only user needs and expectations that influence the quality of reception. Platforms themselves exert power over news consumption and exposure and, thus, over opinion-forming processes (Seipp, 2023). For example, the platform architecture, with its standardized design of posts and lack of credibility cues, obscures the provenance of information (Bimber & Gil de Zúñiga, 2020) and makes it difficult for users to develop cognitive heuristics for identifying and evaluating news (Oeldorf-Hirsch & DeVoss, 2020; Ross Arguedas et al., 2023). As a result, users are limited in their ability to recognize and differentiate between the various hybrid offerings on the platforms (Cotter & Thorson, 2022). This can

overwhelm and confuse social media users and make them more susceptible to the adverse selection of dubious, pseudo-journalistic sources (Ehrlén et al., 2023). At the same time, the lack of awareness of news brands makes it less likely for news media to attract loyal users (Saulīte & Ščeulovs, 2023).

Not only the selection of, but also engagement with, news articles on social media tends to be ephemeral and fragmentary (Leonhard et al., 2020; Vergara et al., 2021). This superficial snacking behavior, characterized by short attention spans (Mark, 2023), is facilitated by the fact that social media is mostly used on mobile devices (Carlson, 2020). The specific platform architecture is decisive for the depth to which social media users inform themselves, too (Wieland & Kleinen-von Königslöw, 2020). For example, the breadth and depth of reception also depend on whether the respective platform allows links that lead out of its ecosystem. Instagram users usually stay within the app because links to third-party websites are quite inconvenient to access, whereas on X, they are just one click away (Anter, 2023). If they stay on the platform, users are less active and loyal to the referred news websites than those who visit a news website directly (Wells & Thorson, 2017). The abbreviation and decontextualization of platformed news and the distraction by other content, therefore, make it difficult for users to gain background knowledge (Lee & Xenos, 2019). Accordingly, the contribution of social media use to the acquisition of political knowledge appears to be low overall (Amsalem & Zoizner, 2023). Furthermore, the use of social media as an information channel can increase knowledge gaps between those interested in politics and those deprived of news, and the (largely unintended) contact with snippets of information can contribute to people feeling more informed than they are (Leonhard et al., 2020).

To summarize: On social media, the reception of news is a by-product. Traditional quality criteria are not decisive in the selection and processing of news. As a result, the contribution to being informed is limited.

3. Epistemic Governance Measures to Ensure News Quality

The production, distribution, and reception of news on social media have deficits and potential dangers. Some of these, such as the softening of news or the disintermediation of journalistic gatekeepers on the supply side or short attention spans and disorientation on the user side, are not new but are exacerbated by social media platforms. Others, such as algorithmic-induced narrowing of diversity, are platform-specific. Because social media platforms are gaining importance as a news channel and the use of relevant, accurate, diverse, independently produced information is of democratic importance, governance measures seem appropriate (Council of Europe, 2022a; Lyubareva & Rochelandet, 2021; Tambini, 2021). These governance measures are based on a positive approach to protecting media freedom. This means that journalistic media “should support democratic discourse and should be privileged to do so” and that “freedom of expression includes a right not only to impart but also to receive ideas” (Tambini, 2021, p. 143). The epistemic governance measures can likewise be differentiated according to whether they aim at the production, distribution, or reception of quality. The focus of the analysis is on the EU and its member states, as the European Media Freedom Act (EMFA), the Digital Services Act (DSA), and the Digital Markets Act, globally recognized laws on the regulation of platforms, were passed there. However, the measures discussed are not limited to state regulation but also include ethical measures, as some, such as the promotion of professional values, “may fall outside the scope of law” (Seipp, Helberger, et al., 2023, p. 1559).

3.1. Production Quality: Direct Journalism Subsidies, Strengthening Standards, and Due Diligence Obligations

The production of high-quality news is under considerable pressure due to platform-induced disruption of the advertising business and intensified competition for users' attention. Large online platforms have proven to be unreliable cooperation partners for news media (Flew & Stepnik, 2024). Furthermore, journalistic (quality) goods tend towards market failure as consumers' willingness to pay for news remains low (Newman, 2024a; Tambini, 2021).

Against this structural background, regional and national governments should consider direct public production subsidies (Flew & Stepnik, 2024; Picard & Pickard, 2017), as is already established practice in many countries, especially in Scandinavia (Puppis et al., 2020). News subsidies should aim to support the production and distribution of original and high-quality news content and the fulfillment of new journalistic tasks such as fact-checking. As news media can effectively reduce the appropriation of false truth claims (Altay, Nielsen, & Fletcher, 2024), production subsidies are seen as a more effective way than interventions to improve the overall quality of the information environment. Interventions aimed at reducing the acceptance or spread of misinformation show only a marginal contribution to improving the quality of the information environment (Acerbi et al., 2022).

However, precisely because quality is so difficult to define, measure, and address politically, political actors are reluctant to formulate it as an objective (Napoli & Royal, 2023). As part of the "News Initiative," the European Commission supports cross-border newsrooms and journalistic cooperations to help them develop new business models and formats but does not explicitly aim to ensure news quality (European Commission, 2024a). The Netherlands and Austria are among the few countries in Europe that explicitly use journalism funding programs (among other things) to ensure or improve quality (Cornils et al., 2021). As long as public funds are allocated in a non-governmental and opinion-neutral manner, journalism funding can and should be linked to journalistic qualification criteria (see also Giotis et al., 2023; Tambini, 2021). These criteria can only be indirectly related to the quality of the content because of the required neutrality of opinion on the part of the state. Possible award criteria could be, for example, a minimum proportion of self-produced editorial content and a commitment to professional standards. To avoid entrenching existing structures, funding could be limited to weaker market players (Puppis et al., 2020). Finally, such funding should be designed to be platform-neutral and not limited to established press and broadcasting companies.

In addition, news organizations, as well as new epistemic authorities, could be further educated about the values, principles, and impact of platform logics. At the same time, journalistic norms should be strengthened (Neuberger et al., 2023). These norms have proven to be a strong corrective against external influences in newsrooms (Lischka, 2021). One way to strengthen journalistic norms would be to provide (further) media policy support for the development and enforcement of journalistic education and training measures, standards, guidelines (such as those of the CDMSI [2023]), and self-regulatory institutions. Besides, responsible journalistic AI could assist journalists in discovering meaningful and underrepresented voices, issues, and viewpoints (Lin & Lewis, 2022; Mansell et al., 2025, p. 62), countering tendencies towards the homogenization and softening of news.

In addition, certain obligations and privileges should apply not only to news media but also to other information offerings that are relevant for opinion formation. In particular, due diligence obligations in the production and dissemination of news, as well as the protection of sources and access to official information, are important for the quality of public communication (Winseck, 2020). This also means that governance actors should no longer understand the concept of news as merely journalistic-institutionalized and “industry-based” (Swart et al., 2022, p. 13) and regard certain non-originally journalistic offerings not as a threat but as new epistemic authorities. There is no doubt that they succeed in generating and retaining audiences. Which information offerings are considered relevant for opinion formation and thus for regulation is the subject of current discussions (e.g., in connection with the proposal for an EMFA; Seipp, Fathaigh, et al., 2023) and requires further research.

3.2. Distribution Quality: Quality Labels, Findability Requirements, and Public Interest Platforms

The algorithmic-personalizing recommender systems of social media platforms—as well as increasingly personal AI assistants (Lu, 2024)—have a significant influence on news media and other epistemic authorities’ digital strategies on the one hand and users’ information decisions on the other (A. X. Wu et al., 2021). In Germany, the Interstate Media Treaty stipulates that social media platforms must disclose the criteria for access and retention as well as the aggregation, selection, and presentation of content and their weighting. The treaty also requires social media platforms not to unjustly discriminate against journalistic-editorial offers (Liesem, 2022). At the EU level, the EMFA even provides for privileged treatment of editorially independent media service providers in the content moderation of very large online platforms (VLOPs). That is, in certain cases, unequal treatment of content is considered objectively justified. The DSA, in turn, introduces new transparency, moderation, and other due diligence rules, such as algorithm auditing. More concretely, platforms are obliged to conduct content moderation as soon as they become aware of illegal activity or content (e.g., illegal hate speech). Furthermore, VLOPs have to assess and mitigate systemic risks arising from the design, functioning, use, or misuse of their services. This also, and above all, concerns their algorithmic recommender system and moderation practices (Seipp et al., 2024). Not least, VLOPs have to provide their users with an optional recommender system that is not based on profiling. On top of this, there are co-regulatory codes of conduct integrated into the framework of the DSA, which contain more far-reaching voluntary commitments to reduce illegal hate speech and disinformation, categorized as systemic risks (Griffin, 2024; Ó Fathaigh et al., 2025). Measures in this context aim at platforms’ architecture by intending to inhibit the amplification of divisive content (Schirch, 2025) and the impulsive sharing of articles with low information quality (see also Lorenz-Spreen et al., 2020).

In addition to such mostly indirect negative media diversity protection measures, positive prioritization and (optional) highlighting of quality news in algorithmic recommendations and search results are worth considering (CNTI, 2024; Council of Europe, 2022a). One reason is that even if there is a high diversity of journalistic-editorial providers, transparency obligations and freedom from negative discrimination do not automatically lead to high content diversity and relevance due to journalistic-institutional and users’ selectivity. Another reason is that, as already discussed, social media users have problems recognizing news as such and distinguishing it from other content, especially in hybrid environments. It is, therefore, important to increase the recognizability and visibility of quality news. Here, too, the question arises as to which information offerings should benefit from such labeling. Tambini (2021) argues that media “should be defined functionally in relation to the public interest-oriented activity of journalism, in terms of size, and

through self-declaration, for example, through adopting ethical codes” (Tambini, 2021, p. 149; see also Bogdanić, 2022). In Germany, there is already such a “must-be-found” rule for TV platforms, according to which programs of public service media and private programs that contribute to plurality must be placed more prominently than other broadcasting programs. In the EU, to foster access to a diverse range of independent media on VLOPs, the EMFA requires the implementation of a structured dialogue between VLOPs, the media sector, and civil society. In any case, it is important that the offers and the content to be highlighted are selected according to a transparent and comprehensible procedure and that their qualification is regularly evaluated in a state-distant manner.

Not least, the idea of developing cooperative (public interest-oriented) counterpowers (Helberger, 2020; Winseck, 2020) to large digital platforms is worth considering. This is, among other reasons, relevant because there is a risk (already realized on several occasions) that the current large platform companies could decide to stop delivering news in order to avoid media regulatory obligations (Meese, 2021). Meta has already withdrawn from various funding and cooperation programs (Kahn, 2023) and recently reduced news and political content to a minimum in the newsfeeds of Instagram and Facebook (Instagram, 2024). A cross-provider platform could be funded by levies from major tech platforms (Flew & Stepnik, 2024) and should be characterized by (a) transparent, public interest-oriented audience metrics and criteria of access, aggregation, selection, and presentation of content; and by (b) sparing processing of personal data rather than by persuasive digital architectures and recommendation systems and extensive data extraction. Such audience metrics should—for example, by using sentiment analysis of news texts and comments—be based on more than just commercial values. As Lin and Lewis put it (2022, p. 1640):

AI could provide audience metrics not only based on clicks and likes, but also on more detailed emotional or psychological factors such as thought-provoking, moving, feels valuable, as well as afford different weights to different types of engagement and pleasure.

Public service media, in particular, could play a pioneering role in the development of such metrics (CDMSI, 2023). They could trigger quality-enhancing feedback effects on the production of news. In addition, news offerings should be given sufficient freedom in the design of their articles and the communication of their brand identity. In this way, a journalism platform could stimulate the visibility, reach, and differentiation of high-quality content and reduce dependence on social media platforms that are currently virtually impossible to substitute for most both old and new epistemic authorities.

3.3. Reception Quality: Boosting News Literacy, Nudging Consumption Diversity, and Activation Quality

Ideally, people seek information from reliable media sources and process their content with care and openness to different perspectives (Neuberger et al., 2023). The extent to which people are informed about socially relevant events depends, in particular, on how politically interested they are and how suitable they consider journalistic sources to be for meeting their political information needs (Wunderlich & Hölzig, 2022). In order to promote the reception of quality, the audiences’ political interest and critical media literacy should, therefore, be further promoted in an institutionalized form. The “boosting” (Hertwig & Grüne-Yanoff, 2017) of news literacy is associated with the expectation that it will increase normative expectations towards news contributions, a sense of journalistic quality, and the consumption of journalism (Craft et al.,

2016; Mansell et al., 2025, pp. 100–108). News literacy primarily includes the ability to critically and reflectively differentiate and evaluate information in hybrid media environments—for example, with regard to the provenance and credibility of different formats. Also, knowledge of the normative principles of journalism, as well as about actors, production processes, content, and media effects, is relevant. Technological interventions can help to train this knowledge and make users more resistant to disinformation (Lorenz-Spreen et al., 2020), i.e., to develop epistemic vigilance (Neuberger et al., 2023) or resilience (Strömbäck et al., 2022). Another option for improving the conditions for selecting news quality is to provide users with information about how social media contributions are embedded in existing knowledge and discourse. This can be done, for example, by disclosing the sources, editing the history and citation network of a news article, adding background information about the author and references to scientific studies, or automatically classifying and indicating the style and objectivity of language. Research has shown that such transparency cues assist news readers in judging, critically reflecting, and selecting news quality (Norambuena et al., 2023). In the EU, the Audiovisual Media Services Directive obliges member states to take measures to promote and develop media literacy skills. It also requires video-sharing platforms to provide effective media literacy measures and tools (European Commission, 2024b). Furthermore, the signatories of the Code of Conduct on Disinformation under the DSA, including Google, Meta, and TikTok, committed to implementing or continuing to maintain tools to improve media literacy and critical thinking, for example, by empowering users with context on the content visible on services or with guidance how to evaluate content (European Commission, 2025). Beyond this, the European Digital Media Observatory (2025) is increasingly positioning itself as a central actor within the media literacy community. Signatories of the Code of Conduct on Disinformation have committed to cooperating with expert organizations such as European Digital Media Observatory in the design, implementation, and impact measurement of tools to improve media literacy (European Commission, 2025).

Furthermore, a public interest platform should reward the consumption of diverse perspectives and a deeper engagement instead of triggering impulsive actions. Experiments show that users welcome diversity-oriented algorithmic recommendations (Heitz et al., 2022; Joris et al., 2024; Knudsen, 2023). Personalized diversity-oriented or bridging-based news recommender systems can “nudge” users to consume credible sources, overlooked and disregarded groups, issues, or opposing perspectives (Lin & Lewis, 2022; Mattis et al., 2024; Ovadya, 2022; Sax, 2022; Shin & Zhou, 2024). This is particularly relevant for users who seek very one-sided or misleading information or who strongly avoid news. By enhancing mutual visibility among citizens together with their issues and needs rather than focusing on differences (Schirch, 2025), such news recommender systems could help to create and maintain a “common meeting ground” (Katz, 1996) where all social groups are adequately represented (Schneiders et al., 2023). In this way, platforms could fulfill more extensive deliberative standards.

Additionally, growing news fatigue and avoidance across countries make the activation quality of news more urgent. Activation quality aims to reintroduce people who no longer regularly use news back to it. It should help to win over and inspire citizens for content relevant to democracy. Comprehensibility, representation of users’ daily lives, and dialog orientation are particularly important in this context (Eisenegger & Udris, 2021). AI in news production could help to tailor the comprehensibility of news to the needs of recipients (Lin & Lewis, 2022), thus improving the accessibility of quality news (Shulman et al., 2024).

Table 1 summarizes which quality dimensions have been differentiated, how they can be characterized, how they are endangered by social media platforms, to what extent they are already addressed by media regulation, and which additional regulatory measures are worth considering.

Table 1. Overview of news quality dimensions, threats, and governance measures.

	Production quality	Distribution quality	Reception quality
Quality dimension	Input: Production of news quality	Throughput: Dissemination of news quality	Output: Acquisition of news quality
Quality indicators	Accuracy, accessibility, diversity, relevance, timeliness, independent production, and focus on public affairs	Findability and visibility of accurate, diverse, currently relevant, and independently produced information	Selection and elaboration of accurate, diverse, independently produced information on current and socially relevant events and developments
Quality threats	Lack of editorial resources and dominance of economic paradigms; weak epistemic standards; adaption to values, requirements, and standards of commercial platforms	Distortion/suppression of relevant, diverse information and reliable sources through algorithmic personalization or content moderation	Self-confirmative, one-sided, superficial reception of (supposedly) relevant topics, epistemic authorities, and perspectives; e.g., through distraction by irrelevant or misleading contributions, lack of attractiveness of social news, or missing credibility cues
Existing quality regulation	Promotion of journalistic associations, education, and training	Platform accessibility and freedom from discrimination, transparency obligations, algorithm auditing, and profiling-free recommender systems	Boosting news literacy
Quality regulation to be supplemented	Due diligence obligations for certain new epistemic authorities and direct news subsidies coupled with the quality of output	Quality labels and must-be-found rules for quality offers and content on platforms, and public interest journalism platform	Transparency cues, nudging diversity, and enhancing news activation quality

Source: Adapted from Schneiders and Stark (2025).

4. Conclusion

In the age of platforms, ensuring news quality and citizens' realization of their epistemic rights are facing new challenges. Traditional news media are largely dependent on the data-driven infrastructures and funding of global tech companies such as Meta, Alphabet, and ByteDance for the production, distribution, analysis, and financing of news. Therefore, news media, particularly those with few resources, are under intense pressure to adapt to the logic of digital platforms. In addition, newly institutionalized epistemic authorities compete

for legitimacy and the audiences' attention on the platforms. As a result, news media's platformization calls into question the functions and established quality standards of professional journalistic information providers (Carlson, 2020).

While the canon of quality standards has changed again and again over time from different perspectives, the fundamental normative requirements for professional journalism have remained more or less the same in Western countries. The value and quality of information stand and fall with the quality of the production process. If independence, diversity, and relevance are not guaranteed, journalism loses its functions—and thus its epistemic value for the audience. However, more than ever, it is necessary to combine the supply side with the user side—in other words, to study and to govern quality with an integrative understanding. For even if sufficiently high-quality news is produced, algorithm-based personalization and user-side selection logics do not guarantee that every user will receive that news quality. Therefore, this article has dealt not only with the quality of news production but introduced the quality of news distribution and reception as equally important quality dimensions. It was then holistically analyzed how these three quality dimensions are threatened and can be promoted in the age of platforms. Existing rules, as formulated in the EU, particularly in the DSA, the Digital Markets Act, and EMFA, “fall short in addressing the power imbalance between platforms and news media, and they do not adequately protect local journalism” (Seipp et al., 2024, p. 18). Overall, the proposed measures aim to reduce information asymmetries and support alternatives and competences, thereby strengthening the autonomy of recipients and news providers.

At the production level, increasing economic pressures and the values, requirements, and standards of platforms are threatening the autonomy of news media and established news quality criteria. One governance approach is to strengthen journalistic norms and practices. Also, non-journalistic but opinion-relevant epistemic authorities should meet these normative requirements. This is because, in some cases, they are taking on functions that were previously reserved exclusively for journalism. In addition, direct public subsidies for journalism, if coupled with the quality of output, could be a solution. As they exacerbate the erosion of news media business models, platforms should contribute to such funding of news quality (Pickard, 2022). At the distribution level, due to the multiplication and the algorithmically personalized presentation of sources, it is important to ensure that trustworthy information sources are visible and recognizable. For example, content from reliable epistemic authorities could be highlighted and labeled in the newsfeed in order to distinguish it from harmful content such as disinformation. Given the political will and investment, a cooperative platform with public interest audience metrics and criteria of access, sorting, and presentation could act as a counterweight to the dominant platforms. A key challenge in this respect is to attract and retain a substantial user base. At the reception level, boosting news literacy and activating news interest can help to increase the diversity and depth of news consumption. These quality measures should be considered together. For example, those epistemic authorities who are considered qualified to produce news quality should also be more visible on platforms. A journalistic background is not seen here as a necessary condition for news quality. What is crucial is that news items are relatively accurate, accessible, diverse, relevant, timely, and independently produce information about public affairs (Nielsen, 2017).

Moreover, careful scientific monitoring of the accuracy, effectiveness, and any unintended negative consequences of any epistemic governance measures is important (see also Mansell et al., 2025, pp. 180–186). Communication science has already developed suitable theoretical frameworks for studying content on platforms such as Facebook, Instagram, TikTok, or X (Hase et al., 2023; Hermida & Mellado,

2020; Lamot, 2022; Steiner, 2020). Access to platform data granted by the DSA to “vetted researchers” could be used to systematically and comparatively study changes in the distribution and reception quality across different platforms (Jaurisch et al., 2024). For example, with regard to reception quality, studies could analyze which news is consumed on which topics and perspectives and which groups are particularly vulnerable to false, misleading, or extremely biased information. Media regulation, ultimately, faces the challenge of creating favorable conditions for the production, dissemination, reception, and scientific monitoring of news quality in an increasingly complex, hybrid, and dynamic environment. The key to this is a holistic approach that strengthens the autonomy and competences of news providers, other epistemic authorities, and audiences to inform and be informed.

Acknowledgments

This article builds on a previously published German-language article on the governance of news quality. Certain elements, specifically the sections describing threats to news quality (Sections 2.2.1 and 2.2.3) and large parts of Table 1, have been previously published in Schneiders and Stark (2025). The current article advances the prior work by providing a more in-depth discussion of the concept of news quality and by focusing on existing and additional governance approaches within the EU. The authors thank the four anonymous reviewers, as well as Silke Fürst, Florian Muhle, and Colin Porlezza, for their valuable feedback throughout the revision and publication process.

Conflict of Interests

The authors declare no conflict of interest.

References

- Acerbi, A., Altay, S., & Mercier, H. (2022). Research note: Fighting misinformation or fighting for information? *Harvard Kennedy School Misinformation Review*, 3(1). <https://doi.org/10.37016/mr-2020-87>
- Altay, S., Fletcher, R., & Nielsen, R. K. (2024). News participation is declining: Evidence from 46 countries between 2015 and 2022. *New Media & Society*. Advance online publication. <https://doi.org/10.1177/14614448241247822>
- Altay, S., Nielsen, R. K., & Fletcher, R. (2024). News can help! The impact of news media and digital platforms on awareness of and belief in misinformation. *The International Journal of Press/Politics*, 29(2), 459–484. <https://doi.org/10.1177/19401612221148981>
- Amsalem, E., & Zoizner, A. (2023). Do people learn about politics on social media? A meta-analysis of 76 studies. *Journal of Communication*, 73(1), 3–13. <https://doi.org/10.1093/joc/jqac034>
- Anter, L. (2023). How news organizations coordinate, select, and edit content for social media platforms: A systematic literature review. *Journalism Studies*, 25(9), 1095–1115. <https://doi.org/10.1080/1461670X.2023.2235428>
- Bachmann, P., Eisenegger, M., & Ingenhoff, D. (2022). Defining and measuring news media quality: Comparing the content perspective and the audience perspective. *The International Journal of Press/Politics*, 27(1), 9–37. <https://doi.org/10.1177/1940161221999666>
- Bailo, F., Meese, J., & Hurcombe, E. (2021). The institutional impacts of algorithmic distribution: Facebook and the Australian news media. *Social Media + Society*, 7(2). <https://doi.org/10.1177/20563051211024963>
- Bannerman, S., & Haggart, B. (2015). Historical institutionalism in communication studies. *Communication Theory*, 25(1), 1–22. <https://doi.org/10.1111/comt.12051>
- Bartsch, A., Neuberger, C., Stark, B., Karnowski, V., Maurer, M., Pentzold, C., Quandt, T., Quiring, O., &

- Schemer, C. (2025). Epistemic authority in the digital public sphere. An integrative conceptual framework and research agenda. *Communication Theory*, 35(1), 37–50. <https://doi.org/10.1093/ct/qtae020>
- Belair-Gagnon, V., Zamith, R., & Holton, A. E. (2020). Role orientations and audience metrics in newsrooms: An examination of journalistic perceptions and their drivers. *Digital Journalism*, 8(3), 347–366. <https://doi.org/10.1080/21670811.2019.1709521>
- Bimber, B., & Gil de Zúñiga, H. (2020). The unedited public sphere. *New Media & Society*, 22(4), 700–715. <https://doi.org/10.1177/1461444819893980>
- Bogdanić, A. (2022). Theorizing news: Toward a constitutive model of journalistic discourse. *Journalism & Mass Communication Quarterly*, 99(2), 487–514. <https://doi.org/10.1177/1077699020966755>
- Bossetta, M. (2018). The digital architectures of social media: Comparing political campaigning on Facebook, Twitter, Instagram, and Snapchat in the 2016 U.S. election. *Journalism & Mass Communication Quarterly*, 95(2), 471–496. <https://doi.org/10.1177/1077699018763307>
- Boudana, S. (2016). Impartiality is not fair: Toward an alternative approach to the evaluation of content bias in news stories. *Journalism*, 17(5), 600–618. <https://doi.org/10.1177/1464884915571295>
- Bozdag, E. (2013). Bias in algorithmic filtering and personalization. *Ethics and Information Technology*, 15(3), 209–227. <https://doi.org/10.1007/s10676-013-9321-6>
- Brady, W. J., Crockett, M. J., & Van Bavel, J. J. (2020). The MAD model of moral contagion: The role of motivation, attention, and design in the spread of moralized content online. *Perspectives on Psychological Science*, 15(4), 978–1010. <https://doi.org/10.1177/1745691620917336>
- Brady, W. J., Wills, J. A., Jost, J. T., Tucker, J. A., & Van Bavel, J. J. (2017). Emotion shapes the diffusion of moralized content in social networks. *Proceedings of the National Academy of Sciences*, 114(28), 7313–7318. <https://doi.org/10.1073/pnas.1618923114>
- Broersma, M., & Eldridge, S. A., II. (2019). Journalism and social media: Redistribution of power? *Media and Communication*, 7(1), 193–197. <https://doi.org/10.17645/mac.v7i1.2048>
- Carlson, M. (2020). Journalistic epistemology and digital news circulation: Infrastructure, circulation practices, and epistemic contests. *New Media & Society*, 22(2), 230–246. <https://doi.org/10.1177/1461444819856921>
- Carlson, M. (2025). Epistemic contests in journalism: Examining struggles over journalistic ways of knowing. *Digital Journalism*, 13(2), 362–377. <https://doi.org/10.1080/21670811.2023.2288392>
- Chadwick, A. (2017). *The hybrid media system: Politics and power* (2nd ed). Oxford University Press.
- Chua, S., & Westlund, O. (2022). Platform configuration: A longitudinal study and conceptualization of a legacy news publisher's platform-related innovation practices. *Online Media and Global Communication*, 1(1), 60–89. <https://doi.org/10.1515/omgc-2022-0003>
- Cornils, M., Dogruel, L., Gessinger, K., & Schneiders, P. (2021). *Möglichkeiten öffentlicher Förderung von Lokal- und Regionaljournalismus bei Wahrung der Staatsferne*. Mainzer Medieninstitut. https://www.researchgate.net/publication/351515469_MOGLICHKEITEN_OFFENTLICHER_FORDERUNG_VON_LOKAL-UND_REGIONAL-JOURNALISMUS_BEI_WAHRUNG_DER_STAATSFERNE_Gutachten_im_Auftrag_der_Bundestagsfraktion_Bundnis_90Die_Gruenen
- Cotter, K., & Thorson, K. (2022). Judging value in a time of information cacophony: Young adults, social media, and the messiness of do-it-yourself expertise. *The International Journal of Press/Politics*, 27(3), 629–647. <https://doi.org/10.1177/19401612221082074>
- Council of Europe. (2022a). *Recommendation CM/Rec(2022)4 of the Committee of Ministers to member states on promoting a favourable environment for quality journalism in the digital age*. <https://search.coe.int/cm/?i=0900001680a5ddd0>
- Council of Europe. (2022b). *The impacts of digital technologies on freedom of expression* (Recommendation

- CM/Rec(2022)13). <https://edoc.coe.int/en/international-law/11101-the-impacts-of-digital-technologies-on-freedom-of-ex-pression-recommendation-cmrec202213.html>
- Council of Europe's Steering Committee on the Media and Information Society. (2023). *Guidelines on the responsible implementation of artificial intelligence systems in journalism*. Council of Europe. <https://rm.coe.int/cdmsi-2023-014-guidelines-on-the-responsible-implementation-of-arti-fic/1680adb4c6>
- Craft, S., Ashley, S., & Maksl, A. (2016). Elements of news literacy. *Electronic News*, 10(3), 143–160. <https://doi.org/10.1177/1931243116656716>
- Degen, M., Olgemöller, M., & Zabel, C. (2024). Quality journalism in social media—What we know and where we need to dig deeper. *Journalism Studies*, 25(4), 399–420. <https://doi.org/10.1080/1461670X.2024.2314204>
- DeVito, M. A. (2017). From editors to algorithms. *Digital Journalism*, 5(6), 753–773. <https://doi.org/10.1080/21670811.2016.1178592>
- Dodds, T., de Vreese, C., Helberger, N., Resendez, V., & Seipp, T. (2023). Popularity-driven metrics: Audience analytics and shifting opinion power to digital platforms. *Journalism Studies*, 24(3), 403–421. <https://doi.org/10.1080/1461670X.2023.2167104>
- Dunaway, J., & Ray, N. (2023). Communication technology and threats to democracy: We the people are (also) the problem. In R. G. Lawrence & P. M. Napoli (Eds.), *News quality in the digital age* (pp. 13–30). Routledge.
- Ehrlén, V., Talvitie-Lamberg, K., Salonen, M., Koivula, M., Villi, M., & Uskali, T. (2023). Confusing content, platforms, and data: Young adults and trust in news media. *Media and Communication*, 11(4), 320–331. <https://doi.org/10.17645/mac.v11i4.7104>
- Eisenegger, M. (2021). Dritter, digitaler Strukturwandel der Öffentlichkeit als Folge der Plattformisierung. In M. Eisenegger, M. Prinzing, P. Ettinger, & R. Blum (Eds.), *Digitaler Strukturwandel der Öffentlichkeit. Historische Verortung, Modelle und Konsequenzen* (pp. 17–39). Springer.
- Eisenegger, M., & Udris, L. (2021). Medienqualität in der digitalen Ära. Konzeptuelle Herausforderungen und erste Antworten. In M. Magin, U. Rußmann, & B. Stark (Eds.), *Democracy needs media* (pp. 91–113). Springer Fachmedien Wiesbaden. https://doi.org/10.1007/978-3-658-34633-1_6
- European Commission. (2024a). *Call for proposals: Journalism partnerships—Collaborations (2025)*. <https://digital-strategy.ec.europa.eu/en/funding/call-proposals-journalism-partnerships-collaborations-2025>
- European Commission. (2024b). *Media literacy*. <https://digital-strategy.ec.europa.eu/en/policies/media-literacy>
- European Commission. (2025). *The code of conduct on disinformation*. <https://digital-strategy.ec.europa.eu/en/library/code-conduct-disinformation>
- European Digital Media Observatory. (2025). *Media literacy overview: Media literacy community in Europe*. <https://edmo.eu/areas-of-activities/media-literacy/media-literacy-overview>
- Fischer, R., & Jarren, O. (2023). The platformization of the public sphere and its challenge to democracy. *Philosophy & Social Criticism*, 50(1), 200–215. <https://doi.org/10.1177/01914537231203535>
- Fischer, T.-S., Kolo, C., & Mothes, C. (2022). Political influencers on YouTube: Business strategies and content characteristics. *Media and Communication*, 10(1), 259–271. <https://doi.org/10.17645/mac.v10i1.4767>
- Flew, T. (2024). Epistemic rights and digital communications policies: Collective rights and digital citizenship. In M. Aslama Horowitz, H. Nieminen, K. Lehtisaari, & A. D'Arma (Eds.), *Epistemic rights in the era of digital disruption* (pp. 81–96). Springer. https://doi.org/10.1007/978-3-031-45976-4_6
- Flew, T., & Stepnik, A. (2024). The value of news: Aligning economic and social value from an institutional perspective. *Media and Communication*, 12, Article 7462. <https://doi.org/10.17645/mac.7462>
- Fürst, S. (2020). In the service of good journalism and audience interests? How audience metrics affect news quality. *Media and Communication*, 8(3), 270–280. <https://doi.org/10.17645/mac.v8i3.3228>

- Garnier, M., van Wessel, M., Tamás, P. A., & van Bommel, S. (2020). The chick diffusion: How newspapers fail to meet normative expectations regarding their democratic role in public debate. *Journalism Studies*, 21(5), 636–658. <https://doi.org/10.1080/1461670X.2019.1707705>
- Giotis, C. (2023). Missing what counts. Can Google and Facebook be forced to support quality news? *Ethical Space: The International Journal of Communication Ethics*, 20(1), 43–59.
- Giotis, C., Molitorisz, S., & Wilding, D. (2023). How Australia's competition regulator is supporting news, but not quality. In R. G. Lawrence & P. M. Napoli (Eds.), *News quality in the digital age* (pp. 169–286). Taylor & Francis.
- González-Bailón, S., Lazer, D., Barberá, P., Zhang, M., Allcott, H., Brown, T., Crespo-Tenorio, A., Freelon, D., Gentzkow, M., Guess, A. M., Iyengar, S., Kim, Y. M., Malhotra, N., Moehler, D., Nyhan, B., Pan, J., Rivera, C. V., Settle, J., Thorson, E., . . . Tucker, J. A. (2023). Asymmetric ideological segregation in exposure to political news on Facebook. *Science*, 381(6656), 392–398. <https://doi.org/10.1126/science.ade7138>
- Google. (n.d.). *Authoritative news and information*. https://www.youtube.com/intl/en_us/howyoutubeworks/product-features/news-information
- Griffin, R. (2024). Codes of conduct in the Digital Services Act: Functions, benefits & concerns. *Technology and Regulation*, 2024, 167–187. <https://doi.org/10.26116/techreg.2024.016>
- Habermas, J. (2022). Reflections and hypotheses on a further structural transformation of the political public sphere. *Theory, Culture & Society*, 39(4), 145–171. <https://doi.org/10.1177/02632764221112341>
- Hagar, N., & Diakopoulos, N. (2023). Algorithmic indifference: The dearth of news recommendations on TikTok. *New Media & Society*, 27(6), 3449–3469. <https://doi.org/10.1177/14614448231192964>
- Hanusch, F., & Löhmann, K. (2023). Dimensions of peripherality in journalism: A typology for studying new actors in the journalistic field. *Digital Journalism*, 11(7), 1292–1310. <https://doi.org/10.1080/21670811.2022.2148549>
- Hase, V., Boczek, K., & Scharkow, M. (2023). Adapting to affordances and audiences? A cross-platform, multi-modal analysis of the platformization of news on Facebook, Instagram, TikTok, and Twitter. *Digital Journalism*, 11(8), 1499–1520. <https://doi.org/10.1080/21670811.2022.2128389>
- Heitz, L., Lischka, J. A., Birrer, A., Paudel, B., Tolmeijer, S., Laugwitz, L., & Bernstein, A. (2022). Benefits of diverse news recommendations for democracy: A user study. *Digital Journalism*, 10(19), 1710–1730. <https://doi.org/10.1080/21670811.2021.2021804>
- Helberger, N. (2020). The political power of platforms: How current attempts to regulate misinformation amplify opinion power. *Digital Journalism*, 8(6), 842–854. <https://doi.org/10.1080/21670811.2020.1773888>
- Hendrix, J. (2025, January 7). Transcript: Mark Zuckerberg Announces major changes to meta's content moderation policies and operations. *Tech Policy Press*. <https://techpolicy.press/transcript-mark-zuckerberg-announces-major-changes-to-metas-content-moderation-policies-and-operations>
- Hermida, A., & Mellado, C. (2020). Dimensions of social media logics: Mapping forms of journalistic norms and practices on Twitter and Instagram. *Digital Journalism*, 8(7), 864–884. <https://doi.org/10.1080/21670811.2020.1805779>
- Hertwig, R., & Grüne-Yanoff, T. (2017). Nudging and boosting: Steering or empowering good decisions. *Perspectives on Psychological Science: A Journal of the Association for Psychological Science*, 12(6), 973–986. <https://doi.org/10.1177/1745691617702496>
- Huang, S., & Yang, T. (2024). Auditing entertainment traps on YouTube: How do recommendation algorithms pull users away from news. *Political Communication*, 41(6), 903–920. <https://doi.org/10.1080/10584609.2024.2343769>

- Instagram. (2024). *Continuing our approach to political content on Instagram and Threads*. <https://about.instagram.com/blog/announcements/continuing-our-approach-to-political-content-on-instagram-and-threads>
- Jandura, O., & Friedrich, K. (2014). 18: The quality of political media coverage. In C. Reinemann (Ed.), *Political communication* (pp. 351–374). De Gruyter Mouton. <https://doi.org/10.1515/9783110238174.351>
- Jaurisch, J., Ohme, J., & Klinger, U. (2024). *Enabling research with publicly accessible platform data: Early DSA compliance issues and suggestions for improvement* (Weizenbaum Policy Paper 9). Weizenbaum Institut. <http://www.doi.org/10.34669/WI.WPP/9>
- Joris, G., Vercoutere, S., De Clercq, O., Van Damme, K., Mechant, P., & De Marez, L. (2024). Nudging towards exposure diversity: Examining the effects of news recommender design on audiences' news exposure behaviours and perceptions. *Digital Journalism*, 12(8), 1118–1139. <https://doi.org/10.1080/21670811.2022.2106445>
- Jungherr, A., & Schroeder, R. (2023). Artificial intelligence and the public arena. *Communication Theory*, 33(2/3), 164–173. <https://doi.org/10.1093/ct/qtad006>
- Just, N. (2022). Which is to be master? Competition law or regulation in platform markets. *International Journal of Communication*, 16, 504–524.
- Kahn, G. (2023, December 10). As social media turns away from the news, publishers meet audiences on other channels. *Reuters Institute for the Study of Journalism*. <https://reutersinstitute.politics.ox.ac.uk/news/social-media-turns-away-news-publishers-meet-audiences-other-channels>
- Kalsnes, B., & Larsson, A. O. (2018). Understanding news sharing across social media. *Journalism Studies*, 19(11), 1669–1688. <https://doi.org/10.1080/1461670X.2017.1297686>
- Katz, E. (1996). And deliver us from segmentation. *The ANNALS of the American Academy of Political and Social Science*, 546(1), 22–33. <https://doi.org/10.1177/0002716296546001003>
- Kim, D. H., & Kwak, N. (2017). Media diversity policies for the public: Empirical evidence examining exposure diversity and democratic citizenship. *Journal of Broadcasting & Electronic Media*, 61(4), 682–702. <https://doi.org/10.1080/08838151.2017.1375498>
- Klein, M., Riedl, A., Magin, M., Udris, L., & Stark, B. (2023). From news softening to social news softening: Comparing patterns of political news coverage on different (social) media channels in Germany and Switzerland. *Digital Journalism*. Advance online publication. <https://doi.org/10.1080/21670811.2023.2278044>
- Knobloch-Westerwick, S., Mothes, C., & Polavin, N. (2020). Confirmation bias, ingroup bias, and negativity bias in selective exposure to political information. *Communication Research*, 47(1), 104–124. <https://doi.org/10.1177/0093650217719596>
- Knudsen, E. (2023). Modeling news recommender systems' conditional effects on selective exposure: Evidence from two online experiments. *Journal of Communication*, 73(2), 138–149. <https://doi.org/10.1093/joc/jqac047>
- Kovach, B., & Rosenstiel, T. (2021). *The elements of journalism. What newspeople should know and the public should expect*. Crown.
- Krebs, I., Bachmann, P., Siegert, G., Schwab, R., & Willi, R. (2021). Non-journalistic competitors of news media brands on Google and YouTube: From solid competition to a liquid media market. *Journal of Media Business Studies*, 18(1), 27–44. <https://doi.org/10.1080/16522354.2020.1832746>
- Kristensen, L. M., & Hartley, J. M. (2023). The infrastructure of news: negotiating infrastructural capture and autonomy in data-driven news distribution. *Media and Communication*, 11(2), 307–318. <https://doi.org/10.17645/mac.v11i2.6388>

- Laaksonen, S.-M., Koivula, M., & Villi, M. (2022). Mediated by the giants: Tracing practices, discourses, and mediators of platform isomorphism in a media organization. *New Media & Society*, 26(8), 4317–4335. <https://doi.org/10.1177/14614448221122220>
- Lamot, K. (2022). What the metrics say. The softening of news on the facebook pages of mainstream media outlets. *Digital Journalism*, 10(4), 517–536. <https://doi.org/10.1080/21670811.2021.1974917>
- Lazar, S. (2022). Power and AI: Nature and justification. In J. B. Bullock, Y.-C. Chen, J. Himmelreich, V. M. Hudson, A. Korinek, M. M. Young, & B. Zhang (Eds.), *The Oxford handbook of AI governance* (pp. 198–209). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780197579329.013.12>
- Leckner, S., Tenor, C., & Nygren, G. (2019). What about the hyperlocals? The drivers, organization and economy of independent news media in Sweden. *Journalism Practice*, 13(1), 68–89. <https://doi.org/10.1080/17512786.2017.1392254>
- Lee, S., & Xenos, M. (2019). Social distraction? Social media use and political knowledge in two U.S. Presidential elections. *Computers in Human Behavior*, 90, 18–25. <https://doi.org/10.1016/j.chb.2018.08.006>
- Leonhard, L., Karnowski, V., & Kümpel, A. S. (2020). Online and (the feeling of being) informed: Online news usage patterns and their relation to subjective and objective political knowledge. *Computers in Human Behavior*, 103, 181–189. <https://doi.org/10.1016/j.chb.2019.08.008>
- Liesem, K. (2022). Diversity, fake news and hate speech: The German response to algorithmic regulation. In J. Meese & S. Bannerman (Eds.), *The algorithmic distribution of news: Policy responses* (pp. 209–231). Springer. https://doi.org/10.1007/978-3-030-87086-7_11
- Lin, B., & Lewis, S. C. (2022). The one thing journalistic AI just might do for democracy. *Digital Journalism*, 10(10), 1627–1649. <https://doi.org/10.1080/21670811.2022.2084131>
- Lischka, J. A. (2021). Logics in social media news making: How social media editors marry the Facebook logic with journalistic standards. *Journalism*, 22(2), 430–447. <https://doi.org/10.1177/1464884918788472>
- Loeberbach, F., Moeller, J., Trilling, D., & van Atteveldt, W. (2020). The unified framework of media diversity: A systematic literature review. *Digital Journalism*, 8(5), 605–642. <https://doi.org/10.1080/21670811.2020.1764374>
- Loeberbach, F., Moeller, J., Trilling, D., & van Atteveldt, W. (2024). What is news? Mapping the diversity of news experiences in digital trace data. *Journalism*. Advance online publication. <https://doi.org/10.1177/14648849241303115>
- Lorenz-Spreen, P., Lewandowsky, S., Sunstein, C. R., & Hertwig, R. (2020). How behavioral sciences can promote truth, autonomy and democratic discourse online. *Nature Human Behavior*, 4(11), 1102–1109. <https://doi.org/10.1038/s41562-020-0889-7>
- Lu, W. (2024). Inevitable challenges of autonomy: Ethical concerns in personalized algorithmic decision-making. *Humanities and Social Sciences Communications*, 11(1), Article 1321. <https://doi.org/10.1057/s41599-024-03864-y>
- Lyubareva, I., & Rochelandet, F. (2021). From news diversity to news quality: New media regulation theoretical issues. In S. A. Matei, F. Rebillard, & F. Rochelandet (Eds.), *Digital and social media regulation* (pp. 117–142). Springer. https://doi.org/10.1007/978-3-030-66759-7_6
- Maares, P., & Hanusch, F. (2023). Understanding peripheral journalism from the boundary: A conceptual framework. *Digital Journalism*, 11(7), 1270–1291. <https://doi.org/10.1080/21670811.2022.2134045>
- Magin, M., Stark, B., Jandura, O., Udris, L., Riedl, A., Klein, M., Eisenegger, M., Kösters, R., & Hofstetter Furrer, B. (2023). Seeing the whole picture. Towards a multi-perspective approach to news content diversity based on liberal and deliberative models of democracy. *Journalism Studies*, 24(5), 669–696. <https://doi.org/10.1080/1461670X.2023.2178248>

- Mansell, R., Durach, F., Kettemann, M., Lenoir, T., Procter, R., Tripathi, G., & Tucker, E. (2025). *Information ecosystem and troubled democracy. A global synthesis of the state of knowledge on news media, AI and data governance*. Observatory on Information and Democracy. <https://observatory.informationdemocracy.org/report/information-ecosystem-and-troubled-democracy>
- Mark, G. (2023). *Attention span: A groundbreaking way to restore balance, happiness and productivity*. Harlequin.
- Matamoros-Fernández, A., Gray, J. E., Bartolo, L., Burgess, J., & Suzor, N. (2021). What's "up next"? Investigating algorithmic recommendations on YouTube across issues and over time. *Media and Communication*, 9(4), 234–249. <https://doi.org/10.17645/mac.v9i4.4184>
- Mattis, N., Masur, P., Möller, J., & van Atteveldt, W. (2024). Nudging towards news diversity: A theoretical framework for facilitating diverse news consumption through recommender design. *New Media & Society*, 26(7), 3681–3706. <https://doi.org/10.1177/14614448221104413>
- Meese, J. (2021). Journalism policy across the Commonwealth: Partial answers to public problems. *Digital Journalism*, 9(3), 255–275. <https://doi.org/10.1080/21670811.2020.1835514>
- Meier, K. (2019). Quality in journalism. In T. P. Vos, F. Hanusch, D. Dimitrakopoulou, M. Geertsema-Sligh, & A. Sehl (Eds.), *The international encyclopedia of journalism studies* (pp. 1–8). Wiley. <https://doi.org/10.1002/9781118841570.iejs0041>
- Mellado, C., & Hermida, A. (2022). A conceptual framework for journalistic identity on social media: How the personal and professional contribute to power and profit. *Digital Journalism*, 10(2), 284–299. <https://doi.org/10.1080/21670811.2021.1907203>
- Meta. (2023). *New analysis shows news industry reaps considerable economic benefit from Facebook*. <https://about.fb.com/news/2023/03/news-industry-reaps-considerable-economic-benefit-from-facebook>
- Moe, H., Hovden, J. F., & Karppinen, K. (2021). Operationalizing exposure diversity. *European Journal of Communication*, 36(2), 148–167. <https://doi.org/10.1177/0267323120966849>
- Napoli, P. M. (1999). Deconstructing the diversity principle. *Journal of Communication*, 49(4), 7–34. <https://doi.org/10.1111/j.1460-2466.1999.tb02815.x>
- Napoli, P. M. (2019). *Social media and the public interest: Media regulation in the disinformation age*. Columbia University Press. <https://doi.org/10.7312/napo18454>
- Napoli, P. M., & Royal, A. (2023). Government interventions into news quality. In R. G. Lawrence & P. M. Napoli (Eds.), *News quality in the digital age* (pp. 187–201). Routledge. <https://doi.org/10.4324/9781003257998-16>
- Nechushtai, E., & Lewis, S. C. (2019). What kind of news gatekeepers do we want machines to be? Filter bubbles, fragmentation, and the normative dimensions of algorithmic recommendations. *Computers in Human Behavior*, 90, 298–307. <https://doi.org/10.1016/j.chb.2018.07.043>
- Nechushtai, E., Zamith, R., & Lewis, S. C. (2023). More of the same? Homogenization in news recommendations when users search on Google, YouTube, Facebook, and Twitter. *Mass Communication and Society*, 27(6), 1309–1335. <https://doi.org/10.1080/15205436.2023.2173609>
- Neuberger, C., Bartsch, A., Fröhlich, R., Hanitzsch, T., Reinemann, C., & Schindler, J. (2023). The digital transformation of knowledge order: A model for the analysis of the epistemic crisis. *Annals of the International Communication Association*, 47(2), 180–201. <https://doi.org/10.1080/23808985.2023.2169950>
- Newman, N. (2023). Executive summary and key findings. In N. Newman, R. Fletcher, K. Eddy, C. T. Robertson, & R. K. Nielsen (Eds.), *Digital news report 2023* (pp. 9–29). Reuters Institute for the Study of Journalism.
- Newman, N. (2024a). Executive summary and key findings. In N. Newman, R. Fletcher, C. T. Robertson, A. Ross Arguedas, & R. K. Nielsen (Eds.), *Digital news report 2024* (pp. 9–31). Reuters Institute for the Study of Journalism.

- Newman, N. (2024b). What do we know about the rise of alternative voices and news influencers in social and video networks? In N. Newman, R. Fletcher, C. T. Robertson, A. Ross Arguedas, & R. K. Nielsen (Eds.), *Digital news report 2024* (pp. 53–58). Reuters Institute for the Study of Journalism.
- Nielsen, R. K. (2017). The one thing journalism just might do for democracy: Counterfactual idealism, liberal optimism, democratic realism. *Journalism Studies*, 18(10), 1251–1262. <https://doi.org/10.1080/1461670X.2017.1338152>
- Nielsen, R. K., & Ganter, S. (2022). *The power of platforms: Shaping media and society*. Oxford University Press.
- Nieminen, H. (2024). Why we need epistemic rights. In M. Aslama Horowitz, H. Nieminen, K. Lehtisaari, & A. D'Arma (Eds.), *Epistemic rights in the era of digital disruption* (pp. 11–28). Springer. https://doi.org/10.1007/978-3-031-45976-4_2
- Norambuena, B. K., Farina, K. R., Horning, M., & Mitra, T. (2023). Watching the watchdogs: Using transparency cues to help news audiences assess information quality. *Media and Communication*, 11(4), 274–285. <https://doi.org/10.17645/mac.v11i4.7018>
- Oeldorf-Hirsch, A., & DeVoss, C. L. (2020). Who posted that story? Processing layered sources in facebook news posts. *Journalism & Mass Communication Quarterly*, 97(1), 141–160. <https://doi.org/10.1177/1077699019857673>
- Ó Fathaigh, R., Buijs, D., & van Hoboken, J. (2025). The regulation of disinformation under the Digital Services Act. *Media and Communication*, 13, Article 9615. <https://doi.org/10.17645/mac.9615>
- Örnebring, H., Karlsson, M., Fast, K., & Lindell, J. (2018). The space of journalistic work: A theoretical model. *Communication Theory*, 28(4), 403–423. <https://doi.org/10.1093/ct/qty006>
- OVADYA, A. (2022). *Bridging-based ranking*. Harvard Kennedy School. <https://www.belfercenter.org/publication/bridging-based-ranking>
- Peter, C., & Muth, L. (2023). Social media influencers' role in shaping political opinions and actions of young audiences. *Media and Communication*, 11(3), 164–174. <https://doi.org/10.17645/mac.v11i3.6750>
- Peterson-Salahuddin, C., & Diakopoulos, N. (2020). Negotiated autonomy: The role of social media algorithms in editorial decision making. *Media and Communication*, 8(3), 27–38. <https://doi.org/10.17645/mac.v8i3.3001>
- Pfetsch, B. (2018). Dissonant and disconnected public spheres as challenge for political communication research. *Javnost—The Public*, 25(1/2), 59–65. <https://doi.org/10.1080/13183222.2018.1423942>
- Picard, R. G., & Pickard, V. (2017). *Essential principles for contemporary media and communications policymaking*. Reuters Institute for the Study of Journalism. <https://reutersinstitute.politics.ox.ac.uk/our-research/essential-principles-contemporary-media-and-communications-policymaking>
- Pickard, V. (2022). Can journalism survive in the age of platform monopolies? Confronting Facebook's negative externalities. In T. Flew & F. R. Martin (Eds.), *Digital platform regulation* (pp. 23–41). Springer. https://doi.org/10.1007/978-3-030-95220-4_2
- Poell, T., Nieborg, D. B., & Duffy, B. E. (2022). *Platforms and cultural production*. Polity Press.
- Poell, T., Nieborg, D. B., & Duffy, B. E. (2023). Spaces of negotiation: Analyzing platform power in the news industry. *Digital Journalism*, 11(8), 1391–1409. <https://doi.org/10.1080/21670811.2022.2103011>
- Puppis, M., Van den Bulck, H., & Bürdel, E. (2020). Frozen 2: Communication rights and the thaw of public funding in small media systems. *Journal of Information Policy*, 10, 388–438. <https://doi.org/10.5325/jinfopoli.10.2020.0388>
- Rathje, S., Van Bavel, J. J., & van der Linden, S. (2021). Out-group animosity drives engagement on social media. *Proceedings of the National Academy of Sciences of the United States of America*, 118(26), Article e2024292118. <https://doi.org/10.1073/pnas.2024292118>

- Riedl, M., Lukito, J., & Woolley, S. (2023). Political influencers on social media: An introduction. *Social Media + Society*, 9(2). <https://doi.org/10.1177/20563051231177938>
- Ross Arguedas, A. A., Badrinathan, S., Mont'Alverne, C., Toff, B., Fletcher, R., & Nielsen, R. K. (2023). Shortcuts to trust: Relying on cues to judge online news from unfamiliar sources on digital platforms. *Journalism*, 25(6), 1207–1229. <https://doi.org/10.1177/14648849231194485>
- Royal, A., & Napoli, P. M. (2022). Platforms and the press: Regulatory interventions to address an imbalance of power. In T. Flew & F. R. Martin (Eds.), *Digital platform regulation: Global perspectives on internet governance* (pp. 43–67). Springer. https://doi.org/10.1007/978-3-030-95220-4_3
- Saulite, L., & Ščeuļovs, D. (2023). Importance of news media branding in a contemporary media environment. *Journal of Open Innovation: Technology, Market, and Complexity*, 9(3), Article 100117. <https://doi.org/10.1016/j.joitmc.2023.100117>
- Saurwein, F., & Spencer-Smith, C. (2021). Automated trouble: The role of algorithmic selection in harms on social media platforms. *Media and Communication*, 9(4), 222–233. <https://doi.org/10.17645/mac.v9i4.4062>
- Sax, M. (2022). Algorithmic news diversity and democratic theory: Adding agonism to the mix. *Digital Journalism*, 10(10), 1650–1670. <https://doi.org/10.1080/21670811.2022.2114919>
- Schatz, H., & Schulz, W. (1992). Qualität von Fernsehprogrammen. Kriterien und Methoden zur Beurteilung von Programmqualität im dualen Fernsehen. *Media Perspektiven*, 11, 690–712.
- Schirch, L. (2025, March 31). The case for prosocial tech design governance. *Internet Policy Review*. Advance online publication. <https://policyreview.info/articles/news/prosocial-tech-design-governance>
- Schneiders, P., & Stark, B. (2025). Qualitätssicherung im Plattformzeitalter: Gefährdungspotenziale und Regulierungsoptionen. In E. J. Mand, J. Oster, G. Dening-Taylor, A. Walter, & G. Zagouras (Eds.), *Wirtschaft—Medien—Digitalisierung. Festschrift für Georgios Gounalakis zum 66. Geburtstag* (pp. 607–636). Nomos.
- Schneiders, P., Stegmann, D., & Stark, B. (2023). Social cohesion in platformized public spheres: Toward a conceptual framework. *Communication Theory*, 33(2/3), 122–131. <https://doi.org/10.1093/ct/qtad002>
- Seipp, T. J. (2023). Media concentration law: Gaps and promises in the digital age. *Media and Communication*, 11(2), 392–405. <https://doi.org/10.17645/mac.v11i2.6393>
- Seipp, T., Ó Fathaigh, R., & van Drunen, M. (2023). Defining the 'media' in Europe: Pitfalls of the proposed European Media Freedom Act. *Journal of Media Law*, 15(1), 39–51. <https://doi.org/10.1080/17577632.2023.2240998>
- Seipp, T. J., Helberger, N., de Vreese, C., & Ausloos, J. (2023). Dealing with opinion power in the platform world: Why we really have to rethink media concentration law. *Digital Journalism*, 11(8), 1542–1567. <https://doi.org/10.1080/21670811.2022.2161924>
- Seipp, T. J., Helberger, N., de Vreese, C., & Ausloos, J. (2024). Between the cracks: Blind spots in regulating media concentration and platform dependence in the EU. *Internet Policy Review*, 13(4). <https://doi.org/10.14763/2024.4.1813>
- Sevignani, S. (2022). Digital transformations and the ideological formation of the public sphere: Hegemonic, populist, or popular communication? *Theory, Culture & Society*, 39(4), 91–109. <https://doi.org/10.1177/02632764221103516>
- Sevignani, S., & Theine, H. (2024). Media property: Mapping the field and future trajectories in the digital age. *European Journal of Communication*, 39(5), 412–425. <https://doi.org/10.1177/02673231241268159>
- Shapiro, I. (2014). Why democracies need a functional definition of journalism now more than ever. *Journalism Studies*, 15(5), 555–565. <https://doi.org/10.1080/1461670X.2014.882483>
- Shin, D., & Zhou, S. (2024). A value and diversity-aware news recommendation systems: Can algorithmic

- gatekeeping nudge readers to view diverse news? *Journalism & Mass Communication Quarterly*. Advance online publication. <https://doi.org/10.1177/10776990241246680>
- Shulman, H. C., Markowitz, D. M., & Rogers, T. (2024). Reading dies in complexity: Online news consumers prefer simple writing. *Science Advances*, 10(23). <https://doi.org/10.1126/sciadv.adn2555>
- Smyrnaio, N., & Baisnée, O. (2023). Critically understanding the platformization of the public sphere. *European Journal of Communication*, 38(5), 435–445. <https://doi.org/10.1177/02673231231189046>
- Staab, P., & Thiel, T. (2022). Social media and the digital structural transformation of the public sphere. *Theory, Culture & Society*, 39(4), 129–143. <https://doi.org/10.1177/02632764221103527>
- Steensen, S., & Westlund, O. (2021). *What is digital journalism studies?* Routledge.
- Stegmann, D., Magin, M., & Stark, B. (2022). Echo chambers. In A. Ceron (Ed.), *Encyclopedia of technology & politics* (pp. 210–216). Edward Elgar.
- Steiner, M. (2020). Soft presentation of hard news? A content analysis of political Facebook posts. *Media and Communication*, 8(3), 244–257. <https://doi.org/10.17645/mac.v8i3.3152>
- Stocking, G., Wang, L., Lipka, M., Matsa, K. M., Widjaya, R., Tomasik, E., & Liedke, J. (2024). *America's news influencers*. Pew Research Center. <https://www.pewresearch.org/journalism/2024/11/18/americas-news-influencers>
- Strömbäck, J., Boomgaarden, H., Broda, E., Damstra, A., Lindgren, E., Tsfati, Y., & Vliegenthart, R. (2022). From low-choice to high-choice media environments. In J. Strömbäck, Å. Wikforss, K. Glüer, T. Lindholm, & H. Oscarsson (Eds.), *Knowledge resistance in high-choice information environments* (pp. 49–68). Routledge. <https://doi.org/10.4324/9781003111474-3>
- Swart, J., Groot Kormelink, T., Costera Meijer, I., & Broersma, M. (2022). Advancing a radical audience turn in journalism. fundamental dilemmas for journalism studies. *Digital Journalism*, 10(1), 8–22. <https://doi.org/10.1080/21670811.2021.2024764>
- Tambini, D. (2021). A theory of media freedom. *Journal of Media Law*, 13(2), 135–152. <https://doi.org/10.1080/17577632.2021.1992128>
- Thorson, K. (2020). Attracting the news: Algorithms, platforms, and reframing incidental exposure. *Journalism*, 21(8), 1067–1082. <https://doi.org/10.1177/1464884920915352>
- Toff, B., & Mathews, N. (2024). Is social media killing local news? An examination of engagement and ownership patterns in U.S. community news on Facebook. *Digital Journalism*, 12(9), 1397–1416. <https://doi.org/10.1080/21670811.2021.1977668>
- Valaskivi, K., & Robertson, D. G. (2022). Introduction: Epistemic contestations in the hybrid media environment. *Popular Communication*, 20(3), 153–161. <https://doi.org/10.1080/15405702.2022.2057998>
- van der Vlist, F. N., & Helmond, A. (2021). How partners mediate platform power: Mapping business and data partnerships in the social media ecosystem. *Big Data & Society*, 8(1). <https://doi.org/10.1177/20539517211025061>
- van Drunen, M. (2021). Editorial independence in an automated media system. *Internet Policy Review*, 10(3). <https://policyreview.info/articles/analysis/editorial-independence-automated-media-system>
- Vergara, A., Siles, I., Castro, A. C., & Chaves, A. (2021). The mechanisms of “incidental news consumption”: An eye tracking study of news interaction on Facebook. *Digital Journalism*, 9(2), 215–234. <https://doi.org/10.1080/21670811.2020.1813047>
- Vermeer, S., Trilling, D., Kruike-meier, S., & de Vreese, C. (2020). Online news user journeys: the role of social media, news websites, and topics. *Digital Journalism*, 8(9), 1114–1141. <https://doi.org/10.1080/21670811.2020.1767509>
- Vos, T. P., & Wolfgang, J. D. (2018). Journalists' normative constructions of political viewpoint diversity. *Journalism Studies*, 19(6), 764–781. <https://doi.org/10.1080/1461670X.2016.1240015>

- Vraga, E. K., & Edgerly, S. (2023). Relevance as a mechanism in evaluating news-ness among American teens and adults. *Digital Journalism*. Advance online publication. <https://doi.org/10.1080/21670811.2023.2250829>
- Wells, C., & Thorson, K. (2017). Combining big data and survey techniques to model effects of political content flows in Facebook. *Social Science Computer Review*, 35(1), 33–52. <https://doi.org/10.1177/0894439315609528>
- Wieland, M., & Kleinen-von Königslöw, K. (2020). Conceptualizing different forms of news processing following incidental news contact: A triple-path model. *Journalism*, 21(8), 1049–1066. <https://doi.org/10.1177/1464884920915353>
- Winseck, D. (2020). Vampire squids, ‘the broken internet’ and platform regulation. *Journal of Digital Media & Policy*, 11, 241–282. https://doi.org/10.1386/jdmp_00025_1
- Wojcieszak, M., Menchen-Trevino, E., Goncalves, J. F. F., & Weeks, B. (2021). Avenues to news and diverse news exposure online: Comparing direct navigation, social media, news aggregators, search queries, and article hyperlinks. *The International Journal of Press/Politics*, 27(4), 860–886. <https://doi.org/10.1177/19401612211009160>
- Wu, A. X., Taneja, H., & Webster, J. G. (2021). Going with the flow: Nudging attention online. *New Media & Society*, 23(10), 2979–2998. <https://doi.org/10.1177/1461444820941183>
- Wu, S., Tandoc, E. C., Jr., & Salmon, C. T. (2019). When journalism and automation intersect: Assessing the influence of the technological field on contemporary newsrooms. *Journalism Practice*, 13(10), 1238–1254. <https://doi.org/10.1080/17512786.2019.1585198>
- Wunderlich, L., & Hölig, S. (2022). Types of information orientation and information levels among young and old news audiences. *Media and Communication*, 10(3), 104–117. <https://doi.org/10.17645/mac.v10i3.5293>
- Wunderlich, L., Hölig, S., & Hasebrink, U. (2022). Does journalism still matter? The role of journalistic and non-journalistic sources in young peoples’ news related practices. *The International Journal of Press/Politics*, 27(3), 569–588. <https://doi.org/10.1177/19401612211072547>
- Zuboff, S. (2019). *The age of surveillance capitalism: The fight for a human future at the new frontier of power*. PublicAffairs.

About the Authors



Pascal Schneiders (PhD) is a postdoctoral researcher at the Department of Communication at Johannes Gutenberg University of Mainz, Germany. His research interests include news use and opinion formation in platformized news ecosystems, as well as governance implications. Photo by Robin Riemann.



Birgit Stark is full professor for media convergence with a focus on media performance, news diversity, and changing news consumption at the Department of Communication at Johannes Gutenberg University of Mainz, Germany. Specifically, she examines the impact of algorithmic curation on opinion formation and fragmentation. Photo by Petra A. Killick.

Historical Roots of Information Flows in Hybrid Media Systems

Silke Fürst 

Department of Communication and Media Research, University of Zurich, Switzerland

Correspondence: Silke Fürst (s.fuerst@ikmz.uzh.ch)

Submitted: 22 March 2025 **Accepted:** 26 August 2025 **Published:** 16 October 2025

Issue: This article is part of the issue “Journalism in the Hybrid Media System” edited by Silke Fürst (University of Zurich), Florian Muhle (Zeppelin University Friedrichshafen), and Colin Porlezza (Università della Svizzera italiana), fully open access at <https://doi.org/10.17645/mac.i494>

Abstract

Research on hybrid media systems has predominantly focused on recent digital developments, often overlooking historical precedents and long-term patterns that continue to shape today’s media landscape. This study addresses that gap by examining information flows—the cross-media dissemination of information and amplification of attention—from a historical perspective. Combining a literature review in journalism and media history with a longitudinal analysis of newspaper content, the study investigates four phenomena that illustrate information flows over time: media events, scandals, intermedia agenda-setting, and metaphors of public response. These phenomena are closely linked to recurring phrases and terms in public discourse and function as self-reinforcing communication patterns that connect different media channels and logics. The analysis draws on press coverage from three leading German-language newspapers: *Frankfurter Allgemeine Zeitung* (Germany), *Neue Zürcher Zeitung* (Switzerland), and *Die Presse* (Austria). The findings reveal that terms such as “media frenzy,” “media attention,” and “scandal” have been used since the mid-20th century to describe cross-media dynamics, well before the advent of digital and social media. The frequency of such terms has increased over time, particularly with the expansion and diversification of mass media, and again with the rise of digitalization. By situating information flows in a historical context, the study contributes to a more comprehensive understanding of continuity and change within hybrid media systems. While focused on German-speaking countries, the results suggest broader relevance and encourage future research that further integrates historical perspectives into the study of information flows in hybrid media systems.

Keywords

hybrid media system; intermedia agenda-setting; journalism; media events; media history; metaphors; news coverage; news factors; newspapers; scandals

1. Introduction

The concept of hybrid media systems, introduced by Chadwick (2017), has become a seminal framework in communication and media research. It describes the dynamic interplay between older and newer media, where different technologies, genres, norms, behaviors, and organizational forms coexist and influence each other. Much of the research on hybrid media systems has focused on digitalization and contemporary media developments (see, e.g., Fürst et al., 2025; Simon et al., 2025), reflecting Chadwick's emphasis on communication dynamics since the late 2000s. However, scholars have recently questioned this focus on "presentism" (Hallin et al., 2023, p. 229), arguing that it risks overlooking historical precedents and long-term patterns that continue to shape today's media landscape.

While Chadwick himself acknowledges that "all media systems are...hybrid media systems" (2017, p. 29), suggesting that hybridity and dynamics across media are not new phenomena, his analysis devotes limited attention to historical developments. In one book chapter, he briefly examines the emergence and coexistence of media technologies and types over the centuries, such as religious books, pamphlets, and phonographs (Chadwick, 2017, pp. 28–48). The chapter highlights the persistence of older media, the adaptation of established media practices to new technologies, and the role of power struggles in shaping emerging media. Accordingly, Chadwick's historical reflections focus primarily on media technologies and their use rather than on media content, journalism, and how (political) communication evolved across different media.

This contrasts with a central concern of Chadwick's book and subsequent research on hybrid media systems, which is to understand the characteristics of political and public communication by exploring "key events and processes that reveal the hybrid media system *in flow*" and analyzing "how political information cycles are built on news-making assemblages that combine older and newer media logics" (Chadwick, 2017, p. 70, emphasis in original). In other words, Chadwick regards these "information flows," understood as the dissemination of information and amplification of attention across different channels and media, as essential for empirical analysis. However, research so far has neglected to provide historical reflections and longitudinal data to understand information flows in hybrid media systems and their development before and during the rise of digital media.

This article aims to contribute to the understanding of information flows in hybrid media systems by putting them into historical perspective. By reviewing different strands of literature on journalism and media history and providing the first synthesis of them, the article illustrates various facets of information flows, particularly throughout the 20th century. Media events, scandals, intermedia agenda-setting, and the news factor of public response are all shown to be connected to dynamic, self-reinforcing communication processes across various channels and outlets. The article focuses on these four phenomena as indicators of the historical roots of information flows in hybrid media systems. Building on the discussion of existing literature, a data analysis of newspaper databases is conducted to provide an initial overview of the changing prevalence of these phenomena over the past several decades. Hence, the following research questions are addressed: How do media events, scandals, intermedia agenda-setting, and public response relate to hybrid media systems in both past and present contexts (Section 2), and how frequently have they been referenced in press coverage over time (Section 4)?

2. Theoretical Approaches Informing the Historical Analysis of Information Flows

Some scholars trace the concept of information flows back to Shannon and Weaver's (1964) mathematical theory of information (Simon et al., 2025, p. 1184). However, the metaphorical term "information flow" is not mentioned once in Shannon and Weaver's (1964) work. Since the 1980s, the terms "information flows" (e.g., Veltri, 2012; Yadava, 1990) or "news flows" (e.g., Guo & Vargo, 2017; Wilke, 1987) have been increasingly used to examine the international exchange and dissemination of information, analyzing how news from one country spreads to others. Accordingly, information flows have also been explored as part of intermedia agenda-setting, with investigation of how news media pick up stories from other (international) news media (Veltri, 2012) or "how the salience of issues is transferred from one country to another" (Guo & Vargo, 2017, p. 517). In addition, research on intermedia agenda-setting analyzes information flows from local to national media, often focusing on the salience of issues (e.g., economy, education, immigration) on the media agenda rather than on the circulation of specific content and stories (e.g., Guo & Zhang, 2023).

In the past decade, the term "information flows" has become more common and is increasingly used to describe public circulation of specific content and stories across media channels. Chadwick (2017) explores hybrid media systems by analyzing how information and attention circulate and are amplified across different media channels, highlighting the interactions and dynamics among various actors and between traditional and digital media. He begins his book (Chadwick, 2017, pp. 1–3) with an illustrative example of such information flows: An interview aired on Sky News, a British 24-hour television news channel, was recorded by a viewer via smartphone and shared online as a short clip on YouTube. The clip was then widely discussed and circulated on several social media platforms and blogs, eventually influencing subsequent news media coverage. The case illustrates how information flows across various media, demonstrating what Chadwick (2017, p. 238) calls the "circulatory and amplifying logics of the hybrid media system."

The notion of information flows is central to Chadwick's (2017) analysis and is closely linked to central issues, including "concentrations and diffusions of power" (p. 4), "power struggles" (p. 18), "competition, conflict, and interdependency among media and their publics" (p. 42), the fragmentation of attention and audiences (p. 49), and also their "integration" (p. 290). Chadwick (2017, p. 285) argues that "power in the hybrid media system is exercised by those who are successfully able to create, tap, or steer information flows in ways that suit their goals." Due to the fragmentation of the media landscape, audiences are increasingly dispersed across various media channels and platforms (Schulz, 1997; Webster, 2014). However, this disintegration is accompanied by information flows that amplify the dissemination of content across these channels. These flows increase the likelihood that audiences across different media will be exposed to particular events and stories, thus contributing to shared media experiences and "a form of unifying publicness" (Chadwick, 2017, p. 102). Such processes of "simultaneous integration and fragmentation" are considered a characteristic feature of hybrid media systems (Chadwick, 2017, p. 18), but they remain underexplored from long-term and historical perspectives.

Chadwick (2017) draws on various phenomena to describe information flows in hybrid media systems. These descriptions and analyses focus on information flows in the past two decades, which have been shaped by the rise of digitalization. They include intermedia agenda-setting processes between blogs and newspapers (p. 63), scandals such as "Bullygate" (p. 70), media events like "televised candidate debates" in the US (p. 166), and the news factor public response, illustrated by journalists "hunting for high-impact tweets that they could embed

in their news articles—with the numbers of retweets, likes, and replies all prominently displayed” (p. 256). However, the book (Chadwick, 2017) does not provide in-depth engagement with these four concepts in light of their academic foundations, nor are they systematically discussed in terms of their connection to information flows in hybrid media systems. More importantly, the chapter on historical developments in hybrid media systems (Chadwick, 2017, pp. 28–48) does not consider intermedia agenda-setting processes, scandals, media events, or journalistic constructions of public response.

This section addresses this gap and argues that existing theoretical approaches and research provide valuable insights for historically analyzing information flows in hybrid media systems. By synthesizing literature, it shows that studies on intermedia agenda-setting, scandals, media events, and public response reveal complex information flows not only in the 20th century but dating as far back as the 18th century. Furthermore, the review highlights that certain phrases and terms commonly used in everyday language and public discourse indicate these information flows and can therefore serve as useful markers in empirical research.

The four phenomena discussed in the following—intermedia agenda-setting, scandals, media events, and public response—are embedded in widely recognized frameworks and concepts in communication and media studies. While conceptually distinct, they exhibit partial overlap. Intermedia agenda-setting is the broadest approach, referring to newsroom practices and patterns of media coverage across different beats, shaped by mutual monitoring and influence among media outlets and channels. Scandals and media events spread through intermedia agenda-setting but refer to specific topics and occurrences that draw widespread attention across multiple media channels. Scandals revolve around violations of social norms, whereas media events are distinguished by an extraordinary public response that is explicitly emphasized in the communication surrounding them. This explicit communication about public attention and popularity is a defining feature of the news factor public response, which—unlike media events—applies to news selection and presentation in general and thus spans various topics and occurrences.

2.1. Intermedia Agenda-Setting

Intermedia agenda-setting is a persistent feature of hybrid media systems in the 20th and 21st centuries, pointing to the dynamic and reciprocal influences among various media channels in shaping public discourse. Several decades ago, wire services and broadcast media “tended to break stories first, with newspapers following” (Atwater et al., 1987, p. 57), picking up these stories and adding further details or new angles. However, newspapers have also played—and continue to play—a prominent role in shaping the broader media agenda, with leading daily and weekly newspapers as well as magazines creating cascading effects across the media ecosystem (Breed, 1955; Du, 2017; Mathis & Humprecht, 2018; Su & Borah, 2019; Vliegenthart & Walgrave, 2008; Weischenberg et al., 2006). With the rise of digital media, intermedia agenda-setting influence is also exerted by news websites, blogs, and social media platforms. The “24-hour news cycle” (Chadwick, 2017, p. 72) of online newspapers has accelerated intermedia agenda-setting (Webster, 2014, p. 58), as online news outlets influence television news but also media organizations with less frequent publication cycles (Boczkowski, 2009; Du, 2017; Harder et al., 2017). Moreover, online newspapers monitor and influence each other (Du, 2017). Additionally, content on social media platforms is both shaped by and contributes to the agendas of legacy news media (Du, 2017; Harder et al., 2017), including newspapers (Su & Borah, 2019; Su & Xiao, 2024). A systematic literature review of studies on

intermedia agenda-setting from 1997 to 2019—decades that are also a focus of this study—provides strong evidence for such reciprocal effects both among different legacy media (including print and broadcasting) and between legacy media and social media platforms (Su & Xiao, 2021).

Long before digitalization, media organizations routinely monitored one another. This mutual observation serves to gauge emerging topics and their newsworthiness, to avoid missing out on important topics, and to gain reference points for editorial decisions (Boczkowski, 2009; Breed, 1955; Guo & Vargo, 2020; Sigal, 1973; Weischenberg et al., 2006). Intermedia agenda-setting also plays a crucial role in the context of scandals (see Section 2.2): The mutual monitoring and competition among news media “tends to ensure that once a story with a clear scandal potential breaks somewhere in the media, other media organizations will rush to pick it up, report it and develop it further” (Thompson, 2000, p. 84; see also Fürst, 2018). Due to increasing economic pressures and budget cuts in newsrooms worldwide, media organizations have increasingly relied on mutual monitoring as a cost-saving strategy, using news aggregation to minimize the resources required for original reporting (Coddington, 2019; Harder et al., 2017).

An underexplored aspect of intermedia agenda-setting is *how* media outlets refer to one another in their reporting, with only a few studies examining this phenomenon. One common practice is the explicit attribution of information to other news organizations (Mathis & Humprecht, 2018) through phrases like “as reported by *Spiegel* [German news magazine]” (Rössler, 2000, p. 177) or “as *Le Monde* [French newspaper] said” (Veltri, 2012, p. 357). Longitudinal analyses of German news coverage, including newspapers and news agencies, indicate that such references to reports from specific media outlets have increased between the 1940s and the 2000s (Reinemann & Huismann, 2007). Beyond individual references, some news reports incorporate multiple sources, listing several media outlets as contributors to a particular story (Mertens, 2006). In other cases, journalists use generalizations like “the media are reporting that...” or metaphorical terms such as a media “frenzy” to signal a wider media consensus rather than attributing information to a specific outlet (Fürst & Oehmer, 2021, p. 802; Mertens, 2006, p. 26; see also Reinemann & Huismann, 2007). However, intermedia agenda-setting extends beyond visible citations and general references. News aggregation and journalistic coorientation involve selecting topics and compiling and synthesizing reports from multiple sources without necessarily crediting the original contributors (Coddington, 2019; Reinemann & Huismann, 2007). This process facilitates the spread of narratives across platforms in ways that remain largely opaque to audiences. Overall, findings from research on intermedia agenda-setting reveal “interactions that determine the construction of media content” (Chadwick, 2017, p. 25) and the role of competition and interdependency in hybrid media systems. However, the frequency with which news media rely on generalized phrases such as “according to media reports...” remains an open question.

2.2. Scandals

Scandals have long been an important part of public communication because of their ability to attract widespread attention across multiple media channels. Defined as “intense public communication about a real or imagined defect that is by consensus condemned” (Esser & Hartung, 2004, p. 1041), scandals revolve around violations of social norms and rely heavily on media visibility for their emergence (Lull & Hinerman, 1997; McNair, 2019; Thompson, 2000). In other words, “the media system as a whole has to react to make the pattern evolve from the stage of suggesting scandal to a fully developed one” (Esser & Hartung, 2004, p. 1047). While the rise of blogs and social media has introduced an accelerated dynamic with more actors

into the scandalization process (Chadwick, 2017, p. 169; Pörksen & Detel, 2014; Tumber & Waisbord, 2019), scandal studies and historical analysis reveal that the processes underlying scandals have long involved complex interactions among multiple actors and communication channels (Bösch, 2009; Esser & Hartung, 2004; Thompson, 2000). Political scandals exemplify this complexity, with politicians or other actors, such as whistleblowers, using news media to leak information or amplify accusations, while journalists investigate and report on these claims or on counter-allegations, creating a cycle of mutual reinforcement and reflecting power struggles and a growing competition for attention (Bösch, 2009; Liebes & Blum-Kulka, 2004). This struggle for power and attention and the interplay of political debates, journalistic investigations, and public reactions (Tumber & Waisbord, 2019) are considered typical features of hybrid media systems (Chadwick, 2017).

Research has shown that the frequency and scope of scandals have increased since the late 19th century (Bösch, 2009), with a notable acceleration from the 1970s onward (Esser & Hartung, 2004; Oehmer, 2011; Tumber, 2004; Udris & Lucht, 2011). This increase has been driven by transformations in societal structures and the media landscape, including the expansion, diversification, and specialization of mass media in general, as well as the rise of investigative journalism and the tabloid press in particular. These developments have contributed to the mediatization of society, where actors and organizations adapt to media logics to gain advantages as the competition for attention grows (Bösch, 2009; Meng, 2019; Schulz, 1997; Thompson, 2000; Tumber & Waisbord, 2019; Udris & Lucht, 2011).

Scandals have typically revolved around issues related to sex, power, and money, aligning with news factors such as conflict, negativity, surprise, and elite involvement (Haller, 2013, p. 328; McNair, 2019; Oehmer, 2011; Tumber & Waisbord, 2019; Vorberg & Zeitler, 2019). Parliamentary debates, accusations by politicians, investigations, and legal proceedings frequently act as catalysts for scandal narratives, which are then amplified through media coverage and public discourse across multiple communication channels (Bösch, 2009). Historically, these channels included texts and caricatures in newspapers, political, satirical, and illustrated magazines, pamphlets, flyers, party publications, annuals, and books (Bösch, 2009). In recent decades, broadcasts, reports in political or news magazines and newspapers, blogs, emails, and posts or videos on social media and online platforms often initiated scandals, which were spread through intermedia agenda-setting (see Section 2.1), mobilizing politicians and other actors whose involvement further intensifies scandal coverage in news media (e.g., Esser & Hartung, 2004; Fürst, 2018; Liebes & Blum-Kulka, 2004; Meng, 2019; Pörksen & Detel, 2014; Tumber & Waisbord, 2019).

Typically, the term “scandal” is *explicitly* used in the coverage of scandals (Oehmer, 2011; Thompson, 2000), often also in the headline or lead of a report (Bösch, 2009; Tumber, 2004), which underscores the indispensable role of news media in establishing scandal narratives (Bösch, 2009; Esser & Hartung, 2004, p. 1047; Vorberg & Zeitler, 2019, p. 422). Scandals emerge not as isolated events but as outcomes of sustained media attention across multiple channels and interaction among key actors. This interplay creates feedback loops where political figures, journalists, and other actors mutually reinforce and amplify scandal narratives. Politicians often play dual roles in both instigating and responding to scandals through various communication channels and media outlets (Bösch, 2009).

Scandals, therefore, exemplify the hybrid nature of media systems, where information flows dynamically across channels and publics (Chadwick, 2017). They thrive on the interplay of older and newer media. While

digital media and platforms add to this dynamic, the basic mechanisms of information flows in scandals show continuity across centuries.

2.3. Media Events

The concept of media events refers to events that attract extraordinary public attention. In their seminal work, Dayan and Katz (1992) defined them as preplanned, ceremonial occurrences that are broadcast live and capable of uniting national or global audiences through simultaneous viewership. They are said to “integrate societies in a collective heartbeat” (Dayan & Katz, 1992, p. 9, emphasis in original). Examples include the moon landing, royal weddings, and the Eurovision Song Contest. They are not only televised but also receive extensive pre- and post-event press coverage, reinforcing their perceived significance (Fürst, 2020). For instance, in the lead-up to the 1968 Olympics, news reports projected a record-breaking audience of 500 million viewers long before the event took place (Bartz, 2003), illustrating the role of public response as a news factor (see Section 2.4). Similarly, US coverage across magazines, newspapers, and broadcasting contributes to the narrative that “the entire world pauses to pay homage to the Super Bowl” (Martin & Reeves, 2001, p. 228), routinely announcing global audiences of nearly one billion without providing evidence (Dyreson, 2017; Martin & Reeves, 2001). Such estimations then serve as benchmarks to amplify cross-media attention for other media events, such as televised presidential debates. For example, the news agency Reuters and numerous US media outlets predicted that the 2016 debates “could score Super Bowl-sized audience[s]” (Fürst, 2021, p. 346). In recent decades, the purported reach of media events has expanded, with some broadcasters and event organizers claiming billions of viewers (Clancy, 2019; Fürst, 2020; Mytton, 2012) and the press predicting a “landmark of global shared experience” or even “one of the biggest worldwide TV audiences in history” (Fürst, 2020, p. 1531). However, there is also ongoing debate about whether media events have become less frequent, or whether they have partially lost their integrative power due to a general trend of audience fragmentation (Katz & Liebes, 2007; Sonnevend, 2018; Sumiala et al., 2018).

In recent decades, the definition of media events has evolved to also include unplanned occurrences such as crises, wars, terror attacks, and natural disasters (Hepp & Couldry, 2010; Katz & Liebes, 2007; Kyriakidou, 2008; Morgner, 2016; Wilke, 2010). This broader conceptualization acknowledges historical examples, such as the Lisbon earthquake of 1755, which received extensive newspaper coverage in multiple countries (Wilke, 2010), as well as contemporary events, where live broadcasting and cross-media coverage shape the public perceptions of disruptive moments (Katz & Liebes, 2007). As a result, more recent research on media events has examined both ceremonial and disruptive events across various media channels, including television, newspapers, and social media (Clancy, 2019; Nashmi, 2018; Sumiala et al., 2018; Vaccari et al., 2015). What unites these studies is their focus on events that generate massive media coverage across different channels and reach a vast audience—making them exceptional rather than everyday occurrences.

This broader understanding of media events is also evident in public discourse. The term “media event” is commonly used in news reporting to describe occurrences that attract extensive media coverage and engage a broad audience (Mertens, 2006). Similarly, the term “television event” has been used in media coverage of ceremonial media events (Fürst, 2020)—for example, journalists referred to Diana Spencer’s funeral in 1997 as “the biggest TV event” (Fürst, 2020, p. 1531) and to the 2008 Beijing Olympics as “the most watched television event in U.S. television history” (Cooper & Tang, 2012, p. 507).

The concept of media events highlights key characteristics of the hybrid media system (Chadwick, 2017) while having historical roots that date back centuries. Long before digitalization, media events emerged by traveling across different media channels and formats and receiving attention across media—ranging from coverage in newspapers, magazines, and radio to live television broadcasts of ceremonial events (Morgner, 2016; Sonnevend, 2018). The evolving understanding of media events, along with the use of the term in both academic and public discourse, underscores their continuing relevance in an increasingly complex media landscape.

2.4. Public Response as a News Factor

The news value approach is among the most widely recognized frameworks in communication studies (Eilders, 2006; Preston, 2016). Recently, scholars have introduced an additional news factor called public response, which reflects the prominence given to topics, events, and actors that are said to “have received broad or unexpected public attention” (Fürst & Oehmer, 2021, p. 799). This factor includes coverage of issues that have attracted media publicity, considerable crowds, large media audiences, or high engagement on social media.

Unlike the intermedia agenda-setting approach, which focuses on media attention and the (often hidden) reliance on reports by competing media, the news factor of public response also considers audience attention. Moreover, it captures how journalists *explicitly* refer to the public attention an actor, event, or topic has received—for example, by noting social media likes and shares or trending hashtags (Beckers & Harder, 2016; McGregor, 2019; von Nordheim et al., 2018), reporting the number of journalists and cameras covering an event (Mertens, 2006), or estimating the audience size (Fürst, 2020). In doing so, journalistic practices not only reflect but also actively shape the dynamics of information flows within hybrid media systems by reinforcing cycles of attention (Fürst & Oehmer, 2021).

Historically, numerical indicators of public response—such as television ratings—shaped how journalists select and present events as well as other media content and formats, including entertainment programs (Bor, 2013; Gillespie, 2016; Webster, 2014) and media events (see Section 2.3). Digitization and datafication have substantially increased both the frequency and the scope of such practices (Fürst & Oehmer, 2021). Beyond audience metrics and ratings, metaphors are used in news coverage to highlight public response, evoking perceptions of what society or different publics are watching or discussing (Fürst, 2023). Metaphors describe one thing in terms of another and “serve particular political, technical or economic interests” (Wyatt, 2021, p. 408). Examples include expressions that have entered everyday language, such as “shitstorm,” “candystorm,” Twitter “storm,” a “wave of indignation,” or content “going viral” (Beckers & Harder, 2016, p. 913; Einwiller et al., 2017; Haarkötter, 2016; Kornemann, 2018, p. 382; Mertens, 2006, p. 26; Payne, 2013, p. 540). As one journalist put it: “There are all these guys writing about this ‘social media storm’ and so you repeat it. It’s a spiral and nobody wants to get left behind” (Rega, 2025, p. 17). Constructions of public response thus stimulate self-reinforcing processes of attention and intermedia agenda-setting processes.

Metaphors and generalizing terms that signal public response are neither new nor limited to digital contexts. For example, extensive media coverage is often described by saying that certain actors or events attract a lot of “media attention,” spark a media “frenzy,” or make “headlines,” while audience engagement is highlighted with expressions such as “ratings machine,” “ratings boon,” or “ratings bonanza” (Fürst & Oehmer, 2021, pp. 806, 808; Mertens, 2006, p. 26). However, digital and social media have given rise to numerous new

metaphors and terms that embody public response and are used in news coverage, including “influencer,” “YouTube star,” “social media star,” or “social media sensation” (Deller & Murphy, 2020, pp. 121, 124; Enke & Borchers, 2019; Lee, 2016, p. 112). In Germany and Switzerland, the terms “shitstorm” and “influencer” have become so prevalent in everyday language that they were named “Wort/Anglizismus des Jahres” (Word/Anglicism of the Year) in the 2010s.

Journalism frames online communicators based on their ability to generate a public response, but it rarely defines or discloses the thresholds of popularity or influence required for the above-mentioned labels (Fürst, 2023). Journalists therefore act as curators and amplifiers of attention, shaping perceptions of which individuals and messages hold cultural and social significance. Being labeled an “influencer” or a “YouTube star” in the news reinforces expectations about certain actors’ ability to attract widespread engagement, further cementing their prominence and power within hybrid media systems. However, little is known about the extent to which this occurs in news coverage.

As demonstrated in the above literature review on intermedia agenda-setting, scandals, media events, and the news factor public response, everyday terms like “shitstorm” and “media frenzy” can signal underlying patterns of information flows. These terms provide the analytical lens for the following section, which outlines the methodological design for examining their occurrence and role in press coverage over time.

3. Method

The following analysis presents data on the evolving frequency of terms that signify information flows in hybrid media systems. As was shown in Section 2, these terms/phrases—such as “television event,” “scandal,” “influencer,” “media frenzy,” or “according to media reports”—are commonly used in everyday language and public discourse. Their presence in news coverage provides insights into how information flows across media channels, formats, and technologies (e.g., newspapers reporting on a social media “shitstorm” or “influencer,” thereby combining older and newer media logics). Newspaper databases are particularly suitable for tracking the use of these terms over time, as these archives can span several decades (Geiß et al., 2025; Oehmer, 2011). Furthermore, analysis of newspaper coverage is well-suited for this study, as newspapers influenced the agendas of other media outlets throughout the 20th century and continue to do so today (see Section 2.1).

The analysis focuses on three leading newspapers in German-speaking countries (DACH countries): *Frankfurter Allgemeine Zeitung* (FAZ) from Germany, *Die Presse* from Austria, and *Neue Zürcher Zeitung* (NZZ) from Switzerland. FAZ, founded in November 1949, offers a comprehensive, fully digitized newspaper archive (Birkner et al., 2018) that is accessible to members of the University of Zurich (<https://www.faz-biblionet.de/faz-portal>). It is a nationally distributed center-right newspaper and one of the most widely read and influential quality newspapers in Germany, including among journalists (Weischenberg et al., 2006). Austria’s *Die Presse* and Switzerland’s NZZ are comparable to FAZ in terms of editorial orientation, credibility, audience reach, and influence among journalists in their respective countries (Mathis & Humprecht, 2018; Reuters Institute for the Study of Journalism, 2023, pp. 60–61, 103). A comprehensive content analysis (Mathis & Humprecht, 2018) found that NZZ is the most widely cited newspaper in Switzerland. Both NZZ and *Die Presse* have archived coverage available in the Factiva database dating back to January 1994. Therefore, in the case of these two newspapers, all articles published in the last three decades can be included, while FAZ’s coverage spans more than seven decades, allowing longer-term developments to be

identified. The varying progress in newspaper retro-digitization (Birkner et al., 2018) thus results in an uneven period of analysis. However, the aim of this study is to make use of the available potential of existing databases to conduct longitudinal analyses.

For each phenomenon discussed in the literature review, a dedicated search string was created (see Table 1 for all the search strings used). The search string for public response was focused on social media communication to capture terms that have emerged in recent decades. Because expressions like “media frenzy” and “media attention” appeared not only in relation to public response, but across all phenomena (see Section 2), an additional search string was developed that is not tailored to a specific phenomenon but is related to all. Before final inclusion, all search strings were thoroughly tested. Terms that are indicative of information flows and that, according to the literature, are commonly used in everyday language and public discourse were considered. A few terms derived from the literature (Section 2) were eventually excluded because they generated a high number of false positives, as in the case of “wave of indignation.” Other terms from the literature were excluded from the analysis because they yielded fewer than 10 hits. This is why, for instance, the terms “YouTube star,” “Twitter storm,” and “shitstorm” were included, while the terms “Facebook star,” “Instagram storm,” “TikTok star,” “Snapchat star,” “social media storm,” and “candystorm” were left out. A few terms required further specification to avoid a high number of false positives—for example, the search term “headlines” was ineffective, whereas more precise phrases like “made headlines” or “created headlines” produced relevant results. Other search terms were overly specific (e.g., “as reported by Spiegel”), prompting the use of broader phrases instead (e.g., “according to media reports”). The list of search

Table 1. Validating the appropriateness of the search strings.

Number of checked articles	Outlet	Year(s) of coverage	False positives	Examples
Intermedia agenda-setting (n = 9,457)				
Search terms: “according to media reports” OR “media reported” (in German: “laut Medienberichten” OR “Medien berichteten”)				
30	FAZ	1971–1992	0%	“Local media reported”; “The national media reported”; “The Czech media reported”; “International media also reported”; “According to media reports, the police”; “The media reported several times over the past few days that”; “Some media reported”; “Numerous media reported”; “Most of the media reported extensively on this”; “The NYT and other media reported”
30	FAZ	2024	0%	
30	Die Presse	1994–1998	0%	
30	Die Presse	2024	0%	
30	NZZ	1994–1995	0%	
30	NZZ	2024	0%	
Scandal (n = 67,866)				
Search terms: scandal OR scandals (in German: Skandal OR Skandals OR Skandale OR Skandalen)				
30	FAZ	1950	20%	“The Tories in the throes of a new scandal”; “which sparked the marriage crisis and subsequent political scandal”; “A Tamedia [Swiss media company] investigation had uncovered the scandal”; “Cum-Ex scandal”; “Volkswagen diesel scandal”; “Wirecard scandal”; “opioid scandal”; “Ibiza scandal”; “Watergate scandal”; “denazification scandal”
30	FAZ	2024	10%	
30	Die Presse	1994	6.7%	
30	Die Presse	2024	26.7%	
30	NZZ	1994	13.3%	
30	NZZ	2024	10%	

Table 1. (Cont.) Validating the appropriateness of the search strings.

Number of checked articles	Outlet	Year(s) of coverage	False positives	Examples
Media event (n = 1,597)				
Search terms: media event* OR "TV event*" OR "television event*" OR "audience of billions" OR "billions of viewers" (in German: Medienereignis* OR "TV-Ereignis*" OR Fernsehereignis* OR Milliardenpublikum* OR "Milliarden Zuschauer*")				
30	FAZ	1965–1980	0%	"The coronation of Charles III...this Saturday will be a gigantic TV event for billions of people around the globe"; "the Euro Summit as a media event with 2500 journalists from all over the world"; "In total, around 37 billion viewers will experience the World Cup"; "an unparalleled media event"; "a total of 1.5 billion viewers on television and the Internet"
30	FAZ	2022–2024	3.3%	
30	Die Presse	1994–1999	10%	
30	Die Presse	2016–2024	0%	
30	NZZ	1994–1996	6.7%	
30	NZZ	2021–2024	6.7%	
Public response to social media communication (n = 4,515)				
Search terms: influencer* OR "social media star*" OR "YouTube star*" OR "TikTok star*" OR "Instagram star*" OR "going viral" OR "went viral" OR shitstorm* OR "Twitter storm" (in German: Influencer OR Influencers OR Influencern OR "Social-Media-Star*" OR "YouTube-Star*" OR "TikTok-Star*" OR "Instagram-Star*" OR "ging viral" OR "viral gegangen" OR "geht viral" OR "viral gehen" OR Shitstorm* OR "Twitter-Sturm")				
30	FAZ	2010–2012	0%	"This earned her criticism and a shitstorm that included misogynistic remarks"; "She triggered a shitstorm that lasted for weeks"; "Right-wing influencer Laura Loomer accused the two men of selling out American culture"; "A video by Iranian singer...Parastu Ahmadi has gone viral in Iran"; "one of the most popular influencers in Tunisia"; "had unexpectedly become a YouTube star"
30	FAZ	2024	0%	
30	Die Presse	2010–2012	0%	
30	Die Presse	2024	6.7%	
30	NZZ	2010–2013	6.7%	
30	NZZ	2024	0%	
Overarching search string (n = 6,494)				
Search terms: "media frenzy" OR "media attention" OR "made headlines" OR "created headlines" (in German: Medienrummel* OR Medienaufmerksamkeit OR "mediale* Aufmerksamkeit" OR "Schlagzeilen gemacht" OR "Schlagzeilen gesorgt")				
30	FAZ	1960–1970	3.3%	"One of these columns made headlines across Germany"; "has made a lot of headlines"; "This act of terrorism shook up Switzerland and made international headlines"; "The media frenzy began with an NZZ article, followed by reports in the SZ and recently even in the British <i>Guardian</i> "; "the current media frenzy"; "the media attention is enormous"
30	FAZ	2024	0%	
30	Die Presse	1994–1995	0%	
30	Die Presse	2024	0%	
30	NZZ	1994	0%	
30	NZZ	2024	0%	

terms used for the analysis (see Table 1) is not intended to be exhaustive. However, it is well-suited for conducting a longitudinal cross-country analysis and for offering initial insights into the historical roots of information flows in hybrid media systems.

All hits in the Factiva database were searched and checked for possible duplicates. Duplicates were excluded from the data, which improved data quality. To assess the accuracy of the search strings, each was tested by manually reviewing the first and last 30 results in each newspaper (totaling 180 articles per search string).

Based on this process, the number of false positives was calculated for each search string (see Table 1). The terms “according to media reports” or “media reported” yielded no false positives—that is, no articles unrelated to intermedia agenda-setting. Similarly, the search strings for media events, and especially for public response and the overarching terms, were quite accurate. In contrast, the search string for scandal-related coverage resulted in a higher rate of false positives, ranging from about 7% to 27%. Previous research has noted that the term “scandal” is sometimes used broadly in public discourse, for example to refer to (perceived or alleged) norm violations that do not attract much public attention (Bösch, 2009; Thompson, 2000). This was also the case for some of the articles identified in the manual validation. In addition, some articles also reported on fictional scandals, i.e., scandals that occur in plays or books, while others referred to possible actions that were not taken but could have led to a scandal. This shows that the term is sometimes included in articles unrelated to actual scandals. In most cases, however, the coverage actually pertained to (perceived or alleged) norm violations that attracted broad attention across media channels and types, such as the Wirecard scandal, the Cum-Ex scandal, and the Volkswagen diesel scandal.

4. Results and Discussion

4.1. Emergence and Development of References to Intermedia Agenda-Setting

Figure 1 illustrates a pronounced and growing number of articles referencing other media, thereby contributing to dynamics of intermedia agenda-setting. In 2024 alone, 270 articles in NZZ and 235 in FAZ contained such references, while *Die Presse* had considerably fewer, with 139 articles. The earliest instance of phrases like “according to media reports” and “media reported that” appeared in FAZ in 1971. However, such references remained rare in the 1980s and only began to increase in the late 1990s. This is in line with evidence from previous studies investigating media references to reports from other media outlets (Reinemann & Huismann,

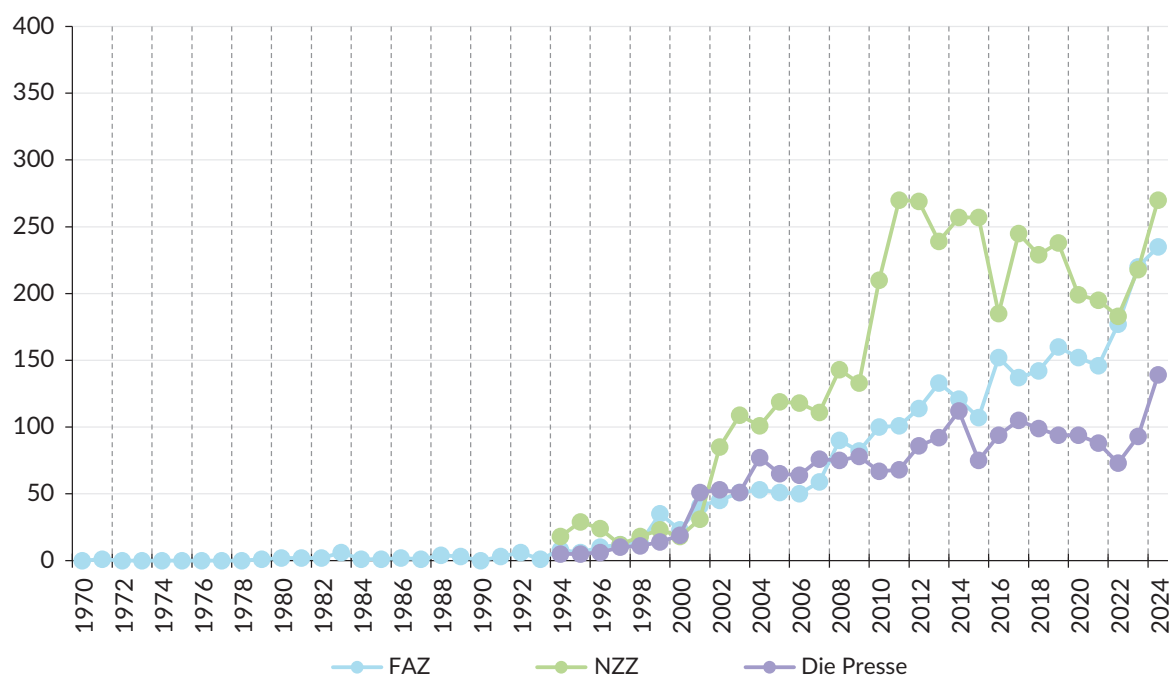


Figure 1. Change over time in the number of articles referencing other news media (e.g., “according to media reports”).

2007). A more pronounced rise occurred in all three DACH countries in the 2000s, followed by a decline around 2015 and between 2020 and 2022. The latter decline may be attributed to the pandemic, during which news media primarily focused on Covid-19-related coverage and relied heavily on official statements from political authorities, public health institutions, and corporate actors (Eisenegger et al., 2020; Ort & Rohrbach, 2024). This shift in journalistic priorities likely contributed to a temporary reduction in general references to other news media. Since 2023, however, the number of such articles has increased again, reaching its highest level to date.

The data therefore indicate that this phenomenon is not new. With the proliferation of media channels and acceleration of news cycles, including the diversification of broadcasting programs in the 1980s and 1990s (Maurer & Reinemann, 2006; Schulz, 1997), the number of articles referencing other media increased. This trend continued as the media environment became more fragmented and fast-paced with the emergence of news websites since the mid-1990s (Bødker & Brügger, 2018; Neuberger et al., 1998). Phrases such as “according to media reports” have become a common way to cite coverage from media outlets across various channels, both old and new, amplifying attention to specific topics. Despite variations in absolute numbers between countries, the overall trend follows a similar trajectory.

4.2. *Emergence and Development of References to Scandals*

Figure 2 shows that scandals were being reported in the 1950s, aligning with previous research documenting numerous scandals throughout the 20th century (Bösch, 2009; Esser & Hartung, 2004) and a first peak in the 1970s (Oehmer, 2011; Tumber, 2004). The volume of coverage devoted to scandals is substantial, though likely slightly overstated due to false positives in the search results (see Table 1). In 2000 alone, FAZ published 1,081 such articles, while NZZ and *Die Presse* published 472 and 426, respectively. While the volume of scandal coverage fluctuated over the years, the overall trend shows an increase until the 2010s, peaking between 2015 and 2018. Corporate and political scandals were then prevalent, including the “Volkswagen diesel scandal” and personal scandals related to Donald Trump, such as the “Access Hollywood” scandal (Meraz, 2019). In addition, a “mix of global networks of corruption, information gathering, and reporting have contributed to a series of international and national scandals” (Tumber & Waisbord, 2019, p. 16), including the Panama and Paradise Papers as well as Clinton’s Wikileaks email scandal (Meraz, 2019; Tumber & Waisbord, 2019).

In recent years, however, the term “scandal” has appeared less frequently in news coverage. Despite differences in the absolute numbers between countries, the general trend remains similar for all three. Two factors help explain the recent decline in scandal coverage. First, right-wing extremists and populists, such as the Alternative für Deutschland in Germany and Donald Trump in the US, gained extensive media attention in the 2010s through numerous scandals and taboo-breaking statements (Grönegräs & De Cleen, 2023; Vorberg & Zeitler, 2019). As taboo-breaking, provocation, and incivility have become more common, scholars suggest that their normalization has raised the threshold for an event to be considered a scandal (McNair, 2019; Väliverronen & Juntunen, 2019). As Vorberg and Zeitler (2019, p. 431) argue, “since Trump’s logic of provocation—constant deviations and transgressions—has become the new ‘normal’ in daily political discourse,” scandal coverage may have declined. Second, widespread budget cuts in many newsrooms have markedly reduced the number of articles published in print newspapers. As a result, the overall volume of reporting has declined in recent years (Krei, 2014; Vogler et al., 2020, p. 1470). This suggests that the decrease in scandal coverage is at least partly due to a general reduction in the number of published articles.

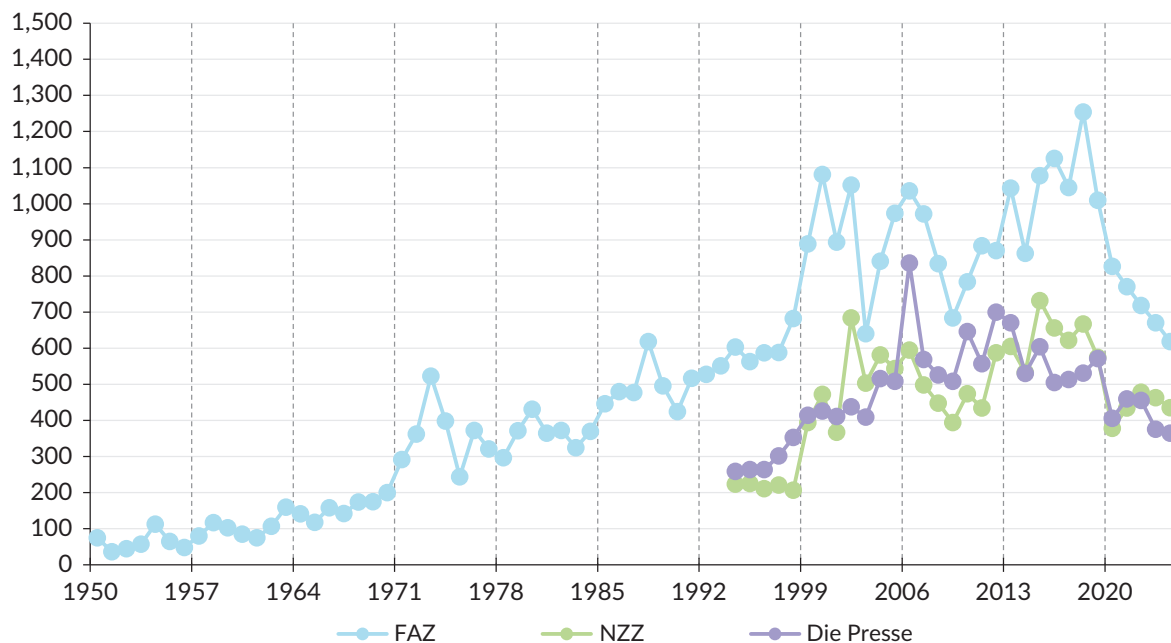


Figure 2. Change over time in the number of articles referencing scandals (e.g., “scandal”).

4.3. Emergence and Development of References to Media Events

Compared to scandal coverage and general references to other media, reporting on media events is much less frequent (see Figure 3), reflecting their exceptional and extraordinary nature (see Section 2.3). Nonetheless, a few reports on media events appeared each year in all three DACH countries. The earliest FAZ article in the dataset explicitly covering a media event dates back to 1965, with coverage increasing notably in the 1980s and continuing to rise through the 2000s. In 2005, FAZ published 39 such articles, NZZ 25, and *Die Presse* 15.

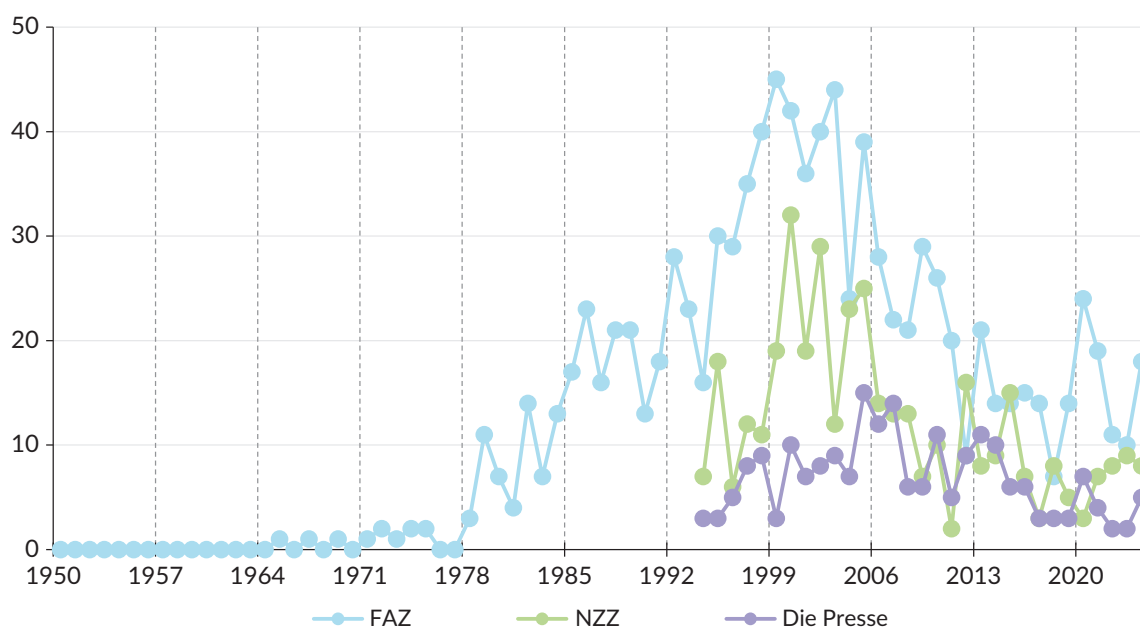


Figure 3. Change over time in the number of articles referencing media events (e.g., “television event”).

However, coverage has declined in all three countries since then. In recent years, only a few articles explicitly reference media events.

While some scholars argue that changes in media and society have contributed to the declining importance and frequency of media events (Katz & Liebes, 2007), others suggest that ceremonial or disruptive media events remain relevant (Sonnevend, 2018; Sumiala et al., 2018). The data presented here indicate that coverage of media events has declined since the mid-2000s—at least for those labeled media or television events or those said to attract billions of viewers. Disruptive events such as terror attacks and wars have remained frequent in recent years, but may often not be called media events in news coverage.

4.4. Emergence and Development of References to Public Response in the Context of Social Media

Press coverage of influencers, shitstorms, and viral content began to emerge gradually in 2010 in the three DACH countries and increased in 2012. The terms “shitstorm” and “influencer” were recognized in Germany as Anglicisms of the Year in 2011 and 2017, respectively, and in Switzerland as Words of the Year in 2012 and 2017. However, it wasn’t until 2017 that media attention around these phenomena began to rise sharply (see Figure 4). Such reports on the public response to social media communication increased notably in subsequent years. In 2024, coverage reached its highest level, with FAZ publishing 386 articles, NZZ 257, and Die Presse 233. This pattern of coverage is consistent across countries.

The steady increase over the years suggests this trend may continue, as prior research has concluded (Fürst & Oehmer, 2021). This reflects the growing tendency of the press to report on topics and actors that first gain traction on social media. However, there is no shared understanding of the criteria for labeling someone or something an influencer, a shitstorm, or a viral post, meaning that “there is no predetermined threshold to what

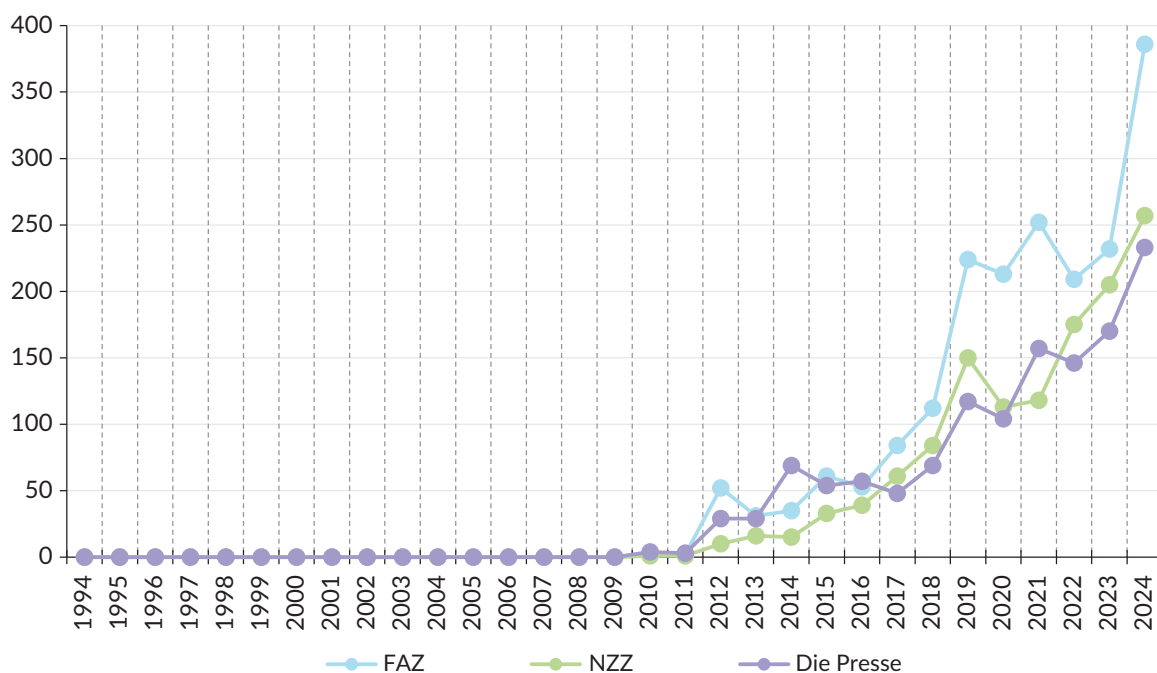


Figure 4. Change over time in the number of articles referencing public response to social media communication (e.g., “going viral”).

a ‘fuss’ or ‘storm’ constitutes” (Beckers & Harder, 2016, p. 917). Previous studies have found that the response or popularity threshold (e.g., number of shares or followers) for using such labels varies greatly, and journalists rarely disclose how they arrived at their assessments (Beckers & Harder, 2016; Fürst, 2023; Haarkötter, 2016). The trend shown in Figure 4 thus underscores the influential role journalists play in shaping attention dynamics within hybrid media systems across the three analyzed countries. By introducing and framing actors or content on social media as influencers, shitstorms, or viral phenomena, they contribute to—or even help construct—their popularity or perceived social significance.

4.5. Emergence and Development of References to Information Flows in General

The terms “media frenzy,” “media attention,” and “making headlines” are used to indicate intermedia agenda-setting, highlight public response, describe media events, and they are also referenced in the context of scandals, which rely heavily on media visibility for their emergence (see Section 2). Accordingly, these terms were included in an overarching search string, which revealed that such coverage began in the 1960s (see Figure 5). Coverage increased fairly steadily over the first decades, peaking in the mid-2000s and mid-2010s. While the overall trend among the DACH countries is similar, the data show that NZZ published a high number of related articles—125 in 2015 alone—whereas coverage in *Die Presse* was considerably lower.

During the Covid-19 pandemic, coverage declined in all countries, with annual article counts ranging from 46 to 77 in NZZ, FAZ, and *Die Presse*. This decline was likely due to a reduction in public events and the media’s focus on pandemic-related topics (Eisenegger et al., 2020; Jaakkola & Skulte, 2023; Ort & Rohrbach, 2024). However, apart from the pandemic years, there has been a noticeable increase in the use of terms such as “media frenzy,” which signal information flows in hybrid media systems—reflecting the historical and continuing diversification of media channels and the rise of digital platforms (Fürst & Oehmer, 2021; Schulz, 1997; von Nordheim et al., 2018).

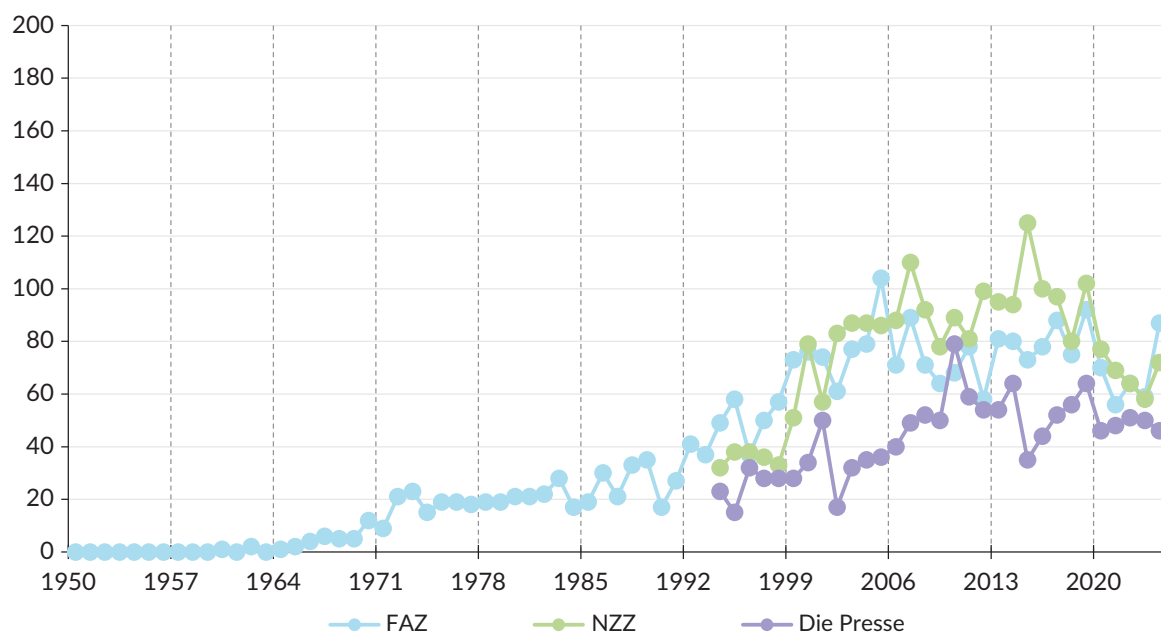


Figure 5. Change over time in the number of articles referencing “media frenzy,” “media attention,” and “making headlines” (overarching search string).

5. Conclusion

Recent studies have emphasized that “presentism” in research on hybrid media systems has resulted in “missed opportunities both to build on existing literature on journalism history and on change in media systems and journalism cultures” (Hallin et al., 2023, p. 229). This study set out to address this gap and contribute to a deeper, historically informed understanding of information flows in hybrid media systems. By synthesizing existing literature on journalism research and media history, it has demonstrated that intermedia agenda-setting, scandals, media events, and the news factor public response have long functioned as self-reinforcing communication processes across various channels and outlets—connecting both newer and older media logics.

The literature review has shown that certain phrases and terms commonly used in everyday language and public discourse—such as “scandals,” “TV events,” “shitstorms,” and “media frenzy” (Cooper & Tang, 2012; Einwiller et al., 2017; Fürst, 2020; Mertens, 2006; Oehmer, 2011; Thompson, 2000)—serve as signifiers of information flows across media and can be effectively used to identify relevant research material. These terms, grounded in prior studies and existing knowledge, were used to guide the longitudinal analysis of press coverage and to identify relevant articles.

Analysis of newspaper databases spanning three decades (NZZ, *Die Presse*) or more than seven decades (FAZ) has demonstrated that these terms are widely used in coverage. In each of the examined phenomena—media events, scandals, intermedia agenda-setting, and public response—key phrases explicitly signal underlying information flows, understood as the cross-channel dissemination of information and amplification of attention. The results indicate that such flows are not exclusive to the digital age or the advent of social media; rather, they have been evident for many decades, as reflected in the recurring use of terms like “media frenzy” and “media attention.” In most cases, the prevalence of these signifiers has grown alongside the expansion and specialization of the media sector (Fürst & Oehmer, 2021), including the emergence and diversification of private television and radio programs in the 1980s and 1990s as well as the rise of digital media since the 1990s (Maurer & Reinemann, 2006; Schulz, 1997; Webster, 2014).

Coverage of media events and scandals dates back more than 50 years and shows a clear increase up to the 2000s or 2010s, respectively. With the rise of digital and social media, however, references to media events have declined. In contrast, generalized references to media reports began to increase in the 1990s and continue to rise, reflecting the high degree of interconnection among news media and their contribution to cross-media information flows. Reporting on the public response to social media communication has also increased notably since the late 2010s and continues to grow, suggesting that the press is increasingly covering influencers, shitstorms, and viral content—actors and topics that first gain traction on social media platforms (see also Muhle & Bock, 2025). Taken together, the data reveal that while some phenomena have declined during a particular time (e.g., scandal coverage in the past three years), others have intensified (e.g., articles referencing other news media during the same period). The findings suggest that at any point in time, certain phenomena stimulate information flows within the hybrid media system and—alongside the existing media and audience fragmentation—also contribute to processes of integration, echoing Chadwick’s (2017, p. 18) notion of “simultaneous integration and fragmentation.” While some national differences are apparent in the data, the overall trends are consistently observed across the newspapers analyzed from Germany, Switzerland, and Austria.

Yet this (re)integration of publics is not without its downsides. Information flows in a hybrid media system, as analyzed in this study, can amplify events and narratives that scandalize nonpublic figures and private matters (Fürst, 2018; Pörksen & Detel, 2014) and advantage actors and organizations that inflate audience figures (Fürst, 2020; Martin & Reeves, 2001) or use social bots to artificially boost the public response (Fürst, 2021; Muhle & Bock, 2025)—thereby fostering self-reinforcing communication processes and potentially sidelining hard news and traditional news values (Fürst & Oehmer, 2021; Rega, 2025). Future studies should therefore investigate more closely the extent to which information flows are shaped by strategic and influential actors and should assess the degree to which these flows, alongside their integrative potential, may also generate dysfunctional effects.

Despite its contributions, this study has several limitations. First, the search terms were tested for coverage in German-speaking countries. While this limits the generalizability of the findings, the terms—derived from international communication research—are likely to be applicable, at least in similar forms, for other languages. Second, the analysis of newspaper databases is based on a selected set of search terms. These terms were tested and found suitable for conducting a longitudinal analysis across decades. However, they capture only a portion of the information flows that are the focus of this study. Many additional search terms could be considered to more comprehensively map such flows. Media coverage often uses slightly varying phrases to describe information flows, including expressions like “the hashtag #Laschetlacht was trending,” “shared thousands of times on Twitter,” “dominated German Twitter trends” (Muhle & Bock, 2025, pp. 11–12), or “king of Twitter, collecting 5 million followers” (Fürst & Oehmer, 2021, p. 806). Qualitative studies could identify the diverse range of such formulations, which could then inform the development of more complex search strings for future longitudinal quantitative research. Third, the analysis provides only a first overview and starting point for future studies analyzing information flows in hybrid systems in long-term and historical perspectives. It is beyond the scope of the quantitative analysis included in this study to shed light on specific events and stories. Further (quantitative and qualitative) research is needed to examine how references to the same events and topics (e.g., a particular scandal, media event, or shitstorm) evolve across different channels. Such studies could explore in greater depth how the media and audience attention attributed to specific events and actors develop over time and contribute to dynamic information flows, what types of evidence are provided (e.g., the number of journalists or camera teams on site), and which sources—such as politicians or event organizers—are cited to support such claims. The data presented in this study can inform the design of future research, particularly in selecting periods of analysis. For instance, researchers could delve deeper into moments where coverage peaked or began to increase or decline. It would also be interesting to examine how new terms and metaphors, such as “shitstorm,” “influencer,” or “viral video,” were introduced in public discourse and whether their meanings or thematic contexts have changed over the years. Finally, the data from two of the newspapers analyzed covers only the past three decades, while the FAZ archive enables the tracing of developments as far back as the 1950s. Continued retro-digitization of newspaper and magazine archives would further enhance opportunities for comparative analyses across decades and countries (Birkner et al., 2018). The historical roots of information flows clearly deserve further scholarly attention, as they can deepen our understanding of both continuities and changes within hybrid media systems.

Funding

Publication of this article in open access was made possible through the institutional membership agreement between the University of Zurich and Cogitatio Press.

Conflict of Interests

The author declares no conflict of interests. In this article, editorial decisions were undertaken by Florian Muhle (Zeppelin University Friedrichshafen, Germany) and Colin Porlezza (Università della Svizzera italiana, Switzerland).

LLMs Disclosure

ChatGPT-4o and DeepL were used for brainstorming initial ideas for the structure, for grammar and style improvement, and partly for translations from German to English, which were thoroughly checked, modified, and refined by the author.

References

- Atwater, T., Fico, F., & Pizante, G. (1987). Reporting on the state legislature: A case study of inter-media agenda-setting. *Newspaper Research Journal*, 8(2), 53–61. <https://doi.org/10.1177/073953298700800206>
- Bartz, C. (2003). Sport—Medium des Fernsehens. In I. Schneider, T. Hahn, & C. Bartz (Eds.), *Medienkultur der 60er Jahre. Diskursgeschichte der Medien nach 1945* (pp. 35–49). Westdeutscher Verlag.
- Beckers, K., & Harder, R. A. (2016). “Twitter just exploded”: Social media as alternative vox pop. *Digital Journalism*, 4(7), 910–920. <https://doi.org/10.1080/21670811.2016.1161493>
- Birkner, T., Koenen, E., & Schwarzenegger, C. (2018). A century of journalism history as challenge. Digital archives, sources, and methods. *Digital Journalism*, 6(9), 1121–1135. <https://doi.org/10.1080/21670811.2018.1514271>
- Boczkowski, P. J. (2009). Technology, monitoring, and imitation in contemporary news work. *Communication, Culture and Critique*, 2(1), 39–59. <https://doi.org/10.1111/j.1753-9137.2008.01028.x>
- Bødker, H., & Brügger, N. (2018). The shifting temporalities of online news: *The Guardian's* website from 1996 to 2015. *Journalism*, 19(1), 56–74. <https://doi.org/10.1177/1464884916689153>
- Bor, S. E. (2013). Lucy's two babies: Framing the first televised depiction of pregnancy. *Media History*, 19(4), 464–478. <https://doi.org/10.1080/13688804.2013.844889>
- Bösch, F. (2009). *Öffentliche Geheimnisse. Skandale, Politik und Medien in Deutschland und Großbritannien 1880–1914*. Oldenbourg. <https://doi.org/10.1524/9783486707465>
- Breed, W. (1955). Newspaper ‘opinion leaders’ and processes of standardization. *Journalism & Mass Communication Quarterly*, 32(3), 277–328. <https://doi.org/10.1177/107769905503200302>
- Chadwick, A. (2017). *The hybrid media system: Politics and power* (2nd ed.). Oxford University Press.
- Clancy, L. (2019). ‘Queen’s Day—TV’s Day’: The British monarchy and the media industries. *Contemporary British History*, 33(3), 427–450. <https://doi.org/10.1080/13619462.2019.1597710>
- Coddington, M. (2019). *Aggregating the news: Secondhand storytelling and the changing work of digital journalism*. Columbia University Press.
- Cooper, R., & Tang, T. (2012). Fans, nonfans, and the Olympics: Predictors of audience’s multiplatform experience with the 2008 Beijing Games. *Mass Communication and Society*, 15(4), 506–524. <https://doi.org/10.1080/15205436.2012.677093>
- Dayan, D., & Katz, E. (1992). *Media events: The live broadcasting of history*. Harvard University Press.
- Deller, R. A., & Murphy, K. (2020). ‘Zoella hasn’t really written a book, she’s written a cheque’: Mainstream media representations of YouTube celebrities. *European Journal of Cultural Studies*, 23(1), 112–132. <https://doi.org/10.1177/1367549419861638>
- Du, Y. R. (2017). Intermedia agenda-setting effects. In P. Rössler, C. A. Hoffner, & L. van Zoonen (Eds.), *The international encyclopedia of media effects*. <https://doi.org/10.1002/9781118783764.wbieme0033>

- Dyreson, M. (2017). The Super Bowl as a television spectacle: Global designs, glocal niches, and parochial patterns. *The International Journal of the History of Sport*, 34(1/2), 139–156. <https://doi.org/10.1080/09523367.2017.1349115>
- Eilders, C. (2006). News factors and news decisions: Theoretical and methodological advances in Germany. *Communications*, 31(1), 5–24. <https://doi.org/10.1515/COMMUN.2006.002>
- Einwiller, S., Viererbl, B., & Himmelreich, S. (2017). Journalists' coverage of online firestorms in German-language news media. *Journalism Practice*, 11(9), 1178–1197. <https://doi.org/10.1080/17512786.2016.1229578>
- Eisenegger, M., Oehmer, F., Udris, L., & Vogler, D. (2020). Die Qualität der Medienberichterstattung zur Corona-Pandemie. In Forschungszentrum Öffentlichkeit und Gesellschaft (Ed.), *Qualität der Medien. Schweiz–Suisse–Svizzera* (pp. 29–50). Schwabe. <https://doi.org/10.5167/uzh-192622>
- Enke, N., & Borchers, N. S. (2019). Social media influencers in strategic communication: A conceptual framework for strategic social media influencer communication. *International Journal of Strategic Communication*, 13(4), 261–277. <https://doi.org/10.1080/1553118X.2019.1620234>
- Esser, F., & Hartung, U. (2004). Nazis, pollution, and no sex: Political scandals as a reflection of political culture in Germany. *American Behavioral Scientist*, 47(8), 1040–1071. <https://doi.org/10.1177/0002764203262277>
- Fürst, S. (2018). „Die Volksseele kocht!“ Eine inhaltsanalytische Untersuchung des Nachrichtenfaktors Öffentlichkeitsresonanz im ‚Fall Carlos.‘ *Medien Journal*, 42(4), 55–74. <https://doi.org/10.24989/medienjournal.v42i4.1762>
- Fürst, S. (2020). “The whole world watching”? How news media create the myth of an audience of billions and foster imagined communities. *International Journal of Communication*, 14, 1524–1541. <https://doi.org/10.5167/uzh-186374>
- Fürst, S. (2021). Neue Öffentlichkeitsdynamiken: Zu selbstverstärkenden, plattformübergreifenden Effekten von ‚Popularität.‘ In M. Eisenegger, M. Prinzing, P. Ettinger, & R. Blum (Eds.), *Digitaler Strukturwandel der Öffentlichkeit. Historische Verortung, Modelle und Konsequenzen* (pp. 339–359). Springer.
- Fürst, S. (2023). Blockbuster, Quotenhits, Shitstorms und virale Botschaften: Sichtbarmachung von Medienpublika durch Metaphern. In F. Muhle, T. Sutter, & J. Wehner (Eds.), *Das sichtbare Publikum? Publikumsbeziehungen der Massenmedien im digitalen Wandel* (pp. 193–219). Springer. https://doi.org/10.1007/978-3-658-41172-5_8
- Fürst, S., Muhle, F., & Porlezza, C. (2025). Journalism in the hybrid media system: Editorial. *Media and Communication*, 13, Article 11227. <https://doi.org/10.17645/mac.11227>
- Fürst, S., & Oehmer, F. (2021). Attention for attention hotspots: Exploring the newsworthiness of public response in the metric society. *Journalism Studies*, 22(6), 799–819. <https://doi.org/10.1080/1461670X.2021.1889396>
- Geiß, S., Viehmann, C., & Kelly, C. A. (2025). Inflation of crisis coverage? Tracking and explaining the changes in crisis labeling and crisis news wave salience 1785–2020. *Journal of Communication*, 75(1), 27–41. <https://doi.org/10.1093/joc/jqae033>
- Gillespie, T. (2016). #Trendingistrending: When algorithms become culture. In R. Seyfert & J. Roberge (Eds.), *Algorithmic cultures: Essays on meaning, performance and new technologies* (pp. 52–75). Routledge.
- Grönegräs, M., & De Cleen, B. (2023). Negotiating the boundaries of the politically sayable: Populist radical right talk scandals in the German media. *Critical Discourse Studies*, 20(6), 665–682. <https://doi.org/10.1080/17405904.2022.2149580>
- Guo, L., & Vargo, C. (2017). Global intermedia agenda setting: A big data analysis of international news flow. *Journal of Communication*, 67(4), 499–520. <https://doi.org/10.1111/jcom.12311>

- Guo, L., & Vargo, C. (2020). "Fake news" and emerging online media ecosystem: An integrated intermedia agenda-setting analysis of the 2016 U.S. presidential election. *Communication Research*, 47(2), 178–200. <https://doi.org/10.1177/0093650218777177>
- Guo, L., & Zhang, Y. (2023). Information flows from local to national: Evidence from 21 major US cities. *Journalism*, 24(12), 2651–2667. <https://doi.org/10.1177/14648849231152364>
- Haarkötter, H. (2016). Empörungskaskaden und rhetorische Strategien in Shitstorms. Eine empirische Analyse des User-Verhaltens in ausgewählten Facebook-Shitstorms. In H. Haarkötter (Ed.), *Shitstorms und andere Nettigkeiten. Über die Grenzen der Kommunikation in Social Media* (pp. 17–50). Nomos.
- Haller, M. (2013). *Dissens als kommunikatives Instrument: Theorie der intendierten Selbstskandalisierung in der politischen Kommunikation*. University of Bamberg Press.
- Hallin, D. C., Mellado, C., & Mancini, P. (2023). The concept of hybridity in journalism studies. *The International Journal of Press/Politics*, 28(1), 219–237. <https://doi.org/10.1177/19401612211039704>
- Harder, R. A., Sevenans, J., & Van Aelst, P. (2017). Intermedia agenda setting in the social media age: How traditional players dominate the news agenda in election times. *The International Journal of Press/Politics*, 22(3), 275–293. <https://doi.org/10.1177/1940161217704969>
- Hepp, A., & Couldry, N. (2010). Introduction: Media events in globalized media cultures. In N. Couldry, A. Hepp, & F. Krotz (Eds.), *Media events in a global age* (pp. 1–20). Routledge.
- Jaakkola, M., & Skulte, I. (2023). Reporting like there was no pandemic. Cultural journalism during the Covid-19 pandemic in Finland, Sweden, and Latvia. *MedieKultur*, 38(73), 28–49. <https://doi.org/10.7146/mk.v38i73.128154>
- Katz, E., & Liebes, T. (2007). "No more peace!": How disaster, terror and war have upstaged media events. *International Journal of Communication*, 1, 157–166.
- Kornemann, L. (2018). Die Sexismus-Debatte in der deutschen Öffentlichkeit—Brüderle vs. #aufschrei. In M. Lünenborg & S. Sell (Eds.), *Politischer Journalismus im Fokus der Journalistik* (pp. 369–390). Springer.
- Krei, A. (2014, May 20). "FAZ" mit höherem Verlust und weniger Seiten. *DWDL.de*. https://www.dwdl.de/nachrichten/45944/faz_mit_hoeherem_verlust_und_weniger_seiten
- Kyriakidou, M. (2008). Rethinking media events in the context of a global public sphere: Exploring the audience of global disasters in Greece. *Communications*, 33(3), 273–291. <https://doi.org/10.1515/COMM.2008.018>
- Lee, J. (2016). Opportunity or risk? How news organizations frame social media in their guidelines for journalists. *The Communication Review*, 19(2), 106–127. <https://doi.org/10.1080/10714421.2016.1161328>
- Liebes, T., & Blum-Kulka, S. (2004). It takes two to blow the whistle: Do journalists control the outbreak of scandal? *American Behavioral Scientist*, 47(9), 1153–1170. <https://doi.org/10.1177/0002764203262341>
- Lull, J., & Hinerman, S. (1997). The search for scandal. In J. Lull & S. Hinerman (Eds.), *Media scandals: Morality and desire in the popular culture marketplace* (pp. 1–33). Columbia University Press.
- Martin, C. R., & Reeves, J. L. (2001). The whole world isn't watching (but we thought they were): The Super Bowl and United States solipsism. *Culture, Sport, Society*, 4(2), 213–236. <https://doi.org/10.1080/713999822>
- Mathis, T., & Humprecht, E. (2018). Werden Leitmedien häufiger zitiert? Eine empirische Untersuchung von Schweizer Printmedien. *M&K: Medien & Kommunikationswissenschaft*, 66(1), 41–57. <https://doi.org/10.5771/1615-634X-2018-1-41>
- Maurer, M., & Reinemann, C. (2006). *Medieninhalte. Eine Einführung*. VS.
- McGregor, S. C. (2019). Social media as public opinion: How journalists use social media to represent public opinion. *Journalism*, 20(8), 1070–1086.

- McNair, B. (2019). Scandal and news values. In H. Tumber & S. Waisbord (Eds.), *The Routledge companion to media and scandal* (pp. 76–85). Routledge.
- Meng, B. (2019). Mediatization and political scandal. In H. Tumber & S. Waisbord (Eds.), *The Routledge companion to media and scandal* (pp. 67–75). Routledge.
- Meraz, S. (2019). Scandals and agenda setting. In H. Tumber & S. Waisbord (Eds.), *The Routledge companion to media and scandal* (pp. 55–66). Routledge.
- Mertens, M. (2006). „Der Rummel wuchs und kumulierte”—Über den Prozess des Medienereignisses. In J. Schwier & C. Leggewie (Eds.), *Wettbewerbsspiele. Die Inszenierung von Sport und Politik in den Medien* (pp. 20–41). Campus.
- Morgner, C. (2016). Global media events: Kennedy, Titanic, and Fukushima. In A. Fox (Ed.), *Global perspectives on media events in contemporary society* (pp. 1–16). IGI Global.
- Muhle, F., & Bock, I. (2025). Artificial amplification and intermedia dynamics in the hybrid media system: The case of #LaschetLacht. *Media and Communication*, 13, Article 10244. <https://doi.org/10.17645/mac.10244>
- Mytton, G. (2012). Global media research: Can we know global audiences? A view from a BBC perspective. In I. Volkmer (Ed.), *The handbook of global media research* (pp. 40–53). Wiley.
- Nashmi, E. A. (2018). From selfies to media events: How Instagram users interrupted their routines after the *Charlie Hebdo* shootings. *Digital Journalism*, 6(1), 98–117. <https://doi.org/10.1080/21670811.2017.1306787>
- Neuberger, C., Tonnemacher, J., Biebl, M., & Duck, A. (1998). Online—The future of newspapers? Germany's dailies on the World Wide Web. *Journal of Computer-Mediated Communication*, 4(1), Article JCMC414. <https://doi.org/10.1111/j.1083-6101.1998.tb00087.x>
- Oehmer, F. (2011). Skandale im Spiegel der Zeit: Eine quantitative Inhaltsanalyse der Skandalberichterstattung im Nachrichtenmagazin *Der Spiegel*. In K. Bulkow & C. Petersen (Eds.), *Skandale. Strukturen und Strategien öffentlicher Aufmerksamkeitserzeugung* (pp. 157–175). VS. https://doi.org/10.1007/978-3-531-93264-4_8
- Ort, A., & Rohrbach, T. (2024). (Dis)harmony in times of crisis? An analysis of Covid-related strategic communication by Swiss public health institutions. *Public Health*, 228, 112–118. <https://doi.org/10.1016/j.puhe.2023.12.033>
- Payne, R. (2013). Virality 2.0: Networked promiscuity and the sharing subject. *Cultural Studies*, 27(4), 540–560. <https://doi.org/10.1080/09502386.2012.707219>
- Pörksen, B., & Detel, H. (2014). *The unleashed scandal: The end of control in the digital age*. Imprint Academic.
- Preston, P. (2016). News values. In G. Mazzoleni (Ed.), *The international encyclopedia of political communication* (Vol. 2, pp. 872–877). Wiley. <https://doi.org/10.1002/9781118541555.wbiepc062>
- Rega, R. (2025). Media hybridization and the strategic value of political incivility: Insights from Italian journalists. *Media and Communication*, 13, Article 10236. <https://doi.org/10.17645/mac.10236>
- Reinemann, C., & Huismann, J. (2007). Beziehen sich Medien immer mehr auf Medien? Dimensionen, Belege, Erklärungen. *Publizistik*, 52(4), 465–484. <https://doi.org/10.1007/s11616-007-0243-3>
- Reuters Institute for the Study of Journalism. (2023). *Reuters Institute Digital News Report 2023*. https://reutersinstitute.politics.ox.ac.uk/sites/default/files/2023-06/Digital_News_Report_2023.pdf
- Rössler, P. (2000). Vielzahl = Vielfalt = Fragmentierung? Empirische Anhaltspunkte zur Differenzierung von Medienangeboten auf der Mikroebene. In O. Jarren, K. Imhof, & R. Blum (Eds.), *Zerfall der Öffentlichkeit?* (pp. 168–186). Springer. https://doi.org/10.1007/978-3-663-07953-8_12
- Schulz, W. (1997). Changes of mass media and the public sphere. *Javnost – The Public*, 4(2), 57–69. <https://doi.org/10.1080/13183222.1997.11008646111>

- Shannon, C. E., & Weaver, W. (1964). *The mathematical theory of communication*. University of Illinois Press.
- Sigal, L. V. (1973). *Reporters and officials: The organization and politics of newsmaking*. D.C. Heath.
- Simon, M., Zannettou, S., Welbers, K., Kroon, A. C., & Trilling, D. (2025). Tracing information flows in the hybrid media system: The agenda-setting role of dark platforms surrounding the Ukraine invasion discourse. *International Journal of Communication*, 19, 1182–1206.
- Sonnevend, J. (2018). The lasting charm of *Media Events*. *Media, Culture & Society*, 40(1), 122–126. <https://doi.org/10.1177/0163443717726013>
- Su, Y., & Borah, P. (2019). Who is the agenda setter? Examining the intermedia agenda-setting effect between Twitter and newspapers. *Journal of Information Technology & Politics*, 16(3), 236–249. <https://doi.org/10.1080/19331681.2019.1641451>
- Su, Y., & Xiao, X. (2021). Mapping the intermedia agenda setting (IAS) literature: Current trajectories and future directions. *The Agenda Setting Journal*, 5(1), 56–83. <https://www.jbe-platform.com/content/journals/10.1075/asj.20001.su>
- Su, Y., & Xiao, X. (2024). Intermedia attribute agenda setting between the U.S. mainstream newspapers and Twitter: A two-study analysis of the paradigm and driving forces of the agenda flow. *Journalism & Mass Communication Quarterly*, 101(2), 451–476. <https://doi.org/10.1177/10776990231221150>
- Sumiala, J., Valaskivi, K., Tikka, M., & Huhtamäki, J. (2018). *Hybrid media events: The Charlie Hebdo attacks and the global circulation of terrorist violence*. Emerald.
- Thompson, E. P. (2000). *Political scandal: Power and visibility in the media age*. Polity.
- Tumber, H. (2004). Scandal and media in the United Kingdom: From Major to Blair. *American Behavioral Scientist*, 47(8), 1122–1137. <https://doi.org/10.1177/0002764203262280>
- Tumber, H., & Waisbord, S. (2019). Media and scandal. In H. Tumber & S. Waisbord (Eds.), *The Routledge companion to media and scandal* (pp. 10–21). Routledge.
- Udris, L., & Lucht, J. (2011). Qualitätsmedien in Pressesystemen. Wandel der Medienstrukturen gleich Wandel der Medieninhalte? In R. Blum, H. Bonfadelli, K. Imhof, & O. Jarren (Eds.), *Krise der Leuchttürme öffentlicher Kommunikation* (pp. 151–176). VS. https://doi.org/10.1007/978-3-531-93084-8_10
- Vaccari, C., Chadwick, A., & O'Loughlin, B. (2015). Dual screening the political: Media events, social media, and citizen engagement. *Journal of Communication*, 65(6), 1041–1061. <https://doi.org/10.1111/jcom.12187>
- Välvirronen, E., & Juntunen, L. (2019). The shifting boundaries of elite and tabloid media in political sex scandals. In H. Tumber & S. Waisbord (Eds.), *The Routledge companion to media and scandal* (pp. 174–182). Routledge.
- Veltri, G. A. (2012). Information flows and centrality among elite European newspapers. *European Journal of Communication*, 27(4), 354–375. <https://doi.org/10.1177/0267323112459321>
- Vliegthart, R., & Walgrave, S. (2008). The contingency of intermedia agenda setting: A longitudinal study in Belgium. *Journalism & Mass Communication Quarterly*, 85(4), 860–877. <https://doi.org/10.1177/107769900808500409>
- Vogler, D., Udris, L., & Eisenegger, M. (2020). Measuring media content concentration at a large scale using automated text comparisons. *Journalism Studies*, 21(11), 1459–1478. <https://doi.org/10.1080/1461670X.2020.1761865>
- von Nordheim, G., Boczek, K., & Koppers, L. (2018). Sourcing the sources: An analysis of the use of Twitter and Facebook as a journalistic source over 10 years in *The New York Times*, *The Guardian*, and *Süddeutsche Zeitung*. *Digital Journalism*, 6(7), 807–828. <https://doi.org/10.1080/21670811.2018.1490658>
- Vorberg, L., & Zeitler, A. (2019). 'This is (not) entertainment!': Media constructions of political scandal discourses in the 2016 US presidential election. *Media, Culture & Society*, 41(4), 417–432. <https://doi.org/10.1177/0163443719833288>

- Webster, J. G. (2014). *The marketplace of attention: How audiences take shape in a digital age*. MIT Press. <https://doi.org/10.7551/mitpress/9892.001.0001>
- Weischenberg, S., Malik, M., & Scholl, A. (2006). *Die Souffleure der Mediengesellschaft. Report über die Journalisten in Deutschland*. UVK.
- Wilke, J. (1987). Foreign news coverage and international news flow over three centuries. *International Communication Gazette*, 39(3), 147–180. <https://doi.org/10.1177/001654928703900301>
- Wilke, J. (2010). Historical perspectives on media events: A comparison of the Lisbon earthquake in 1755 and the Tsunami catastrophe in 2004. In N. Couldry, A. Hepp, & F. Krotz (Eds.), *Media events in a global age* (pp. 45–60). Routledge.
- Wyatt, S. (2021). Metaphors in critical Internet and digital media studies. *New Media & Society*, 23(2), 406–416. <https://doi.org/10.1177/1461444820929324>
- Yadava, J. S. (1990). News media: Frontiers in international relations. *Annals of the International Communication Association*, 13(1), 473–477. <https://doi.org/10.1080/23808985.1990.11678769>

About the Author



Silke Fürst is senior research and teaching associate at the Department of Communication and Media Research (IKMZ), University of Zurich, Switzerland. Her research focuses on journalism, datafication, mediatization, discourses about media audiences, science communication and higher education studies, open science, media history, and media ethics. She serves on the editorial boards of *Media and Communication* and *Medien Journal*.

Network Analysis for Media Ownership: A Methodological Proposal

Mariia Alekseyevych  and Tales Tomaz 

Department of Communication Studies, University of Salzburg, Austria

Correspondence: Mariia Alekseyevych (mariia.alekseyevych@plus.ac.at)

Submitted: 14 February 2025 **Accepted:** 25 June 2025 **Published:** 4 September 2025

Issue: This article is part of the issue “Journalism in the Hybrid Media System” edited by Silke Füst (University of Zurich), Florian Muhle (Zeppelin University Friedrichshafen), and Colin Porlezza (Università della Svizzera italiana), fully open access at <https://doi.org/10.17645/mac.i494>

Abstract

Far from being a concern of the past, media ownership concentration is a feature of hybrid media systems. This raises the issue of how to measure the concentration and allow for informed decisions to be made, especially for policymaking. Some of the most popular metrics are the concentration ratio (CR_n) and the Herfindahl-Hirschman Index (HHI). However, the new hybrid context increasingly renders the usual economic concentration metrics obsolete to understand the power of communication players. This article provides a theoretical overview and methodological considerations on ways to interrogate ownership relations, advancing network analysis and visualization as useful tools to better grasp power relations alongside traditional economic metrics. We illustrate our proposal with an analysis of media ownership data from Denmark and Greece, as provided by the Euromedia Ownership Monitor in 2022. Our article goes beyond the approach of the monitor, as we incorporate additional components, such as the power of beneficial owners over the audience. This approach provides a broader analysis of media ownership concentration and can inspire scholarly work to explore more aspects of this topic.

Keywords

media concentration; media ownership; network analysis; network visualization

1. Introduction

In his account of the history of media, Chadwick (2017) argues that digital media borrowed heavily from traditions and practices of legacy formats, such as print and visual media. Legacy formats, in turn, adapted by importing logics that emerged from the unique features of digitalization. The new media ecosystem is, therefore, a hybrid one. Chadwick recognizes that these hybridisms are neither a matter of mere technological

development nor the result of “powerful interests” seeking a certain impact, but “a combination of these two processes” (Chadwick, 2017, p. 43).

These developments have affected one of the most important areas of the political economy of media, namely media ownership. The concern over concentration has dominated this debate over the years, in an attempt to check opinion power and safeguard a pluralistic media ecosystem (Benson et al., 2025; Picard, 2017; Sjøvaag & Ohlsson, 2019). In this debate, measuring the dispersal of media ownership has been treated as an important step for assessing how much power some media stakeholders have. Classic concentration measures such as the concentration ratio (CR_n) and Herfindahl-Hirschman Index (HHI) have been instrumental for this goal (Mastrini & Becerra, 2008; Noam, 2016b), but these measures have limitations, which have become more evident with the progressive hybridization of the media. This article addresses two questions:

1. How can media power and its concentration be measured and illustrated in hybrid media markets?
2. What do different centrality measures in ownership networks show, and how can they be interpreted?

In this article, we provide methodological considerations that broaden such an analysis. First, we critically review the concerns on media ownership concentration, pointing out how commercialization and, more recently, hybridization may be associated with the root of these problems. In the following section, we discuss economic metrics and network analysis as two possible methodologies to study media concentration as well as their limitations. We then make a methodological proposal to complement concentration studies with network analysis and visualization, drawing on recent initiatives, such as the Euromedia Ownership Monitor (EurOMo; Tomaz, 2024) and existing media ownership network analyses (Birkinbine & Gómez, 2020; Schnyder et al., 2024), as well as adding a component of “beneficial owner power over audience.” Finally, we illustrate this approach with an analysis of media ownership in Denmark and Greece, respectively scoring the highest (world rank #2) and the lowest (world rank #108) scores in the Press Freedom Index among the European Union countries (Reporters Without Borders, 2022). Their similar market size, but different outcomes for press freedom and media ownership structures are useful to illustrate our proposal.

2. Media Ownership and Concentration

Historically, media organizations have operated in clearly distinguished sectors, such as print or broadcasting. Nonetheless, ambitious owners have always tried to advance their businesses into other areas whenever they have seen the opportunity. Foreseeing risks for media pluralism, several countries have put forth restrictions on mergers and acquisitions across markets and sectors (Tomaz, 2024). More often, countries have sought to protect their markets from foreign owners, fearing national security risks and deterioration of cultural heritage. When there was political will, these efforts were relatively successful. With that being said, the hybrid media system emerged after digitalization changed the rules of the game.

At first, the rise of the internet led many to believe that digital media would simply increase the plurality of voices in the information ecosystem, but reality has proven different. The internet has become way more concentrated than expected, and media incumbents predating the commercial internet play a decisive role (Hardy, 2014; Hindman, 2018). Technological affordances of digitalization have created conditions that favor

high concentration (Noam, 2016b). In such a scenario, highly capitalized firms tend to benefit from technological convergence by distributing costs across sectors, making incumbents stronger players. In a nutshell, media concentration is on the rise in the hybrid media system.

Concentration refers to companies or owners possessing high shares in a specific sector and geographical market, particularly by acquiring competitors or promoting mergers. The potential negative effects of ownership concentration on news content, reduced diversity, and journalism's democratic role in a pluralist society have been the main concerns (Baker, 2006; Theine & Sevignani, 2024). Different traditions of the political economy of the media, such as liberal, institutional, and Marxist approaches, have engaged with this concern (Winseck, 2011). Liberal traditions accept a certain level of concentration as stimulating innovation and emphasize the self-regulatory capacity of the market to curb eventual excesses. Institutional and Marxist approaches are more critical regarding concentration, highlighting the risks of oligopoly and monopoly and how concentration threatens pluralism of ideas (Mastrini & Becerra, 2008). Over time, the debate about pluralism has become more complex. Many institutional scholars have emphasized, for example, that ownership concentration is a problem for external pluralism, but internal pluralism can be reached within a single media company if it features a high diversity of topics, perspectives, and representation (Valcke et al., 2015).

Following those debates, a steady body of research has sought evidence regarding ownership concentration issues in hybrid media systems. Some research indicates the risk of homogenization in cross-owned outlets to the detriment of diversity and pluralism. Streamlining of production led to an increased reuse of the articles in elite and popular titles of big Belgian media companies DPG and Mediahuis (Hendrickx & Van Remoortere, 2022). In four outlets of Mediahuis, 51% of the content was reused as of 2018—an increase from 31% in 2013 (Hendrickx & Ranaivoson, 2021). Similarly, content shared between the outlets within big media groups has increased in German media in Switzerland between 2017 and 2022, with TX Group leading in this respect, with a 34 percentage point increase and 50.3% of shared content in 2022 (Fürst & Vogler, 2023, p. 162). Thus, there is evidence that limited structural pluralism accordingly affects content pluralism.

In addition, ownership concentration is linked to journalist self-censorship, diminished watchdog function, and increased corruption as a consequence, besides internal cross-promotions of brands (Germano & Meier, 2013; Goyvaerts et al., 2024; Houston et al., 2011; Neff & Benson, 2021). Furthermore, outlets owned by big media companies tend to create online information flows that keep consumers within networks of outlets with shared ownership, leaving independent voices on the periphery of the hyperlinked environment (Knuth et al., 2024; Sjøvaag et al., 2019).

However, there are arguments that at least some of these negative implications stem from the platformed or hybridized media systems themselves rather than from ownership concentration. Content distribution and advertising revenues increasingly operate in environments designed by tech companies such as Google and Facebook (Newman et al., 2025; Sevignani et al., 2025). Platformized communication infrastructures contribute to financial precarity and increased competition from numerous information publishers converging in digital environments. The entanglement of older and newer media logics, as Chadwick (2017) argues, means that often editorial media depend on platform logics to attract audiences and/or profitability, thus creating incentives for journalistic practices that contradict traditional professional standards of so-called Western journalism. Such deviations may be conflated with undesired consequences of ownership concentration.

More recently, platform studies have developed a more sophisticated understanding of this relational power between platforms and news publishers (Nielsen & Ganter, 2017; Poell et al., 2023). This theoretical framework shows how the relationship between platforms and media organizations is not straightforward, but a space of negotiation. The power asymmetries vary depending on factors such as platform changes, the distinctive stages of media production, and the characteristics of media organizations themselves. In this context, whereby local and small media indeed fluctuate according to platform developments, big organizations have more power, being able even to influence policy, illustrated by the case of the Australian Media Bargaining Code (Bossio et al., 2022) or the Brazilian debate on platform regulation (Tomaz, 2023). This also means relative freedom to incorporate platform logics, such as content personalization or surveillance as monetization, but creates new hybrid logics that undermine “newsworthiness” as the highest value guiding information production.

Competition alone should not be considered a panacea that will necessarily increase the quality of the information ecosystem in a hybrid media system. Cagé (2020) argues that the entrance of a newspaper on a local market decreases the average number of journalists and content diversity due to increased competition for the same audience, and similar excessive competition can be expected with the advance of the internet as a market of information providers. Additionally, differentiation logic can be present within a media company wanting to cater to heterogeneous audiences of different titles (George, 2007; Iosifidis, 2010; Sjøvaag, 2014). At the same time, excessive competition drives mergers of weaker players (European Commission et al., 2022), which, in turn, leads to higher concentration and enables further homogenization through reuse of content of cross-owned outlets.

Finally, problems associated with media concentration, such as homogenization, bias, and commercialization, can also be considered as outcomes of the general profit orientation of media organizations (Benson et al., 2025; Sjøvaag & Ohlsson, 2019). Indeed, the critical scholarship of the political economy of media has always cherished the idea that profit orientation is the actual driver of harm in media systems, which can be attenuated by professionalism, regulation, and competition policy (Baker, 2006; McChesney, 2008; Murdock, 2008). This argument also fits the internal/external pluralism debate, usually tolerating and even welcoming concentration by *public service media*. Since the problem is not external concentration as such, but safeguarding pluralism, the goal could be reached—perhaps even more easily—with a public monopoly. In this sense, ownership and organizational forms would be more important to democratic values than levels of concentration (Benson et al., 2025). A similar argument has been raised regarding the internet and platforms, emphasizing possible harms of further competition in an attention economy and the benefits of removing the commercial driver of platforms (Pickard, 2020; Rahman, 2018; Schiller, 2020).

Therefore, media ownership concentration can be considered a threat to pluralism, but the issue is more complex than such a simple assertion. In any case, the emphasis on concentration from both scholarly work and policymaking has justified a focus on developing approaches to measure concentration and grasp opinion power. As we discuss next, these methodological attempts face important limitations.

3. Two Methodological Approaches in Media Ownership Concentration Research

We consider two major methodological approaches in evaluating concentration in a media system. The first is the use of economic metrics such as CR_n and HHI. The second is newer and implies the use of social network analysis techniques.

3.1. Economic Concentration Metrics

CR_n and HHI are used to assess the dominance of the top firms on a market and the level of competition through an analysis of the market share of incumbents. Shares in both methods can be based on revenues or audience. CR_n is the sum of market shares of the top *n* players (usually the top four firms are considered), whereas HHI sums squared shares of all incumbents and indicates the intensity of competition in a market.

These metrics are used across different industries and have conventional concentration thresholds that are typically adjusted for a specific sector and depend on the context and regulator. The Media Pluralism Monitor adopted concentration ratio of the top 4 firms (CR₄) and thresholds of < 25% for low concentration in media, 25–50% for medium concentration, and > 50% for high concentration until 2023. From then onwards, the thresholds were relaxed, and low concentration is considered at < 40%, 40–60% indicates medium concentration, and high concentration starts above 60% (Carlini, 2024). The same thresholds were used by Noam's concentration project (Noam, 2016b), whereas the European Commission et al. (2022) study suggests high concentration beginning even higher, with a CR₄ at 70% and above. Notably, in the Media Pluralism Monitor, high ownership concentration has been by far the biggest contributor to media pluralism risks among two dozen indicators (Carlini, 2024).

HHI measures range from 0 to 10,000. A value between 1,500–2,500 typically indicates medium concentration, with measures below and above these thresholds reflecting, respectively, a competitive and concentrated market, following the US Department of Justice, whereas in Europe an HHI of 2,000 or more already indicates excessive concentration (Winseck, 2024, p. 47).

3.1.1. Advantages of Using HHI and CR_n

Although criticized for being static, both indicators served to bring insights into market structures and trends in different media sectors and countries. Using these indicators for different sectors across 36 countries and in a 10–25-year time span, the International Media Concentration Research Project, led by Eli Noam, has dispelled conventional wisdom that the internet reduced concentration in media and communication. Taking internet service providers and search engines into account, the internet displays high concentration levels (Noam, 2016a). At the same time, online news media were found to be less concentrated compared to newspapers. However, many of the most successful online news companies had strong brands before the internet transition, and “most online news attention by national audiences is focused on a few mass-audience outlets” (Noam, 2016a, p. 1316).

Since HHI inflates the weight of more dominant firms compared to companies with smaller market shares, Noam proposed an alternative metric, which divides HHI by the square root of the number of companies and is designed to indicate ownership diversity level. This approach was used by Angelopulo and Potgieter

(2013) to discover concentration in each media sector of South Africa in the 1990s–2000s, where one to four firms dominated.

Since digitalization prompted media companies to diversify (Doyle, 2014), the mentioned projects adopt a “whole media” approach. They combine the revenues of companies in various sectors and arrive at a share of a company in the whole media economy or an aggregation of sectors. While this approach can make sense at first glance in hybridized media systems, it’s questionable whether competitors from all these sectors can be pooled together, as we explain in the following.

3.1.2. Shortcomings of Reliance on Concentration Metrics

While useful to assess market structure and competition in single sectors and markets, HHI and CR_n are less powerful to reflect the situation when several sectors are combined. They can mask higher concentrations in distribution sectors when merged with content sectors, which is worrisome considering that a distribution monopoly with many competing content producers is also problematic for public spheres (Vizcarrondo, 2013). Therefore, we see a limitation in using revenue-based HHI and CR_n in aggregated media markets, combining sectors with differing cost and profit structures, as high market shares of revenue-intensive industries become less salient and small market shares become even smaller.

Take the newspaper market in Denmark as an example, particularly its assessment within the Global Media and Internet Concentration Project (2022). In 2018–2022, CR₄ amounted to 70–75% (high concentration) and HHI to 1,700–1,800 (moderate concentration), but when traditional and online media are taken as a whole industry, the indicators fall to some 30% and 200–400, respectively (Henten et al., 2024, p. 11). Similar levels are observed in Austria: 73% in CR₄ and 1,931 in HHI for the newspaper market alone, whereas less than 30% in CR₄ and 300 in HHI for the whole traditional and online media industries in 2022 (Sparviero et al., 2024, pp. 31, 41–42). What, then, is the actual market power of individual Danish and Austrian news companies operating in broadcast, print, and online markets? A bare analysis of revenue-based CR₄ and HHI cannot tell the full story.

In addition, despite their relevance, revenues can be misleading in defining levels of concentration in media industries. Because news media typically do not compete in prices, and media products are demand-inelastic, higher concentration does not necessarily lead to unification of the products, and higher competition does not necessarily lead to product differentiation. In other words, a concentrated media conglomerate may try to fill in all the different niches to prevent new entrants, and the fierce competition can lead to a situation where different media start to mimic each other, trying to cater to the average person. Therefore, while the revenue-based market concentration indices borrowed from other industries can indicate economic power, they are not an accurate reflection of owners’ influence on the media’s performance of their social functions. An alternative is the use of audience share metrics. It is not perfect, as Iosifidis (2010) argues, since it does not include the quality of media consumption, but in the absence of such a complex combination of data, audience share can reflect media power in the sense of news exposure (Tewksbury & Rittenberg, 2015). It is precisely because audiences are sold to advertisers that their shares are seemingly better at grasping the potential influence of owners.

Apart from issues with each specific form of measurement, the use of market metrics is, in general, not spared from critique. Des Freedman (2014) warns against viewing data provided by commercial companies as free from biases, and highlights the need for careful contextualization of these data. Birkinbine and Gómez (2020) point out that measures based on revenues and market shares can be delusive: Sometimes media firms do not in fact compete but have mutual arrangements and/or enterprises. They suggest that a network analysis approach is more suitable to examine media structures and relations.

3.2. Social Network Analysis Approaches

A newer approach to examine media ownership is social network analysis. Through the analysis of networks connecting global media companies such as Time Warner, The Walt Disney Company, News Corp, and Bertelsmann with local media organizations and overlapping board members of different companies, Arsenault and Castells (2008) concluded that globalized, digitized, and deregulated media environments are characterized by concentrated ownership, “organized around networked forms of production and distribution, the backbone of which is provided by a core of multinational media corporations. In these networks, the global shapes the local but the local also influences the local” (p. 743). The authors noted a networking logic that businesses follow aimed at commodifying culture and subordinating communication to profit. These media networks are further interlinked with finance, production, advertising, technology, research, and politics through multiple points of connection.

In their research, Schnyder et al. (2024) analyzed ownership networks in Austria, Hungary, Slovenia, and Turkey at three time points. They used Freeman’s centralization measures (degree centrality measures of nodes) along with the distribution of eigenvector centrality scores in media ownership networks to assess how information flows are channeled by ownership relations. Centrality measures are based on the number of connections a node has in a network. While degree centrality measures the simple number of connections a node has, eigenvector centrality accounts for the number of connections of neighboring nodes and is a proxy for the “importance” of a node in a network. Schnyder et al. used these measures to track changes in media ownership structures towards greater centralization with implications for information diffusion against the backdrop of growing authoritarian populist tendencies.

Several studies do not build ownership networks but confirm assumptions about the importance of ownership for information diffusion. Sjøvaag et al. (2019) investigated how the links on news websites send users to other sources. Shared ownership appeared as one of the predictors of a higher centrality measure, leaving independent local outlets digitally isolated and perpetuating the power of well-established, resourceful companies in Scandinavia. Knuth et al. (2024) analyzed networks of linkage of news online sources with user data and detected a somewhat similar pattern in Germany: Established companies’ news outlets tend to be conduits to cross-owned media or the end points of the user experience.

3.2.1. Advantages of Network Analysis

Network analysis helps overcome some of the shortcomings of the economic metrics we have described. While competition is assumed based on the distribution of market shares, it does not necessarily imply incumbents’ competitive behavior, as Birkinbine and Gómez (2020) illustrate with network analysis. The scholars mapped joint ventures of global media firms as of 2017 and found ties between them in

network analysis; for instance, outlining that Twenty-First Century Fox, Comcast Corporation, and The Walt Disney Company together owned Hulu while being seemingly competitors on the global media market. In fact, these companies can be even more entangled. For example, Comcast Corporation and The Walt Disney Company, which currently together own the Hulu platform (Palmer, 2024), share their biggest investors: Vanguard Group (10% of Comcast Corporation and 8.67% of The Walt Disney Company), BlackRock (8.41% of Comcast Corporation and 7.32% of The Walt Disney Company), and State Street Corporation (4.58% of Comcast Corporation and 4.4% of The Walt Disney Company), according to Yahoo Finance (2025a, 2025b).

By focusing on relations between several legal entities and owners—especially when these networks reach the ultimate owners—networks help identify “truly independent” groups from each other by providing a count of linked components. In addition, density and centrality measures can be useful to see how integrated (concentrated) media ownership is and how influence in the network is distributed. The scores, in turn, provide input for further statistical tests.

Similarly, such entanglements can be discovered by mapping overlapping management board members of various media companies, which may have implications for media performance. Robles-Rivera and Cárdenas (2023) have suggested that “networking among business elites precedes media capture as it organizes access to the media and collective mobilization of resources” (p. 308). Having a relation to a media company gives a possibility to influence its operations, and unpacking networks of ownership relations helps trace possible influences.

3.2.2. Shortcomings of Reliance on Network Analysis

The main shortcoming of network analysis in media ownership research lies in its still limited application, which restricts the ability to draw bold or far-reaching interpretations. As more ownership network analyses are conducted and begin to accumulate, a richer empirical foundation will emerge. This will enable researchers to identify structural patterns, recurring power configurations, and their implications for information environments.

Yet, tackling methodological problems persists. One being the use of eigenvector centrality to see influence and its distribution. While ownership relations are directed and weighted by their nature, eigenvector centrality is applicable only in undirected networks (Jia et al., 2019; Saxena & Iyengar, 2020). Hence, it is possible to use this measure only when assuming that ownership relations create other undirected symmetric relations such as information, resources, and practices sharing.

3.3. Proposal for Media Power Concentration Analysis

Considering the advantages and shortcomings described above and increasing interest in network analysis for ownership networks, we advocate for using the advantages of both concentration metrics and network analysis, as well as clarifying the use of some of the network statistics for ownership graphs, as explained in the next section.

Our approach is based on these three pillars:

1. Tracking full media ownership chains and identifying beneficial owners of outlets.
2. Combining content markets based on audience and calculating shares of attention each owner receives from their outlets on different markets.
3. Examining different centrality measures in different modes of networks (directed/undirected and weighted/unweighted) and carefully interpreting the results.

4. Data and Elaboration of the Method

We drew on the EurOMo database for the samples of newspapers, radio stations, TV channels, and online outlets. The database includes media with “opinion shaping” relevance, qualitatively understood as high audience and/or agenda-setting potential, and their ownership structure as of 2022 (EurOMo, 2024). We treat legacy outlets and their online versions as one media brand. We have constructed our node and edge list and included all known legal ownership relations in the ownership chain of a brand, direct and indirect owners. For representation as a network, each person, company, and media must be a node connected to each other by their shareholdings. We have constructed our database of media brands in Denmark ($n = 10$) and Greece ($n = 23$). We revised, complemented, and, when necessary, corrected the information from the EurOMo database consulting websites of companies, media regulators, and the European Audiovisual Observatory. The report by Maragoudaki (2024) served as a source of ownership connections of the Vardinogianni family in Greece. Below, we elaborate on our method according to the three pillars set out above.

4.1. Tracking Full Media Ownership Chains and Identifying Beneficial Owners of Outlets

Following the recommendations of the European Media Freedom Act and the Anti-Money Laundering Directive (AMLD), we sought to include all beneficial owners, understood as “any natural person(s) who ultimately owns or controls the customer and/or the natural person(s) on whose behalf a transaction or activity is being conducted” (Directive of the European Parliament and of the Council of 20 May 2015, 2015, Article 3(6)).

Nonetheless, identification of beneficial ownership is not without challenges. For instance, the Danish newspaper and website Information is published by A/S Information. The company has more than 4,500 owners, three of them with at least 5% of interests, namely Informations Medarbejderforening, Foreningen Informations Venner, and AkademikerPension. As the name suggests, the latter is a pension fund owned by 170,000 academics. As it is a legal entity itself, it should not be represented as a beneficial owner, who must always be a natural person. However, it is impossible to name all academics who contribute to the fund and elect its board. In this case, we created a separate node for the collective of individuals and called it “Academics.” Similar cases were treated accordingly. We have not included treasury shares of companies in the networks since they belong to the companies themselves and in no case exceed 5%. When a part of a company’s ownership was unknown, we created nodes of unknown owners and a respective shareholding relation.

In some cases, there are no legal owners at all (e.g., public broadcaster DR in Denmark). When that is the case, the AMLD demands that the person(s) occupying the highest decision-making positions be considered beneficial owners. We also created collectives such as “Boards” to play this role. Ideally, the individual board members should be coded, similarly to Robles-Rivera and Cárdenas’s analysis (2023), but data for this information are even more scarce.

Our data had a caveat. In rare cases, not all the share amounts were available in the ownership structure. When this happened, we assumed the equal distribution of the shares between the known owners with an unidentified number of shares. Table 1 provides all such cases and the equal shares that were assigned, as well as illustrates the structure of our edge list.

Table 1. Edge list with shares assigned equally to all known owners. Shareholdings represent percentages.

Source	Target	Shareholding	Attention
Denmark			
Harald Halberg Holding A/S	Holdingselskabet for Kapitalandele i Harald Halberg Holding A/S	25	0.030
Harald Halberg Holding A/S	Ann-Julie Grøsfjeld Halberg	25	0.030
Harald Halberg Holding A/S	Lee-Emilie Grøsfjeld Halberg	25	0.030
Harald Halberg Holding A/S	Ole Einar Halberg	25	0.030
Aktieselskabet Svendborg Avis (Sydfyns Tidende)	Halberg A/S	50	0.125
Aktieselskabet Svendborg Avis (Sydfyns Tidende)	Ellekilden Svendborg Aps	50	0.125
A/S Politiken Holding	Politiken-fonden	50	3.820
A/S Politiken Holding	Ellen Hørups fond	50	3.820
Greece			
Antenna Radio BV	Antenna Greece BV	100	0.100
Globecast Holdings S.a.r.l.	Theodoros Kyriakou	100	0.950
Makedonia TV Anonymos Etaireia	Media Capital Partners ICAV	100	1.570
Radiofoniki Epikoinonia Monoprosopi Anonymi Etaireia	Paxana Holdings Limited	100	0.120

As the structure of our edge list in Table 1 suggests, we focus on flows of audience attention captured by media brands along the ownership chain to beneficial owners. The final attention share that a beneficial owner receives is indicated as their node attribute. This allowed us to calculate CR4 and HHI and see if attention is concentrated or dispersed across owners and media groups. The other node attributes were type (company, person, brand) and country of registration for companies. The “Attention” attribute of an edge represents the share of attention that the ownership connection transfers to the next node.

4.2. Identifying Attention Shares of Owners Across Sectors

To identify owners’ attention shares across media sectors, we took each outlet in the sample and defined its audience share. For the print outlets, we used circulation figures and related their proportion to the total circulation in the sample. For the online outlets, including the web versions of the legacy media, we used the

share of visits relative to total visits. For the TV channels and radio stations, we used available daily audience reach measures. In all cases but two, we used data from EurOMo. The exceptions are the European Audiovisual Observatory (2024) for Danish TV channels, and the DR report (2022) for the share of the radio station P1.

Then, we calculated the share of attention for each media brand to arrive at their attention across sectors. For this, we used the percentages of the use of different types of media in each country from the Eurobarometer Flash Survey (European Parliament, 2022) that were derived from aggregating answers to the question: “Among the following, what media have you used the most to access news in the past 7 days?” The respondents could choose several answers, so the sum of use of each media type for the news exceeded 100%. We then normalized the percentages so that they add up to 100 in order to identify the relative importance of each media sector and enable the identification of the media power of owners across sectors as a share of the attention their outlets receive. We then calculated the sum of the audience shares weighted by the normalized shares of the respective sectors for each brand. For example, the Greek ALPHA TV has a 12% television audience and 4% visits on their website. The relative importance of the TV sector in Greece is 37.5%, whereas the online sector has 39.4% (all numbers are rounded). The attention share of the ALPHA TV brand is $0.12 \times 0.375 + 0.04 \times 0.394 = \sim 6\%$.

Lastly, we multiplied the brand attention shares by the beneficial owners' shares of these brands. In doing so, we could arrive at the attention share that the ultimate media owners receive from each brand and sum the attention shares from all owned brands for each beneficial owner.

4.3. Visualizing the Ownership Networks and Examining Various Centrality Measures

We built ownership graphs in Gephi, displaying the belonging relationships as the direction of edge arrows to reflect the attention flows. We colored nodes representing outlets, companies, and persons (including collectives) differently and arranged the size of beneficial owners by their power, understood as the audience share explained above.

We then looked at the graph structures and used built-in Gephi filtering and network statistic functions to examine the graphs. We filtered nodes of companies with domestic registration to see the share of foreign entities in the network. Next, we looked at the number of weakly connected components and their size to see how many unconnected, “independent” media ownership groups are on the market. A bigger size of the largest component points to a higher resourcefulness of a bigger media group that can sustain the administrative costs of running multiple companies or a potential to pull resources from different ownership subgroups comprising the large constellation of companies owning a media outlet.

We then looked at density and average weighted degree. Density shows the percentage of connection in the network out of all possible connections, that is, the integration of the network. Hierarchical networks such as ownership networks are sparse (Schnyder et al., 2024). This means the density measure is usually small. This number is not very informative for a non-dynamic ownership network, since it requires only one edge between any two nodes from different connected components to merge these components into a single one. However, with longitudinal data, an increase in density would mean either a higher concentration of ownership in general, or a decrease in the number of beneficial owners, which is also a concentration, or closure of outlets, since nodes in the beginning and the end of ownership chains have only one connection. Any of these possibilities

hamper pluralism. We are presenting this measure in the results to enable comparison with the potential future analyses on the newer data, given the anticipated update of the EurOMo database at the end of 2025. The average weighted degree is a result of the division of the sum of all weights by the number of nodes. In ownership networks with shareholdings as weights, it can indicate whether, on average, media are owned solely or divided between owners. A lower number indicates more beneficial owners since the networks are typically hierarchical. However, caution should be exercised in interpreting the number when there are cliques present within the graph, because then ownership is divided by two entities that both belong to another entity. The cases of division of ownership into multiple companies that belong to one entity at the end of the ownership chain would be even more problematic, as this further lowers the average weighted degree.

Finally, we look at the measures of “influence” in a network. In Gephi, it is possible to calculate eigenvector centrality and Katz centrality scores. Eigenvector centrality scores should be calculated in undirected networks (Gómez, 2019). It is impossible to infer about ownership based on this influence measure in an undirected network, but some other processes, like information exchange (Schnyder et al., 2024), can be assumed. We, however, include and discuss this measure to illustrate its futility for inferences about ownership influences. Katz centrality is an extension of eigenvector centrality for directed networks. The measure assesses nodes’ number and quality of connections, i.e., the number of connections of their ego-net. The distribution of the scores is the network centralization score and can indicate whether the influence is concentrated or distributed. One of the ways to see the distribution is the Gini index calculation (Bienenstock & Bonacich, 2022). Katz centrality requires specification of the dumping factor α (between 0 and 1 in Gephi since eigenvalues are normalized); α closer to 1 increases the number of node’s indirect connections that are included in the calculation of the score. In line with our goal to discuss methodological implications of network analysis for ownership networks, we discuss the application of the two centrality measures on our illustrative examples in different modes of networks: undirected and unweighted—for eigenvector centrality; directed and unweighted, directed and weighted by shareholdings, and directed and weighted by attention shares (acting similarly to actual shares of the outlet)—for Katz centrality.

5. Media Ownership Structures and Attention Flows in Denmark and Greece

5.1. Denmark

Visually, the strength of the public service broadcaster DR and the state commercial broadcaster TV2, owned by the Ministry of Culture, is prominent, as can be seen in the graph of the Danish media ownership structure (Figure 1).

The third-biggest node belongs to the Van Thillo family that owns the Belgium-based DPG media group. Their ownership chain is the only one that contains foreign companies on the graph: Out of 32 companies, three have foreign registration. The Van Thillo family node is followed by boards of foundations that own Ekstra Bladet and Politiken in terms of size, reflecting the amount of attention. In terms of concentration of attention, the Ministry of Culture (28.73%), the Board of DR (17.59%), the Van Thillo family (11.94%), and the Board of Jyllands-Postens fond (7.65%) have together 66%, which indicates a high concentration. The state and public broadcaster together have 46% of attention. Fourteen out of 20 beneficial owners have an attention share of less than 1, and this contributes to the competitive attention market with HHI at 1,367. Without the state broadcaster, the score falls to 541. We can see that the state broadcaster and public media in Denmark are

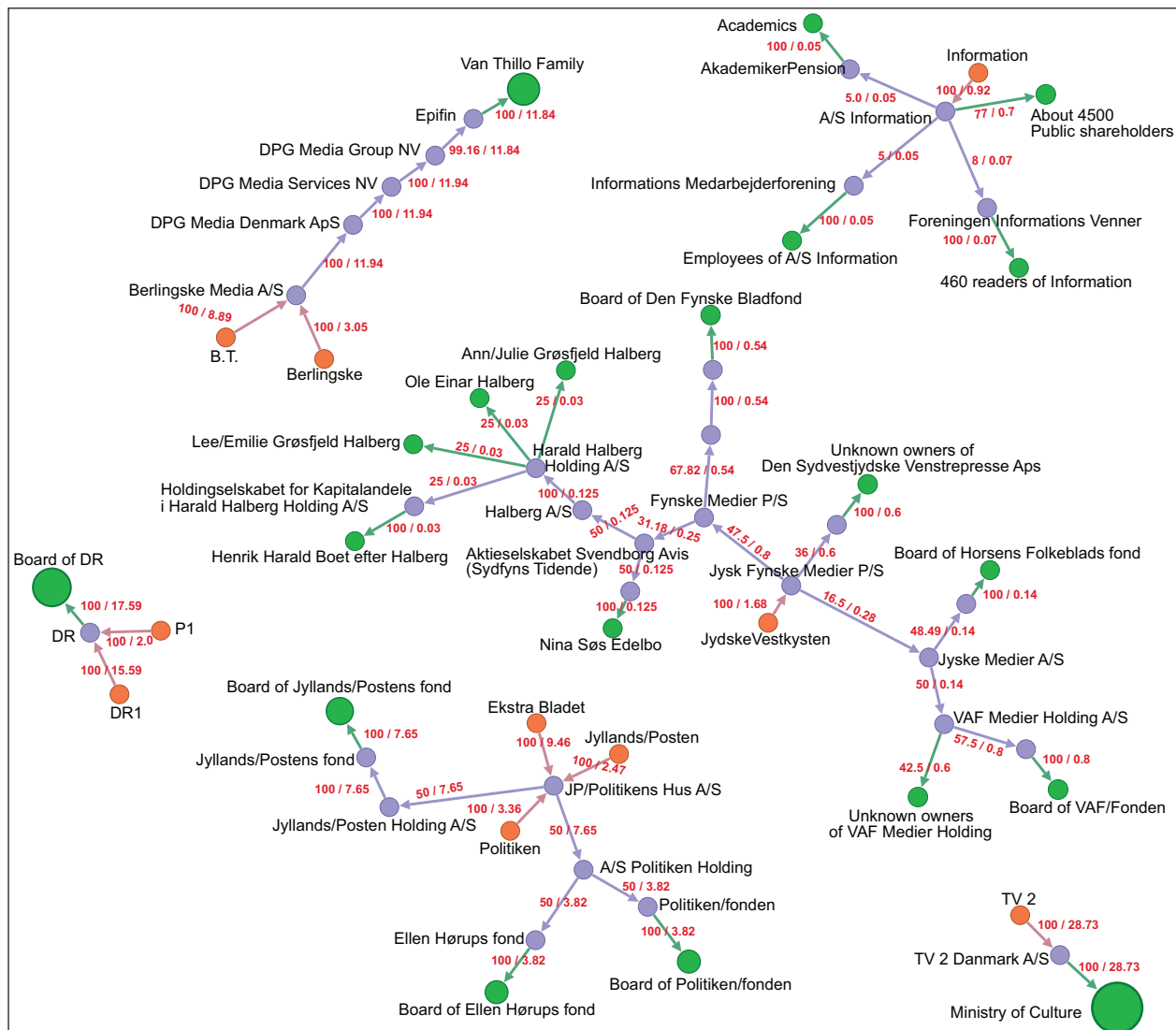


Figure 1. Media ownership networks graph for 10 news brands in Denmark. Notes: Node colors represent ultimate owners (green), companies (violet), and brands (orange); the size of green nodes indicates how much media audience share ultimate owners/decision-makers have; the arrows indicate the direction of belonging; red edge labels are percentages of shares of the receiving node and attention the edges carry to it.

strong, and competition is observed in private media. The presence of strong public service media is associated with more diverse online environments, internal pluralism, better news quality, and a more knowledgeable public (Cushion, 2022; Humprecht & Esser, 2018).

We look at the number of weakly connected components and their size. In our case, since the sample is illustratively small, it is visible on the network graph (Figure 1) that there are six independent media groups. Gephi returned the same number of connected components. Each independent ownership group has around 1.6 brands in Denmark. The components vary in size from 3—the network of state and public broadcasters—to 25—the group owning JyskeVestkysten. The second-biggest component is almost half as big as the biggest component. It is the ownership chain of Ekstra Bladet, Politiken, and Jyllands-Posten with 14 nodes. Without brands and persons in the network, the JyskeVestkysten group has 12 nodes, and the ownership structure of Ekstra Bladet, Politiken, and Jyllands-Posten includes six companies.

The Danish media ownership graph is sparse, with a density of 0.015. This means existing edges form 1.5% of all possible connections. The average degree is 67, which is the average shareholding in media ownership.

Lastly, we have analyzed how different centrality scores are attributed and distributed (Table 2). The highest eigenvector centrality scores are assigned to the outlet's publishers (JP/Politikens Hus A/S, Jysk Fynske Medier P/S) and their immediate owners (A/S Politiken Holding, Fynske Medier P/S, Jyske Medier A/S), as they are connected to companies owning several brands and start branches of different owners. Nodes of Halberg A/S, VAF Medier Holding A/S, Harald Halberg Holding A/S, and A/S Information—the publisher of Information—are in the top five by this score. The dispersed ownership gives a lot of connections to the nodes. However, it is disputable if the companies are influential or rather influenced—many owners influence their operations. Similarly, the high-scoring node of Aktieselskabet Svendborg Avis (Sydfyns Tidende) holds several branches of owners together. Katz centrality of the unweighted network treats companies that have several incoming connections (typically publishers: JP/Politikens Hus A/S, Berlingske Media A/S, DR) and their immediate owners and their neighbors as important (A/S Politiken Holding, DPG Media Denmark ApS, foundations owning JP/Politikens Hus A/S). It is sensible to assume that publishers are immediate decision-makers about outlets, but only if the allocative power of ultimate owners has instilled such practices. With shares as weights, Katz centrality assigns high scores to decision-makers; however, the

Table 2. Top 10 nodes by influence measures in the ownership network of the Danish media sample.

Eigenvector centrality (undirected, unweighted network)	Katz centrality, $\alpha = 0.1$ (directed, unweighted)	Katz centrality, $\alpha = 0.1$ (directed, shareholding as weights)	Katz centrality, $\alpha = 0.1$ (directed, attention as weights)
Jysk Fynske Medier P/S	JP/Politikens Hus A/S	Van Thillo family	Van Thillo family
JP/Politikens Hus A/S	Berlingske Media A/S	Epifin	Ministry of Culture
Harald Halberg Holding A/S	DR	Henrik Harald Boet efter Halberg	Epifin
Fynske Medier P/S	A/S Politiken Holding	Board of Den Fynske Bladfond	DPG Media Group NV
A/S Information	Jyllands-Posten Holding A/S	DPG Media Group NV	Board of DR
Jyske Medier A/S	DPG Media Denmark ApS	Holdingselskabet for Kapitalandele i Harald Halberg Holding A/S	DPG Media Services NV
Aktieselskabet Svendborg Avis (Sydfyns Tidende)	Board of DR	Ann-Julie Grøsfjeld Halberg	TV 2 Danmark A/S
A/S Politiken Holding	Ellen Hørups fond	Lee-Emilie Grøsfjeld Halberg	DPG Media Denmark ApS
Halberg A/S	Politiken-fonden	Ole Einar Halberg	Board of Jyllands-Postens fond
VAF Medier Holding A/S	Jyllands-Postens fond	Board of Jyllands-Postens fond	Jyllands-Postens fond
Gini: 0.37	Gini: 0.20	Gini: 0.95	Gini: 0.22

distribution of influence is very unequal because many of the shareholdings are 100% and the score is sensitive to the length of the paths, where longer ones receive higher scores. Finally, Katz centrality and the shares of a brand's attention, rather than of the source node, assign higher scores to nodes receiving higher shares from the paths leading to them and may indicate a decision-making influence. Here, Katz centrality can be understood as an ability to influence public opinion through the attention that is given to the owned outlets and by virtue of decision-making power over editorial lines and media business operations. The top-scoring nodes by Katz centrality in this mode include ultimate owners and decision-makers of influential media brands—Van Thillo family, Ministry of Culture, Board of DR, and boards of foundations owning Ekstra Bladet, Politiken, and Jyllands-Posten—and the companies that they immediately own. With a Gini coefficient of 0.22, some level of equality in such influence is present.

5.2. Greece

In Greece, the biggest relative power is with individuals and families (Figure 2). Themistocles Alafouzou (17.03%), Evangelos Marinakis (13.31%), and the Vardinogianni family (8.1%) have the most attention in the ownership structure, followed by the Savvidis family (7.23%) and Ioannis Alafouzou (7.02%). Their nodes are

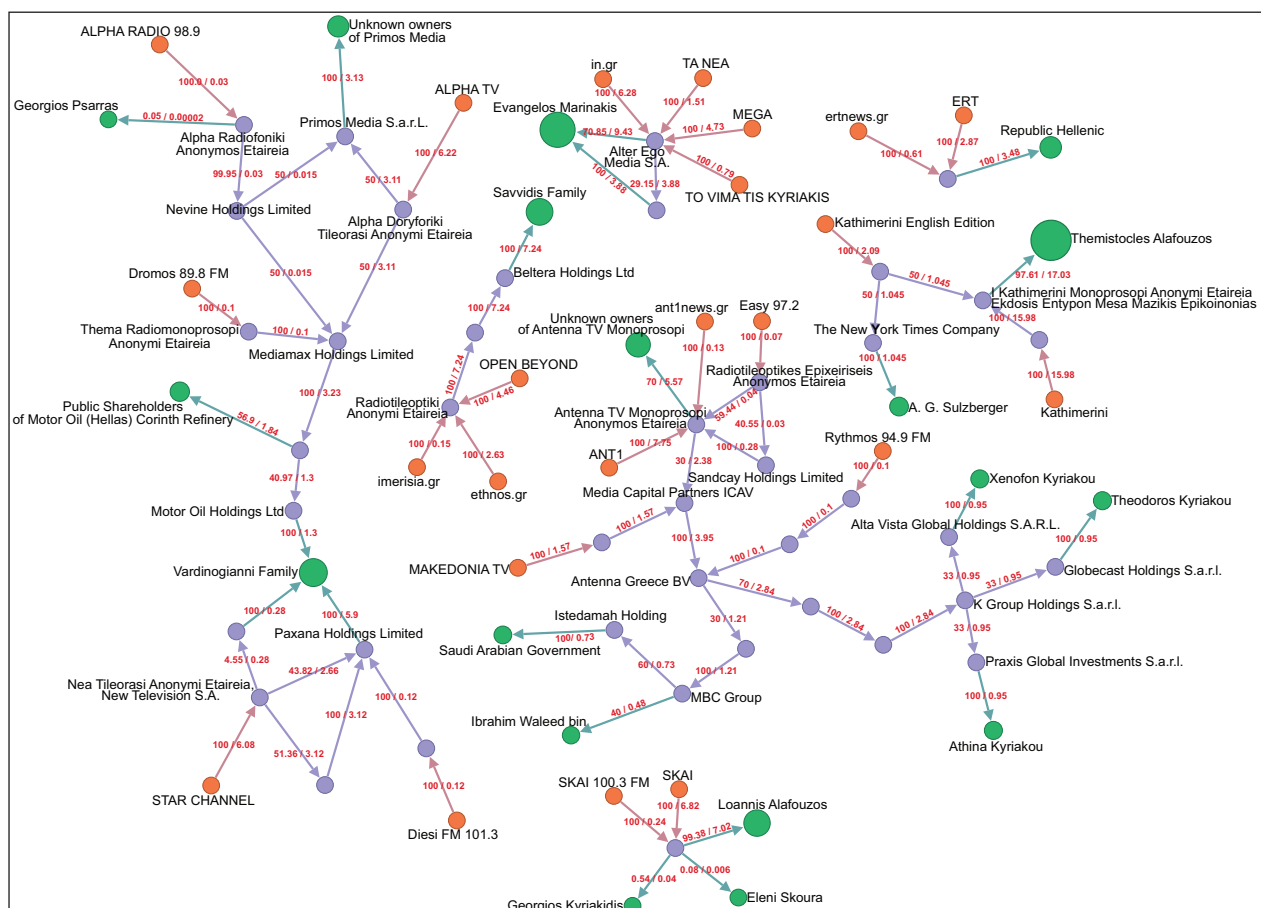


Figure 2. Media ownership networks graph for 23 news brands in Greece. Notes: Node colors represent ultimate owners (green), companies (violet), and brands (orange); the size of green nodes indicates how much media audience share ultimate owners/decision-makers have; the arrows indicate the direction of belonging; red bold edge labels are known percentages of the shares of the receiving node and attention the edges carry to it.

several times bigger than the node of the owner of the public service media. Private family ownership is associated with political instrumentalism (Benson, 2018; Hanretty, 2014; Theine et al., 2025). The CR4 score is 45.67%, which is close to, but is not yet, concentration. This observation is not surprising, since the Greek media market is characterized by excessive media supply relative to demand (Papathanassopoulos et al., 2021). An HHI of 696 also indicates competition. There is a considerable amount of foreign ownership on the graph. Out of 45 companies, 26 have foreign registration.

Including beneficial ownership in the Greek ownership networks (Figure 2) revealed relations that are hidden if we take media groups as a unit of analysis. The node of the Vardinogianni family connects two media groups that own the ALPHA channel, the STAR channel, and other outlets. There are seven connected components in the network of 4 to 28 nodes in size. The biggest component includes the mentioned groups, and the second biggest is a chain of owners of MAKEDONIA TV and ANT1 and consists of 22 nodes. The rest of the subnetworks have 4 to 8 nodes. Each independent ownership group has around 3.2 brands.

The network is sparse, as expected, with 1.2% of all possible connections formed. The average weighted degree is 78%. However, considering the cliques formed by ownership directed at nodes of Evangelos Marinakis and Paxana Holdings Limited, and of Antenna TV Monoprosopi Anonymos Etaireia, an average owner possesses an even larger portion of brands in their group. This means ownership is rather consolidated than distributed, with implications for operational decision-making.

Table 3 presents different centrality scores calculated with different modes of the network. Expectedly, the highest eigenvector centrality scores are assigned to (a) nodes of publishing companies (Antenna TV Monoprosopi Anonymos Etaireia—the publisher of ant1news.gr and broadcaster of ANT1; Alter Ego Media S.A.—publisher of three newspapers and websites owned by Evangelos Marinakis; Nea Tileorasi Anonymi Etaireia—STAR Channel's broadcaster; and Radiotileoptikes Epixeiriseis Anonymos Etaireia—the broadcaster of Easy 97.2 connected further to Antenna TV Monoprosopi Anonymos Etaireia), (b) their immediate neighbors—nodes of companies that hold the publishing companies (Paxana Holdings Limited, Media Capital Partners ICAV, and Sandcay Holdings Limited), and (c) nodes of companies that link several ownership groups (Media Capital Partners ICAV, Antenna Greece BV, as well as the node of the Vardinogianni Family that holds two media groups). Apart from the latter category of nodes, which are instrumental in bringing together different groups of entities in media ownership, publishing companies and their owner could be rather thought of in terms of receiving rather than spreading influence.

Most of the mentioned nodes, mainly publishing companies and their immediate owners, have the highest Katz centrality scores in the directed, unweighted network because they receive many incoming edges from brands they own, and this influence propagates further through the network. In smaller subnetworks, this transferred influence can reach beneficial owners, which is the case of Evangelos Marinakis' node—the new node in the top 10 list of the influential nodes by Katz centrality in the unweighted and undirected network. Other new nodes in the top 10 by Katz centrality, Radiotileoptiki Anonymi Etaireia—the broadcaster of OPEN BEYOND and publisher of imerisia.gr and ethnos.gr—and Primos Media S.a.r.L.—a company with an unknown beneficial owner with shares in ALPHA TV and ALPHA RADIO 98.9—receive their high values following the described principle. By weighing the edges by share amounts, the influence is highly unequally distributed, since most of the shareholdings account for 100% with few hubs distributing the shares among different groups of entities. In addition, all nodes with high Katz centrality scores in this configuration belong to the

same connected component due to the high influence of the path length—the group owning MAKEDONIA TV, ant1news.gr, ANT1, and Easy 97.2.

Katz centrality with attention shares carried from each node to the next has proven to be the most suitable importance measure when looking at owners' influence. The top 10 nodes by this score include the nodes of beneficial owners Themistocles Alafouzos, Evangelos Marinakis, the Savvidis family, the Vardinogianni family, and Ioannis Alafouzos. Other high-scoring nodes include companies preceding these nodes in the structure. The nodes that connect to other nodes with higher attention shares receive higher scores, like the connection from Kathimerines Ekdoseis Monoprosopi Anonymi Etairia to I Kathimerini Monoprosopi Anonymi Etairia Ekdosis Entypon Mesa Mazikis Epikoinonias that eventually points to Themistocles Alafouzos. The influence on the network is relatively equally distributed, with the Gini coefficient of 0.25.

Table 3. Top 10 nodes by influence measures in the ownership network of the Greek media sample.

Eigenvector centrality (undirected, unweighted network)	Katz centrality, $\alpha = 0.1$ (directed, unweighted)	Katz centrality, $\alpha = 0.1$ (directed, shareholding as weights)	Katz centrality, $\alpha = 0.1$ (directed, attention as weights)
Antenna TV Monoprosopi Anonymos Etairia, Antenna TV Single Member S.A.	Antenna TV Monoprosopi Anonymos Etairia, Antenna TV Single Member S.A.	Xenofon Kyriakou	Themistocles Alafouzos
Paxana Holdings Limited	Alter Ego Media S.A.	Theodoros Kyriakou	I Kathimerini Monoprosopi Anonymi Etairia Ekdosis Entypon Mesa Mazikis Epikoinonias
Alter Ego Media S.A.	Vardinogianni family	Athina Kyriakou	Evangelos Marinakis
Media Capital Partners ICAV	Mediamax Holdings Limited	Praxis Global Investments S.a.r.l.	Savvidis family
Nea Tileorasi Anonymi Etairia, New Television S.A.	Paxana Holdings Limited	Globecast Holdings S.a.r.l.	Beltera Holdings Ltd
Mediamax Holdings Limited	Radiotileoptiki Anonymi Etairia	Alta Vista Global Holdings S.a.r.l.	Kathimerines Ekdoseis Monoprosopi Anonymi Etairia
Radiotileoptikes Epixeiriseis Anonymos Etairia	Evangelos Marinakis	Saudi Arabian Government	Alter Ego Media S.A.
Antenna Greece BV	Media Capital Partners ICAV	K Group Holdings S.a.r.l.	Vardinogianni family
Sandcay Holdings Limited	Antenna Greece BV	Istedamah Holding	Dimera Media Investments Ltd
Vardinogianni family	Primos Media S.a.r.l.	Ibrahim Waleed bin	Ioannis Alafouzos
Gini: 0.39	Gini: 0.4	Gini: 0.95	Gini: 0.25

To summarize, media ownership is consolidated in several individual hands who cross-own several brands, while attention to these brands and the possibility to influence publics are distributed relatively equally, pointing either to heightened competition in an oversupplied information market and/or, possibly, to market fragmentation (Kalogeropoulos, 2024).

6. Discussion and Conclusion

We show a way to analyze media concentration and ownership structures with attention shares as a point of reference for combining different sectors and measuring nodes' influence. We considered different network statistics and argued that Katz centrality with attention shares of outlets as edge weights in the networks representing relationships of belonging is the most suitable to reflect the power of media owners to shape public opinion. We briefly summarize our exercise by outlining which questions can be answered with which measures in Table 4.

Table 4. Questions on media concentration and useful measures.

Question	Measure
Are attention flows concentrated in media ownership structures?	Weighted attention shares, CR4, and HHI
How many independent groups are in the media market?	Number of weakly connected components in the network
Has ownership concentration grown?	Change in the density of the network, decrease in the number of weakly connected components
Are media owned solely or is ownership dispersed?	Average weighted degree
What are the most influential entities, and how is influence distributed?	Katz centrality with shares of outlets or their audiences as edge weights, and its Gini coefficient

Due to the hybridity of media structures, old ways to think of concentration, competition, pluralism, and diversity are becoming obsolete. We suggest that aggregating content markets with audience attention and analyzing ownership structures, including beneficial owners, are useful approaches to analyze potential owners' influences on public opinion.

With this approach, we have observed dominance of state and commercial broadcasters in Denmark, with private media ultimately owned by several entities and individuals. Our results indicated much higher concentration, 66% in CR4 and 1,376 in HHI, than the revenue-based estimations of 30% CR4 and 200–400 HHI by Henten et al. (2024). This discrepancy reflects the discussion that platforms strip content producers of traditional revenues, and the well-established media organizations remain the fittest to survive the hybrid reality. With the exception of the DPG group, the Danish content media market is characterized by dispersed ownership with foundations and professional organizations as stakeholders. In Greece, we observed the contrasting situation, with a more competitive market of private and state players where ultimate media ownership is predominantly consolidated within individuals and families. These owners are also active in shipping and industry, and some have ties to politicians (Maragoudaki, 2024). Accumulating evidence shows that state and public ownership, if independent, aligns with public interest media content, whereas private family ownership risks political and economic instrumentalization (Benson, 2018; Theine et al., 2025).

Our results can inform the discussion of ownership concentration vis-à-vis the institutional logic of owners. Countries with a more competitive media market have a lower Press Freedom Index. This corresponds to the observations regarding market structure conditions for media freedom by Trbojević et al. (2025); it is not the concentration but the defunding of content media after the rise of platforms that is the problem. When news is no longer a lucrative business, other considerations than profit may prevail to encourage investments in media. In Denmark, a high quality of media performance is sustained with strong public media and newspaper foundations that spare media logics from commercial pressures. The dominance of several media owners seems not to be a problem if the owners are the public. In Greece, with an oversupplied market, ownership of media in the sole hands of individuals and families puts additional pressure and strain on journalism, with the potential for instrumentalization that is often exercised (Maragoudaki, 2024). Although media ownership in Denmark is more concentrated, ownership influence is more evenly distributed compared to Greece's more competitive media landscape. This underscores the significance of structures built by ownership constellations and suggests that they deserve attention alongside market performance.

Our approach resembles the one used by the German Commission on Concentration in the Media (KEK), since it is also based on audience shares. However, the proposed method underpins the need and shows a way to interrogate the power of media owners across all sectors weighted by their use. This could better inform competition policy than rather arbitrary cross-ownership caps. Today, when policymakers cannot effectively restrict concentration without risking the reduction of sources of information that otherwise would not survive the market conditions that are ever shaken by technological advancements, network analysis could help move from a company-centered perspective and distinguish between multiple or few beneficial owners in the market of news. Our analysis and this recommendation should not mean that concentration is acceptable, but that power exercised via media ownership must be considered in a more complex perspective that integrates metrics, audiences, and connections between organizations and owners.

Limitations to our research can be addressed two-fold. First, our use of audience attention shares. Comparing the attention dedicated to outlets from different sectors may seem counterintuitive due to the varying intensity of information consumption via different types of media (newspaper readers are usually more attentive than radio listeners, for example). We argue that the level of consumption, which is an audience share, in effect reflects owners' chances to exercise influence, their social capital. The question of the consequences of these acts lies beyond the question of power itself, since it is "about the material coordination of flows of information, communication, and culture such that persuasion and coercion, as well as expression and interpretation, are most effectively able to take place" (Freedman, 2015, p. 274).

A second limitation of our approach is data availability. We have used a limited sample of the relevant news outlets as an illustration. Ideally, concentration analysis should consider the full media landscape; however, transparency of media ownership remains a gap in many countries. Still, we encourage others to build and analyze more networks with the data available so that there is sufficient accumulated experience and compared topologies to arrive at a kind of standard to orient research. Extant work shows no thresholds or ideas of "good" or "bad" networks that would impose specific implications for media ownership. To that end, we provide a way for such research. However, we welcome further explorations of network analysis methodology to analyze communication structures. As an extension of our approach, future studies could add the attention the outlets receive on social media and map the managing boards and editors on the networks to assess the entanglement of the governing and operational structures.

Acknowledgments

The authors are grateful to four anonymous reviewers and the thematic issue editors for their valuable comments that helped improve the manuscript, as well as to Mhairi Louise Rundell for her support that improved the language of this article.

Funding

Publication of this article in open access was made possible through the institutional membership agreement between the University of Salzburg and Cogitatio Press.

Conflict of Interests

The authors declare no conflict of interests.

Data Availability

The ownership and other data used to compile the dataset are available at <https://media-ownership.eu/databases/owners>. The ready dataset can be provided by the authors upon request.

References

- Angelopulo, G., & Potgieter, P. (2013). The economic specification of media ownership in South Africa. *Communicatio*, 39(1), 1–19. <https://doi.org/10.1080/02500167.2013.740057>
- Arsenault, A. H., & Castells, M. (2008). The structure and dynamics of global multi-media business networks. *International Journal of Communication*, 2, 707–748.
- Baker, C. E. (2006). Journalist performance, media policy, and democracy. In F. Marcinkowski, W. Meier, & J. Trappel (Eds.), *Media and democracy: Experiences from Europe* (pp. 113–126). Haupt.
- Benson, R. (2018). Rethinking the sociology of media ownership. In L. Grindstaff, M.-C. M. Lo, & J. R. Hall (Eds.), *Routledge handbook of cultural sociology* (pp. 387–396). Routledge.
- Benson, R., Hessérus, M., Neff, T., & Sedel, J. (2025). *How media ownership matters*. Oxford University Press. <https://doi.org/10.1093/oso/9780199931293.001.0001>
- Bienstock, E. J., & Bonacich, P. (2022). Eigenvector centralization as a measure of structural bias in information aggregation. *The Journal of Mathematical Sociology*, 46(3), 227–245. <https://doi.org/10.1080/0022250X.2021.1878357>
- Birkinbine, B. J., & Gómez, R. (2020). New methods for mapping media concentration: Network analysis of joint ventures among firms. *Media, Culture & Society*, 42(7/8), 1078–1094. <https://doi.org/10.1177/0163443720902907>
- Bossio, D., Flew, T., Meese, J., Leaver, T., & Barnett, B. (2022). Australia's News Media Bargaining Code and the global turn towards platform regulation. *Policy & Internet*, 14(1), 136–150. <https://doi.org/10.1002/poi3.284>
- Cagé, J. (2020). Media competition, information provision and political participation: Evidence from French local newspapers and elections, 1944–2014. *Journal of Public Economics*, 185, Article 104077. <https://doi.org/10.1016/j.jpubeco.2019.104077>
- Carlini, R. (2024, March 4). Why accurate measuring of media ownership concentration matters. *Centre for Media Pluralism and Freedom*. <https://cmpf.eui.eu/why-accurate-measuring-of-media-ownership-concentration-matters>
- Chadwick, A. (2017). *The hybrid media system: Politics and power*. Oxford University Press.
- Cushion, S. (2022). Are public service media distinctive from the market? Interpreting the political information

- environments of BBC and commercial news in the United Kingdom. *European Journal of Communication*, 37(1), 3–20. <https://doi.org/10.1177/02673231211012149>
- Directive (EU) 2015/849 of the European Parliament and of the Council of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, amending Regulation (EU) No 648/2012 of the European Parliament and of the Council, and repealing Directive 2005/60/EC of the European Parliament and of the Council and Commission Directive 2006/70/EC (Text with EEA relevance). (2015). *Official Journal of the European Union*, L 141/73.
- Doyle, G. (2014). Media ownership: Diversity versus efficiency in a changing technological environment. In V. A. Ginsburgh & D. Throsby (Eds.), *Handbook of the economics of art and culture* (Vol. 2, pp. 357–377). Elsevier. <https://doi.org/10.1016/B978-0-444-53776-8.00014-3>
- DR. (2022). *Medieudviklingen 2022: DR Medieforsknings årlige rapport om udviklingen i danskernes brug af elektroniske medier*. https://www.dr.dk/static/documents/2023/01/24/medieudviklingen2022_a50af9a5.pdf
- Euromedia Ownership Monitor. (2024). *Methodology*. <https://media-ownership.eu/about/methodology>
- European Audiovisual Observatory. (2024). *Yearbook: DK—Main players in Denmark (2023)* [Data set]. <https://yearbook.obs.coe.int/s/document/7688/dk-main-players-in-denmark-2023>
- European Commission, Centre on Media Pluralism and Media Freedom, Centre for Information Technology and Intellectual Property of KU Leuven, Institute for Information Law of the University of Amsterdam, & Vrije Universiteit Brussels. (2022). *Study on media plurality and diversity online: Final report*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2759/529019>
- European Parliament. (2022). *Flash Eurobarometer FL011EP: Media & news survey 2022 (v1.00)* [Data set]. http://data.europa.eu/88u/dataset/S2832_FL011EP_ENG
- Freedman, D. (2014). Metrics, models and the meaning of media ownership. *International Journal of Cultural Policy*, 20(2), 170–185. <https://doi.org/10.1080/10286632.2012.752821>
- Freedman, D. (2015). Paradigms of media power. *Communication, Culture and Critique*, 8(2), 273–289. <https://doi.org/10.1111/cccr.12081>
- Fürst, S., & Vogler, D. (2023). Medienkonzentration. In: fög—Forschungszentrum Öffentlichkeit und Gesellschaft. *Jahrbuch Qualität der Medien*, 2023, 159–164. <https://doi.org/10.24894/978-3-7965-4894-9>
- George, L. (2007). What's fit to print: The effect of ownership concentration on product variety in daily newspaper markets. *Information Economics and Policy*, 19(3/4), 285–303. <https://doi.org/10.1016/j.infoecopol.2007.04.002>
- Germano, F., & Meier, M. (2013). Concentration and self-censorship in commercial media. *Journal of Public Economics*, 97, 117–130. <https://doi.org/10.1016/j.jpubeco.2012.09.009>
- Global Media and Internet Concentration Project. (2022). *Methodology*. <https://gmicp.org/about/methodology>
- Gómez, S. (2019). Centrality in networks: Finding the most important nodes. In P. Moscato & N. J. De Vries (Eds.), *Business and consumer analytics: New ideas* (pp. 401–433). Springer. https://doi.org/10.1007/978-3-030-06222-4_8
- Goyvaerts, J., Hendrickx, J., Vis, S., Picone, I., & De Cleen, B. (2024). Media (de)concentration and editorial cross-media self-promotion: Evidence from Flanders. *Journalism Practice*. Advance online publication. <https://doi.org/10.1080/17512786.2024.2340534>
- Hanretty, C. (2014). Media outlets and their moguls: Why concentrated individual or family ownership is bad for editorial independence. *European Journal of Communication*, 29(3), 335–350. <https://doi.org/10.1177/0267323114523150>

- Hardy, J. (2014). *Critical political economy of the media: An introduction*. Routledge.
- Hendrickx, J., & Ranaivoson, H. (2021). Why and how higher media concentration equals lower news diversity—The Mediahuis case. *Journalism*, 22(11), 2800–2815. <https://doi.org/10.1177/1464884919894138>
- Hendrickx, J., & Van Remoortere, A. (2022). Exploring the link between media concentration and news content diversity using automated text analysis. *Journalism*, 25(2), 353–371. <https://doi.org/10.1177/14648849221136946>
- Henten, A., Andersen, S. G. B., Tadayoni, R., & Falch, M. (2024). *Media and internet concentration in Denmark, 2018–2022*. Global Media and Internet Concentration Project. <https://doi.org/10.22215/gmicp/2024.11.208>
- Hindman, M. (2018). *The internet trap: How the digital economy builds monopolies and undermines democracy*. Princeton University Press.
- Houston, J. F., Lin, C., & Ma, Y. (2011). Media ownership, concentration and corruption in bank lending. *Journal of Financial Economics*, 100(2), 326–350. <https://doi.org/10.1016/j.jfineco.2010.12.003>
- Humprecht, E., & Esser, F. (2018). Diversity in online news. *Journalism Studies*, 19(12), 1825–1847. <https://doi.org/10.1080/1461670X.2017.1308229>
- Iosifidis, P. (2010). Pluralism and concentration of media ownership: Measurement issues. *Javnost—The Public*, 17(3), 5–21. <https://doi.org/10.1080/13183222.2010.11009033>
- Jia, P., Liu, J., Huang, C., Liu, L., & Xu, C. (2019). An improvement method for degree and its extending centralities in directed networks. *Physica A: Statistical Mechanics and Its Applications*, 532, Article 121891. <https://doi.org/10.1016/j.physa.2019.121891>
- Kalogeropoulos, A. (2024). Greece. Reuters Institute for the Study of Journalism. <https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2024/greece>
- Knuth, I., Richter, F., & Petzold, T. (2024). *Flows and holes in digital news consumption: Mapping the gravity of media attention in Germany*. SSRN. <https://doi.org/10.2139/ssrn.4864128>
- Maragoudaki, D. (2024). *Media capture monitoring: Greece*. International Press Institute. <https://ipi.media/publications/media-capture-monitoring-report-greece>
- Mastrini, G., & Becerra, M. (2008). Concentration in media systems. In W. Donsbach (Ed.), *The international encyclopedia of communication*. <https://doi.org/10.1002/9781405186407.wbiecc119>
- McChesney, R. W. (2008). *The political economy of media: Enduring issues, emerging dilemmas*. Monthly Review Press.
- Murdock, G. (2008). Commercialization of the media. In W. Donsbach (Ed.), *The international encyclopedia of communication*. <https://doi.org/10.1002/9781405186407.wbiecc053>
- Neff, T., & Benson, R. (2021). News you can use to promote your interests: Media ownership forms and economic instrumentalism. *Journalism Studies*, 22(15), 2103–2121. <https://doi.org/10.1080/1461670X.2021.1986115>
- Newman, N., Arguedas, A. R., Robertson, C. T., Nielsen, R. K., & Fletcher, R. (2025). *Reuters Institute Digital News Report 2025*. Reuters Institute for the Study of Journalism. <https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2025>
- Nielsen, R. K., & Ganter, S. A. (2017). Dealing with digital intermediaries: A case study of the relations between publishers and platforms. *New Media & Society*, 20(4), 1600–1617. <https://doi.org/10.1177/1461444817701318>
- Noam, E. M. (2016a). Findings: The questions addressed, from A to Z. In E. M. Noam (Ed.), *Who owns the world's media? Media concentration and ownership around the world* (pp. 1303–1344). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199987238.003.0038>

- Noam, E. M. (Ed.). (2016b). *Who owns the world's media? Media concentration and ownership around the world*. Oxford University Press.
- Palmer, R. (2024, October 10). Comcast CEO gives update on Disney's Hulu deal. *What's On Disney Plus*. <https://whatsondisneyplus.com/comcast-ceo-gives-update-on-disneys-hulu-deal>
- Papathanassopoulos, S., Karadimitriou, A., Kostopoulos, C., & Archontaki, I. (2021). Greece: Media concentration and independent journalism between austerity and digital disruption. In J. Trappel & T. Tomaz (Eds.), *The Media for Democracy Monitor 2021: How leading news media survive digital transformation* (Vol 2, pp. 177–230). Nordicom. <https://www.diva-portal.org/smash/get/diva2:1559286/FULLTEXT01.pdf>
- Picard, R. G. (2017). The Sisyphean pursuit of media pluralism: European efforts to establish policy and measurable evidence. *Communication Law and Policy*, 22(3), 255–273. <https://doi.org/10.1080/10811680.2017.1331644>
- Pickard, V. (2020). *Democracy without journalism? Confronting the misinformation society*. Oxford University Press.
- Poell, T., Nieborg, D., & Duffy, B. E. (2023). Spaces of negotiation: Analyzing platform power in the news industry. *Digital Journalism*, 11(8), 1391–1409. <https://doi.org/10.1080/21670811.2022.2103011>
- Rahman, K. S. (2018). The new utilities: Private power, social infrastructure, and the revival of the public utility concept. *Cardozo Law Review*, 39(5), 1621–1689.
- Reporters Without Borders. (2022). *World Press Freedom Index 2022*. <https://rsf.org/en/index?year=2022>
- Robles-Rivera, F., & Cárdenas, J. (2023). Exploring the relationship between corporate networks and varieties of media capture. *Global Media and Communication*, 19(3), 291–312. <https://doi.org/10.1177/17427665231209398>
- Saxena, A., & Iyengar, S. (2020). *Centrality measures in complex networks: A survey* (v1). arXiv. <https://doi.org/10.48550/arXiv.2011.07190>
- Schiller, D. (2020). Reconstructing public utility networks: A program for action. *International Journal of Communication*, 14, 4989–5000. <https://ijoc.org/index.php/ijoc/article/view/16242>
- Schnyder, G., Radl, M., Toth, F., Kucukuzun, M., Turnšek, T., Çelik, B., & Pajnik, M. (2024). Theorizing and mapping media ownership networks in authoritarian-populist contexts: A comparative analysis of Austria, Hungary, Slovenia, and Turkey. *Media, Culture & Society*, 46(1), 38–59. <https://doi.org/10.1177/01634437231179366>
- Sevignani, S., Theine, H., & Tröger, M. (2025). Toward media environment capture: A theoretical contribution on the influence of big tech on news media. *International Journal of Communication*, 19, 804–824.
- Sjøvaag, H. (2014). Homogenisation or differentiation? The effects of consolidation in the regional newspaper market. *Journalism Studies*, 15(5), 511–521. <https://doi.org/10.1080/1461670X.2014.885275>
- Sjøvaag, H., & Ohlsson, J. (2019). Media ownership and journalism. In M. Powers (Ed.), *Oxford research encyclopedia of communication*. <https://doi.org/10.1093/acrefore/9780190228613.013.839>
- Sjøvaag, H., Stavelin, E., Karlsson, M., & Kammer, A. (2019). The hyperlinked Scandinavian news ecology. *Digital Journalism*, 7(4), 507–531. <https://doi.org/10.1080/21670811.2018.1454335>
- Sparviero, S., Alekseych, M., Wasner, C., Tomaz, T., & Trappel, J. (2024). *Communications, media and internet concentration in Austria, 2019–2022*. Global Media and Internet Concentration Project. <https://doi.org/10.22215/gmicp/2024.7.040>
- Tewksbury, D., & Rittenberg, J. (2015). *News on the internet: Information and citizenship in the 21st century*. Oxford University Press. <https://doi.org/10.1093/acprof:osobl/9780195391961.001.0001>
- Theine, H., Bartsch, J., & Tröger, M. (2025). Does media ownership matter for journalistic content? A systematic

- scoping review of empirical studies. *International Journal of Communication*, 19, 865–888. <https://ijoc.org/index.php/ijoc/article/view/21986>
- Theine, H., & Sevnani, S. (2024). Media property: Mapping the field and future trajectories in the digital age. *European Journal of Communication*, 39(5), 412–425. <https://doi.org/10.1177/02673231241268159>
- Tomaz, T. (2023). Brazilian fake news bill: Strong content moderation accountability but limited hold on platform market power. *Javnost–The Public*, 30(2), 253–267. <https://doi.org/10.1080/13183222.2023.2201801>
- Tomaz, T. (2024). Media ownership and control in Europe: A multidimensional approach. *European Journal of Communication*, 39(5), 498–511. <https://doi.org/10.1177/02673231241270994>
- Trbojević, F., Berglez, P., Vozab, D., Ots, M., & Peruško, Z. (2025). Quality of journalism and media freedom in Europe: The fsQCA approach. *Central European Journal of Communication*, 18(1), 29–50. [https://doi.org/10.51480/1899-5101.18.1\(39\).686](https://doi.org/10.51480/1899-5101.18.1(39).686)
- Valcke, P., Sükösd, M., & Picard, R. G. (Eds.). (2015). *Media pluralism and diversity*. Palgrave Macmillan. <https://doi.org/10.1057/9781137304308>
- Vizcarrondo, T. (2013). Measuring concentration of media ownership: 1976–2009. *International Journal on Media Management*, 15(3), 177–195. <https://doi.org/10.1080/14241277.2013.782499>
- Winseck, D. (2011). The political economies of media and the transformation of the global media industries. In D. Winseck & D. Y. Jin (Eds.), *The political economies of media: The transformation of the global media industries* (pp. 3–47). Bloomsbury Academic.
- Winseck, D. (2024). *Canada's network media economy: Growth, concentration and upheaval, 1984–2023*. Global Media and Internet Concentration Project. <https://doi.org/10.22215/gmicp/2024.12.124>
- Yahoo Finance. (2025a, August 4). Comcast Corporation (CMCSA): Major holders. *Yahoo Finance*. <https://finance.yahoo.com/quote/CMCSA/holders>
- Yahoo Finance. (2025b, August 4). The Walt Disney Company (DIS): Major holders. *Yahoo Finance*. <https://finance.yahoo.com/quote/DIS/holders>

About the Authors



Mariia Aleksevych is a doctoral candidate and researcher at the Division of Media Policy and Media Economics at the University of Salzburg. Her research interests include the effects of media ownership as well as the interrelations between the development of media, technology, power, and social justice.



Tales Tomaz is an assistant professor at the Division of Media Policy and Media Economics at the University of Salzburg. He currently heads the Euromedia Ownership Monitor 2025 project. His research interests are normative theories of news media, news media structure, and digital communication governance.

ARTICLE

Open Access Journal 

A See-Through Curtain of Varying Texture: Negotiating Power and Material Realities in Engaged Journalism

Bissie Anderson 

Department of Linguistics and Communication, University of Birmingham, UK

Correspondence: Bissie Anderson (b.z.anderson@bham.ac.uk)

Submitted: 31 January 2025 **Accepted:** 20 May 2025 **Published:** 3 July 2025

Issue: This article is part of the issue “Journalism in the Hybrid Media System” edited by Silke Fürst (University of Zurich), Florian Muhle (Zeppelin University Friedrichshafen), and Colin Porlezza (Università della Svizzera italiana), fully open access at <https://doi.org/10.17645/mac.i494>

Abstract

Acknowledging the networked nature of journalism and shifting power relations between actors in the hybrid media system, this article invokes the metaphor of “the curtain” that separates journalists and external actors/forces in discussions on journalistic autonomy (Coddington, 2015) and applies it to the engaged journalism practices of four media startups. It places “the curtain” in the hybrid media systems paradigm and its relational ontology (Chadwick, 2017) to examine to what extent that concept applies to engaged journalism, a participatory media practice that, by definition, involves publics in journalistic processes. Drawing on interviews with engaged journalism producers in Pakistan, Romania, Malaysia, and the UK, this comparative cross-border study explores the power relations within the actor constellations involved in journalistic co-creation. The outlets examined favour a relational approach to knowledge production, in which they prioritise mutual listening and learning—together with their communities. However, there is still a separation between journalists and audiences/publics. Examining the power negotiations that shape engaged journalism in different parts of the world, this study sheds light on the unique texture of each hybrid media space of co-creation. It offers a nuanced conceptualisation of hybridity, suggesting that engagement can lend itself to varying degrees of openness. The study findings challenge idealistic notions of participation by showing that, even in engaged journalism practice, participation remains tightly controlled by journalists and is subject to their negotiation of capacity-enabling and capacity-limiting forces within the constraints of the context-specific material realities.

Keywords

audience engagement; community journalism; engaged journalism; hybridity; journalism; journalistic autonomy; participatory journalism

1. Introduction

The concept of autonomy is central to journalism's professional claims as the independent arbiter of truth and knowledge. Journalism has never existed in a vacuum but has had to contend with external forces—the state, the market, changing technologies, and audiences, while simultaneously working hard to preserve its boundaries (Carlson, 2015; Lewis, 2015). Recognising that complete autonomy is impossible, scholars have theorised the relationship between journalism and its environment through a hierarchical model of influences (Shoemaker & Reese, 1996). Recently, there has been a reconsidering of this hierarchical conceptualisation towards a more relational positioning of journalism within a networked media ecology (Örnebring & Karlsson, 2022; Reese & Shoemaker, 2016). Chadwick (2017, p. 25) argues that, rather than being a top-down process over-determined by macro-forces, media logic is forged in hybrid networks, through a relational process of co-creation “by media, political actors, and publics.” In his hybrid media systems paradigm, Chadwick advances the idea that power and agency in social production can only be examined through the relations and interactions between various actors and forces. Similarly, in their update of the hierarchy of influences model, Reese and Shoemaker (2016, p. 406) acknowledge that the networked nature of newswork within hybrid media systems requires a conceptual and analytical focus on the “complex assemblages of modular units—journalists, technologies, and political actors which can be understood only in their relationships with each other.”

Journalism's incessant efforts to maintain its autonomy from external actors and forces have traditionally been captured by the metaphor of “the wall”—the “collective institutional mechanisms that regulate the relationship between journalism and its environment” (Örnebring & Karlsson, 2022, p. 286) and a discursive acknowledgement of the need to build defences against, and distinguish itself from, ever-encroaching outsiders. But the hybrid nature of the 21st-century media ecosystem has made wall-building and fortification an untenable task and made scholars question the explanatory power of “the wall” separating journalism from external actors and forces. Coddington (2015) argues that, in the hybrid media ecosystem, the relationship between journalism and external forces is most aptly captured by the metaphor of “the curtain.” The curtain metaphor implies a degree of permeability and openness; while a wall denotes a solid boundary as a fixed, immovable object, a curtain is flexible and adjustable and can be opened or closed. The curtain is an especially fitting concept to apply in discussions of the relationship between journalists and publics, whose power dynamics have shifted with the rise of active audiences and interactive media. As Chadwick argues, publics now have the agency to “play direct and instrumental roles in the production of media content through their occasionally decisive interventions” (2017, pp. 26–27). What is interesting is to explore this dynamic in practices of engaged journalism which, by definition, actively involve publics/audiences in the journalistic production process. Engaged journalism is an ethic of participation and a practice of engaging communities in collaborative knowledge production. It places an emphasis on “facilitating more reciprocal relationships with the public” (Schmidt & Lawrence, 2020, p. 5) and usually involves publics with lived experience of an issue generating data or sharing their knowledge or experience as an integral part of journalistic reporting. But how open to participation is this type of journalism and are there any material constraints that shape this practice in reality?

2. Literature Review

The changing dynamics between journalism and audiences in the hybrid media system have had a dramatic impact on journalistic knowledge production practices, which are now more open to the public. Indeed, over the last two decades, the opportunities for the public to participate in the news-making process have increased exponentially, as indicated by the variety of emergent concepts that have sought to theorise this participatory philosophy—public journalism (Glasser, 1999), “produsage” (Bruns, 2008), ambient journalism (Hermida, 2010), network journalism (Heinrich, 2013; Russell, 2016), and citizen journalism or citizen witnessing (Allan, 2013; Dickens et al., 2014). Whether it be online news commenters (Robinson, 2015), NGOs (Powers, 2015), or publics sending user-generated content (Wahl-Jorgensen, 2015), digital journalism has enhanced the opportunities for interaction between journalists and non-journalistic actors, thereby contesting the boundaries between journalists and publics. The demands to narrow the distance between media producer and consumer have also increased in newsrooms across the world (Hanusch & Banjac, 2019), as the reader now arguably takes on a more active role in the production of knowledge. How journalists construct the image of, listen to, and connect with, their “imagined audience” (Nelson, 2021) has become central to their legitimacy and epistemic power.

2.1. *Participatory Journalism: Rhetoric and Practice*

Despite the rhetoric of audience engagement, the early literature on embracing participatory culture in newsrooms points to a grudging willingness to extend news production practices to the public; audiences were still viewed as media consumers rather than collaborators, and early-day user-generated content practices were driven by political economy, brand-strengthening, rather than democratic, motivations (Domingo et al., 2008; Hermida & Thurman, 2008; Singer et al., 2011). Engelke’s (2019, p. 37) systematic literature review of studies of online participatory journalism since 1997 found that journalists have mostly remained in power in the formation and interpretation stages of news production, therefore reinforcing journalism’s gatekeeping function. Furthermore, journalists have been seen to engage in protecting the boundaries of their profession where participatory practices are concerned and still dictating the rules of the game by co-opting and segregating user-generated content (Wahl-Jorgensen, 2015) and shaping how stories originating from NGOs are told (Powers, 2015). This has led to claims that the participatory potential and democratising vision of digital media are far from being realised in digital journalism (Joseph, 2016). Scholars have repeatedly called for opening journalistic processes to the public, and an increased transparency (Domingo & Le Cam, 2015; Hermida, 2015; Singer, 2015). Singer (2015, p. 32), for instance, argues that tearing down normative walls between journalists and citizens, relinquishing the notion of gatekeeping control, and a more open, adaptable approach based on transparency, could be “the key to the survival of a profession that can no longer thrive in splendid isolation.” Singer (2019) points out that journalists could do more to facilitate better connections with audiences and embrace collaboration by involving members of the public in the production process.

More recently, there have been pronounced efforts to actively embrace publics in the production stage of the journalistic process through participatory, audience-centred, or community-focused practices called “engaged journalism” (Guzmán, 2016; Schmidt & Lawrence, 2020; Schmidt et al., 2022; Wenzel, 2020; Zahay et al., 2020) as an antidote to journalism’s traditional retrenchment in boundary work. Schmidt and Lawrence (2020, p. 2) define engaged journalism as “interactive, participatory, or collaborative practices of journalism

that treat audiences as active users and even co-creators of news...that attempt to bring the public into earlier stages of news production...and that are aimed at building relationships with communities.” This philosophy is in stark contrast with much of the literature on participatory journalism, in which audiences were found to be passive recipients of news who are mostly involved in the interpretation stage, rather than the formation or dissemination stage, of the news production process (Engelke, 2019), and whose online behaviour is tracked and measured for transactional purposes. Deep audience engagement, collaboration, and empowering publics by involving them at all stages of the journalistic production process are the key characteristics of engaged journalism, under the aspirational banner of public-powered journalism (Guzmán, 2016). Engagement is seen as a cyclical, open, and inclusive process, a feedback loop, with the audience involved in all stages of communication—from inception and ideation to distribution. Schmidt and Lawrence (2020) suggest that engaged journalism practices genuinely create opportunities for deep and meaningful audience involvement but realising that potential is contingent on material factors such as technological and organisational resources. Addressing the conceptual limitations in audience-centred journalism research and practice, scholars have proposed viewing its many dimensions on a relational-transactional continuum (DeVigal, 2017). At the “relational” end of this scale, dialogism and deep engagement, sought in practices such as community-centred journalism, are seen as a vehicle for civic participation and rebuilding trust by empowering and connecting to an increasingly disengaged public. A relational approach, defined by a dialogic relationship with the audience, could ultimately rebuild public trust (Lewis, 2020). At the “transactional” end lies “reciprocal journalism,” a philosophy of mutual exchange between journalists and audiences, which Lewis et al. (2014, op. 229, 236, 238) argue could lead to more meaningful engagement of journalists with their communities, thereby accomplishing journalism’s normative goals—increasing connectedness and trust—and realising participatory media’s full potential. Embracing engaged journalism also changes journalistic perceptions of the audience. A comparative case study of two American public media newsrooms’ audience engagement practices, for example, found that, through an emphasis on reciprocal practices of journalism, news organisations are starting to make a distinction “between the communities they cover *in their reporting* and the audiences they *reach with their reporting*” (Belair-Gagnon et al., 2019, p. 571, emphases in original). This finding has implications for the ways journalists envision their audiences and communities, respectively, presenting a step change from existing conceptualisations, which mostly conflate the public and the audience. Brants (2013, p. 22) makes a convincing argument for a multidimensional conceptualisation of the audience based on the “responsive measures and strategies” journalists have introduced to restore public trust. Brants (2013, p. 23) explains that these strategies differ, depending on what journalists want from their interactions with the audience: For example, when trying to connect with the public as citizens to find solutions to perceived problems and learn through interaction, journalists engage in civic responsiveness. There is also the strategic type of responsiveness: where the public is addressed as a consumer, the empathic type—when the public is addressed “as one of us”; and the populist type—which addresses the public as disaffected individuals (Brants, 2013, p. 23). Thus, any conceptualisation of the audience must be nuanced and contextual, reflecting both producers’ motivations for engaging with their audiences, and how these intents are expressed in the various forms of journalistic practice. A clear line must also be drawn between constructive forms of community participation and oft-disruptive practices of audience engagement such as user comments (Ksiazek & Springer, 2020).

2.2. Hybrid Media Spaces of Co-Creation: Journalists and Publics as Knowledge-Production Collectives

As the two traditionally distinct “interpretive communities”—those of producers and consumers (Zelizer, 1993)—become “drawn together by the circulation of news” and are increasingly enmeshed in the process of knowledge co-creation (Eldridge & Bødker, 2019, p. 286), scholars have argued that journalistic practice should be studied through the relations between a variety of actants, human and nonhuman, physical or abstract (Domingo & Wiard, 2016), recognising and detailing the “plenum of agencies at play” in the process (De Maeyer, 2016, p. 467). The relational ontology of hybridity is instrumental in that regard. A hybridity ontology, Chadwick (2017, p. 25) argues, views 21st-century media logic as a product of relational co-creation, “a force co-created by media, political actors, and publics.” A relational conceptualisation of journalistic knowledge production pays attention to what capacities and agencies are generated in “the entire ensemble of individuals, organizations, and technologies within a particular geographic community or around a particular issue, engaged in journalistic production and, indeed, in journalistic consumption” (Anderson, 2016, p. 412). It is in the interactions between actors and actants taking place in hybrid media spaces that knowledge is produced. This relational way of viewing social production eschews dichotomous either/or thinking and boundary work, which is prevalent in traditional studies of journalistic autonomy, in favour of “not only, but also” thinking (Chadwick, 2017, p. 17). Freed from viewing the world in terms of boundaries, walls, and binary oppositions, scholars working within a hybridity ontological framework can explicate “the relative power of actors in a media system” (Chadwick, 2017, p. 19). As Chadwick explains, power and agency are conceived of as relational, contingent and in flux, an ontological perspective that eschews structuralist conceptions of power as a pre-determined and established, top-down structure of relations. Systems are not fixed but rather “always in the process of becoming as actors simultaneously create and adapt” (Chadwick, 2017, p. 23). By examining the relations between journalists and publics, we could shed light on how power is negotiated in these hybrid media spaces of co-creation.

While hybridity can be instrumental as a sensitizing concept, there have been calls for moving “beyond hybridity” in studies of journalistic practice. Some scholars (Hallin et al., 2023; Witschge et al., 2019) have critiqued the theory’s explanatory power. Hallin et al. (2023) warn against using hybridity as a “catch-all” term that glosses over the nuance and specificity of individual journalistic practices and contexts. A move “beyond hybridity” in analyses of networked journalistic practice means being open to capturing heterogeneity, contingency, and flux, in all its subtlety, “messiness and all” (Witschge et al., 2019, p. 656). It means peeling back the layers of journalistic knowledge production, which can only be achieved by examining them in situ and in journalistic practice. While hybridity can sensitize us to boundary-blurring in journalism, we should seek to flesh out the specificities and the nuanced, context-specific ways hybridity is enacted in the relations between journalists and publics while taking into account the material realities in which these encounters take place. Viewing engaged journalism knowledge production through a hybridity ontological frame, then, means examining the process through the relations and interactions between journalists, their audiences, and publics who engage in participatory journalistic practice. Going “beyond hybridity” as a catch-all term requires conceptualising all participants in the process as a collective, while at the same time nuancing each participant role (journalists, audience members, members of the public) through the “curtain” metaphor (Coddington, 2015) to examine the knowledge-production process’ degree of openness to participation and explicate each participant’s relative power and agency. We should aim to capture not just the manifestations of hybridity, but more importantly, the unique texture of each hybrid media space woven in the interactions between journalistic and non-journalistic actors and actants, not only

for the sake of documenting it, but in order to explicate who has the power and agency to effect change (in both journalism and society) and how that power is shared and negotiated.

This article, therefore, seeks to address the following central research question, followed by two sub-questions:

RQ1: How do engaged journalists negotiate power relations and material realities in the process of knowledge co-creation?

RQ2. How do engaged journalists imagine their audiences, respond to them, and involve publics in knowledge production?

RQ3. How open to the public are engaged journalism knowledge co-creation practices, and what are the factors that shape participation on the part of journalism startups?

3. Method

Empirically, the study draws on 30 in-depth semi-structured interviews with journalists from four independent media startups—*The Current* (Pakistan), *DoR* (Romania), *New Naratif* (Malaysia), and *Bureau Local* (UK), respectively. The four media outlets are examples of an emergent trend of non-mainstream entrepreneurial journalism that, Deuze and Witschge (2020) argue, often leads the way in redefining what journalism is and could be. Being small and agile, untethered to legacy processes, media startups have more flexibility to experiment with storytelling processes and practices, yet their existence is precarious and subject to multiple material constraints (Salaverría, 2020). A case in point is the short lifespan of *The Correspondent*—an ambitious digital media platform that promised to “unbreak the news” through collaborative, constructive, deep reporting, but failed to become sustainable and folded in the first year of the Covid-19 pandemic.

The study participant selection process involved a mix of convenience and snowball sampling, and the inclusion criteria were as follows:

1. Independent media startups that employ innovation rhetoric in their public-facing metadiscourse (website and social media channels);
2. Outlets that practise audience-first, public-powered, participatory journalism;
3. Media organisations located in different journalistic cultures.

The convenience sampling stage involved field mapping and creating a longlist of journalistic outlets through attending seven industry conferences dedicated to independent media and public interest journalism between late 2018 and late 2020, with the interviews taking place in the period October 2020–May 2021. The conferences were organised by various institutions based in Europe, Southeast Asia, and Latin America, and the majority were streamed online during the pandemic. After the initial mapping process, a shortlist was created through interviews with some of the event organisers: Rishad Patel and Alan Soon, the co-founders of Splice Media, a Southeast-Asia-based organisation that supports media startups and media innovation in Southeast Asia; and Jakub Gornicki, co-founder of Outriders, an investigative journalism

collective based in Warsaw that also organised the Outriders Stage conference in November 2019. The Splice Media co-founders had presented at the Outriders Stage conference and subsequently ran two online international journalism festivals in 2020—Splice Low-Res and Splice Beta. Once several organisations were identified and the first interviews conducted, I employed snowball sampling, asking participants in each organisation to identify further interview participants. The final sample includes a range of roles within each journalism startup (Table 1).

The mean duration of the interviews was 53 minutes. During the interviews, the participants were asked to reflect on: (a) the journalistic knowledge-production process, their role in it, and how they work

Table 1. Interview participants and roles within the respective startup.

Code	Organisation	Role
BL01	<i>Bureau Local</i>	Reporter/community organiser
BL02	<i>Bureau Local</i>	Community organiser
BL03	<i>Bureau Local</i>	Journalist
BL04	<i>Bureau Local</i>	Journalist
DoR01	<i>DoR</i>	Editor-in-chief
DoR02	<i>DoR</i>	Reporter
DoR03	<i>DoR</i>	Visual editor
DoR04	<i>DoR</i>	Reporter
DoR05	<i>DoR</i>	Digital editor
DoR06	<i>DoR</i>	Web developer
C01	<i>The Current</i>	Editor-in-chief
C02	<i>The Current</i>	Politics editor
C03	<i>The Current</i>	Food and drama review reporter
C04	<i>The Current</i>	Entertainment editor
C05	<i>The Current</i>	Graphic designer
C06	<i>The Current</i>	Co-founder
C07	<i>The Current</i>	Art director
C08	<i>The Current</i>	Tech news editor
C09	<i>The Current</i>	Lifestyle editor
C10	<i>The Current</i>	Political reporter
C11	<i>The Current</i>	Lifestyle reporter
C12	<i>The Current</i>	Intern
C13	<i>The Current</i>	Cameraperson
NN01	<i>New Naratif</i>	CEO
NN02	<i>New Naratif</i>	Illustration editor
NN03	<i>New Naratif</i>	Membership engagement coordinator
NN04	<i>New Naratif</i>	Reporter
NN05	<i>New Naratif</i>	Social media manager
NN06	<i>New Naratif</i>	Design editor
NN07	<i>New Naratif</i>	Editor-in-chief

collaboratively; (b) how they “imagine” their audiences and the role audiences play in the knowledge-production process; (c) how they engage with members of the public, and whether and how publics get involved in co-creating journalistic stories; (d) how open the editorial process is to the public and what material and structural factors shape public participation in co-creation. The interview data was analysed through the thematic analysis method (Braun & Clarke, 2006). Each case of engaged journalism is operationalised as a hybrid media space, in a multiple case study research design, which allowed for the comparative analysis of the ways knowledge is co-produced across different contexts and locations. The interviews shed light on the relations and interactions in each hybrid media space (*Bureau Local*, *The Current*, *DoR*, and *New Naratif*, respectively).

3.1. About the Startups

The Current is an independent news-lifestyle platform for millennials based in Lahore, Pakistan. It was the first journalistic platform in Pakistan to be funded by the Google News Initiative. *The Current* has sought to establish its brand as “Pakistan’s most credible, young news platform” (The Current, n.d.). *The Current*’s *raison d’être* is to simplify news for Pakistani millennials (its target audience), contribute to a “more informed life,” report on “all the issues that matter,” and that its readers care about. *The Current* emphasises its editorial independence in its metajournalistic discourse and is part of a wider pattern of pioneering digital journalism in Asia. It operates in a developmental journalistic culture with low press freedom and in conditions of censorship, where journalists are likely to act as “agents of change, aspiring to contribute to national development” and advocating for social change and democratization (Hanitzsch et al., 2019, pp. 300–302).

New Naratif is a journalism think tank that identifies itself as a movement for democracy in Southeast Asia. *New Naratif* openly promotes itself on its website as a platform that actively seeks to “engage, educate and empower Southeast Asians” (New Naratif, n.d.). It bridges the gap between information and action by fostering an inclusive Southeast Asian community and encouraging Southeast Asians to engage in building democracy. *New Naratif* operates in the wider context of a “collaborative” journalistic culture, characterised by a partnership with the state, high trust in institutions, and limited press freedom (Hanitzsch et al., 2019). As an independent media outlet, *New Naratif* exists as an antidote to this journalistic culture, and as a result, it has been subjected to pressure and harassment from the authorities, having to move its headquarters from Singapore to Malaysia.

DoR is an independent print/digital publication, which operated for 12 years in Romania’s capital Bucharest. As a transitional democracy, Romania has weak media protections and low trust in institutions, a wider trend across Eastern Europe (Hanitzsch et al., 2019, p. 300). There is a strong emphasis on advocacy in these countries, with the democratisation process driving journalists to “involve themselves in political struggles rather than act as disinterested bystanders” (Hanitzsch et al., 2019, p. 300). *DoR* fits well in this “advocative” journalistic culture in its role conception as an actor of change—both in terms of reimagining journalism and transforming society, as expressed in its mission statement:

We want our stories to provide people with tools and solutions so they can live their lives better and be actively involved in transforming their communities....Internally, we encourage each other to be an active part of change: we have the freedom to innovate, to experiment, to challenge the state of affairs, to ask and do new things. (DoR, n.d.)

Bureau Local is a local investigative journalism outlet based in the UK that is known for its grassroots processes of community engagement and partnerships with local and national media. *Bureau Local* defines itself on its website as a “people-powered” collaborative network aiming to “support quality journalism, set the news agenda and spark change from the ground up” (Hamada, 2020). The principles of community care, pioneering different journalistic practices, and inclusivity (“making sure news is working for everyone”) lie at the core of its mission. *Bureau Local* operates in a media landscape that is defined by the Western liberal approach to journalism and combines a free and well-regulated public broadcasting system (the BBC) and a highly commercialised press. Therefore, the outlet is free to perform a “monitorial” role associated with journalism’s Fourth Estate public service function of holding power to account (Hanitzsch et al., 2019, pp. 297–298). UK journalism enjoys relative independence from political powers, which, as Hanitzsch et al. (2019, p. 297) explain, is “a defining element of democracy.”

4. Data Analysis

4.1. How Engaged Journalists “Imagine” Their Audiences: Types of Public Responsiveness

The analysis of the ways engaged journalists imagine their audiences and the types of responsiveness they employ in the process suggests that the outlets examined in this study oscillate between at least two types of responsiveness vis-à-vis members of the public and engage in them to varying degrees (Table 2 shows the types of responsiveness in order of prominence, as per Brants’ 2013 classification). *The Current* actively seeks to narrow the distance between its journalism and its (loyal) audience by integrating its readership into the knowledge production process, making that process as transparent as possible, and presenting itself as a relatable and reliable journalism outlet that readers can trust. It strives to be “the platform where readers can have their say and they can give their story to the world” (C09) in a media landscape defined by a lack of trust, especially in legacy news media. Thus, *The Current* mostly addresses its readers as “one of us” (empathic responsiveness), then as consumers (strategic responsiveness)—seen in its efforts to attract paying members and its reciprocal engagement plans—to invite paying members to co-produce content and access training and events. Additionally, the outlet addresses its readers as citizens (civic responsiveness) when it reports on issues it deems important that are in line with its pro-democracy editorial policy. For example, the editorial team feel it is important to cover the annual women’s rights marches and human rights stories as a service to society, despite the fact they are controversial topics in Pakistan. *New Naratif*’s responsiveness can be described as mostly civic (in its democracy-building mission), then empathic (when addressing community members as a transnational imagined collective), and to a lesser degree, strategic. Publics are mainly addressed as citizens, but also as “one of us” in *New Naratif*’s community-building efforts, and to a lesser degree, also as “consumers” when the outlet seeks to encourage readers to become paying members in its drive to become a sustainable business. *DoR*’s engagement is mostly empathic, as it strives to establish deep connections and collective empathy, followed by civic, and then strategic—as it relies largely on paying members to keep running. *Bureau Local* engages in mostly civic, followed by empathic, responsiveness—in its focus on community empowerment and sparking change. The *Bureau Local* journalists and community organisers stressed that they sought to build deep, symbiotic relationships with the communities they cover, an example of what Brants refers to as “one-of-us,” empathic responsiveness. What is notable in the case of *Bureau Local* is its relative lack of strategic responsiveness—that is due to the fact *Bureau Local* is relatively well-resourced and is in the privileged position to not have to rely on running membership campaigns and therefore, it can afford not to address people as consumers. It is important to note that neither of the

outlets studied employs the “populist” type of responsiveness and addresses its audiences as “disaffected individuals” (Brants, 2013).

A significant nuanced finding across the cases is how they envision the relational object of their epistemic practice. Here, the differentiation between “the mass,” “the public,” and “the audience” (Ahva & Heikkilä, 2016) has been useful in teasing out how the engaged journalists in this study view all the participants and their roles in the journalistic knowledge production process. Engaged journalists de-aggregate and re-aggregate publics into individuals, audiences/readers, paying subscribers, non-paying supporters, communities they report on, and wider networks of contributors. *Bureau Local*’s Scotland-based freelance community organiser, for instance, explained that the team “don’t just think about the audience as one-way recipients of our work” and, in fact, they would rarely use the word “audience.” These findings are consonant with Belair-Gagnon et al.’s (2019) conclusions that journalists practising relational journalism make a distinction between audiences and communities—a step change from existing conceptualisations that conflate the two. But this study shows an even more complex process of de- and re-aggregation of publics into many different entities, which is significant as it problematises the concept of the audience as a hitherto monolithic entity.

4.2. Relations Between Journalists and Publics in Knowledge Co-Production

The cross-case analysis of interview data (Table 2) suggests that engaged journalists enact hybridity in the process of journalistic knowledge production through the mobilisation of an imagined collective around their journalism. They focus on “together-ness” and seek to build relations across their networks, further aggregating all participants in the journalistic knowledge production process—communities, engaged citizens, supporters, paying subscribers, and any interested parties. That imagined collective can be a transnational democracy-building community (*New Naratif*) or a “network of networks” (BL04) involving anything from media partners and campaigning groups to community supporters (*Bureau Local*). Mutual listening, learning, and understanding lie at the core of the relations between engaged journalists and communities as engaged journalists seek to build closer and deeper connections with their networks and the communities that they cover by coming together to collaborate. This dialogic process can involve experimenting to see what works for audiences and gauging their opinion (*The Current*), community feedback on how to better package stories for social media (*New Naratif*), soliciting story ideas and consulting supporters on the most relevant approach (*DoR*), or flipping the editorial process, inviting publics to participate in journalistic knowledge production from start to finish (*Bureau Local*). Engaged journalists favour a dialogic, inclusive, non-extractive approach when reporting on communities (especially those mis- or under-represented), embedding themselves in local communities with care and respect, driven by their public service mission, and often completely reimagining the journalistic knowledge production process from the ground up (in the case of *Bureau Local*, and to some extent, *DoR*). Journalistic knowledge production, thus, becomes a collective and relational endeavour, grounded in lived experience, human dignity, and care, with journalists seeking to foster community agency and empowerment. In so doing, engaged journalists challenge the traditional “journalist knows better” (C01) mindset, as at least four of the interview participants acknowledged (C01, NN01, DoR01, BL01), embracing the “crosspollination” of voices, ideas, and perspectives (BL04) in their hope to (re-)build trust with members of the public.

While all four outlets in this study emphasise the relational and collective production of knowledge in engaged journalism, there is a slight nuance in the ways this approach manifests in each context. For instance, while it prioritises its paying members, *DoR* actively seeks to embed its reporters in, and work with, local communities (in schools, cities, or rural areas). In 2019, *DoR* organised a “pop-up newsroom,” an editorial project in Târgu Mures, Transylvania, where the team moved for a week, ran events such as writing and photography workshops, and produced stories involving the local community. The editor-in-chief explained the rationale behind the “pop-up newsroom” was to “try to integrate people from the non-editorial side of the magazine in our editorial work, so they could understand more of what we do when we go report on stories” (DoR01). The team organised six community events during which they discussed what local people would like to see covered and what they thought people in Romania’s capital Bucharest needed to know about their region. One of the most salient examples of *DoR*’s relational knowledge production process is its work on “Fear Was Already Here,” a story it published after two teenage girls were kidnapped and killed in Romania, a crime that shook the nation. Instead of covering the story the traditional way, *DoR* decided to speak to teenage girls around the country. The idea for this approach was partly born inside the *DoR* community as *DoR* supporters wanted to understand what this incident meant to young women in the country. The social reporter, who worked on the story, sent out emails to schools around the country inviting girls to talk about how they felt after the kidnapping incident. She ran eight roundtables with 30 high school girls, listening to them talk and share their feelings and emotions, thus “facilitating a space” where they could talk freely about safety (DoR01), so the reporter “wrote [the story] in their voice” (DoR04). Romanian teenage girls actively participated in producing the visuals for the story too by sending in their paintings, photos, or illustrations expressing how they felt about the kidnapping case, which were then blended and used to add to the visual effect of the story. The editor-in-chief explained that “Fear Was Already Here” was an example of *DoR*’s dialogic, inclusive, and relational approach, which, he stressed, was transforming the team’s conceptions of what journalism is.

Similarly, the *Bureau Local* has moved from a more traditional top-down approach where journalists would do all the “digging away at the story for months” and solicit tips and ideas from its network through crowdsourcing and callouts, to, more recently, “managing bottom-up investigations” (BL03). The Wales-based community organiser stressed that *Bureau Local* was making “a transition from what they call traditional journalism to deeply engaged journalism” (BL01)—flipping the typical editorial process around by involving members of the public from the very start at all stages, from ideation, story selection, and story idea pitching to co-production. This, he explained, goes beyond the concept of audience or community engagement towards an epistemic practice that is more inclusive, as it involves members of the public in knowledge production as collaborators and co-creators. He sees grounding the process in lived experiences as a vehicle for building trust with communities. An example of *Bureau Local*’s bottom-up community-led knowledge production process is its project on insecure work “Is Work Working?,” which was the first time *Bureau Local* had involved members of the public in the process in a more structured fashion, but also in a way that tapped into what BL04 referred to as the *Bureau*’s “networks of networks”—media partners, unions, engaged citizens, activists, academics, and experts—to ensure they maximised the impact and reach of the investigation. The *Bureau* opened the process to the public at an “Open Newsroom”—an online event designed to generate a public discussion on the broader issue of insecure work. The community organisers who supported the investigation explained that community engagement was “threaded through the whole process” (BL02). As one of the first projects investigated how much British online food delivery company Deliveroo paid its delivery riders, *Bureau Local* involved the riders in carrying out the research alongside

Bureau journalists. The riders contributed by sharing their invoices to shed light on how little they were paid during their shifts. Acknowledging the Deliveroo riders' equal status as co-creators of journalism, *Bureau Local* interview participants stressed that they call them "participant journalists."

Table 2. Relations between actors (journalists, audiences, community, network) in each engaged journalism hybrid media space.

Case	Relations between actors	Type of responsiveness in order of prominence*	Engagement in journalistic knowledge production
<i>The Current</i>	Together: "a family" Imagined collective Audience first: social listening and seeking to form a bond with audiences	1. Empathic 2. Strategic 3. Civic	Mutual learning: experimenting to see what works and gauging opinion Audience engagement feeds into story selection and format development Audiences not involved in editorial processes, but there are plans to open them to paying members in future A see-through curtain, sometimes lifted: taking the audience behind the scenes
<i>New Naratif</i>	Transnational network of collaborators Imagined collective: democracy-building community Paying members Audiences	1. Civic 2. Empathic 3. Strategic	Co-creation with freelancers (artist-writer network) Mutual learning: the community can feedback on how content can be improved through surveys Reporting embedded in local communities: non-extractive, careful, and respectful A thick, opaque curtain, opened slightly: community not involved directly in journalistic knowledge production
<i>DoR</i>	Pools of audience: loyal community, readers, followers, and members of the public	1. Empathic 2. Civic 3. Strategic	Mutual learning (with audiences and community) Collective process of co-creation within the team (e.g., workshopping stories) Relational and inclusive reporting process: reporters embed themselves in local communities A sheer, lacy curtain, closed: no co-production per se but soliciting story ideas and consulting readers and supporters on the most relevant approach
<i>Bureau Local</i>	Fluid roles in the team "Networks of networks": media partners, supporting members, experts, campaigning groups, and various stakeholders	1. Civic 2. Empathic	Mutual learning: A constant process of experimentation A sheer curtain, pulled right open: inviting communities to participate from start to finish

Source: * Brants (2013).

4.3. Journalistic Autonomy and the (Semi-)Permeable Boundaries of Engaged Journalism

A notable nuance that emerged in this study is the extent to which engaged journalists open the process of journalistic knowledge production to the public—whether that be specific communities or people with lived experience, their paying subscribers, freelance collaborators, or members of the public, which has implications for discussions of journalistic autonomy and the boundaries of journalism. This study found that the curtain metaphor applies to engaged journalism knowledge production, as the boundaries of engaged journalism are relatively more permeable compared to traditional journalism. The curtain that separates journalists from publics or audiences, however, is characterised by varying thickness and degrees of openness, which are context specific. While the curtain separating engaged journalists and members of the public remains, it is a rather “see-through curtain” as engaged journalists seek closer relations with communities and take a transparent approach to knowledge production. Engaged journalists often “lift the curtain,” taking audiences behind the scenes (e.g., *The Current*) or “pull the curtain right open”—as in the case of *Bureau Local*, which flips the editorial process around, inviting communities to join in all stages of the process and stay part of it from beginning to end. The data analysis shows that this relationship between the actors in engaged journalism is still tightly regulated by journalists, but it is fluid and contingent. *The Current*, for instance, had plans to become an incubator for journalists of the future in Pakistan, thus granting its subscribers agency and voice to co-produce knowledge in a quid pro quo membership subscription model. In its experimental editorial process, *Bureau Local* assembles, and deeply embeds, communities in all stages of knowledge production. While its reporters and editorial staff still manage that process and regulate their relationships with members of the public, the traditional wall separating journalists and community members is replaced by a “sheer curtain” that *Bureau Local* pulls right open and invites communities and other partners to not only to peek behind but join in, thus giving them agency and a voice, and empowering them.

New Naratif favours a “thick, opaque curtain” approach but “pulls that curtain open slightly” for freelance contributors to join in and for its supporter community to feedback on content, while carefully managing that process. Despite addressing community members as “one-of-us” (Brants, 2013) and stating in its manifesto that it “actively involves our members in the journalistic process,” *New Naratif* does not co-produce content with its members/audiences, preferring to maintain its editorial independence. While readers and community members could feedback on stories and their insights are used when packaging up content for various platforms, they do not drive the editorial agenda as *New Naratif* editors believe their readers trust their editorial judgement. *DoR*’s knowledge-production process is characterised by a “sheer lacy curtain” that remains closed but anyone could peek behind—while it does not co-produce stories with its community members per se, it favours a two-way dialogic approach and involves them at the pre-production stage when it solicits story ideas, consults them on the most relevant approach, and sometimes invites user-generated content from members of specific communities (e.g., teenage girl artists for the “Fear War Already Here” story). While *DoR* has not involved its community in co-production per se, it has solicited story ideas and consulted readers and supporters on the most relevant approach to covering a story. *DoR* opens the editorial process to its supporters by asking them for tips, telling them what stories it is working on, or running events and classes in their towns or cities. Dialogue lies at the core of *DoR*’s ethos; the team feels a duty to involve their community as much as possible in their editorial decision-making, through listening to them and trying to produce journalism that meets their needs.

4.4. The Varying Textures of Engaged Journalism: Material Factors Shaping Participatory Knowledge Production

The motivation to engage publics in journalistic knowledge production lies at the core of the four startups' self-perception, mission, and values. A common feature across the four cases is that non-mainstream journalism producers deem their editorial orientation (what matters to journalists) and community imperatives (to serve communities through their journalism) as the strongest of all factors that shape their practice, showing a clear link between their vision, perceived mission, and practice and pointing to a strong perception of autonomy. But there are certain material constraints and external forces that these startups must contend with, which limit in a way what engaged journalism can do, or how much participation is realistically possible beyond the rhetoric found in the interview data and the four outlets' public metadiscourses. These material factors are structural—political, financial, and sociocultural—and as this study found, they are stronger in non-Western contexts. The two case studies based in Asia (*The Current* and *New Naratif*) showed a greater number of structural capacity-limiting forces they must negotiate in the knowledge production process. These findings echo the *Worlds of Journalism* study, which showed that journalists in economically poorer, developing-democracy contexts with censorship and lower press freedom “perceive political and economic influences as stronger than...their counterparts in other regions of the globe,” especially Western countries (Hanitzsch et al., 2019, p. 288). The precarious funding situation and the strained financial and organisational resources emerged as the strongest of the restrictive factors, as seen in the cases of *The Current*, *New Naratif*, and *DoR*. The financial aspect (and organisational, in the case of *DoR*) was by far the strongest limiting factor in three of the four cases studied, with the notable exception of *Bureau Local*, pointing to the precarious nature of non-mainstream journalism organisations' business models and the need to find workable solutions so these startups, and their pioneering engagement practices, become sustainable.

The Current has to contend with financial, political and sociocultural constraints that often limit what it can do in terms of knowledge production. The startup, which has a progressive editorial orientation, operates in a country with restricted press freedom and must navigate censorship, so it seeks to build a balanced platform presenting all voices, creating a space for dialogue and laying the groundwork for future social change. *The Current* also navigates sociocultural factors such as conservative social values and polarization to produce stories with social impact, ones that raise awareness of structural issues, such as gender-based violence and women's rights, or amplify voices that its journalists and editors think matter. It negotiates the oft-conflicting imperatives to inform its community and audiences and to entertain them, aware that they prefer light-hearted content, by creating content formats that bridge the serious and the entertaining: for example, lifestyle video interviews with politicians alongside coverage of marches for women's rights. The strong structural influences mean that *The Current* often walks a fine line between opening its editorial processes to the public and protecting its journalists, as it occasionally lifts the curtain to take the audience behind the scenes of its editorial processes. *New Naratif* bravely navigates the rising threats to press freedom in Southeast Asia in its mission to expand the space for freedom of expression in the region, through reporting on underreported topics, deep and relational storytelling, and being “openly subjective”: i.e., being transparent about its values, reflexive and engaged. While it finds it challenging to reach across borders and engage communities in all the countries it covers, it nevertheless continues its efforts to build bridges of solidarity across borders and a transnational collective, thus bridging the local and the regional. *New Naratif* also has to negotiate strong political factors, but far from letting them circumscribe its epistemic

capacities, it openly engages in advocacy, pushing back on these forces. *New Naratif* navigates an ever-hostile environment, so its knowledge production process is embedded in a culture of anticipating risk as it openly resists authoritarianism and seeks to create citizen capacities for democratic action. This may explain why it favours a “thick, opaque curtain” approach to public engagement—prioritising the safety of its journalists and communities and being careful not to expose them to the risk of harassment and persecution.

DoR’s editorial mission to connect people across Romania finds expression in actionable stories that seek to mend the disconnect between rural areas and the capital city Bucharest, and between communities, as seen in its focus on “the afterlife” of its stories, which it takes to communities through events such as its pop-up newsroom and journalism on stage. DoR’s journalists navigate readers’ empathy fatigue through an ethos of care: taking care when crafting their content about how they represent people and communities, and how the reader would best experience a story. DoR’s main material constraints lie in the need to adapt to multiple challenges that it faced during the pandemic: trying to maintain its ambitious engaged journalism practices at a time of limited resources, diminishing membership contributions, and fast-changing ways of working. These factors have affected how open to participation DoR could be; while it seeks transparency and accountability by soliciting story ideas and consulting its readers and supporters on how to cover a story, there is no co-production per se, as DoR carefully regulates the editorial process. *Bureau Local*’s main material constraint is political and has to do with the media infrastructure in the UK, defined by a high concentration of media ownership and the erosion of local media in the country. *Bureau Local* seeks to support local and community media through open resources to its investigations, which it encourages its local media partners to use, but that cooperative approach is often hindered by these partners’ lack of time and effort. The outlet also faces sociocultural challenges that are unique to the UK—the stigmatisation and lack of fair representation of minority groups in the British media. *Bureau Local* seeks to redress this epistemic injustice by giving agency to mis-/under-represented communities to get involved in journalism, but it often needs to draw the line between journalism and activism, especially when its investigations deal with issues such as homelessness, where it is impossible to help all affected beyond the political impact of the investigation. *Bureau Local*’s privileged position as a media outlet in a full democracy with relatively high levels of press freedom means that it is able to both remain transparent and pull the curtain right open, inviting communities to participate in the editorial process from start to finish in its goal to produce valuable stories.

5. Conclusion

The study findings indicate that engaged journalism in startups materialises in a relational approach to knowledge production, in which journalists prioritise mutual listening and learning and actively seek to involve their communities, but participation is subject to power relations and negotiating material constraints. Engaged journalists form hybrid media spaces of collective creation, stressing the agentic capacities generated in the interactions between various actors in the process. Knowledge co-production is a thoroughly relational process that orbits around building an imagined collective and a circle of care around storytelling, aimed to form a bond and build trust and deep connections with communities. Mutual learning and understanding lie at the core of the relations between journalists and publics. Knowledge production is a two-way, and even multi-way, dialogic, inclusive, and non-extractive process, grounded in communities’ lived experience as engaged journalists aim to amplify the agency and voices of those harmed by, or underrepresented in, legacy media. Engaged journalists employ a unique mix of public responsiveness styles (Brants, 2013), oscillating between empathic, civic, and strategic, depending on their circumstances and

editorial priorities (business models, editorial orientation, mission, and values). Thus, a reader can be addressed as “one of us” and a “citizen” while at the same time as a “consumer” but is never addressed as a “disaffected individual.” What this study adds to the literature on hybridity in the journalism studies field is a multilayered view of the actors in hybrid media spaces, moving beyond a consideration of audiences as a monolithic block. Each engaged journalism space creates its own unique imagined collective, through de- and re-aggregating publics into various entities—paying supporters, networks of networks, freelance contributors, and transnational communities, where everyone has a clearly designated part. This process of de- and re-aggregation points to the need for a more nuanced view of audiences and publics that aligns with their place in the hybrid media space and the role that they may or may not play in journalistic production, whether they are readers, subscribers, local communities, or third-sector partners.

Despite the well-meaning rhetoric of co-creation, the study findings indicate that the process remains selective and tightly controlled by journalists and editors, and there are material and structural constraints to participation (financial, organisational, political, sociocultural), which limit how much engaged journalism can do. The study adds to the literature on the boundaries of journalism by suggesting that the separation between journalists and publics remains (even in engaged journalism). While knowledge production is more open to the public to engage in co-production, journalists still carefully manage and regulate that process by providing editorial oversight, thus preserving, to a degree, journalism’s normative gatekeeping and gate-watching role (Bruns, 2003; Vos & Thomas, 2019). Publics engaged in co-creation occupy a paradoxical position as both co-creators and journalistic sources and it is the journalists and editors that get the final say. The transparency and openness of knowledge production to the public can be best described through the metaphor of the “curtain” (Coddington, 2015), which can be periodically lifted or pulled right open, or it could be a thicker or sheer, see-through curtain, depending on the context explored. As this study has shown, the curtain can sport varying textures, woven in a push-and-pull between capacity-generating and capacity-limiting forces in each hybrid media space. It is in these negotiations that epistemic capacities are produced, and the conditions of possibility for engaged journalism to achieve its democratising and empowering potential forged. This is a fluid and contingent, rather than static, relationship as media startups continue to experiment with bringing publics into the process of co-production, while continually navigating capacity-enabling factors—such as their editorial orientation and their motivation to involve communities and build deeper relations with them—and capacity-limiting ones—such as political challenges to press freedom, sociocultural norms, and strained financial and organisational resources. As a result, the process of co-creation takes varying forms and textures, which are context-specific; the stronger the structural influences, the thicker the curtain’s texture and the less open to public participation the knowledge production process.

Moving beyond hybridity, as the study data suggests, means acknowledging the context-specific material limits that are beyond journalists’ control but leave a material imprint on the texture of the “curtain” between journalists and audiences/publics in the process of co-creation. Power in the knowledge production process lies in the negotiation of editorial orientation, community engagement imperatives, and sociocultural, political, and financial structural factors. Still, structural and material factors are not overdetermining and they cannot, in and of themselves, explain the knowledge production process and why engaged journalism takes the shape that it does. The findings suggest that engaged journalism practice is the result mostly of negotiation, and sometimes a response or a solution to, structural factors—whether that be political, social, or economic—where engaged journalism can act as a form of collective resistance. In some

cases, knowledge production can be the direct product of resistance to such forces (for instance, attacks on press freedom for *New Naratif* and the erosion of local media infrastructure and the high concentration of media ownership for *Bureau Local*). This study, therefore, presents a more realistic material framework of engaged journalism that acknowledges how the push-and-pull of multiple factors in each context of engaged journalism practice affects the agentic capacities to empower publics through practices of co-creation. But it also calls into question the very notion of participation and to what extent participation, as a normative good, is possible and even desirable. In contexts with stronger political influences—censorship, surveillance, or low levels of press freedom—it may be dangerous for community members to engage in acts of journalism. And, even where the structural influences are not as strong, limited financial resources and weaker organisational structures can make ambitious practices of community engagement unfeasible. An important caveat to note is that the study design and methodology limit the generalisability of its findings. Being grounded in interviews with journalists from a small number of organisations, the study does not capture the full richness of engaged journalism practices out there. Exploring the process of knowledge co-creation in different national and organisational contexts would likely paint an even more nuanced picture of this process. Future research should also seek to examine the important perspective of publics participating in engaged journalism, which is not captured herein. Ethnographic methods, such as observation, would shed more light on how power relations are negotiated during co-creation, including who has agency and to what extent publics are empowered in the process.

This study raises some important questions for future participatory journalism practice and research. If a veil between journalists and publics remains, even in ambitious experimental participatory practices of engaged journalism, future studies should seek to focus on the purpose of these relations rather than the degree of openness of the knowledge production process. To what end are journalists involving communities in co-creation? Does it matter if publics do not engage in editorial processes from start to finish? Could mutual listening, learning, and being responsive to publics or audiences be considered an integral part of co-creation? And how can journalism writ large better serve the public by adopting these participatory practices strategically and within material constraints?

Acknowledgments

The author expresses her deep gratitude to everyone who facilitated this study—from the funder (ESRC via Scottish Graduate School of Social Science) to the event organisers (Alan Soon, Rishad Patel, and Jakub Gornicki) and, of course, the study participants. Additionally, the author thanks the anonymous reviewers for their engagement with the ideas in this article and their in-depth, substantive comments, which helped shape its final version.

Funding

This study was funded by the Scottish Graduate School of Social Science—the Economic and Social Research Council's (ESRC) Scotland DTP. Publication of this article in open access was made possible through the institutional membership agreement between the University of Birmingham and Cogitatio Press.

Conflict of Interests

The author declares no conflict of interests.

References

- Ahva, L., & Heikkilä, H. (2016). Mass, audience, and the public. In T. Witschge, C. W. Anderson, D. Domingo, & A. Hermida (Eds.), *The Sage handbook of digital journalism* (pp. 315–325). Sage.
- Allan, S. (2013). *Citizen witnessing: Revisioning journalism in times of crisis*. Polity.
- Anderson, C. W. (2016). News ecosystems. In T. Witschge, C. W. Anderson, D. Domingo, & A. Hermida (Eds.), *The Sage handbook of digital journalism* (pp. 410–423). Sage.
- Belair-Gagnon, V., Nelson, J. L., & Lewis, S. C. (2019). Audience engagement, reciprocity, and the pursuit of community connectedness in public media journalism. *Journalism Practice* 13(5), 558–575.
- Brants, K. (2013). Trust, cynicism, and responsiveness. In C. Peters & M. Broersma (Eds.), *Rethinking journalism: Trust and participation in a transformed news landscape* (pp. 15–27). Routledge.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Bruns, A. (2003). Gatewatching, not gatekeeping: Collaborative online news. *Media International Australia Incorporating Culture & Policy*, 107(1), 31–44.
- Bruns, A. (2008). Reconfiguring television for a networked, produsage context. *Media International Australia*, 126(1), 82–94.
- Carlson, M. (2015). Introduction: The many boundaries of journalism. In M. Carlson & S. C. Lewis (Eds.), *Boundaries of journalism* (pp. 1–18). Routledge.
- Chadwick, A. (2017). *The hybrid media system: Politics and power* (2nd ed.). Oxford University Press.
- Coddington, M. (2015). The wall becomes a curtain: Revisiting journalism's news-business boundary. In M. Carlson & S. C. Lewis (Eds.), *Boundaries of journalism* (pp. 67–82). Routledge.
- De Maeyer, J. (2016). Adopting a 'material sensibility' in journalism studies. In T. Witschge, C. W. Anderson, D. Domingo, & A. Hermida (Eds.), *The Sage handbook of digital journalism* (pp. 460–476). Sage.
- Deuze, M., & Witschge, T. (2020). *Beyond journalism*. Polity.
- DeVigal, A. (2017, October 3). The continuum of engagement: Pushing the boundaries of news engagement day. *Medium*. <https://medium.com/lets-gather/the-continuum-of-engagement-89778f9d6c3a>
- Dickens, L., Couldry, N., & Fotopoulou, A. (2014). News in the community? *Journalism Studies*, 16(1), 97–114.
- Domingo, D., & Le Cam, F. (2015). Journalism beyond the boundaries: The collective construction of news narratives. In M. Carlson & S. C. Lewis (Eds.), *Boundaries of journalism* (pp. 137–151). Routledge.
- Domingo, D., Quandt, T., Heinonen, A., Paulussen, S., Singer, J., & Vujnovic, M. (2008). Participatory journalism practices in the media and beyond. *Journalism Practice*, 2(3), 326–342.
- Domingo, D., & Wiard, S. J. (2016). News networks. In T. Witschge, C. W. Anderson, D. Domingo, & A. Hermida (Eds.), *The Sage handbook of digital journalism* (pp. 397–409). Sage.
- DoR. (n.d.). *Despre DoR*. <https://www.dor.ro/despre-dor>
- Eldridge, S. A., & Bødker, H. (2019). Confronting uncertainty: The contours of an inferential community. *Journalism & Communication Monographs*, 21(4), 280–349.
- Engelke, K. M. (2019). Online participatory journalism: A systematic literature review. *Media and Communication*, 7(4), 31–44.
- Glasser, T. L. (1999). *The idea of public journalism*. Guilford Press.
- Guzmán, M. (2016). *The best ways to build audience and relevance by listening to and engaging your community*. American Press Institute. <https://americanpressinstitute.org/listening-engaging-community>
- Hallin, D. C., Mellado, C., & Mancini, P. (2023). The concept of hybridity in journalism studies. *The International Journal of Press/Politics*, 28(1), 219–237.
- Hamada, R. (2020, March 9). Why Bureau Local wants to change the story. *The Bureau of Investigative*

- Journalism*. <https://www.thebureauinvestigates.com/blog/2020-03-09/why-bureau-local-wants-to-change-the-story>
- Hanitzsch, T., Hanusch, F., Ramaprasad, J., & de Beer, A. S. (2019). *Worlds of journalism: Journalistic cultures around the globe*. Columbia University Press.
- Hanusch, F., & Banjac, S. (2019). Studying role conceptions in the digital age: A critical appraisal. In S. A. Eldridge II & B. Franklin (Eds.), *The Routledge handbook of developments in digital journalism studies* (pp. 28–39). Routledge.
- Heinrich, A. (2013). News making as an interactive practice. In C. Peters & M. Broersma (Eds.), *Rethinking journalism: Trust and participation in a transformed news landscape* (pp. 89–100). Routledge.
- Hermida, A. (2010). Twittering the news: The emergence of ambient journalism. *Journalism Practice*, 4(3), 297–308.
- Hermida, A. (2015). Nothing but the truth: Redrafting the journalistic boundary of verification. In M. Carlson & S. C. Lewis (Eds.), *Boundaries of journalism* (pp. 37–50). Routledge.
- Hermida, A., & Thurman, N. (2008). A clash of cultures: The integration of user-generated content within professional journalistic frameworks at British newspaper websites. *Journalism Practice*, 2(3), 343–356.
- Joseph, B. (2016). Digital journalism and democracy. In T. Witschge, C. W. Anderson, D. Domingo, & A. Hermida (Eds.), *The Sage handbook of digital journalism* (pp. 9–24). Sage.
- Ksiazek, T. B., & Springer, N. (2020). *User comments and moderation in digital journalism: Disruptive engagement* (1st ed.). Routledge.
- Lewis, S. C. (2015). Epilogue: Studying the boundaries of journalism—Where do we go from here? In M. Carlson & S. C. Lewis (Eds.), *Boundaries of journalism* (pp. 218–228). Routledge.
- Lewis, S. C. (2020). Lack of trust in the news media, institutional weakness, and relational journalism as a potential way forward. *Journalism*, 21(3), 345–348.
- Lewis, S. C., Holton, A., & Coddington, M. (2014). Reciprocal journalism. *Journalism Practice*, 8(2), 229–241.
- Nelson, J. (2021). *Imagined audiences: How journalists perceive and pursue the public*. Oxford University Press.
- New Naratif. (n.d.). About. <https://newnaratif.com/about-us/#manifesto>
- Örnebring, H., & Karlsson, M. (2022). *Journalistic autonomy: The genealogy of a concept*. University of Missouri Press.
- Powers, M. (2015). NGOs as journalistic entities: The possibilities, promises and limits of boundary crossing. In M. Carlson & S. C. Lewis (Eds.), *Boundaries of journalism* (pp. 186–200). Routledge.
- Reese, S. D., & Shoemaker, P. J. (2016). A media sociology for the networked public sphere: The hierarchy of influences model. *Mass Communication and Society*, 19(4), 389–410.
- Robinson, S. (2015). Redrawing borders from within: Commenting on news stories as boundary work. In M. Carlson & S. C. Lewis (Eds.), *Boundaries of journalism* (pp. 152–168). Routledge.
- Russell, A. (2016). Networked journalism. In T. Witschge, C. W. Anderson, D. Domingo, & A. Hermida (Eds.), *The Sage handbook of digital journalism* (pp. 149–163). Sage.
- Salaverría, R. (2020). Exploring digital native news media. *Media and Communication*, 8(2), 1–4.
- Schmidt, T. R., & Lawrence, R. G. (2020). Engaged journalism and news work: A sociotechnical analysis of organizational dynamics and professional challenges. *Journalism Practice*, 14(5), 518–536.
- Schmidt, T. R., Nelson, J. L., & Lawrence, R. G. (2022). Conceptualizing the active audience: Rhetoric and practice in “engaged journalism.” *Journalism*, 23(1), 3–21.
- Shoemaker, P. J., & Reese, S. D. (1996). *Mediating the message: Theories of influences on mass media content* (2nd ed.). Longman.
- Singer, J. B. (2015). Out of bounds: Professional norms as boundary markers. In M. Carlson & S. C. Lewis (Eds.), *Boundaries of journalism* (pp. 21–36). Routledge.

- Singer, J. B. (2019). Populist postmodernism: When cultural critique of an enlightenment occupation goes viral. *Media and Communication*, 7(4), 133–137.
- Singer, J. B., Domingo, D., Heinonen, A., Hermida, A., Paulussen, S., Quandt, T., Reich, Z., & Vujnovic, M. (2011). *Participatory journalism: Guarding the open gates at online newspapers*. Wiley.
- The Current. (n.d.). About us. <https://thecurrent.pk/about-us>
- Vos, T. P., & Thomas, R. J. (2019). The discursive (re)construction of journalism's gatekeeping role. *Journalism Practice*, 13(4), 396–412.
- Wahl-Jorgensen, K. (2015). Resisting epistemologies of user-generated content? Cooptation, segregation and the boundaries of journalism. In M. Carlson & S. C. Lewis (Eds.), *Boundaries of journalism* (pp. 169–185). Routledge.
- Wenzel, A. (2020). *Community-centred journalism*. University of Illinois Press.
- Witschge, T., Anderson, C. W., Domingo, D., & Hermida, A. (2019). Dealing with the mess (we made): Unravelling hybridity, normativity, and complexity in journalism studies. *Journalism*, 20(5), 651–659.
- Zahay, M. L., Jensen, K., Xia, Y., & Robinson, S. (2020). The labor of building trust: Traditional and engagement. *Journalism & Mass Communication Quarterly*, 98(4), 1041–1058.
- Zelizer, B. (1993). Journalists as interpretive communities. *Critical Studies in Media Communication*, 10(3), 219–237.

About the Author



Bissie Anderson (PhD) is assistant professor in digital media and communications at the University of Birmingham. Her research focuses on knowledge production in digital journalism and the relational dynamics between journalists and audiences. She is the co-principal investigator on the Birmingham-Leiden project Meaning-Making and Information Integrity in the Age of AI.

Fact-Checkers as New Journalistic Mediators: News Agencies' Verification Units and Platform Dynamics

Regina Cazzamatta 

Department of Media and Communication, University of Erfurt, Germany

Correspondence: Regina Cazzamatta (regina.cazzamatta@uni-erfurt.de)

Submitted: 13 January 2025 **Accepted:** 7 April 2025 **Published:** 28 May 2025

Issue: This article is part of the issue "Journalism in the Hybrid Media System" edited by Silke Füst (University of Zurich), Florian Muhle (Zeppelin University Friedrichshafen), and Colin Porlezza (Università della Svizzera italiana), fully open access at <https://doi.org/10.17645/mac.i494>

Abstract

This article examines how European international news agencies—Reuters, Agence France-Presse (AFP), Deutsche Presse-Agentur (dpa), and EFE—engage with the emerging subgenre of external fact-checking journalism in response to (dysfunctional) hybrid media systems. Through a content analysis of 860 verification articles published between January and December 2022 and interviews with seven experts, the study demonstrates that (external) fact-checking practices are deeply embedded in these agencies' operations, leveraging extensive global communication networks to deliver timely and accurate verifications, reinforcing journalistic authority in the digital age. Partnerships with tech platforms were viewed as a strategic opportunity, a sustainable digital-age revenue stream at the time, enabling the creation of dedicated fact-checking units to combat disinformation. Nonetheless, these agencies prioritize verifying content from ordinary social media users over domestic political claims stated by public figures, with 90% to 100% of their articles focusing on online rumors, except for dpa. Key selection criteria include virality, particularly on Meta platforms, timeliness, and social impact. Despite criticisms, the collaboration between historically influential global news agencies and tech platforms offers critical insights into the workings of (dysfunctional) hybrid media systems.

Keywords

disinformation; external fact-checking; fact-checking; gatebouncers; global news agencies; hybrid media systems; information disorder; journalism

1. Introduction

Much has changed since Chadwick's (2013) seminal work on hybrid media systems, which highlighted the interplay between traditional and digital media logics in newsmaking, political communication, and activism.

Initial optimism about the democratization of public communication through digital infrastructures—enabled by broader citizen participation unattainable in the mass media era—was quickly overshadowed by what Chadwick later termed “dysfunctional hybridity” (Chadwick, 2017; Russell, 2020). Hybridity has also empowered regressive social movements, including white supremacists, racists, misogynists, and other forms of conservative backlash (della Porta, 2023). In response, the second edition of Chadwick’s (2017) book includes a chapter on Trump’s 2016 campaign strategies and the intensification of hybrid media systems, where disinformation, social media bots, and politically motivated hacking take center stage. Against this backdrop, Chadwick (2017) highlights the rise of fact-checking units (Graves, 2016, 2022) as a key feature of hybrid journalism. Unlike traditional fact-checking, where journalists verify information before publication, external fact-checking assesses content already public (Graves, 2022). Nonetheless, familiarity and acceptance of fact-checking practices vary. In the US, for instance, Republicans have significantly more negative perceptions of fact-checkers (Nyhan & Reifler, 2015). In Europe, studies have found broad acceptance across six member states despite political and geographical differences shaped by conservatism, attitudes toward the EU, and satisfaction with democracy (Lyons et al., 2020). Further analysis indicates that a fact-checking source’s credibility influences its effectiveness (Liu et al., 2023).

In the US, Graves (2016) interprets fact-checking as a journalistic reform aimed at challenging procedural objectivity (Schudson, 2001) and the uncritical “he said/she said” style of reporting. Over time, however, fact-checking practices have evolved. With the rise of dysfunctional hybridity (Chadwick, 2017), information disorder (Wardle, 2020), and disrupted public spheres (Bennett & Pfetsch, 2018), fact-checkers are increasingly focusing on debunking social media rumors rather than addressing official claims from public figures and politicians (Bélair-Gagnon et al., 2023; Cazzamatta, 2025d). This shift, partly spurred by collaborations with digital platforms to counteract disinformation, has been termed the “debunking turn” by leading scholars in the field (Graves et al., 2023). Within this intensified hybrid media landscape, the number of fact-checking initiatives has expanded significantly, increasing from 11 projects in 2008 to 424 by 2022 (Stencel et al., 2023).

This article explores how reputable international news agencies, embodying traditional media values of accuracy, authority, and influence, have incorporated fact-checking units into their operations. Fact-checking has become appealing to financially constrained news outlets—a challenge that global news agencies face due to digitalization (Cazzamatta, 2022; Rantanen et al., 2019)—because it can be assembled quickly and at low cost, often utilizing fragments of online data such as social media posts or government charts (Chadwick, 2017). Despite the growing number of studies on fact-checking, systematic analyses of practices by global news agencies remain relatively rare. The international news agencies selected for this study are generally seen as credible sources, which influences the reception of fact-checking efforts, and they operate across European countries with differing levels of endorsement for fact-checking practices (Liu et al., 2023; Lyons et al., 2020).

Through quantitative content analysis ($N = 860$), this article examines the differences in verification practices among the fact-checking units of European international news agencies—Reuters, Deutsche Presse-Agentur (dpa), EFE, and Agence France-Presse (AFP). It examines the topics chosen for debunking, the types of falsehoods addressed, verdicts, selection criteria, and the actors under scrutiny. Additionally, we complement our findings with seven expert interviews to explore the motivations behind news agencies investing in this new journalistic subgenre. International news agencies, particularly those based in the US

and the UK, have garnered significant scholarly attention. Even within the Western context, research has primarily concentrated on a limited number of agencies, such as Reuters and The Associated Press (Rantanen et al., 2019; Surm, 2020). By including the German dpa and Spanish EFE alongside the extensively studied British Reuters, we extend the analysis beyond liberal systems. We also incorporate the French AFP's work in Latin America—specifically Brazil, Argentina, and Chile—broadening the focus beyond Western democracies.

Before detailing the methodological procedures and findings, this manuscript examines the emergence and evolution of fact-checking journalism and the financial challenges faced by global news agencies due to the internet and their involvement in this new journalistic subgenre. This article builds on the concept of hybrid media systems, contributing to the study of fact-checking, news agencies, and platforms.

2. Theoretical Background

2.1. *Fact-Checkers as Gatebouncers Amidst Disrupted Public Spheres*

With the rise of the internet and the networked public sphere, political actors and interest groups are increasingly circumventing traditional gatekeepers to communicate directly with their target audiences. Since anyone can now publish content online, some scholars argue that gatekeeping has become irrelevant (Bruns, 2003; Vos, 2019). Electoral campaign teams no longer assume they can reach a mass audience through a single channel. Instead, political actors produce content for multiple segments and distribute it across various platforms (Chadwick et al., 2017). Social media act as “irresponsible” mediators in the global network, fostering new connections and, through the rapid multiplication of interactions, initiating and amplifying unpredictable discourses that fundamentally alter public communication (Habermas, 2021).

In light of such a disintermediated media landscape, new forms of journalistic mediation (Neuberger, 2022), such as external fact-checking, are emerging. While traditional internal fact-checking—dating back to the 1920s and 1930s—has emphasized the importance of reporters correcting mistakes and verifying details before publication according to objectivity standards, external fact-checking operates differently. It evaluates the accuracy of third-party information already released to the public (Graves, 2022; Rodríguez-Pérez & Seibt, 2022). Instead of traditional journalistic gatekeeping, these actors function as “gatebouncers” (Vos, 2019), a term describing the retroactive selection process in which fact-checkers highlight specific pieces of information as illegitimate and symbolically remove them from public debate (Vos, 2019). Fact-checkers, acting as gatebouncers, have grown significantly, particularly since 2016, focusing on mitigating the effects of global disinformation. At this point, we analyze which topics and types of (false) information—such as manipulation, fabrication, impersonation, misleading content, and, eventually, accurate content (Wardle, 2020)—are selected for verification by fact-checkers within international news agencies.

Fact-checkers align their practices with established journalistic news values, albeit with certain adaptations. However, before engaging with specific news factors, two key selection criteria must be fulfilled: checkability and virality (Graves, 2016; Mantas & Benkelman, 2020). First, a claim or rumor must be verifiable, meaning it cannot be based on opinion, and publicly accessible data must be available. Fact-checkers rely on public data and expert analysis for evaluations; in the absence of such resources, verification is not viable (Graves & Wells, 2019). Second, fact-checkers prioritize claims that have gained notable traction in public discourse (virality)

or that demonstrate potential for significant societal impact. This approach reduces the risk of inadvertently spreading falsehoods through correction, as fact-checkers focus on verifying content that has already gone viral. Unlike traditional journalism, fact-checkers are not concerned with originality or being scooped by other organizations. The more a falsehood is corrected, the better (Graves, 2016).

Relevance is a decisive factor. Fact-checkers closely monitor trending topics in the media to remain timely and pertinent. Statements made by politicians are particularly noteworthy due to their significant impact on public debate. The same logic applies when prominent figures are targeted by disinformation campaigns. The prominence of the source or target of falsehoods—similar to journalism—can influence the selection of verifications. Generally, fact-checkers prioritize relevant policy issues, statements regarding political candidates, or claims that have sparked public controversy (Graves & Cherubini, 2016; Palau-Sampio, 2018; Rodríguez-Pérez et al., 2022). Most fact-checking projects provide channels for reader inquiries and verification suggestions, incorporating what ordinary citizens care about and what their audiences deem important. Therefore, we are interested in the clear communication of these news factors within their verification articles (Humprecht, 2019).

By providing truth assessments and evaluating the weight of evidence, fact-checkers move away from Schudson's (2001) concept of "procedural objectivity"—which involves neutral and almost uncritical "he said/she said" reporting—toward a more rigorous form of scientific objectivity (Cazzamatta, 2025b; Lawrence & Schafer, 2012). This approach draws upon expert insights, relevant documentation, empirical evidence, and advanced technological tools (Graves, 2016). Consequently, the fact-checking process requires methodological transparency and the ability to replicate findings, both essential for building trust and establishing credibility (Brandtzaeg & Følstad, 2017). In light of this discussion, we present the following questions:

RQ1: Which topics and types of falsehoods are most commonly selected for verification by international news agencies?

RQ2: Which selection criteria are conveyed in the articles?

2.2. Platforms Partnerships and Social Media Policing

Organizational structures and objectives within the fact-checking community are varied, encompassing established news organizations, digital-native startups, independent civil society NGOs, university initiatives, and collaborative efforts (Graves, 2018; Graves & Cherubini, 2016). Newsroom entities—such as global news agencies—benefit from the ability to reach a broad audience and receive substantial financial backing from their media affiliations. In contrast, NGO models typically enjoy greater editorial independence. Generally, newsroom models view fact-checking as a practice that complements and is closely associated with journalism, whereas NGO models may perceive it as an alternative to traditional journalism (Vinhas & Bastos, 2022).

Recently, partnerships with technology platforms have significantly influenced the field of fact-checking, regardless of organizational structure, leading to a transformation in verification practices. A prominent example of such cooperation is Meta's Third-Party Fact-Checking Program, which collaborates with

fact-checkers accredited by the International Fact-Checking Network (IFCN). Signatories commit to the principles of non-partisanship and fairness, to transparency regarding funding, sources, and methodology, and to establishing a clear and honest correction policy (Orsek & Ozsoy, 2020). The Meta program has grown substantially, currently encompassing over 110 organizations worldwide. Meta identifies potential misinformation by analyzing user feedback and factors such as virality and linguistic patterns, generating a pool of claims that may be false (IFCN, 2025). Fact-checkers then examine these claims, selecting those that can be verified—meaning they are based on factual statements rather than personal opinions—and have the potential to cause harm. The verification process follows rigorous standards of scientific reproducibility, requiring fact-checkers to back their conclusions with documentary evidence, interviews, and forensic analysis, allowing readers to either replicate the findings or critically assess the methodology (Cazzamatta, 2025a, 2025b). Once content is deemed inaccurate, Meta typically reduces its visibility.

Such collaborations with platforms have diminished the scrutiny of politicians' statements while emphasizing the monitoring of online rumors from anonymous sources and potentially misleading coordinated actions associated with these accounts (Graves et al., 2023). Fact-checking has become vital for content moderation on social media platforms (Vinhas & Bastos, 2022). Research shows that funding from these platforms is crucial for organizations in the Global South, with smaller units increasingly reliant on these partnerships (Bélair-Gagnon et al., 2023). Other studies suggest that smaller organizations are more susceptible to content homogenization (Cazzamatta, 2025d).

Fact-checkers often welcome partnerships with platforms for the valuable AI tools and funding they provide. However, they raise concerns about the platform's approach, particularly regarding the veto on verifying political advertisements and the focus solely on user-spread falsehoods (Full Fact, 2020). While interpretations of the "debunking turn" vary among organizations, some suggest that paid debunking practices could subsidize political fact-checking (Graves et al., 2023). Despite criticisms, these partnerships offer essential funding and automated tools that enhance the fact-checking process. In this context, we present our next research question:

RQ3: Which actors are most frequently scrutinized by fact-checkers in global news agencies' articles, and what verdicts are assigned to them?

2.3. Global News Agencies in a Changing Media Landscape and Their Involvement in the Fact-Checking Movement

European national news agencies have historically served as key media organizations, providing essential wire services to domestic outlets. As established players, they have adapted to technological changes from the telegraph to the platform era. However, in a globalized world where national media can access information directly via the internet, the indispensability of these agencies has come into question (Rantanen et al., 2019). Consequently, the value of their wholesale general news support—a core service—has diminished (Bielsa, 2008; Boyd-Barrett, 2010; Rantanen et al., 2019). "The crisis of traditional media organizations became, for several reasons, a crisis of news agencies" (Rantanen et al., 2019, p. 8), as these institutions are currently navigating significant changes as their media clients face financial distress and audiences access news without traditional gatekeeper mediation in a hybrid media system.

Despite dysfunctional hybridity (Chadwick, 2017), agencies do not view social media platforms as their main competitors. Instead, social media logics legitimize the significance of their journalistic work. With a reputation for high standards of accuracy (Rantanen et al., 2019), international news agencies position their services as a counter to information disorder (Wardle, 2020), which includes fake news (imitations of established outlets), misinformation, and disinformation (the unintentional and intentional spread of falsehoods). The latest comprehensive study on the future of global news agencies, conducted by the London School of Economics in 2019 (Rantanen et al., 2019; Surm, 2020; Vyslozil & Surm, 2019), indicates that these agencies are innovating to compensate for declining media client subscriptions. Key strategies include designing new services like visual productions, expanding into new markets and languages—particularly in Asia and Latin America—and implementing IT strategies, including new sales channels.

dpa, a privately owned agency formed by a consortium of 170 German media outlets (Surm, 2020), began publishing fact-checks during the 2013 Bundestag elections and has since expanded its efforts in this area. Currently, it has a team of 30 fact-checkers, making it one of the largest in the German-speaking world (dpa, n.d.-a). In 2019, dpa partnered with Meta to verify content on its platforms in Germany, Austria, Switzerland, Belgium, and the Netherlands. Through the Faktencheck21 project, dpa has trained over 70 daily newspapers, radio, and television stations in digital forensics and verification practices (Thiel, 2023).

AFP, an independent publicly owned French organization (Surm, 2020; Vyslozil & Surm, 2019), began its fact-checking efforts in early 2017 with the CrossCheck project during the French presidential elections. The agency launched its fact-checking website in French later that year, expanding to English, Spanish, and Portuguese by 2018. Six years later, AFP offers fact-checking in 26 languages, supported by a team of 150 journalists (AFP Fact Check, n.d.-a). Two-thirds are local reporters from over 30 AFP bureaus globally, while one-third are editors. AFP also collaborates with Meta and is contracted by TikTok in various countries to verify videos for the platform's internal moderation, removing content deemed inaccurate by its fact-checkers (Bigot, 2024).

EFE, a Spanish state-owned commercial entity (Surm, 2020; Vyslozil & Surm, 2019), started producing fact-checks in Spain in March 2019 and expanded to Latin America in 2020. Its fact-checking team now includes nine professionals: five in Spain, one in Brussels, and three in Latin America. In May 2020, EFE began verifying content for Meta (da Fontoura, 2024; EFE Verifica, n.d.-a). Reuters Fact Check, part of Thomson Reuters Corporation, and recognized as a primary competitor to dpa, AFP, and EFE (Surm, 2020; Vyslozil & Surm, 2019), launched its fact-checking operations in January 2020. Before this, Reuters routinely fact-checked claims as part of its newsgathering. The establishment of its fact-checking desk was a natural extension of its user-generated content verification team, which authenticates social media content (Batra, 2024). The team consists of 32 members, including a head of fact-checking, regional editors, and producers (Reuters, n.d.-a). As noted by the IFCN assessor, Reuters primarily targets claims circulating on digital platforms (Batra, 2024). All European international agencies, excluding Reuters, are members of the European Fact-Checking Standard Network (EFCSN) and the European Digital Media Observatory (EDMO). In light of the evolving media landscape and the expanding fact-checking efforts of these agencies, we pose the final question:

RQ4: What are the key motivations for European international news agencies to invest in fact-checking units?

3. Methodology

Our selection of organizations was guided by two primary criteria. First, we focused on identifying international agencies involved in fact-checking initiatives, which are the central focus of this study. By “international agencies,” we mean organizations that provide news services domestically and internationally in multiple languages, with correspondent networks in at least 100 countries, serving around 10,000 media clients worldwide (Rantanen et al., 2019; Surm, 2020). Second, we faced language constraints within the research group. Despite these limitations, we aimed to include a diverse range of international news agencies with different media systems and ownership structures, including Reuters, dpa, AFP, and EFE, as shown in Table 1.

Table 1. Selected fact-checking units operating within international news agencies.

News Agency	Country of Origin	Ownership	Fact-Checking Team	Meta	IFCN	EFCSN	EDMO
Reuters	UK	Thomson Reuters	32	Yes	Yes	No	No
AFP	France	Publicly owned	150	Yes	Yes	Yes	Yes
dpa	Germany	Privately owned by media stakeholders	30	Yes	Yes	Yes	Yes
EFE	Spain	State-owned	9	Yes	Yes	Yes	Yes

3.1. Data Collection, Sampling, and Reliability

Using the Feeder extension, we collected data from the fact-checking websites of the news agencies from January to December 2022, yielding a total of 3,500 links. While misinformation related to Covid-19 continued, other significant topics emerged in 2022, such as the regional elections in Germany and Spain, political turmoil in the UK, characterized by frequent changes in prime ministers, the FIFA World Cup in Qatar, the death of Queen Elizabeth, and the outbreak of the Russia–Ukraine war, which notably influenced the misinformation landscape. For Reuters (n.d.-b), EFE Verifica (n.d.-b), and dpa (n.d.-b), we selected links from their main fact-checking websites in their respective original languages. For AFP, we gathered links from its services in Brazil (AFP Checamos, n.d.), Argentina (AFP Factual, n.d.), and Chile (AFP Fact Check, n.d.-b), specifically from AFP Checamos, AFP Factual, and AFP Fact Check Chile. Although Reuters and EFE publish content in their own languages, dpa occasionally includes Dutch articles, so we filtered the data to retain only German-language publications. We then drew a sample of 25% by selecting every fourth article in the order of publication, resulting in a total of 860 articles for manual coding.

Eight research assistants, all native speakers with extensive knowledge of the countries where these news agencies operate, coded the data over six months after having completed 40 hours of training. Reliability tests were conducted within language groups—German, English, Portuguese, and Spanish—to ensure that any misunderstandings identified during the tests were due to flaws in category definitions rather than the language proficiency of the coders. We also aimed to train the coders using materials from the agencies and languages they would be working with. Krippendorff’s alpha coefficients are provided in Table 2, accompanied by a brief explanation of the analyzed categories. For more detailed instructions and nuances, please refer to the codebook in the Supplementary Material.

Table 2. Summary of operationalized categories.

Targeted RQs	Overarching Categories	Description	Krippendorff's alpha
RQ1	Topics	(1) Domestic politics; (2) Economic-political; (3) Society, cultural wars, and zeitgeist; (4) Science, technology, and environment; (5) Health; (6) International affairs; (7) Human interest (single choice)	0.93–0.97
RQ1	Type of Falsehoods*	(1) Satires; (2) All types of fabrication, including fabrication, manipulation, imposter, and decontextualization, (3) Sensationalism & bad journalism, (4) Misleading & cherry-picking, (5) Fabrication + conspiracy theories (6) Fabrication + hate speech, (7) Genuine mistakes, (8) Online scams (single choice)	0.97–1
RQ2	Selection Criteria	(1) Social media viralization; (2) Prominence of disinformation sources; (3) Prominence of disinformation targets; (4) User requests; (5) Timely media events; (6) Social relevance and public impact (yes/no choice for each subcategory)	0.80–0.97
RQ3	Target of Fact-Checking	(1) Verification of falsehoods circulating on social networks mostly spread by bots, anonymous sources, and unknown social media users/profiles; or (2) inspection of claims made by political actors and public figures (single choice)	0.801
RQ1–RQ3	Corresponding Verdicts	(1) True; (2) Partially true; (3) Partially false; (4) False; (5) No evidence; (6) Satire & jokes; (7) Mixed; (8) No labels or scales, only narrative verdicts	0.78–0.97

Source: * Adapted from Allcott and Gentzkow (2017), House of Commons (2018), Humprecht (2018), and Wardle (2020).

3.2. Expert Interviews as a Complementary Method

To address RQ4, which explores the reasons why news agencies choose to invest in (external) fact-checking practices, we conducted seven expert interviews with fact-checkers from these agencies. These conversations also provided insights into our content analysis results. Among the interviewees, four hold editorial roles. The online interviews were conducted via Webex from August 2024 to January 2025, lasting between 35 and 100 minutes. With the interviewees' consent, all conversations were recorded and subsequently anonymized. To protect their identities, which could be inferred from context or countries of operation, we did not upload the transcriptions to the Supplementary Material in compliance with the general data protection regulation. The interviews were conducted in the preferred language of each participant. Given the difficulty of obtaining a representative sample from all organizations, regional bureaus, and hierarchies, we view these interviews as a complementary method for exploratory qualitative insights.

Experts possess specialized knowledge that combines technical, process-related, and interpretive skills pertinent to their field, integrating various approaches and broader social perspectives (Bogner, 2002). In the context of this study on fact-checking within global news agencies, expert interviews serve as a method to access this specialized knowledge (Gläser & Laudel, 2010). Meuser and Nagel (2002) differentiate expert interviews from other open interviews by emphasizing that the focus is not on the individual interviewee but on the specific organizational or institutional context. Consequently, only certain aspects of

personal experience are deemed significant, with priority given to the shared organizational knowledge of the experts.

3.3. Qualitative and Quantitative Data Analysis

Interviews were transcribed for qualitative textual analysis, supported by comparative methods using NVivo software for data management. While the assessment focused on RQ4 and key theoretical concepts from the literature review, the analysis remained flexible, allowing for inductive insights to emerge from the data through a hierarchical coding framework (Tracy, 2013). To investigate quantitative trends across international news agencies regarding topics and types of falsehoods selected for verification, we employed correspondence analysis, a statistical method designed to explore relationships between categorical variables. Correspondence analysis effectively analyzes large contingency tables by reducing data to a lower-dimensional space, facilitating the visualization of patterns and key associations, thereby aiding in the interpretation of complex datasets. The approach illustrates point placement on a scatter plot, where proximity indicates stronger associations (Beh & Lombardo, 2014; Greenacre, 2017).

4. Findings

4.1. Verified Topics and Types of Falsehoods (RQ1)

When analyzing the topics of misinformation selected for debunking by news agencies, a distinct thematic distribution emerges. Reuters and EFE verify international affairs more frequently than expected, with standard residuals of 2.9 and 2, respectively, positioning them in the upper-left quadrant of the correspondence analysis (Figure 1). Additionally, Reuters focuses significantly on societal and zeitgeist topics—such as gender, religion, social polarization, animal protection, and social media—as well as health misinformation, with standard residuals of 2.3 and 1.6, respectively. In contrast, dpa emphasizes human interest topics, particularly online scams and phishing, with a notable standard residual of 3.3.

All three agencies—Reuters ($SR = -6.8$), dpa ($SR = -0.2$), and EFE ($SR = -1.6$)—exhibit a lower-than-expected focus on domestic politics, whereas dpa verifies domestic political issues more frequently than its counterparts. Moreover, dpa's relatively higher focus on verifying political statements is also reflected in its attributed labels. While other agencies primarily label verified statements as “false” or “partially false”—ranging from 89.7% of Reuters' articles to 100% in AFP Chile—dpa labels only 54.6% of its verifications as such. Due to its focus on political issues and the more frequent scrutiny of public figures (see Section 4.3), dpa also issues a higher number of narrative corrections without labels (30%) and indeterminate verdicts (13.7%). These results can be interpreted in two ways. First, an international focus is expected for global news agencies such as Reuters and AFP, and the outbreak of the Russia–Ukraine war in 2022 likely prompted platforms to circulate falsehoods. Second, issuing political verdicts on the accuracy of (domestic) political claims may conflict with their traditional operationalization of objectivity—detached, neutral, and impartial—since providing such labels can be perceived as editorializing (Graves, 2016). Thus, dpa adopts a more careful approach due to its relatively higher focus on domestic politics, offering a comparatively higher number of corrections through narrative explanations (see Table 4 of the Supplementary Material). This challenge is also faced by public service broadcasters, who tend to avoid accuracy labels, opting instead for narrative explanations of why a particular piece of information is incorrect (Graves, 2018). Notably, Reuters

verified only 1.3% of domestic political misinformation during a year characterized by political turmoil in the UK, including rapid leadership changes and party divisions, particularly within the Conservative Party. It seems implausible that the internet and social media did not react with misinformation regarding the resignations of Boris Johnson and Liz Truss, as well as the appointment of Rishi Sunak.

Although dpa's focus on domestic politics is limited (16.4%), it surpasses those of the other agencies. In 2022, regional elections occurred in Germany, notably in North Rhine-Westphalia, the most populous state, and in Saarland, where the Social Democratic Party secured a significant victory after the Christian Democratic Union had governed since 1999. However, these elections lacked the crisis atmosphere characteristic of the UK's frequent prime ministerial changes. dpa's ownership structure, with 70 media outlet stakeholders across various platforms, strengthens its ability to verify domestic political events effectively.

AFP differs from other agencies due to its regional bureaux with dedicated websites. AFP Checamos in Brazil and AFP Fact Check in Chile exhibit a strong focus on domestic politics ($SR = 8.8$ and $SR = 3.5$), driven by the

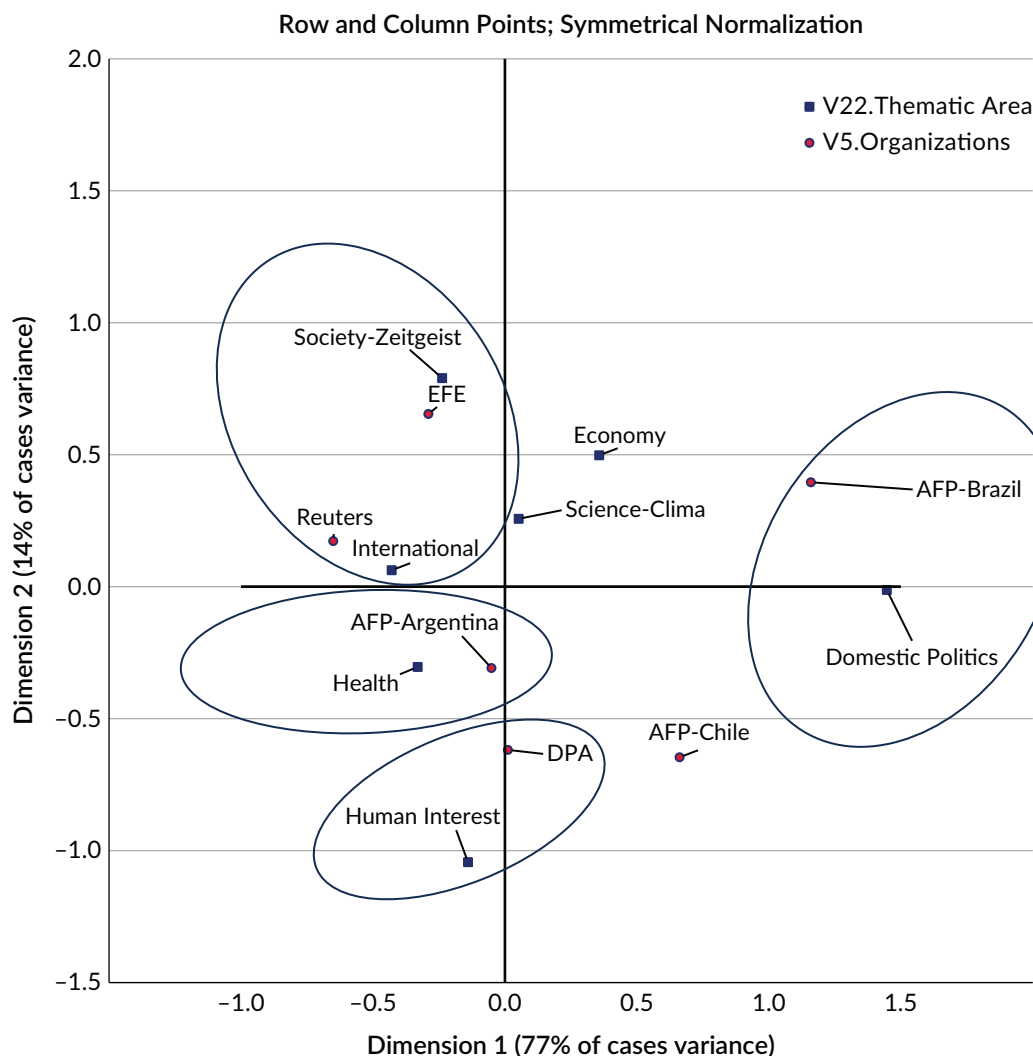


Figure 1. Correspondence analysis of debunked topics and news agencies. Note: See the Supplementary Material for the contingency table on which this illustration is based.

highly polarized Brazilian presidential election in 2022 and a constitutional referendum proposed by Chile's leftist government. The extensive network of fact-checkers in regional offices may have influenced these results. However, it remains unclear how thoroughly the central office in Paris verifies French domestic politics. In Argentina, AFP Factual debunks health issues more than expected ($SR = 1.7$), positioning it in a different quadrant than its counterparts in Chile and Brazil, as shown in Figure 1.

In analyzing the types of falsehoods, EFE and AFP hubs in Latin America cluster in the lower-left quadrant of Figure 2. Both agencies verify a higher-than-expected number of aggregated fabrications, including complete inventions, manipulations, decontextualization, and imposter content. In contrast, Reuters focuses on correcting misunderstood satire and sensationalism, which aligns with the UK media system's strong tabloid culture and yellow journalism (Esser, 1999). The German dpa distinguishes itself by verifying fabrications involving conspiracy theories ($SR = 4.4$), hate speech ($SR = 5.4$), and online scams ($SR = 6.9$). This emphasis may reflect the organization's effort to counteract narratives propagated by the Querdenker movement, which combines anti-vaccine sentiments, skepticism towards government policies, and conspiracy theories (Heinke, 2022). Although Germany is a wealthy nation, it faces challenges in

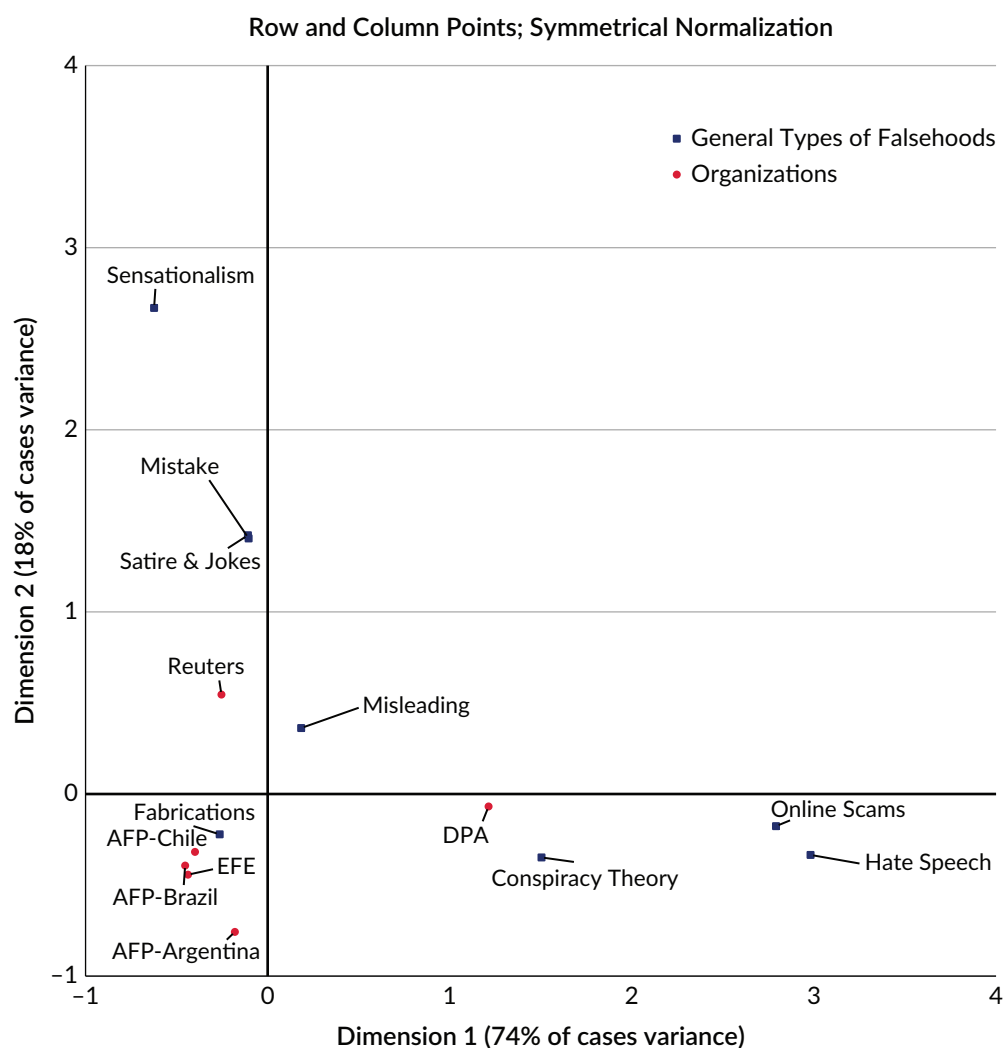


Figure 2. Correspondence analysis of types of falsehoods and international agencies. Note: See the Supplementary Material for the contingency table on which this illustration is based.

digitalization (Delcker, 2021; Płóciennik, 2021), making it more susceptible to exploitation by foreign actors seeking financial gain. If citizens are not well-versed in digital infrastructures—such as e-commerce platforms, cloud storage, social media, e-government services, and remote work tools—they may struggle to recognize online scams and phishing tactics. Alternatively, dpa’s focus may simply reflect concerns about online security, cybercrime, and data protection in the country.

4.2. Indicators of Selection Criteria (RQ2)

To understand news agencies’ selection criteria, we analyzed factors presented in their verification articles. Many organizations enhance transparency by providing evidence of fact-checking along with the reasoning behind their choices. Virality is a key criterion; as one interviewee noted, “If something is not being shared a lot, we would give it more visibility,” suggesting that content previously shared widely might warrant attention. In our content analysis, “viralization” was defined by metrics such as sharing numbers and cross-platform circulation—indicating falsehoods identified on multiple platforms or by cross-border organizations verifying the same claim. Viral content was significant, varying from 82.7% in EFE to 100% in the AFP hubs in Chile and Argentina, while dpa reported these indicators in only 23.5% of its articles (Figure 3). This does not imply that dpa verifies less widely disseminated falsehoods but rather that it communicates dissemination levels less clearly in its editorial process. Some organizations, particularly EFE (9.3%) and AFP hubs indicate whether a rumor was suggested for verification by readers. These mentions are notable in countries with widespread WhatsApp use, where fact-checkers face challenges in monitoring private messaging groups. Conversely, the lack of such mentions in Reuters and dpa articles does not mean they ignore user requests; it simply reflects that they do not disclose whether their verifications are based on user suggestions.

Some interviewees indicated that the prominence of the misinformation source plays a crucial role in the selection process: “If it’s a public figure and the misinformation could potentially influence public opinion, especially if it’s false, we will likely choose to verify the statement.” However, this criterion is not reflected in the content analysis, likely because news agencies primarily focus on social media policing, verifying information from anonymous online sources (see Section 4.3). This factor varied from 5.1% for AFP Chile to

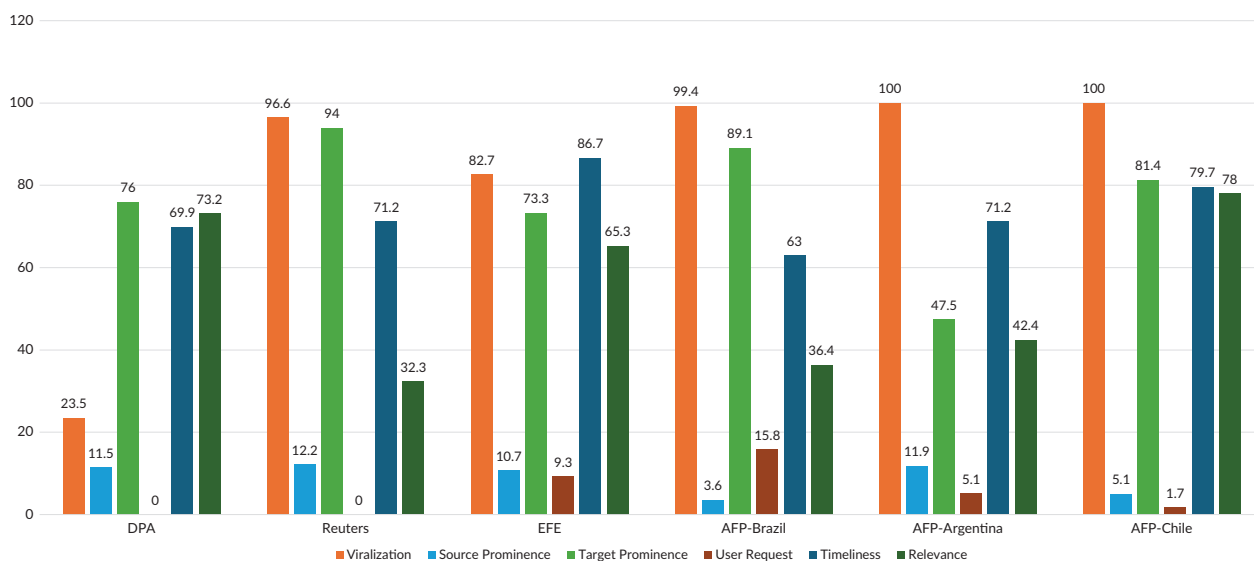


Figure 3. Indicators of selection criteria conveyed in the verification articles (in percentages).

12.2% for Reuters while the prominence of misinformation targets was significant—ranging from 47.5% in AFP Factual to 94% in Reuters (Figure 3). Typically, political actors, established media through impersonation, public figures, and well-known companies are the primary targets of misinformation. The lower percentage for AFP Factual can be attributed to its strong emphasis on health misinformation, where the target is often less clear (e.g., claims that lemon juice prevents Covid-19). Here, “target” refers to individuals, actors, groups, organizations, and institutions implicated in specific problems or actions, rather than the audience being misled.

Timeliness and relevance may initially seem to overlap. We define timeliness as hot media topics in 2022, including claims made in parliamentary speeches, the war in Ukraine, the aftermath of Covid-19, the World Cup, and other major events. As some interviewees noted, statements that are “potentially part of the news cycle” are given priority. One interviewee explained, “If it’s happening right now—current events—it’s something that is going on today, so we prioritize it over other things we were fact-checking earlier that can wait.” While media topics appear relevant, we applied a stricter definition of relevance and social impact in our content analysis, focusing on falsehoods targeting election campaigns and procedures, policymaking, legal debates, harmful health recommendations, wars, and verifications aimed at protecting users from online scams. As explained by the fact-checkers themselves, the priority is given to “matters of public danger, such as those related to health, environmental issues, climate change, or anything that could impact the social agenda.”

Fact-checking units within news agencies are well synchronized with public and media debates, with coverage ranging from 63% (AFP Checamos) to 86.7% (EFE). Relevance significantly influences dpa (73.2%) and AFP Chile (78%), with dpa showing strong verification coverage of domestic politics and online scams, while AFP Chile focuses on issues surrounding the constitutional referendum. The lower social impact of verifications produced by AFP Checamos (36.4%), despite the ongoing presidential race, can be attributed to misinformation in the electoral context that does not necessarily target election procedures or policy discussions. Reuters’ verification of less impactful claims (32.3%) includes false gaffes by international figures and verifications related to Queen Elizabeth’s funeral or socio-historical curiosities.

4.3. Targets of Fact-Checking Scrutiny and Platform Partnerships (RQ3)

As expected, due to the Meta Third-Party Fact-Checking Program launched in 2016, news agencies are prioritizing the verification of social media rumors to a significant extent, ranging from 100% at AFP Chile to 88% at Reuters (Figure 4). Hence, it is unsurprising that most identified problematic information circulating on social media was labeled as “false” or “partially false”—Reuters (89.7%), AFP Brazil (90.9%), AFP Chile (94.9%), EFE (98.2%), and AFP Argentina (100%). As discussed in Section 4.1, this percentage is significantly lower for dpa (54.6%), largely due to its comparatively greater focus on complex political verifications. Notably, apart from dpa, which initiated some form of fact-checking as early as 2013, most news agencies embraced this genre following the onset of Meta collaborations. The lower percentage at Reuters does not necessarily indicate a higher focus on public figure statements but rather indicates an editorial orientation towards the verification of misunderstood jokes circulating in satire outlets or problematic content in tabloids. While the trend of social media policing is widespread across various organizations worldwide (Cazzamatta, 2025d; Vinhas & Bastos, 2023), it appears particularly pronounced within global news agencies, which seem to be focused primarily on sanitizing online platforms.



Figure 4. Percentage of online rumor scrutiny compared to the verification of public figure statements (in percentages).

The literature (Full Fact, 2020) and our interviews indicate that Meta prohibits fact-checkers from tagging content spread by politicians directly. While they may address such content on their blogs, these posts are not recognized as verifications by Meta, as explained by an interviewee:

We don't engage with anything related to candidates. That is a restriction we have. However, we can check ads about political topics, as long as they are not made by the candidate or a politician. If it's any random person talking about politics and promoting a business, we can verify that.

In response, fact-checkers have developed alternative strategies, such as identifying non-political users who amplify the same falsehoods spread by politicians, which explains our content analysis results. Rather than viewing the approach as self-censorship, fact-checkers see it as a way to counter misinformation while adhering to Meta's partnership requirements, enabling them to accumulate their "points" within the collaboration framework. Additionally, due to confidentiality agreements with Meta, details on financial compensation are limited; some organizations report a fixed monthly cap, while others are unaware of any limitations.

Some fact-checkers acknowledge the emphasis on social media policy but also stress the importance of this work, noting that "what's going on within social media impacts the real world. Social media is also the real world...and affects other people." Social media policing typically requires less time than political fact-checking, and agencies find it manageable: "False videos, photos, or anything that has been manipulated needs to be addressed too" (interviewees). Another interviewee points out the significance of verifying trending topics. However, an important issue raised is that falsehoods must appear on Facebook or other Meta platforms,

which is problematic since some falsehoods go viral on alternative networks but do not count toward the program. This highlights the close scrutiny of Facebook.

When examining where falsehoods selected for verification circulate, Facebook emerges at the top, with figures ranging from 32% at AFP Checamos to 64.8% at dpa, followed by X (formerly Twitter), which ranges from 8.8% at dpa to 40% at Reuters (see Supplementary Material). Facebook's prominence is due to its collaboration with fact-checkers and monitoring tools. Prior to Elon Musk's ownership, X was also widely used for its accessibility and ease of research, with some agencies having partnerships with the platform. As one interviewee noted, "They told us what to debunk, but we also had the freedom to suggest." However, Musk terminated fact-checking services with some agencies. Currently, an interviewee remarked, "X is particularly bad in terms of information quality, especially since Elon Musk took over. The number of hoaxes and dangerous content has increased significantly."

Instagram plays a notable role for AFP Checamos (7.7%) and Reuters (14.7%). Surprisingly, news agencies do not monitor WhatsApp, despite its significant role as a disinformation channel, particularly in Latin America. TikTok is monitored more closely by EFE (10.3%), AFP Checamos (9.1%), and, to a lesser extent, AFP Factual (4.3%), likely due to established partnerships with the platform. Unlike Meta, where fact-checkers seek out falsehoods, TikTok sends videos that require verification (interviewee). This has been an important revenue source, but interviewees report a considerable reduction in the number of videos sent for verification. In contrast, YouTube is scrutinized less, with monitoring rates from 0.8% at Reuters to 3.1% at dpa. While a detailed discussion of the advantages and pitfalls of the Meta partnership is beyond the scope of this article, three interviewees noted that at least "Meta is taking action." They emphasized that other platforms, such as YouTube, which are challenging to monitor and verify, should also implement similar measures. As of writing, Zuckerberg has announced the termination of the discussed fact-checking program following Trump's reelection. The impact of this decision on the fact-checking landscape remains uncertain.

4.4. Motivations for News Agencies Involvement in Fact-Checking (RQ4)

Some motivations emphasized by our interviewees are closely intertwined with the core values and operational structures of international agencies. A primary motivation is to leverage extensive global expertise, which enhances their ability to verify information quickly and accurately. In addition to sustaining revenue streams through platform partnerships, they also highlight the importance of combating disinformation, creating a dual benefit of public service and financial viability.

4.4.1. Journalistic DNA and Global Informational Structures

Most of our interviewees view the involvement of international news agencies in fact-checking initiatives as a natural progression, as it aligns with their "journalistic DNA." These agencies have a strong reputation for accuracy and impartiality and benefit from a global network of multilingual professionals and reliable sources, enabling them to verify information quickly and precisely:

A big advantage of [our agency] in taking these contracts was that [our company] already has a huge network of journalists all over the world. So, for platforms, it was easy to find...reliable professionals who have it in their DNA to verify information before providing it.

Well, I think in [our case], it's a win-win decision because fact-checking is a very important public service. The fight against misinformation is something beneficial for the whole society....We don't have an editorial opinion or an editorial line. All our work is based on facts and data. It's very natural that [the agency] has a fact-checking service because this is something very current and consistent with [our] mission...as a whole.

In addition to accuracy and credibility, the extensive global information structures were emphasized. When a fact-checker lacks a source, they can connect with other departments worldwide to obtain contacts, allowing them to verify information reliably.

We benefit from the collaboration of our offices across the world. Sometimes we need to ask questions to the German police, Austrian prosecutors, or investigate something that happened in China, Beijing, or Latin America. Then we can contact our colleagues in those offices to ask if they can inquire with the police or relevant authorities to continue the research we started here.

4.4.2. Strategic Opportunities and Commercial Advantages

While emphasizing the journalistic essence of fact-checking, agencies also acknowledge its commercial potential. One interviewee remarked: "It's an important source of revenue. If you maintain your independence and seek new clients, why not target big platforms?" As journalism faces a business model crisis due to the internet, media companies have explored various strategies to regain lost funding. Even state-owned agencies, traditionally reliant on public funding, have seen a decline in media clients due to the diminished value of their general news services. "There are new ways to recover the money lost in the new world initiated by the Internet. Fact-checking is a profitable product, and it's very journalistic," another interviewee noted. Overall, agencies emphasize two main aspects: providing a public service and generating new revenue primarily through platform partnerships. "Because [we are] very clear, precise, and maintain this journalistic rigor, it benefits fact-checking, and fact-checking benefits [us] too," concluded an interviewee. Another interviewee highlighted the advantage that media companies like Reuters, AFP, dpa, and EFE have in global negotiations, thanks to their worldwide presence and multilingual journalists. This sets them apart from regional outlets, further enhancing their leverage:

I think a Reuters, an AFP, or any other global company can negotiate and come to the table with Meta or TikTok and say, "Look, I can offer this in [these many languages]...for X countries." I imagine that this also benefits the agencies when it comes to closing these deals. It's an agency engaged in commercial activity, right? There's nothing wrong with that. It's no mystery to anyone.

In relation to the platforms, an interviewee noted that, for better or worse, partnerships with platforms "create a minimally sustainable model for fact-checking activities." While these organizations remain "still very dependent on them," they argued that such a model is crucial for conducting these activities. These partnerships allow organizations to establish dedicated fact-checking units and closely monitor how disinformation spreads and which actors are involved, facilitating the analysis of its implications for journalism and society. Without platform partnerships, "a journalistic company would have to pay out of its own pocket to fund this activity," the interviewee added.

4.4.3. Free Dissemination of Fact-Checks

Fact-checks are typically available for free on the agencies' websites, setting them apart from other operations that involve selling texts, videos, infographics, and photographs. The collaboration with Meta—encompassing Facebook, Instagram, and WhatsApp—requires that fact-checks be published without a paywall. While clients, primarily platforms like Yahoo and MSN, can publish these fact-checks, they are not sold in the traditional sense. As one interviewee stated, "Fact-checks worldwide are free....We generate income from fact-checking through Meta, TikTok, and Kwai. We do not commercialize it."

Some agencies state that they can explore agreements with subscribers and publish fact-checks in various sections of their outlets (national, international, and sports), as long as this aligns with the IFCN/EFCSN fact-checking methodology required by their partnership with Meta: "There are no restrictions for us to use this material that we already produce for Meta [free available on their websites]. This content is ours. Therefore, we can utilize it in the way we believe is best." Consequently, the agencies aim to leverage this content and sell it to companies interested in republishing it, ensuring compliance with IFCN guidelines.

4.4.4. Reinforcing Journalistic Authority in the Age of Disinformation

In addition to business opportunities and the agencies' commitment to global and rapid fact-checking, interviewees emphasize a vital reason for engaging in these enterprises: the societal mission to combat disinformation and uphold journalistic values. They stress the importance of linking verification efforts to information on Facebook, Instagram, or Threads to limit the reach of falsehoods on these platforms. Some believe that, while their work is "very journalistic and closely related to traditional journalism," it also demands dedicated specialization to effectively tackle online falsehoods. This specialization enables them to respond better. As one interviewee noted, there is a "need to have a team that works specifically on this—actively searching for misinformation on social networks and responding with factual information." The expectation is that people will develop better skills in recognizing falsehoods online.

Some interviews also emphasize the importance of preserving journalistic values. There is a perception that "if we don't do this work, no one else will." If journalism companies do not take on this responsibility and leave it to technology companies, the outcome is unlikely to be favorable: "We do, in theory, have the expertise to perform this work. If we don't engage in this effort, and the entire informational environment is dominated by disinformation, our work loses its value as well." From this perspective, journalism plays a critical role in distinguishing between fact and falsehood: "We need to demonstrate that we are the ones who can do this; it's journalism, it's the companies operating in this area." In summary, another motivation is to validate journalistic work.

5. Discussion and Conclusion

This article examines the role of European international news agencies—Reuters, AFP, dpa, and EFE—in the evolving subgenre of external fact-checking journalism, a hallmark of hybrid journalistic practices (Chadwick et al., 2017). It employs content analysis of their verification articles ($n = 860$) and expert interviews ($n = 7$) to explore their motivations. The collaboration of these prestigious global news agencies, historically pillars of journalism in the mass media era, with tech companies to combat online misinformation exemplifies the

dynamics of (dysfunctional) hybrid media systems (Chadwick et al., 2017). In the traditional gatekeeping era, falsehoods were simply discarded and did not feature in news coverage. However, diminished journalistic gatekeeping—despite its democratic potential—has empowered regressive movements and actors, resulting in an ecosystem polluted with false information that journalism must confront. At first, news agencies adapted to the internet's impact on news reporting by striving to be the first to release news while maintaining high journalistic standards. Now, they also incorporate fact-checking practices to distinguish facts from falsehoods.

Initially, the fact-checking movement was viewed as a reform against the “he said/she said” style of journalism, where reporters were expected to assess the veracity of statements rather than leaving it to the audience (Amazeen, 2020; Graves, 2016, p. 20). However, this adjudicative process can be seen as editorializing, conflicting with the orthodox notion of journalistic objectivity (Cazzamatta, 2025b), which emphasizes neutrality and impartiality (Maras, 2013). Consequently, it is not surprising that news agencies became involved in fact-checking later, as the movement shifted toward verifying online rumors on social platforms, mostly spread by anonymous sources (Bélair-Gagnon et al., 2023; Graves et al., 2023). Our content analysis indicates that 90% to 100% of verification articles produced by news agencies target online rumors rather than statements by public figures (RQ3)—a significantly higher percentage compared to some independent organizations (Cazzamatta, 2025d), although independent units are also increasingly monitoring social media. Meta restricts fact-checkers from directly labeling content shared by politicians. Although fact-checkers can discuss this content on their blogs, such posts are not financially supported by Meta. As a workaround, they have developed strategies such as flagging non-political users who amplify the same misinformation as politicians, which explains the high percentage of social media users under scrutiny. Fact-checkers see this approach not as self-censorship, but rather as a method to address misinformation while complying with Meta's partnership requirements.

Fact-checking is considered central to the agencies' core mission, leveraging their global expertise and networks to deliver fast and accurate verifications (Chadwick et al., 2017). Despite some criticism, partnerships with platforms are viewed as a new revenue stream and a sustainable business model, allowing newsrooms to create dedicated fact-checking desks with specialized reporters (RQ4). Some interviewees find platform support contradictory, noting that the attention-driven economy of these platforms partially fuels the spread of disinformation: “It's really paradoxical, you know, to have Meta finance your journalism. It's the world we live in, right? I mean, big tech, you can't, you can't run away from big tech.” Conversely, platforms are seen as legitimate clients, as long as agencies maintain their independence.

Our content analysis shows that most news agencies—Reuters, EFE, and AFP—exhibit a lower-than-expected focus on domestic politics. In contrast, dpa, a private company representing several German outlets, verifies political claims more frequently (RQ1). While it may seem logical for international agencies to prioritize global misinformation, this trend may also reflect the influence of platform partnerships, which could lead them to overlook domestic political issues. As a result of reduced political coverage and increased social media policing, the prominence of disinformation sources does not appear to directly affect fact-check selection. However, this should be interpreted cautiously. Fact-checkers have noted that ordinary social media users often replicate false claims from politicians, which they correct without breaching platform partnership regulations. This suggests that the impact of disinformation sources as a selection factor may be less visible. Furthermore, collaboration with platforms contributes to the high volume of debunked information on Facebook, making virality—especially on Meta platforms—and timeliness the most significant news factors (RQ2).

This article is among the first to investigate the fact-checking practices of global news agencies. Our aim is to contribute to the fields of fact-checking, global news wire services, and disinformation studies in an era of “disrupted hybridity.” Future research should examine the pitfalls, advantages, and idiosyncrasies of the relationship between platforms and news agencies. Are platforms making sufficient efforts to control disinformation? While collaboration with Meta faces significant criticism, some interviewees highlight its pioneering strategy and suggest that other tech companies, such as YouTube, should develop similar initiatives to support journalism in combating disinformation. Nonetheless, following Mark Zuckerberg’s recent announcement to discontinue collaboration with fact-checkers on Meta platforms in favor of community-driven verifications, akin to Musk’s X community notes, scholars must urgently assess the impact of this decision on the fact-checking landscape (Canetta & Panizio, 2025; EFCSN, 2025; Graves, 2025; IFCN, 2025). This includes examining their effects on news agency desks, not only in the US but also in Europe, taking into consideration platform regulations outlined in the Digital Service Act.

As a key financial supporter, particularly for organizations in the Global South, the program’s discontinuation raises significant concerns about the long-term viability of independent fact-checking efforts (Graves, 2025). For global news agencies that primarily focus on policing social media, it is worth questioning whether their fact-checking initiatives will continue if Meta indeed discontinues this service in Europe. Unlike professional fact-checking efforts, such as those conducted by global news agency units, which adhere to rigorous standards of accountability and the IFCN code of conduct, corrections in community notes are generated by citizens, whose resilience to misinformation varies (Humprecht et al., 2020; Labarre, 2025). Although comprehensive studies on the effectiveness of community notes remain scarce, research conducted by the Spanish fact-checking organization Maldita (2025) reveals that fact-checks are among the most trusted sources cited in X posts. References to fact-checks enhance the credibility of these contributions, making them more effective in countering misinformation (Nyariki, 2025). Finally, scholars should explore whether news agencies provide services to regressive digital outlets (Cazzamatta, 2025c) that spread falsehoods, which these same agencies then must verify, further complicating the hybrid nature of dysfunctional media systems. This paradox illustrates the complexities of dysfunctional hybrid media systems, where legacy journalistic institutions both inadvertently sustain and counteract the digital misinformation ecosystem, blurring the lines between authoritative fact-checking and the amplification of disinformation (Chadwick et al., 2017). A similar contradiction applies to tech platforms, which, despite their previous support for fact-checking initiatives, have never fundamentally challenged the attention economy and business models that fuel the information disorder, for which they compensate fact-checkers to mitigate (Diaz Ruiz, 2023; Klinger et al., 2024).

Acknowledgments

The author is grateful for the financial support of the Deutsche Forschungsgemeinschaft (DFG) and the engaging collaboration of the research assistants involved in this project, as well as for the support provided by the University of Erfurt regarding the open access fees.

Funding

This project was funded by the German Research Council/Deutsche Forschungsgemeinschaft (DFG; Project Number 8212383) and supported by open access funds of the University of Erfurt.

Conflict of Interests

The author declares no conflict of interests.

Supplementary Material

Supplementary material available here: https://osf.io/nuc5r/?view_only=aa7bc4183d8f4aaba3d89826b325884b

References

- AFP Checamos. (n.d.). *AFP Brasil*. <https://checamos.afp.com/AFP-Brasil>
- AFP Fact Check. (n.d.-a). *About AFP*. <https://factcheck.afp.com/about-afp>
- AFP Fact Check. (n.d.-b). *AFP Chile*. <https://factcheck.afp.com/AFP-Chile>
- AFP Factual. (n.d.). *Homepage*. <https://factual.afp.com>
- Allcott, H., & Gentzkow, M. (2017). Social media and fake news in the 2016 election. *Journal of Economic Perspectives*, 31(2), 211–236. <https://doi.org/10.1257/jep.31.2.211>
- Amazeen, M. A. (2020). Journalistic interventions: The structural factors affecting the global emergence of fact-checking. *Journalism*, 21(1), 95–111. <https://doi.org/10.1177/1464884917730217>
- Batra, S. (2024). *Reuters*. IFCN Code of Principles. <https://ifcncodeofprinciples.poynter.org/application/public/reuters/661a8b12ba7689d481430842>
- Beh, E. J., & Lombardo, R. (2014). *Correspondence analysis: Theory, practice and new strategies*. Wiley.
- Bélair-Gagnon, V., Larsen, R., Graves, L., & Westlund, O. (2023). Knowledge work in platform fact-checking partnerships. *International Journal of Communication*, 17, 1169–1189.
- Bennett, W. L., & Pfetsch, B. (2018). Rethinking political communication in a time of disrupted public spheres. *Journal of Communication*, 68(2), 243–253. <https://doi.org/10.1093/joc/jqx017>
- Bielsa, E. (2008). The pivotal role of news agencies in the context of globalization: A historical approach. *Global Networks*, 8(3), 347–366. <https://doi.org/10.1111/j.1471-0374.2008.00199.x>
- Bigot, L. (2024). *AFP fact-checking*. IFCN Code of Principles. <https://ifcncodeofprinciples.poynter.org/application/public/afp-fact-checking/6661be7ce67fee621b9f37cc>
- Bogner, A. (Ed.). (2002). *Das Experteninterview: Theorie, Methode, Anwendung*. Leske + Budrich.
- Boyd-Barrett, O. (2010). *News agencies in the turbulent era of the internet*. Generalitat de Catalunya; Agència Catalana de Notícies.
- Brandtzaeg, P. B., & Følstad, A. (2017). Trust and distrust in online fact-checking services. *Communications of the ACM*, 60(9), 65–71. <https://doi.org/10.1145/3122803>
- Bruns, A. (2003). Gatewatching, not gatekeeping: Collaborative online news. *Media International Australia Incorporating Culture and Policy*, 107(1), 31–44. <https://doi.org/10.1177/1329878X0310700106>
- Canetta, T., & Panizio, E. (2025, January 31). Top ten disinformation stories in the EU that the META fact-checking program helped mitigate. *European Digital Media Observatory*. <https://edmo.eu/publications/top-ten-disinformation-stories-in-the-eu-that-the-meta-fact-checking-program-helped-mitigate>
- Cazzamatta, R. (2022). The role of wire services in the new millennium: An examination of the foreign-reporting about Latin America in the German press. *Journalism*, 23(5), 1044–1063. <https://doi.org/10.1177/1464884920944745>
- Cazzamatta, R. (2025a). Decoding correction strategies: How fact-checkers uncover falsehoods across countries. *Journalism Studies*. Advance online publication. <https://doi.org/10.1080/1461670X.2025.2470177>
- Cazzamatta, R. (2025b). Redefining objectivity: Exploring types of evidence by fact-checkers in four european

- countries. *European Journal of Communication*. Advance online publication. <https://doi.org/10.1177/02673231251319145>
- Cazzamatta, R. (2025c). Regressive 'alternative' media and their role in disrupting the public spheres in Europe and Latin America. *Publizistik*, 2025. <https://doi.org/10.1007/s11616-025-00892-9>
- Cazzamatta, R. (2025d). The content homogenization of fact-checking through platform partnerships: A comparison between eight countries. *Journalism & Mass Communication Quarterly*, 102(1), 120–157. <https://doi.org/10.1177/10776990241261725>
- Chadwick, A. (2013). *The hybrid media system: Politics and power*. Oxford University Press.
- Chadwick, A. (2017). *The hybrid media system: Politics and power* (2nd ed.). Oxford University Press.
- Chadwick, A., Dennis, J., & Smith, A. P. (2017). Politics in the age of hybrid media: Power, systems, and media logics. In A. Bruns, G. Enli, E. Skogerbo, A. O. Larsson, & C. Christensen (Eds.), *Routledge companion to social media and politics* (pp. 7–22). Routledge.
- da Fontoura, M. C. (2024). *EFE Verifica*. IFCN Code of Principles. <https://ifcncodeofprinciples.poynter.org/application/public/efe-verifica/661a8b13ba7689d481433671>
- Delcker, J. (2021, July 16). Why can't Europe's richest country go digital? *Deutsche Welle*. <https://www.dw.com/en/germany-and-digitalization-why-cant-europes-richest-country-get-up-to-speed/a-58273979>
- della Porta, D. (2023). Regressive movements in times of emergency: An introduction. In D. della Porta (Ed.), *Regressive movements in times of emergency: The protests against anti-contagion measures and vaccination during the Covid-19 pandemic* (1st ed., pp. 1–37). Oxford University Press. <https://doi.org/10.1093/oso/9780198884309.003.0001>
- Diaz Ruiz, C. (2023). Disinformation on digital media platforms: A market-shaping approach. *New Media & Society*, 27(4), 2188–2211. <https://doi.org/10.1177/14614448231207644>
- dpa. (n.d.-a). *Fact checking at dpa*. <https://www.dpa.com/en/fact-checking-at-dpa>
- dpa. (n.d.-b). *dpa factchecking*. dpa Factchecking. <https://dpa-factchecking.com>
- EFE Verifica. (n.d.-a). *Financiación*. <https://verifica.efe.com/financiacion>
- EFE Verifica. (n.d.-b). *EFE Verifica, el servicio de efe contra la desinformación*. <https://verifica.efe.com>
- Esser, F. (1999). "Tabloidization" of news: A comparative analysis of Anglo-American and German press journalism. *European Journal of Communication*, 14(3), 291–324. <https://doi.org/10.1177/0267323199014003001>
- European Fact-Checking Standard Network. (2025, January 7). *EFCSN disappointed by end to meta's third party fact-checking program in the us; condemns statements linking fact-checking to censorship* [Press Release]. https://efcsn.com/news/2025-01-07_efcsn-disappointed-by-end-to-metas-third-party-fact-checking-program-in-the-us-condemns-statements-linking-fact-checking-to-censorship
- Full Fact. (2020). *The challenges of online fact checking*. <https://fullfact.org/media/uploads/coof-2020.pdf>
- Gläser, J., & Laudel, G. (2010). *Experteninterviews und qualitative Inhaltsanalyse als Instrumente rekonstruierender Untersuchungen*. Springer.
- Graves, L. (2016). *Deciding what's true: The rise of political fact-checking in American journalism*. Columbia University Press.
- Graves, L. (2018). Boundaries not drawn: Mapping the institutional roots of the global fact-checking movement. *Journalism Studies*, 19(5), 613–631. <https://doi.org/10.1080/1461670X.2016.1196602>
- Graves, L. (2022). Fact-checking movement. In G. A. Borchard, & C. H. Sterling (Eds.), *The Sage encyclopedia of journalism* (2nd ed., pp. 631–634). Sage.
- Graves, L. (2025, January 13). Will the EU fight for the truth on Facebook and Instagram? *The Guardian*. <https://www.theguardian.com/technology/2025/jan/13/meta-facebook-factchecking-eu>

- Graves, L., Bélair-Gagnon, V., & Larsen, R. (2023). From public reason to public health: Professional implications of the “debunking turn” in the global fact-checking field. *Digital Journalism*, 12(10), 1417–1436. <https://doi.org/10.1080/21670811.2023.2218454>
- Graves, L., & Cherubini, F. (2016). *The rise of fact-checking sites in europe*. Reuters Institute for the Study of Journalism. <https://reutersinstitute.politics.ox.ac.uk/sites/default/files/research/files/The%2520Rise%2520of%2520Fact-Checking%2520Sites%2520in%2520Europe.pdf>
- Graves, L., & Wells, C. (2019). From information availability to factual accountability: Reconsidering how truth matters for politicians, publics, and the news media. In L. Graves & C. Wells (Eds.), *Journalism and truth in an age of social media* (pp. 39–57). Oxford University Press. <https://doi.org/10.1093/oso/9780190900250.003.0004>
- Greenacre, M. J. (2017). *Correspondence analysis in practice* (3rd ed.). CRC Press; Taylor & Francis.
- Habermas, J. (2021). Überlegungen und Hypothesen zu einem erneuten Strukturwandel der politischen Öffentlichkeit. In M. Seeliger & S. Seignani (Eds.), *Ein neuer Strukturwandel der Öffentlichkeit?* (pp. 470–500). Nomos.
- Heinke, D. H. (2022). The security threat posed by the corona-skeptic querdenken. *CTC SENTINEL. Combating Terrorism Center at West Point*, 15(3), 18–24.
- House of Commons. (2018). *Disinformation and ‘fake news’: Interim Report*. <https://publications.parliament.uk/pa/cm201719/cmselect/cmcumeds/363/363.pdf>
- Humprecht, E. (2018). Where ‘fake news’ flourishes: A comparison across four western democracies. *Information, Communication & Society*, 22(13), 1973–1988. <https://doi.org/10.1080/1369118X.2018.1474241>
- Humprecht, E. (2019). How do they debunk “fake news”? A cross-national comparison of transparency in fact checks. *Digital Journalism*, 8(3), 310–327. <https://doi.org/10.1080/21670811.2019.1691031>
- Humprecht, E., Esser, F., & Van Aelst, P. (2020). Resilience to online disinformation: A framework for cross-national comparative research. *The International Journal of Press/Politics*, 25(3), 493–516. <https://doi.org/10.1177/1940161219900126>
- International Fact-Checking Network. (2025, January 9). An open letter to Mark Zuckerberg from the world’s fact-checkers, nine years later. Poynter. <https://www.poynter.org/ifcn/2025/an-open-letter-to-mark-zuckerberg-from-the-worlds-fact-checkers-nine-years-later>
- Klinger, U., Kreiss, D., & Mutsvairo, B. (2024). *Platforms, power, and politics: An introduction to political communication in the digital age*. Polity.
- Labarre, J. (2025). Epistemic vulnerability: Theory and measurement at the system level. *Political Communication*, 42(1), 6–26. <https://doi.org/10.1080/10584609.2024.2363545>
- Lawrence, R. G., & Schafer, M. L. (2012). Debunking Sarah Palin: Mainstream news coverage of ‘death panels.’ *Journalism*, 13(6), 766–782. <https://doi.org/10.1177/1464884911431389>
- Liu, X., Qi, L., Wang, L., & Metzger, M. J. (2023). Checking the fact-checkers: The role of source type, perceived credibility, and individual differences in fact-checking effectiveness. *Communication Research*. Advance online publication. <https://doi.org/10.1177/00936502231206419>
- Lyons, B., Mérola, V., Reifler, J., & Stoeckel, F. (2020). How politics shape views toward fact-checking: Evidence from six european countries. *The International Journal of Press/Politics*, 25(3), 469–492. <https://doi.org/10.1177/1940161220921732>
- Maldita. (2025). *Faster, trusted, and more useful: The impact of fact-checkers in x’s community notes*. https://files.maldita.es/maldita/uploads/2025/02/maldita_informe_community_notes_2024.pdf
- Mantas, H., & Benkelman, S. (2020, June 11). Do no harm: Debunking without amplification. Poynter. <https://www.poynter.org/fact-checking/2020/do-no-harm-debunking-without-amplification>

- Maras, S. (2013). *Objectivity in journalism*. Polity Press.
- Meuser, M., & Nagel, U. (2002). ExpertInneninterviews—Vielfach erprobt, wenig bedacht. Ein Beitrag zur qualitativen Methodendiskussion. In A. Bogner (Ed.), *Das Experteninterview: Theorie, Methode, Anwendung* (pp. 71–92). Leske + Budrich.
- Neuberger, C. (2022). Journalismus und Plattformen als vermittelnde Dritte in der digitalen Öffentlichkeit. *KZfSS Kölner Zeitschrift für Soziologie und Sozialpsychologie*, 74(Suppl. 1), 159–181. <https://doi.org/10.1007/s11577-022-00832-9>
- Nyariki, E. (2025, February 20). Fact-checkers are among the top sources for X's Community Notes, study reveals. Poynter. <https://www.poynter.org/ifcn/2025/fact-checkers-contribute-improve-community-notes-x>
- Nyhan, B., & Reifler, J. (2015). The effect of fact-checking on elites: A field experiment on U.S. state legislators. *American Journal of Political Science*, 59(3), 628–640. <https://doi.org/10.1111/ajps.12162>
- Orsek, B., & Ozsoy, F. (2020). IFCN's Code of Principles Transparency Report 2020. Poynter. <https://www.poynter.org/international-fact-checking-network-transparency-statement>
- Palau-Sampio, D. (2018). Fact-checking and scrutiny of power: Supervision of public discourses in new media platforms from latin america. *Communication & Society*, 31(3), 347–363. <https://doi.org/10.15581/003.31.3.347-363>
- Płóciennik, S. (2021). *Digitalisation in Germany: An overview and what lies behind the delays*. Centre for Eastern Studies. https://www.osw.waw.pl/en/publikacje/osw-commentary/2021-11-22/digitalisation-germany-overview-and-what-lies-behind-delays#_ftnref4
- Rantanen, T., Jäskeläinen, A., Bhat, R., Stupart, R., & Kelly, A. (2019). *The future of national news agencies in Europe: Executive summary* (Working Paper). London School of Economics and Political Science. <http://eprints.lse.ac.uk/100062>
- Reuters. (n.d.-a). About Reuters fact check. <https://www.reuters.com/fact-check/about>
- Reuters. (n.d.-b). Reuters fact check: Examining social media narratives and misinformation. https://www.reuters.com/fact-check/?feeder_proxy=1
- Rodríguez-Pérez, C., & Seibt, T. (2022). The Brazilian fact-checkers criteria: An analysis of the guiding purposes, principles, and routines of this journalistic practice. *Brazilian Journalism Research*, 18(2), 350–373. <https://doi.org/10.25200/BJR.v18n2.2022.1510>
- Rodríguez-Pérez, C., Seibt, T., Magallón-Rosa, R., Paniagua-Rojano, F. J., & Chacón-Peinado, S. (2022). Purposes, principles, and difficulties of fact-checking in ibero-america: Journalists' perceptions. *Journalism Practice*, 17(10), 2159–2177. <https://doi.org/10.1080/17512786.2022.2124434>
- Russell, A. (2020). Coming to terms with dysfunctional hybridity: A conversation with Andrew Chadwick on the challenges to liberal democracy in the second-wave networked era. *Studies in Communication Sciences*, 20(2), 211–225. <https://doi.org/10.24434/j.scoms.2020.02.005>
- Schudson, M. (2001). The objectivity norm in American journalism. *Journalism*, 2(2), 149–170. <https://doi.org/10.1177/146488490100200201>
- Stencel, M., Ryan, E., & Luther, J. (2023). *Misinformation spreads, but fact-checking has leveled off*. Duke Reporters' LAB. <https://reporterslab.org/tag/fact-checking-census>
- Surm, J. (2020). AFP, EFE and dpa as international news agencies. *Journalism*, 21(12), 1859–1876. <https://doi.org/10.1177/1464884919883491>
- Thiel, D. (2023). dpa Deutsche Presse-Agentur GmbH. IFCN Code of Principles. <https://ifcncodeofprinciples.poynter.org/application/public/dpa-deutsche-presse-agentur-gmbh/661a8b12ba7689d4814306e4>
- Tracy, S. J. (2013). *Qualitative research methods: Collecting evidence, crafting analysis, communicating impact*. Wiley.

- Vinhas, O., & Bastos, M. (2022). Fact-checking misinformation: Eight notes on consensus reality. *Journalism Studies*, 23(4), 448–468. <https://doi.org/10.1080/1461670X.2022.2031259>
- Vinhas, O., & Bastos, M. (2023). The WEIRD governance of fact-checking and the politics of content moderation. *New Media & Society*. Advance online publication. <https://doi.org/10.1177/14614448231213942>
- Vos, T. P. (2019). Journalists as gatekeepers. In K. Wahl-Jorgensen & T. Hanitzsch (Eds.), *The handbook of journalism studies* (2nd ed., pp. 90–104). Routledge.
- Vyslozil, W., & Surm, J. (2019). *The future of national news agencies in Europe—Case study 1: The impact of globally changing media systems on the business and innovation policy of the European international news agencies AFP, dpa and EFE* (Working Paper). London School of Economics and Political Science. <https://doi.org/10.21953/lse.bvbue31ot8xt>
- Wardle, C. (2020). *Understanding information disorder: Essential guidelines*. First Draft. <https://firstdraftnews.org/long-form-article/understanding-information-disorder>

About the Author



Regina Cazzamatta is a postdoctoral researcher at the University of Erfurt. She is the principal investigator of a comparative research project on fact-checking practices, funded by the German Research Council (DFG). Her current research investigates the evolving roles of fact-checking initiatives across diverse media landscapes.

Search in the Newsroom: How Journalists Navigate Google's Dominance in a Hybrid Media System

Daniel Trielli 

Philip Merrill College of Journalism, University of Maryland, USA

Correspondence: Daniel Trielli (dtrielli@umd.edu)

Submitted: 29 January 2025 **Accepted:** 1 September 2025 **Published:** 8 October 2025

Issue: This article is part of the issue "Journalism in the Hybrid Media System" edited by Silke Füst (University of Zurich), Florian Muhle (Zeppelin University Friedrichshafen), and Colin Porlezza (Università della Svizzera italiana), fully open access at <https://doi.org/10.17645/mac.i494>

Abstract

As a significant algorithmic actor in a media system where humans and machines interact to produce and disseminate news information, Google acts as an external algorithmic editor to news media, shaping what information gets picked up for broader consumption. Journalists, in their attempt to inform and create a dialogue with the public, are constantly aware of Google's dominance and, for the last two decades, have experienced the shifting power dynamics in the digitized media system. Based on 18 interviews with US-based journalists across a range of newsroom types and regions, this interview study shows how reporters and editors deal with this new external algorithmic editor. The findings demonstrate that they do that through resistance, relinquishment, and renegotiation. Journalists first resist giving up on their editorial values, setting particular limits around framing and selecting which hard news stories to cover, even when facing algorithmic pressure towards provocative and eye-grabbing content. Second, they relinquish some editorial control and create segregated content ("search work") tailored to the algorithm and toward audience growth. Third, they renegotiate their values and roles to fit a new logic in which newsworthiness and commercial values overlap. These findings confirm and build upon previous work delineating how journalists navigate their 20th-century values with 21st-century digital curation in a hybrid media system shaped by both human and machine logics.

Keywords

digital platforms; news judgment; professional journalistic values; search engines

1. The Symbiotic Relationship Between News Media and Search Engines

Search engines rely on content made by publishers to deliver relevant results to their users, while news publishers rely on search engines to reach their audiences. This mutual dependence, therefore, is a strong representation of a media hybrid system in which newer media (search) are symbiotic to older media (news media; Chadwick, 2017; Hallin et al., 2023). As such, we can expect to see in this relationship the impacts of “boundary-drawing, boundary-blurring, and boundary-crossing” (Chadwick, 2017, p. 184) between both media regarding their practitioners. The values of news media have matured separately and earlier than those of search engines, and in their interaction, these values compete and coevolve (Chadwick, 2017). The evaluation of what is “newsworthy” (Harcup & O’Neill, 2017) can conflict and coincide with what is deemed “relevant” as search engine results (Sundin et al., 2022).

The symbiotic relationship between search engine platforms and the news media industry has profound potential implications for how news content is produced. On one hand, that new ecosystem creates very immediate and practical labor demands and activities, such as search engine optimization (SEO) of news content to make it appealing not only to audiences but to algorithms that help increase visibility and web traffic (Dick, 2011; Giomelakis et al., 2019; Vu, 2014). On the other hand, digital platforms rely on news content to maintain influence (News Media Alliance, 2019). These developments are particularly significant given that search engines and news aggregators are now identified as the most common gateways to online news globally, ahead of social media and direct access (Newman et al., 2024, p. 21).

Through their algorithmic curation, search engines have the power to shape deeper news media practices and influence the role of news organizations within society. In the 20th-century, when journalistic values and role recognitions were being developed in an environment of mass media, journalism research ascribed to journalists the roles of gatekeepers (Tandoc, 2014) and agenda-setters (McCombs & Shaw, 1972). The 21st-century reality is that news media organizations must share those roles and power with algorithmic platforms, including search engines (Nielsen & Ganter, 2022; Thorson & Wells, 2016). Hybrid media research has focused on the study of those roles and how they evolve (Chadwick, 2017; Hallin et al., 2023), with the understanding that the performance of journalistic roles can be fluid according to general and historical circumstances (Hallin et al., 2023). And the present circumstances are that search engines are significant referrers of web traffic to news publishers. In the US, for instance, 66% of adults access digital news through the intermediation of search platforms (Aubin & Liedke, 2024).

This new scenario inspires this study, which focuses on the relationship between news media and one of the most impactful algorithmic digital platforms: Google. This study explores journalists’ understandings, attitudes, and perspectives regarding how Google curates news information and the impact of this curation not only on their work but also on society at large.

This work investigates how journalists who, by force of their daily routines in covering political topics, see the implications of search engine curation for the content they produce. If 20th-century journalists consider themselves agenda-setters, how do 21st-century journalists see the algorithmic intermediaries of search? How do journalists deal with their work being atomized into individual stories, collated, and distributed by automated curators in search engines?

During the interviews, US-based journalists who produce mostly text (content that is more impacted by Google's curation) explored these questions. These journalists, mostly based in local news organizations, describe Google's impact on their work and how they embrace or resist it. They express how they maintain their professional values (e.g., accuracy, independence, etc.) while facing the new economic pressures and search-driven news values (e.g., engagement and reach) and growth, and how they divide regular journalistic work from a type of content tailored specifically for the algorithm (which some journalists call "search work"). And they articulate their concerns as some public information functions, once concentrated in the news industry, are transferred to digital platforms.

2. Related Work

This section explores how previous work has investigated the substantial power that digital platforms, particularly search engines and social media, wield over journalism through algorithmic control and economic dependency. Understanding these dynamics is essential for examining the implications for journalistic independence, practices, and values, particularly how newsrooms navigate their complex relationship with dominant platform ecosystems.

2.1. Platform Power

Digital platforms such as social media and search engines are increasingly influential in journalism. Platforms have become deeply embedded in how news is produced, disseminated, and monetized, making publishers vulnerable to their constant algorithmic and policy changes (Chua, 2023; Poell et al., 2023). News publishers have become dependent on platforms for traffic and revenue (Meese & Hurcombe, 2021; Myllylahti, 2020; Nielsen & Ganter, 2022; Papaevangelou, 2024; Trielli & Diakopoulos, 2019). This dependency has resulted in multiple asymmetries that largely favor platforms (Chua, 2023), raising significant concerns about whether news organizations can maintain independence, control over their content and data, and financial autonomy while serving civic needs (Chua, 2023). The implications are particularly concerning for smaller or local news outlets (Chua, 2023; Nielsen & Ganter, 2022; Nielsen et al., 2020).

While existing research has detailed platform dominance, there is a crucial need for deeper scholarship that explores how news organizations and journalists actively conceptualize and strategically navigate their relationship with powerful digital intermediaries (Bonini & Treré, 2024; Chua, 2023; de Haan et al., 2022; Poell et al., 2023). This involves understanding their everyday tactics and long-term strategies for innovating practices, negotiating constraints, and asserting agency within the complex, relational dynamics of platform power, moving beyond simplistic understandings of dependency (Bonini & Treré, 2024; Chua, 2023; Poell et al., 2023).

The increasing entanglement of news media with digital platforms is deeply embedded within the concept of the hybrid media system, which characterizes a complex media environment where traditional media, new digital forms, and platforms coexist and interact (Bonini & Treré, 2024). The power dynamics between platforms and news organizations are a defining feature of this hybrid environment, as publishers must navigate platform logic and adapt practices to reach audiences and maintain relevance amidst ever-changing technical and governance structures (Chua, 2023; Lischka & Garz, 2023; Poell et al., 2023; Ross Arguedas et al., 2022).

Platform power is increasingly pervasive, deeply embedding itself in daily life and work, including within news organizations, which rely on platforms for various aspects of digital news operations (Chua, 2023). This power is also often described as opaque, particularly concerning the algorithmic infrastructures that platforms use to exercise their agency and mediate user behavior, such as recommendation algorithms (Bonini & Tréré, 2024; de Haan et al., 2022). The relationship is marked by significant asymmetries that predominantly favor platforms, leading to concerns about the editorial independence and financial autonomy of news organizations (Chua, 2023). This power is highly concentrated among a small number of global technology companies like Alphabet/Google and Meta/Facebook, which function as powerful forces shaping the digital media environment for journalism (Caplan & boyd, 2018).

Platforms encourage journalistic practices that align with their specific ecosystem and economic interests. The focus of journalism, therefore, can shift towards metrics valued by platforms, such as maximizing reach and audience engagement, potentially framing news as a market-driven commodity rather than solely a public good. This aligns journalistic effort with the platforms' business models centered on data accumulation and advertising revenue (Hermida & Young, 2024; Lischka & Garz, 2023).

2.2. The Incentive of Metrics

The pressure of metrics is increasingly impacting journalistic labor, both in daily practices of content creation and in the structure of hiring and retention of professionals (Petre, 2021). Newsrooms currently operationalize metrics of audience preference and integrate them into editorial decisions (Kristensen, 2023). For instance, editors commonly adjust the placement of news stories based on metrics (Lee et al., 2014). Audience data provides journalists with a narrative of an "evidence-based method in choosing what to publish," which can substitute journalistic instinct (MacGregor, 2007, p. 280). Audience surveillance allows for a system that relies upon and reacts to audience quantification and rationalization (Anderson, 2011). Audience metrics have become embedded in newsroom operations, resulting in "expected reception" emerging as a new, digitally-driven news value encompassing anticipated audience experience, audience engagement behaviors, and algorithmic performance (Kristensen, 2023).

Metrics have established a new equilibrium in newsroom decision-making processes, where they coexist with traditional journalistic standards (Tenor, 2024). Functions that were once reserved for journalists, such as gatekeeping (Lee et al., 2014; Tandoc, 2014; Vos & Thomas, 2019), opinion power (Dodds et al., 2023), or agenda-setting (McCombs & Shaw, 1972; Trielli & Diakopoulos, 2022), are now shifting towards an empowered audience and the algorithms that intermediate between the readers and the news. However, the usage of metrics remains largely under editorial oversight (Tenor, 2024).

Additionally, the incorporation of data-driven analysis of the audience can actually advance journalistic goals. For instance, journalists can strategically use audience analytics to identify and address misrepresentations and serve traditionally marginalized audiences (Schaetz, 2024), as long as the data is leveraged for equitable purposes (Schaetz, 2024).

Therefore, the usage of metrics impacts and is impacted by journalists' self-assigned roles. In the following section, we will explore how journalists perceive their roles and shift those perceptions according to new pressures.

2.3. Journalistic Roles and the Renegotiation of Values in an Algorithmic Context

Journalists must now consider—in conjunction with traditional news values (e.g., recency, conflict, etc.) and normative professional values (e.g., accuracy, independence, etc.)—algorithmic curation to effectively reach their audiences. This article distinguishes between technical-professional “news values” and broader normative “professional values” to clarify conceptual boundaries. These overlapping demands are reshaping journalistic roles in ways that increasingly align with digital platform logics (Peterson-Salahuddin & Diakopoulos, 2020). Their behavior is deeply influenced by self-perceived roles, traditionally linked to political processes such as informing the public, serving as watchdogs, and aiding self-governance (Hanitzsch et al., 2019; Standaert et al., 2021). Public expectations also influence these roles, emphasizing objectivity, transparency, and tolerance (Loosen et al., 2020). Recent scholarship argues for analyzing roles not merely as fixed belief systems, but as dynamic practices shaped by perception, positionality, interpretation, and motivation, sensitive to cultural and organizational contexts (Ryfe, 2024; Standaert et al., 2021).

Donsbach (2012) describes three dimensions of journalistic roles present in democratic societies: participant/observational (whether journalists influence the political process), advocacy/neutral (whether journalists express their values and beliefs), and commercial/educational (Donsbach, 2012). With the growing centrality of algorithmic platforms such as Google, the commercial/educational dimension is increasingly relevant: it is about whether journalists should strive to reach the widest possible audience by responding to their desires or if they should instead independently make their decisions based on ideas of public service (Donsbach, 2012). It represents what is traditionally known as a strong dividing line between pure journalistic values and the monetary value of journalism for news organizations. This distinction was also defined as “doing good” (i.e., conducting mission-oriented journalism) vs. “doing well” (i.e., reaching a big audience; Nelson & Tandoc, 2019). Platforms act as powerful gatekeepers, influencing editorial content through metrics that reflect audience engagement, potentially skewing perceptions of audience preferences and shaping journalistic roles in varied and sometimes contradictory ways (Blanchett et al., 2024; Coddington et al., 2021; Petre, 2021; Trielli & Diakopoulos, 2020).

In parallel, traditional news values, such as recency, conflict, relevance, proximity, and social impact, are increasingly renegotiated due to algorithmic mediation of news flows (Harcup & O’Neill, 2017; Kristensen, 2023; Parks, 2019). Algorithmic systems bring their own value sets into journalism, including user engagement, expressed preferences, and data-driven content connections, reshaping editorial decisions about what to include, highlight, or minimize (Bucher, 2012; DeVito, 2017; Weber & Kosterich, 2018). These algorithmic interventions have profound societal and political implications, notably impacting political visibility and public discourse (Diakopoulos et al., 2018; Helberger, 2019). Consequently, journalists increasingly adopt values that emphasize expected reception: both audience reactions (engagement and subscription) and algorithmic prioritization (Kristensen, 2023; Kristensen & Bro, 2023).

2.4. Theoretical Background

Building upon the preceding discussion of platform power and journalistic roles and values, this section introduces the primary theoretical frameworks used to understand the complex and changing landscape of contemporary journalism in relation to technology. We adopt an actor-network theory (ANT) perspective and a broader socio-technical emphasis to analyze the interplay between human actors, algorithms, and the shifting practices and values in news.

This study views the hybrid media ecosystem as networks of associated entities, treating both human and non-human elements symmetrically as actants (Latour, 2005). ANT's strength lies in tracing associations and observing how different actants influence networks and outcomes, moving analysis beyond technological determinism by highlighting human decisions, cultural values, and organizational factors embedded in technology use (Anderson & De Maeyer, 2015). While early ANT work in journalism often focused narrowly on technological innovation, a broader approach embraces historical and cultural dimensions and sees power not as a fixed attribute but as an effect produced and traced through the configuration of networks and associations (Anderson & De Maeyer, 2015).

Extending this, a sociotechnical emphasis, drawing on work such as that of Lewis and Westlund (2014), explicitly addresses the contemporary context of cross-media news work, considering the interplay between editorial, business, and technology within news organizations. Technological actants, especially external platforms, play a significant role in mediating relationships and influencing how news is circulated and consumed (Braun, 2015; Lewis & Westlund, 2014).

Within this socio-technical landscape, a crucial dynamic involves navigating competing professional and algorithmic values. As discussed, journalism is guided by professional roles, editorial/journalistic values (e.g., accuracy, independence, and civic mission), and news values (criteria for newsworthiness). However, technological actants, particularly platform algorithms, operate based on their own algorithmic values, often reflecting business models or optimization goals like engagement or personalization (Braun, 2015; Braun & Gillespie, 2011). These algorithms function as a form of "mechanical editor" with different criteria than human journalists, leading to tension and negotiation as algorithmic values embedded in platforms interact with traditional journalistic practices and values (Braun, 2015; Braun & Gillespie, 2011). The concept of "imagined affordances" further complicates this, suggesting that users' perceptions and expectations of technologies can influence how they interact with these actants, potentially masking the actual algorithmic values at play (Nagy & Neff, 2015). This framework helps illuminate the power dynamics and negotiations inherent in the relationship between news organizations and dominant platforms like search engines.

This study explores these evolving roles and values through the lens of a hybrid media system and two interconnected questions: What role do journalists see in search engines, and for themselves, in the current media ecosystem of the symbiotic relationship between news media and search media? And what strategies do journalists enact to counteract or embrace technologies that impact not only the practice of journalism but also its power balances?

3. Method

To answer those questions, this study interviewed professional journalists across a range of US news organizations, aiming to reflect a cross-section of roles, media types, and geographic contexts impacted by platform dynamics, specifically those who edit and report on political news stories published online. Participants could be reporters, editors, or engagement specialists.

To recruit participants, I compiled a list of journalists who have bylines in publicly available news articles and found publicly available Twitter lists of journalists. Each entry in this list was then analyzed to determine whether that person fit the criteria for the study, namely, if they were currently working in US newsrooms

and had their stories published online. Next, journalists who fit that criteria (a total of 361) were contacted via email or Twitter message. Of those, 29 responded with interest in participating in the study. Of those, 11 backed out of participating due to scheduling issues. Interviews were conducted with the other 18 over video calls, between January and May 2022.

Participants were based in 12 American states and the District of Columbia, with six from the Midwest and four each from the Northeast, the South, and the West. Most participants were reporters (13), but five were editors or producers. They worked for local newspapers and news websites (10), followed by radio and TV stations with websites (5), one national news website, one national news agency, and one issue-oriented news website (see Supplementary File, Appendix A). This sample was purposefully constructed to reflect diversity in geography, newsroom type, and editorial roles to capture varied platform experiences in the US and illustrate how a broad cross-section of journalistic institutions experience platform dynamics.

The study's protocol, including the recruitment, method of interviews, and compensation, was approved by the Northwestern University Institutional Review Board. Before each interview, each participant was sent a consent form describing the study protocol, and they verbally consented to the terms at the beginning of the interview. The conversations were recorded to facilitate transcription (via Trint, an automated transcription service) and analysis. Only the researcher had access to recordings and transcripts. Recordings were destroyed as soon as transcriptions were done. Transcriptions will be kept for three years for further analysis and clarification. Each participant received a \$25 gift card for their time.

The interviews were semi-structured, with questions aimed at addressing journalists' issues, concerns, and perspectives as they deal with search engines and their audiences. The original structure of the questionnaire was intentionally designed around three analytical foci derived from the research questions. These foci served as a conceptual scaffold both for the interview design and for organizing inductive codes: (a) daily journalistic practices and audience interactions, (b) societal implications of Google's influence, and (c) reflections on algorithm audit findings (see Supplementary File, Appendix B).

On average, interviews lasted for around 45 minutes. Interviews were transcribed and analyzed using a qualitative coding approach grounded in the principles of grounded theory, including data-driven coding and iterative theme development (Glaser & Strauss, 2017; Strauss & Corbin, 1990). While the coding process was primarily inductive, it was informed by a guiding framework used to design the interview protocol (see Supplementary File, Appendix B). This framework drew on insights from the author's previous studies and was directly used to inform interview design, question groupings, and to scaffold inductive coding around the three conceptual foci. These categories helped shape the initial structure of the interviews and informed the analysis itself, but did not constrain it.

The qualitative analysis was conducted entirely by the author. Full interview transcripts were coded in MAXQDA. Open coding was first used to identify recurring concepts, concerns, and narratives in participants' responses. These initial codes were then refined and grouped into broader themes through iterative review. Related codes were merged when they reflected conceptually similar ideas. For example, "Google's power," "Google market dominance," and "Google interacting with everything" were grouped under the theme "Power of Google." This process of theme development involved repeated rereading of the transcripts to confirm consistency and ensure that the resulting themes accurately reflected the diversity and depth of participants' perspectives.

4. Results

This study focused on two research questions: What role do journalists see in search engines, and for themselves, in the current media ecosystem of the symbiotic relationship between news media and search media? And what strategies do journalists enact to counteract or embrace technologies that impact not only the practice of journalism but also its power balances? To address these questions, the study developed three conceptual foci (journalistic routines, societal impacts, and audit responses), which served as an intermediate layer between the research questions and the data analysis. These foci shaped the interview protocol, guided the coding process, and provided the structure for presenting the results. While the foci are not explicitly reflected in Table 1, they informed the thematic grouping of responses summarized there. In this way, the results section proceeds directly from the research questions through the analytical foci to the themes that emerged from the interviews.

Table 1. Topics and subtopics present in the interviews.

Major topics	Subtopics
Roles and values of search and news	Power of Google over news
	Journalists' perception of Google's curation and power
	Failures and opacity
	Google's journalistic values and roles
Strategies towards new technologies	Divide between editorial and commercial
	SEO and editorial choices
	Dedicated teams and technologies

4.1. Roles and Values of Search and News

Participants explicitly expressed awareness of how important Google is for news. Journalists are constantly reminded of Google's power in distributing information and how Google can influence what people see online. The conceptual themes in this area relate to power—the power of Google in both society and journalists' daily work.

4.1.1. Power of Google Over News

Participants were unanimous in addressing the dominance of Google and how it intersects with much of the information—much of it made up of news—that is distributed online. They had a variety of impressions that scale the influence of Google and symbolize the complex relationship between the search engine, journalists' work, and readers, from highlighting that this is “a company that became a verb” (P1) to reminding us that even the web browser that readers tend to use belongs to Google (P2):

Google has something [of] an outsized influence, right, on the way information is given and received in the world. And it's kind of just the default, right? So it's almost not even like there's a growing influence; it's like that corner of the market is owned by Google at this point. It's a verb, too, you know, at this point. (P14)

My perception of it is that, like any and all online interaction, it is kind of filtered through Google, or there's some interaction with Google there. And you know, obviously, their data collection efforts drive a lot of the news, trends, and advertising. And so I think it really just kind of permeates everything in my perception. (P2)

The immense power of Google is sometimes described as “nerve-wracking” (P4) by journalists who see the diminishing power of news organizations in determining how information flows. Participants specifically mentioned the lack of direct connection to the reader and frustration with the fact that there is now an intermediary outside the control of anyone except the tech company:

We used to have a direct interaction with our audience. We would put something in the newspaper, people would pick up the newspaper, and we would decide what's important by the design of our newspaper. We would decide what gets on the A1 at it, on the A3, all that stuff. And now Google has control over that. The front page of Google is the front page of our newspaper, and there is no way to kind of prioritize what information is the most important. (P2)

Journalists also expressed their thoughts that this dominance of Google on news is currently unavoidable, at least without any repercussions to news organizations themselves:

As much as I don't love the fact that this giant technology company has so much market share and its influence in the world, this is the world that we live in right now, and I think trying to say “well, we're not going to interact with this” would only be to the detriment of a certain news outlet. (P8)

We sort of accepted this as the way things work....I think that's why Google is immensely frustrating because I don't care how well-intentioned or bad-intentioned Google is; news organizations don't control it (P10)

The most prominent benefit journalists reported about search was how it generates views of their work. Part of this stems from the significant shift from print to digital news, which still permeates much of journalists' conceptual understanding of their position concerning audiences:

Google and social media companies have the keys to our audience. You know, and we kind of have to play their game in order to get those eyeballs on our content. Otherwise, we're kind of just throwing stories out into the digital sea, and they won't show up anywhere for people. (P2)

The major driver of traffic to our site is Google. So, how it determines how to rank our stories, how it pulls keywords from our headline to show to readers when they are searching for something, this has a huge impact on our bottom line. (P10)

Even as participants highlighted the importance of web traffic, the interviews revealed peculiarities between news organizations about what that traffic means and why they pursue it. While conglomerate-owned newspapers tend to focus on volume to increase ad revenue, others, such as non-profits or digital-first news organizations, tend to focus on web traffic to enable different revenue streams:

Our kind of newsroom really tries to promote articles that try to drive subscriptions, because that's where we get our revenue from, more so than just, like, clicks. (P5)

We're not making money based on how many people look at each individual page on our website, but they're not totally unrelated. When you talk to funders and donors, they want to know what traffic you have. What we're trying to do is develop a consistent, returning, engaged audience because those are the people who are going to sign up for our newsletter, which means they'll read more of our stories, which means they're more likely to give us a donation. (P4)

4.1.2. Journalists' Perception of Google's Curation and Power

Journalists said they interpret Google's impact on their work and information differently, shaped by daily newsroom experiences, specialized media coverage, and conversations with colleagues. However, they acknowledged their assumptions about Google may be incomplete or inaccurate, emphasizing a need for greater transparency. Certain aspects of Google's curation, such as favoring major national sources (reflecting concentration and mainstreaming), are already clear from their experiences.

Thinking about Google's power in shaping the economic outcomes of news organizations, participants also reflected on the business implications of favoring already economically well-positioned outlets:

The drawback, of course, is that it's like the rich get richer, and then only a few top news organizations are going to get that kind of exposure. It seems like there's got to be some way with these algorithms to include those, but also give deference and inclusion of local news outlets that are reliable, that have some that you can trust. (P7)

4.1.3. Failures and Opacity

About half a dozen of the participants reported frustration at the lack of transparency from Google, both as producers of content and searchers themselves. Part of that frustration stems from the fact that journalists are not precisely aware of how the algorithms that determine the curation of their news articles work. Google's internal mechanisms are described as "opaque" (P11), "a mystery" (P10), a "black box" (P13), and something to "decipher" (P10). Participants related that they did not know, for instance, how Google judges the quality of journalism:

I know that our people who track social media and how we can kind of stay on top of the algorithms have limitations to what they know about how it all works. There's a lot of frustration there about what Google and other online platforms share about how all that works. (P2)

Additionally, at least three participants reported that just as they begin to understand what Google favors, the elements they consider fruitful seem to change. Sometimes, this perception of change comes from their own experience; sometimes, it is related by other professionals, particularly those who work on audience engagement:

Just when you think you've mastered it and you understand what they're looking for, it can change, and you have to relearn it all. (P7)

The full parameters are always shifting, you know, just as soon as you know “oh, this is what works for SEO. This is what’s going to help you.” Then it is something else. You know, that’s not really true anymore. (P9)

Whether because of opacity, algorithm changes, or both, participants expressed frustration with the difficulty of predicting success in their stories. They related that they are frequently surprised—both positively and negatively—by the performance of the content that they publish, and some went as far as describing success as “random” (P2). Often, this frustration is associated with competitiveness and the feeling of being relegated below other, larger news organizations.

I definitely get annoyed occasionally when I do a story and then search for a term related to the story and see six other news organizations’ articles before mine. That’s never a good feeling. (P5)

4.1.4. Google's Journalistic Values and Roles

When comparing Google and the news media, participants saw values and motivations as the main differences. While both the search engine and the news media companies work to provide relevant information to the public, participants saw different reasons and ways of doing so:

Google’s motivations are what will drive the most ads and traffic to them and through them. And so they’re not like a newspaper editor. And to me, that’s one of the big problems with the emergence of Google and Facebook as huge ad revenue generators and information disseminators. They’re not a newspaper; they’re not run by journalists. (P6)

Notably, this distinction is made even though news media are usually composed of for-profit companies. Participants said that profit is the main motivator for Google while avoiding ascribing their motivations to themselves:

I can say definitively that I have never been pushed to do a story or make a choice for profit. I would fathom that that is not the same for executives at Google. (P1)

4.2. Strategies Towards New Technologies

Participants related different ways their professional orientation (shaped by normative values such as independence and civic mission) leads them to either embrace Google’s role in shaping their audience or resist it based on their journalistic philosophy. This suggests an attempt to build a third way, i.e., incorporating search engine values into journalistic values by reframing web reach as a societal impact. They do not explicitly call this adaptation a new hybridization of journalism to a new logic, but saw it more as a reconceptualization of work they already do. This section’s conceptual themes relate to traditional journalistic values and editorial choices.

4.2.1. Divide Between Editorial and Commercial

When discussing whether to embrace or resist Google's influence in shaping news information, most participants were mindful of the nuances around editorial and commercial values. They reflected on the news media's traditional division between those two areas, a division that historically served to protect the integrity of the reporting. Some journalists were more resistant to even thinking about the impact of their reporting on audience reach:

Some of it is just a little distasteful for me to pay attention to. I try to do the best story I can, and whether people pay attention or not is kind of, you know, out of my hands, which is such an old-fashioned idea because I realize I'm supposed to be responsible for the success of the story. (P3)

Other participants offered a more nuanced view of that attention to metrics, indicating that the current news media industry requires journalists to be at least aware of how their stories are doing and what the metric of success for their own organization is:

I think it is good for journalists to know the business model of their own news organization. It's deeply unhealthy to know the specifics of it, what advertisers are coming in, what and how much they're paying, etc. But I don't think it's bad at all for journalists, and it is quite healthy to understand what's funding them. (P7)

Metrics do not usually define what gets covered, but there are different types of news content, and some are created for the specific purpose of generating search traffic. This content, which can overlap with service-oriented pieces, is usually made by lower-earning or younger journalists. Participants indicated that there is typically a trade-off being considered among the different news content that is being produced; there is "search work," which might be lighter or at least tailored to be very favored by search engines, and "high-quality work," for which is acceptable to get less audience reach:

Now I will tell you, in the past, we did things like "the 10 best fish fries in [city redacted for anonymity]." Now, that was a deliberate effort to get you to do search things, and I'm not opposed to that. I think that is a service. People want to know the 10 best fish fries. (P13)

Sometimes, you could argue that, if people aren't looking for it, it might not even be worth searching for or working on. But it's definitely still an important thing, even if it's not going to get a lot of clicks, even if it's not going to get searched a lot. And so whenever I'm writing those stories, I try to do the best as I can, still, to have good SEO and things like that. But I don't, I worry about it less, because I know that that's not going to be something that people are really going to be searching for. (P16)

They noted that sometimes audience reach and quality journalism are not incompatible, since in order to inform the public, the public must be exposed to the news content produced by them.

I do think it's perfectly legitimate for us to use Google or Facebook or whatever social media is out there to get our stuff more widely distributed and to figure out ways that work and actually reach people. Because if our stuff doesn't reach people, then it's just being thrown into a vacuum. (P6)

In fact, many times, the elements journalists are asked to include to make their content more search-friendly are also used in high-quality journalism:

When I'm making decisions on what to cover or how to cover it or how to write it, I'm not thinking, "Gee, how can I get more hits for this thing?" But I am, I think in a broader sense, you know, we are thinking about ways to just enhance the digital product by making, you know, happen having more visual stuff rather than just like a story. So you have pictures, you may have video clips, you may have the TV story actually embed documents and stuff like that. (P6)

4.2.2. SEO and Editorial Choices

One of the ways the tension between editorial and commercial is operationalized is through the practices and discussions about SEO. This practice is encouraged in newsrooms to make journalistic content more recognizable by search engines. All participants reported that they recognize the value of SEO and that discussions about it are increasingly frequent. However, many journalists mentioned the limits to which they are willing to optimize their content, particularly due to concerns about the balance of traditional journalism values with the drive to reach a wider audience:

I think we're all very cognizant of not being clickbait, though, and the definition of that is probably different depending on who you talk to. But we're not trying to, like, exploit someone's curiosity or overpromise what a story is. We're just trying to make something as relatable and shareable as possible. (P2)

Some participants associated SEO with good headline practices, such as clarity, directness, conciseness, and completeness of information. Some went as far as saying that SEO, per se, was secondary to crafting a good headline:

When I'm writing a story in whatever format, I'm not thinking about the terms that will be best used for SEO. But I'm thinking about what the best way is to communicate this story and its importance to the audience. And so there can be, I think, overlap between those two things. (P11)

4.2.3. Dedicated Teams and Technologies

Whether from traditional local news organizations or digital-native outlets, participants were generally informed that their newsrooms usually had at least one person specifically in charge of audience growth in their editing teams. This person could have many titles, such as digital editor, engagement editor, and audience person. Sometimes, the journalist was not wholly aware of the title or what the person did, which indicated varying work proximity. However, even within that variation, participants were generally supportive of having a coworker whose job is to think about the digital presentation of news content:

I don't think it's like a super close relationship, I think. I know who these people are, I think, very nice people. Never, you know, don't have any ill will towards them. But I don't know a ton about their work. I think it tends to be a situation where they come up with something that is a best practice, and then they work with whoever directly needs to be involved with implementing that as the best practice. (P5)

Our colleagues' job is to get the biggest audience possible, so they will often do hour-long training every once in a while, with sort of the best practices and different things they have learned. (P10)

Some participants pointed to a key element in making sure their content is optimized: their content management systems (CMS), which is the software newsrooms use to enable the writing, editing, and publishing of news content. When tailored for news publishing, this type of software is increasingly nudging journalists to generate more elements and metadata that make the content they produce more visible on search and social media—elements such as SEO headlines, alternative headlines, and summaries for social media, photos, and video, and tags:

A significant amount of energy is dedicated towards search. I mean, even on our engineering team, right in building our CMS, and how long our headlines can be in the metadata that we include, to our engagement team in crafting these headlines, and then figure out which pieces show where and search. (P14)

5. Discussion

This study reveals how journalists actively navigate Google's dominance as an algorithmic intermediary in the contemporary news ecosystem. Drawing on qualitative interviews with US-based journalists, the findings show that journalists do not experience Google's influence monolithically, even within themselves. Rather than responding passively, journalists adopt situated strategies (resisting certain platform pressures, relinquishing control in targeted ways, and renegotiating values) to uphold their editorial integrity while adapting to the demands of search engine visibility. In doing so, they reshape traditional journalistic values, roles, and routines in ways that both confirm and complicate existing scholarship on the hybridization of journalism (Chadwick, 2017).

In the findings, some distinctions also emerge between organizational types. Journalists working in local newsrooms (the majority of our participants) often described a heightened dependence on Google for traffic and visibility, framing SEO as a "lifeline" for survival. Conversely, journalists from national or digital-native outlets expressed more ambivalence or autonomy, describing algorithmic adaptation as one of several editorial considerations.

The results reaffirm the relevance of the hybrid media system framework (Chadwick, 2017; Hallin et al., 2023), highlighting the evolving power dynamics between legacy journalism and new digital intermediaries. Google, in particular, emerges not only as a major infrastructural player but also as an external algorithmic editor that conditions visibility, traffic, and, by extension, journalistic reach. Braun (2015) described these algorithms as a form of "mechanical editor" with different criteria than human journalists, leading to tension and negotiation as algorithmic values embedded in platforms interact with traditional journalistic practices and values (Braun, 2015). However, "mechanical" implies a predictable, repeatable process; a more fitting descriptor might be "machine editor," since these algorithms and their influence are complex and opaque in both their functioning and their societal impact.

Most journalists did not distinguish among different Google services (Search, News, and Discover) when discussing platform influence. Instead, they referred to "Google" as a singular gatekeeping force.

The flattening of distinct services into a singular platform persona suggests a generalized experience of algorithmic power, one that underscores the perceived centrality and opacity of Google.

Google's opacity and indispensability make journalists reflect on the power asymmetry. These findings contribute to ongoing discussions about the reconfiguration of editorial authority in platformized media environments (Nechushtai, 2018; Poell et al., 2023). In line with Latour's (2005) ANT, this study foregrounds the relational nature of that redistribution. Journalists, algorithms, CMS interfaces, engagement editors, and metrics dashboards all operate as actants in a sociotechnical network that produces journalistic content and meaning. Power here is not a fixed possession but the result of these dynamic associations.

A key site of negotiation lies in values. Journalists consistently distinguished between professional values (e.g., accuracy, independence, etc.) and those they attributed to platforms (engagement, virality, and monetization). This distinction reflects a persistent boundary-drawing practice that protects journalistic identity while simultaneously acknowledging economic interdependence with platforms. Audience work is segregated into distinct practices (SEO and embedding different media in articles) or specific modes of "search work" (stories that are tailored to generate traffic). At the same time, some participants reframed SEO not as an intrusion but as compatible with their civic mission. This rearticulation aligns with recent scholarship on algorithmic news values (Kristensen & Bro, 2023), suggesting that values like algorithmic reach are selectively integrated rather than adopted wholesale. In reframing visibility as a public good, journalists actively navigate the tension between algorithmically incentivized news values and professional commitments to public service, redefining their commercial/educational role performance (Donsbach, 2012) in light of algorithmic constraints and affordances. This form of value negotiation supports previous findings that journalists do not passively absorb external pressures but selectively integrate them into their work (Peterson-Salahuddin & Diakopoulos, 2020).

The strategies that journalists deploy in relation to Google can be understood as falling into three overlapping categories: resistance, relinquishment, and renegotiation. Resistance manifests in efforts to protect editorial judgments from traffic metrics, such as insisting that algorithmic incentives should not determine what is covered. Relinquishment appears in the segmentation of roles and tasks, such as assigning engagement or SEO responsibilities to specialized staff or creating separate categories of traffic-oriented content. Renegotiation, perhaps the most nuanced strategy, occurs when journalists reinterpret platform logics through the lens of public service—framing visibility not as a commercial aim but as civic outreach. This finding is aligned with previous research, which has found new and re-negotiated news values, such as algorithmic reach (Kristensen & Bro, 2023).

This model of strategic adaptation both confirms and refines existing theoretical claims. It aligns with ANT's emphasis on the distributed agency between human and non-human actors (Latour, 2005), while also showing how journalistic actors maintain professional reflexivity. For example, CMSs that nudge journalists toward more "search-friendly" content do not eliminate editorial agency but embed it in new sociotechnical routines (De Maeyer, 2019).

These patterns also speak to the hybridization of journalism, as traditional editorial norms are reshaped through interactions with platform logics. Journalists are not merely adapting to external demands; they are recalibrating values and routines from within, illustrating hybridization as a negotiated process (Chadwick, 2017).

This study has a few limitations that point to important directions for future research. First, one key limitation is its reliance on self-reported data from journalists without triangulation using documents or news coverage, which may affect the completeness of certain claims. Second, the interviews were conducted in early 2022, prior to the widespread deployment of generative AI tools such as large language models. Since then, the integration of AI into both journalistic workflows and search platforms may have significantly altered how journalists perceive and interact with algorithmic systems. Third, the sample is limited to journalists based in the US, most of whom work for local legacy news outlets. While their experiences offer valuable insights into platform-journalism dynamics in a US context, journalists working in other types of organizations or in different national media systems may encounter these dynamics differently. Considering that Google, a US-based company, leads the search engine market in most countries, interesting tensions might arise from a conflict of values based on different communities, aside from the differences between the tech and journalism industries.

Another avenue for future research is that while individual journalists demonstrate considerable agency, they report that their capacity to resist or adapt is conditioned by organizational structures. Many newsrooms now have dedicated engagement editors or digital specialists who mediate between editorial and platform demands. These institutional arrangements formalize what was once informal knowledge, embedding algorithmic values into journalistic workflows. The emergence of this type of segmentation of work introduces spaces of negotiation and tension into the newsroom, with implications for newsroom sociology that still warrant more research. Further exploration can illuminate the internal mechanisms within a newsroom that facilitate the digital pressures of adaptation and resistance to the algorithm, and how a newsroom incorporates digital values and replaces journalistic ones.

Further studies could also explore how the expected performance in the workplace can inform the training of the next generation of journalists; that is, how journalism schools respond to the demand for audience-minded and algorithm-aware journalists. Future studies should investigate how journalism education prepares students to inhabit this algorithmic ecosystem. As journalistic roles evolve, professional training must reconcile legacy values with emerging expectations of audience-minded, platform-aware reporting. This speaks not only to technical skills but to a broader understanding of journalism's civic role in a platform-driven information environment.

Acknowledgments

This research was approved by the Northwestern University Institutional Review Board, and its registration number was STU00215968.

Funding

This work was supported by the Northwestern University Communication Studies Department Dissertation Support.

Conflict of Interests

The author declares no conflict of interests.

Data Availability

Data will not be available to preserve participant anonymity.

LLMs Disclosure

No LLM tools were used in this work.

Supplementary Material

Supplementary material for this article is available online in the format provided by the author (unedited).

References

- Anderson, C. (2011). Between creative and quantified audiences: Web metrics and changing patterns of newswork in local US newsrooms. *Journalism*, 12(5), 550–566. <https://doi.org/10.1177/1464884911402451>
- Anderson, C., & De Maeyer, J. (2015). Objects of journalism and the news. *Journalism*, 16(1), 3–9. <https://doi.org/10.1177/1464884914545728>
- Aubin, C., St., & Liedke, J. (2024). *News platform fact sheet*. Pew Research Center. <https://www.pewresearch.org/journalism/fact-sheet/news-platform-fact-sheet>
- Blanchett, N., Brin, C., & Duncan, S. (2024). Catch, engage, retain: Audience-oriented journalistic role performance in Canada. *Journalism Practice*, 18(9), 2258–2280. <https://doi.org/10.1080/17512786.2024.2310712>
- Bonini, T., & Tréré, E. (2024). *Algorithms of resistance: The everyday fight against platform power*. MIT Press.
- Braun, J. (2015). Social media and distribution studies. *Social Media + Society*, 1(1). <https://doi.org/10.1177/2056305115580483>
- Braun, J., & Gillespie, T. (2011). Hosting the public discourse, hosting the public: When online news and social media converge. *Journalism Practice*, 5(4), 383–398. <https://doi.org/10.1080/17512786.2011.557560>
- Bucher, T. (2012). Want to be on the top? Algorithmic power and the threat of invisibility on Facebook. *New Media & Society*, 14(7), 1164–1180.
- Caplan, R., & boyd, d. (2018). Isomorphism through algorithms: Institutional dependencies in the case of Facebook. *Big Data & Society*, 5(1). <https://doi.org/10.1177/2053951718757253>
- Chadwick, A. (2017). *The hybrid media system: Politics and power* (2nd ed.). University Press. <https://doi.org/10.1093/oso/9780190696726.001.0001>
- Chua, S. (2023). Platform configuration and digital materiality: How news publishers innovate their practices amid entanglements with the evolving technological infrastructure of platforms. *Journalism Studies*, 24(15), 1857–1876.
- Coddington, M., Lewis, S. C., & Belair-Gagnon, V. (2021). The imagined audience for news: Where does a journalist's perception of the audience come from? *Journalism Studies*, 22(8), 1028–1046. <https://doi.org/10.1080/1461670X.2021.1914709>
- de Haan, Y., van den Berg, E., Goutier, N., Kruikemeier, S., & Lecheler, S. (2022). Invisible friend or foe? How journalists use and perceive algorithmic-driven tools in their research process. *Digital Journalism*, 10(10), 1775–1793.
- De Maeyer, J. (2019). *Content management systems and journalism*. Oxford Research Encyclopedia of Communication. <https://doi.org/10.1093/acrefore/9780190228613.013.792>
- DeVito, M. A. (2017). From editors to algorithms: A values-based approach to understanding story selection in the Facebook news feed. *Digital Journalism*, 5(6), 753–773.
- Diakopoulos, N., Trielli, D., Stark, J., & Mussenden, S. (2018). I vote for—How search informs our choice of candidate. In M. Moore and D. Tambini (Eds.), *Digital dominance: The power of Google, Amazon, Facebook, and Apple* (pp. 320–341). Oxford University Press.

- Dick, M. (2011). Search engine optimisation in UK news production. *Journalism Practice*, 5(4), 462–477.
- Dodds, T., de Vreese, C., Helberger, N., Resendez, V., & Seipp, T. (2023). Popularity-driven metrics: Audience analytics and shifting opinion power to digital platforms. *Journalism Studies*, 24(3), 403–421. <https://doi.org/10.1080/1461670X.2023.2167104>
- Donsbach, W. (2012). Journalists' role perception. In W. Donsbach (Ed.), *The international encyclopedia of communication*. Wiley. <https://doi.org/10.1002/9781405186407.wbiecj010.pub2>
- Giomelakis, D., Karypidou, C., & Veglis, A. (2019). *SEO inside newsrooms: Reports from the field*. Future Internet.
- Glaser, B. G., & Strauss, A. L. (2017). *The discovery of grounded theory: Strategies for qualitative research*. Routledge.
- Hallin, D. C., Mellado, C., & Mancini, P. (2023). The concept of hybridity in journalism studies. *The International Journal of Press/Politics*, 28(1), 219–237. <https://doi.org/10.1177/19401612211039704>
- Hanitzsch, T., Hanusch, F., Ramaprasad, J., & de Beer, A. (2019). *Worlds of journalism: Journalistic cultures around the globe*. Columbia University Press.
- Harcup, T., & O'Neill, D. (2017). What is news? *Journalism Studies*, 18(12), 1470–1488.
- Helberger, N. (2019). On the democratic role of news recommenders. *Digital Journalism*, 7(8), 993–1012.
- Hermida, A., & Young, M. (2024). Google's influence on global business models in journalism: An analysis of its innovation challenge. *Media and Communication*, 12, Article 7562. <https://doi.org/10.17645/mac.7562>
- Nielsen, R. K., & Ganter, S. A. (2022). *The power of platforms: Shaping media and society*. Oxford University Press.
- Kristensen, L. M. (2023). Audience metrics: Operationalizing news value for the digital newsroom. *Journalism Practice*, 17(5), 991–1008. <https://doi.org/10.1080/17512786.2021.1954058>
- Kristensen, L. M., & Bro, P. (2023). News values in a digital age—Intra-media, intermedia, and extra-media platforms. *Journalism*, 25(4), 819–836. <https://doi.org/10.1177/14648849231165855>
- Latour, B. (2005). *Reassembling the social: An introduction to actor-network theory*. Oxford University Press.
- Lee, A. M., Lewis, S. C., & Powers, M. (2014). Audience clicks and news placement: A study of time-lagged influence in online journalism. *Communication Research*, 41(4), 505–530. <https://doi.org/10.1177/0093650212467031>
- Lewis, S. C., & Westlund, O. (2014). Actors, actants, audiences, and activities in cross-media news work: A matrix and a research agenda. *Digital Journalism*, 3(1), 19–37. <https://doi.org/10.1080/21670811.2014.927986>
- Lischka, J. A., & Garz, M. (2023). Clickbait news and algorithmic curation: A game theory framework of the relation between journalism, users, and platforms. *New Media & Society*, 25(8), 2073–2094.
- Loosen, W., Reimer, J., & Hölig, S. (2020). What journalists want and what they ought to do (in)congruences between journalists' role conceptions and audiences' expectations. *Journalism Studies*, 21(12), 1744–1774.
- MacGregor, P. (2007). Tracking the online audience: Metric data start a subtle revolution. *Journalism Studies*, 8(2), 280–298.
- McCombs, M. E., & Shaw, D. L. (1972). The agenda-setting function of mass media. *Public Opinion Quarterly*, 36(2), 176–187.
- Meese, J., & Hurcombe, E. (2021). Facebook, news media and platform dependency: The institutional impacts of news distribution on social platforms. *New Media & Society*, 23(8), 2367–2384. <https://doi.org/10.1177/1461444820926472>
- Myllylahti, M. (2020). Paying attention to attention: A conceptual framework for studying news reader revenue models related to platforms. *Digital Journalism*, 8(5), 567–575. <https://doi.org/10.1080/21670811.2019.1691926>

- Nagy, P., & Neff, G. (2015). Imagined affordance: Reconstructing a keyword for communication theory. *Social Media + Society*, 1(2). <https://doi.org/10.1177/2056305115603385>
- Nechushtai, E. (2018). Could digital platforms capture the media through infrastructure? *Journalism*, 19(8), 1043–1058.
- Nelson, J. L., & Tandoc, E. C., Jr. (2019). Doing “well” or doing “good”: What audience analytics reveal about journalism’s competing goals. *Journalism Studies*, 20(13), 1960–1976.
- Newman, N., Fletcher, R., Robertson, C. T., Ross Arguedas, A., & Nielsen, R. K. (2024). *Reuters Institute Digital News Report 2024*. Reuters Institute for the study of Journalism.
- News Media Alliance. (2019). *Google benefit from news content: Economic study*. <https://www.newsmediaalliance.org/wp-content/uploads/2019/06/Google-Benefit-from-News-Content.pdf>
- Nielsen, R. K., & Kalogeropoulos, A. (2020). *Few winners, many losers: The Covid-19 pandemic’s dramatic and unequal impact on independent news media*. Reuters Institute for the Study of Journalism. <https://reutersinstitute.politics.ox.ac.uk/few-winners-many-losers-covid-19-pandemics-dramatic-and-unequal-impact-independent-news-media>
- Papaevangelou, C. (2024). Funding intermediaries: Google and Facebook’s strategy to capture journalism. *Digital Journalism*, 12(2), 234–255.
- Parks, P. (2019). Textbook news values: Stable concepts, changing choices. *Journalism & Mass Communication Quarterly*, 96(3), 784–810. <https://doi.org/10.1177/1077699018805212>
- Peterson-Salahuddin, C., & Diakopoulos, N. (2020). Negotiated autonomy: The role of social media algorithms in editorial decision making. *Media and Communication*, 8(3), 27–38.
- Petre, C. (2021). *All the news that’s fit to click*. Princeton University Press.
- Poell, T., Nieborg, D. B., & Duffy, B. E. (2023). Spaces of negotiation: Analyzing platform power in the news industry. *Digital Journalism*, 11(8), 1391–1409.
- Ross Arguedas, A. A., Badrinathan, S., Mont’Alverne, C., Toff, B., Fletcher, R., & Nielsen, R. K. (2022). “It’s a battle you are never going to win”: Perspectives from journalists in four countries on how digital media platforms undermine trust in news. *Journalism Studies*, 23(14), 1821–1840.
- Ryfe, D. (2024). Strengthening the theoretical foundations of role performance theory. *Journalism Practice*, 18(9), 2191–2205. <https://doi.org/10.1080/17512786.2024.2308534>
- Schaetz, N. (2024). Journalism & audience datafication: How audience data practices shape inequity. *Digital Journalism*, 12(8), 1184–1204.
- Standaert, O., Hanitzsch, T., & Dedonder, J. (2021). In their own words: A normative-empirical approach to journalistic roles around the world. *Journalism*, 22(4), 919–936.
- Strauss, A., & Corbin, J. M. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Sage.
- Sundin, O., Lewandowski, D., & Haider, J. (2022). Whose relevance? Web search engines as multisided relevance machines. *Journal of the Association for Information Science and Technology*, 73(5), 637–642. <https://doi.org/10.1002/asi.24570>
- Tandoc, E. C. (2014). Journalism is twerking? How web analytics is changing the process of gatekeeping. *New Media & Society*, 16(4), 559–575.
- Tenor, C. (2024). Metrics as the new normal—Exploring the evolution of audience metrics as a decision-making tool in Swedish newsrooms 1995–2022. *Journalism*, 25(5), 1111–1129.
- Thorson, K., & Wells, C. (2016). Curated flows: A framework for mapping media exposure in the digital age. *Communication Theory*, 26(3), 309–328.
- Trielli, D., & Diakopoulos, N. (2019). Search as news curator: The role of Google in shaping attention to news

information. In *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems* (pp. 1–15). Association for Computing Machine.

Trielli, D., & Diakopoulos, N. (2020). Partisan search behavior and Google results in the 2018 U.S. midterm elections. *Information, Communication & Society*, 25(1), 145–161.

Trielli, D., & Diakopoulos, N. (2022). Algorithmic agenda setting: The shape of search media during the 2020 US election. *International Symposium on Online Journalism*, 12(1), 45-70.

Vos, T. P., & Thomas, R. J. (2019). The discursive (re)construction of journalism's gatekeeping role. *Journalism Practice*, 13(4), 396–412.

Vu, H. T. (2014). The online audience as gatekeeper: The influence of reader metrics on news editorial selection. *Journalism*, 15(8), 1094–1110.

Weber, M. S., & Kosterich, A. (2018). Coding the news: The role of computer code in filtering and distributing news. *Digital Journalism*, 6(3), 310–329.

About the Author



Daniel Trielli is an assistant professor of media and democracy at the Philip Merrill College of Journalism, University of Maryland. He specializes in computational journalism, algorithmic accountability, and media systems. His research examines how journalists navigate Google's dominance and algorithmic influence in news production and teaches data journalism.

Media Hybridization and the Strategic Value of Political Incivility: Insights From Italian Journalists

Rossella Rega 

Department of Social, Political and Cognitive Sciences, University of Siena, Italy

Correspondence: Rossella Rega (rossella.rega@unisi.it)

Submitted: 28 February 2025 **Accepted:** 16 June 2025 **Published:** 31 July 2025

Issue: This article is part of the issue “Journalism in the Hybrid Media System” edited by Silke Füst (University of Zurich), Florian Muhle (Zeppelin University Friedrichshafen), and Colin Porlezza (Università della Svizzera italiana), fully open access at <https://doi.org/10.17645/mac.i494>

Abstract

This study investigates political incivility in journalism through a discursive approach, conceptualizing journalism as continuously constituted through interpretative processes. Building on theories of hybrid journalism as an everyday condition embedded in journalistic practices rather than merely a technological phenomenon, the research examines how journalists discursively construct, interpret, and utilize political incivility. Through interviews with 32 political journalists, the study identifies three interconnected dimensions of hybridization that facilitate the spread of uncivil content in the Italian media landscape: media platforms and production processes, journalistic roles and practices, and content genres. Findings reveal that the cross-platform circulation of uncivil content amplifies its visibility, while economic pressures incentivize its use as a monetization strategy. Journalists experience tension between professional ideals and market demands, leading to role hybridization that combines traditional practices with entertainment-oriented ones. Five approaches to political incivility emerge: providing interpretive frames, spreading uncivil content, contextualizing it, fueling it, and avoiding it. The Italian context, characterized by strong political parallelism and polarization, offers a compelling case for understanding how incivility functions as a structural feature rather than a side effect of hybrid media systems. This study contributes to existing scholarship by demonstrating how multiple levels of hybridization mutually reinforce the proliferation of incivility, potentially undermining public trust in journalism and its democratic function.

Keywords

hybridity; hybrid media; incivility in journalism; journalism; non-partisan media; outrage media; partisan media; political incivility; political parallelism; professional roles

1. Introduction

The lack of respect for norms governing personal interaction and democratic functioning, commonly known as political incivility, is playing an increasingly pivotal role in contemporary journalism. This phenomenon goes hand in hand with profound changes redefining media ecology and the profession of journalism, including hybridization of platforms, the redefinition of professional roles, and the blending of genres and styles of communication. In this rapidly-evolving context, uncivil speech in journalistic contexts has become a tactical means of capturing the attention of a fragmented, polarized audience. But questions are being raised as to whether such journalism can effectively facilitate real understanding of political issues.

While the scientific community is steadily focusing on political incivility and its implications for public discourse (Mutz, 2015; Van't Riet & Van Stekelenburg, 2022), such an approach has captured only part of this complex phenomenon. Researchers have extensively documented uncivil content and its effects on audience polarization, engagement, and democratic attitudes (Borah, 2014; Coe et al., 2014; Gervais, 2015), alongside comparative analyses between digital and legacy media environments (Chen, 2017; Rossini, 2020; Santana, 2014). Notably absent from this growing body of work, however, is substantive investigation into journalists as active agents in the production and circulation of incivility, despite their central role in information ecosystems.

This study aims to address the gap by examining how political incivility is managed within contemporary journalism, focusing on journalists' perceptions, interpretations, and instrumental employment of uncivil discourse. Conceptualizing journalism as continuously constructed through interpretations and re-interpretations (Hanitzsch & Vos, 2017), the analysis of journalists' discourses demonstrates that media hybridization is a crucial structural and interpretive context for uncivil content. In their accounts, journalists demonstrate full awareness of how the convergence of different media platforms, the combining of professional roles, and the mixing of content genres create conditions that systematically promote the circulation of uncivil discourse while increasing its visibility and value as a strategic resource.

This approach aligns with Carlson et al.'s (2021) concept of "contested authority" in journalism. As conventional boundaries become blurred in hybrid media environments, journalists' exclusive authority to determine what constitutes legitimate news and how it should be interpreted is progressively challenged. The strategic use of incivility by journalists can be understood as both a response to this contested authority and a means of navigating an environment where traditional professional norms are in flux. Notably, journalists rationalize this approach by treating audience metrics as compelling evidence of reader preference for and engagement with uncivil content—though this interpretation erroneously conflates quantitative indicators (clicks and views) with qualitative responses (genuine appreciation or endorsement). While Carlson et al. (2021) focus on the American post-Trump context, this research identifies similar dynamics but with notable differences in the Italian media landscape, where journalists more or less consciously exploit various levels of media hybridization, transforming incivility from a mere side effect into a structural feature of political coverage.

The longstanding ties between media and political parties in Italy offer fertile ground for examining uncivil discourse. In the Italian media landscape, algorithmic data and engagement metrics now wield unprecedented authority (Splendore & Iannelli, 2022). These digital indicators become, for journalists,

reliable guides for editorial decisions, creating a system where political incivility gains strategic value because it often generates high engagement. Under these conditions, audience preferences and platform metrics drive editorial choices, fostering an environment where incivility gains visibility and value. The intersection of political-media entanglement and algorithmic-driven evaluation creates an environment in which uncivil discourse is not simply a consequence of digital transformation but is strategically deployed by politicians and journalists as a core component of contemporary news reporting.

2. Political Incivility in the Hybrid Media Context: A Theoretical Framework

Political incivility has emerged as a multidimensional phenomenon (Muddiman, 2017; Stryker et al., 2016) which is defined as disrespect for social and cultural norms that govern both personal interactions and the functioning of democratic systems (Bentivegna & Rega, 2022). Specifically, incivility can be operationalized through three interrelated dimensions: disrespect for others (rude behavior, interruptions, use of profanity), disrespect for democratic values (demonizing opponents, spreading falsehoods, using discriminatory language), and disrespect for democratic institutions (inappropriate behavior in places symbolic for democracy, disrespect for symbols of national history; Bentivegna & Rega, 2024b).

These dimensions are expressed through observable communicative practices such as personal attacks, derogatory language, inflammatory rhetoric, and deliberate misrepresentation (Chen, 2017; Rossini, 2020). Such uncivil discourse functions by violating established social norms and triggering emotional responses (Gervais, 2015). Examining incivility through this conceptual lens allows a nuanced analysis of its strategic deployment in journalistic contexts and its varying impacts across different media environments.

To understand how incivility operates within contemporary journalism, it is important to examine the fundamental transformations that shape media environments through the concept of hybridity, focusing on three key dimensions: technological platforms, professional roles, and journalistic genres.

2.1. From Print to Pixels: Platform Hybridization in Contemporary Media

Platform hybridization, while already present in established journalism, took on unprecedented dimensions with digitalization. This technological transformation has produced an information ecosystem in which traditional and digital media are highly interdependent, and a variety of time frames, professional practices, genres, and technologies coexist (Chadwick, 2013). This technological hybridity has a particularly notable impact on political journalism, shifting the established news cycle to more complex “political information cycles,” i.e., “assemblages in which the personnel, practices, genres, technologies, and temporalities” of new media hybridize with those of “old” television, radio, and print media (Chadwick, 2011, p. 7). This shapes the content and flow of political news and influences power relationships between politicians, journalists, activists, and citizens. The process of news generation has thus become more fluid, open, and iterative than in previous models.

This definition of hybridity focuses on the rise of new media—with its attendant multiplication of actors and blurring of boundaries—the interaction between old and new media, and the shift from news being produced within professional journalistic organizations to its generation within heterogeneous networks. But other interpretations highlight the ubiquitous nature of the phenomenon, noting that hybridity is rooted

in the basic news production practices and structural contexts journalists operate in (Hallin et al., 2023). In other words, it is considered a constant of journalism as a situational practice subject to multiple influences in various organizational and social contexts.

2.2. Beyond Professional Boundaries: The Hybridization of Journalistic Roles

The literature on role performance in journalism (Hallin & Mellado, 2018; Mellado et al., 2017) conceptualizes journalistic practices as fluid manifestations shaped by editorial policy, market pressures, audience metrics, and relationships with sources. Journalists increasingly operate across multiple professional identities, functioning simultaneously as objective reporters, interpretive analysts, and audience-oriented entertainers (Hanitzsch & Vos, 2017). This multiplicity of roles creates tension between long-standing normative ideals (impartiality, accuracy, public service) and market-driven imperatives (audience engagement, click-through rates, social media metrics).

The emergence of new professional figures such as search engine optimization experts, social media managers, and audience engagement specialists further illustrates this hybridization, introducing new logics that reshape journalistic decision-making (Splendore, 2017). Such changes reflect a broader shift in what audiences find compelling. As prominent radio journalist Ira Glass observed (as cited in Meltzer, 2015, p. 94), “Opinion in all its forms is kicking the ass of journalism,” noting that opinion-based content succeeds precisely because it offers a “casual, approachable style” that resonates more deeply with contemporary audiences than standard reportorial formats.

This audience-driven transformation of journalistic practice exemplifies what Mellado et al. (2017) describe as “patterns of multilayered hybridization.” In this framework, professional roles in journalism appear as flexible, situational, and independent sets of functions that can be combined in various ways across different contexts. Journalists activate different professional roles in different circumstances rather than adhering to a singular professional identity. Within this context of role flexibility and audience-driven decision-making, the blurring of boundaries between reporting and commentary creates spaces where incivility can function as a strategic professional resource rather than a violation of journalistic norms.

This flexibility in role performance reflects what boundary work theory describes as the ongoing process through which professional groups negotiate the boundaries of legitimate practice (Lewis, 2012; Splendore, 2017). In hybrid media environments, journalists engage in continuous boundary work as they determine how to handle uncivil political content while maintaining professional credibility.

2.3. Blending Forms and Formats: The Hybridization of Journalistic Genres

Building on the hybridization of platforms and professional roles, the blending of journalistic genres represents another critical dimension of media hybridity. Not strictly linked to technological innovations, hybrid tendencies have been intrinsic to journalism throughout its development. Historical examples like the tabloidization of news content demonstrate how journalism has continuously negotiated boundaries between information and entertainment, since well before the digital revolution. Hallin and Mancini (2004, p. 249) argue that media commercialization produces, among various consequences, a change in journalism’s function: it is no longer aimed at spreading ideas and creating social consensus, but at producing entertainment and information that can be successfully sold to consumers.

This process has driven journalism to popularize its offerings across multiple dimensions: prioritizing soft content over hard topics, shifting from societal to personal frames, emphasizing timeliness over depth, and adopting more interpretative and emotional styles (Boczkowski, 2010; Hamilton, 2004; Patterson, 2000; Rega, 2017). Otto et al. (2017) demonstrate how these hybridizing tendencies operate simultaneously across topic selection, presentation style, and narrative framing, creating a self-reinforcing cycle that has progressively altered journalism's relationship with its audience.

Within this broader context of genre hybridization and emotional appeal, extreme forms of journalistic expression have emerged, particularly in the realm of political commentary. Berry and Sobieraj's (2014) concept of "outrage discourse"—an extreme form of incivility—exemplifies how genre hybridization operates. Although its contemporary form emerged in satellite channels and political blogs of the early 2000s, it reflects an evolution of journalistic sensationalism and echoes the partisan press of the 19th century (Schudson, 1978; Ward, 2004). Rather than creating extreme uncivil journalistic discourse, digital technologies accelerated, amplified, and normalized existing practices. Modern outrage journalism systematically employs aggressive language, mockery, character assassination, and ideologically extremizing rhetoric while hybridizing traditional journalistic elements with entertainment techniques. This historical perspective shows how the contemporary hybrid environment has activated tendencies once constrained by professional norms of objectivity.

2.4. Uncivil Discourse in the Hybrid Media Ecosystem: Connections and Consequences

The theoretical intersection of media hybridization and political incivility constitutes a significant gap in current literature. Contemporary media environments have undergone a profound structural transformation, converging professional and amateur content, merging entertainment with information, and collapsing distinctions between private and public communication. While incivility in political discourse has received considerable scholarly attention (Mutz, 2015; Van't Riet & Van Stekelenburg, 2022), systematic investigation into how hybrid media characteristics specifically enable and normalize uncivil communication remains limited. Some researchers have provided relevant insights: Meltzer (2015) demonstrates how changing media environments foster conditions where incivility proliferates, while Herbst (2010) argues that technological and social changes, including platform convergence and collapsing gatekeeping roles, have contributed to growing uncivil political discourse. However, these studies do not directly examine the structural mechanisms through which media hybridization systematically promotes incivility, leaving unresolved whether incivility is merely individual behavior or an inherent feature of these media configurations.

These hybridizing tendencies significantly impact how audiences process political information. The merging of journalistic and entertainment elements makes it increasingly difficult for citizens to distinguish between factual reporting and opinion-driven content (Edgerly & Vraga, 2020). When political reporting employs conventional journalistic signifiers (data, expert sources, balanced structure) within biased interpretative frameworks dominated by emotion and conflict, audiences struggle to apply appropriate evaluative criteria.

The media landscape includes outlets with varying degrees of political alignment and neutrality claims. Research by Arceneaux and Johnson (2013) illustrates how partisan media specifically frame political discourse in ways that emphasize discord between opposing sides, reinforcing existing partisan identities and group-based divisions. However, the research presented here highlights how divisive political discourse, with its biased framing and uncivil characterizations of opposing viewpoints, is progressively permeating the

entire mediascape rather than remaining confined to explicitly partisan outlets. This competitive pressure creates what Poljak (2024) identifies as a “negativity spiral,” in which successful uncivil content becomes a template for future coverage.

While Poljak focused on traditional broadcast media, this dynamic is likely to be intensified in today’s digital landscape, where newsworthiness construction and content monetization have been fundamentally transformed. Conventional news values—including timeliness, prominence, impact, proximity, conflict, unexpectedness, reference to prominent individuals, personalization, and negativity itself (Harcup & O’Neill, 2017)—now interact with platform-specific metrics, creating hybrid systems of valuation that privilege content likely to generate clicks, shares, and comments. Distinct characteristics make uncivil political discourse particularly appealing to editors: it violates established norms, thereby creating novelty; it frequently involves conflict between high-profile figures; and it triggers emotional responses from audiences. This aligns with the “man bites dog” principle—the violation of a norm is inherently interesting, regardless of whether that norm concerns personal, public, or institutional behavior (Gitlin, 2013). Thus, news outlets focus on broadcasting moments in which public figures use vulgar language or make discriminatory statements, thereby magnifying “moments of incivility” (Coe et al., 2014) and providing additional visibility for political actors who rely on uncivil speech or behavior.

The inherent news value of norm violations translates into measurable audience engagement, which media organizations gradually recognize as a reliable source of revenue generation. Content monetization operates through interconnected channels: direct advertising revenue linked to audience metrics, development strategies using ideologically appealing content, and platform interconnection promotion that leverages uncivil content’s viral potential to increase brand visibility. As news organizations face declining revenues from traditional sources, these monetization mechanisms create powerful economic incentives for incorporating sensationalistic and provocative elements into coverage, even among outlets that otherwise adhere to long-standing journalistic standards (Tandoc, 2014). This economic logic creates a market for incivility that, as Poljak (2024) demonstrates, political actors quickly learn to exploit, gaining media visibility through negative and uncivil communication and, encouraged by this success, repeating the strategy in a cycle that progressively amplifies incivility in public discourse.

This reinforcing dynamic between political actors and media outlets fundamentally disrupts traditional journalistic gatekeeping functions. When uncivil material proves both accessible and engaging, economic constraints that prioritize audience metrics steadily undermine gatekeeping authority.

These market dynamics intersect with broader transformations in journalistic authority and identity. Carlson (2017) demonstrates how established gatekeeping has been disrupted by digital technologies and by emerging actors contesting conventional norms. In this context, the economic incentives for incivility create a specific dilemma: Journalists face choices about how to position themselves in relation to uncivil discourse, whether as neutral observers, critical analysts, or active participants. Though legacy media initially maintain editorial standards, this economic pressure creates a progressive weakening of professional boundaries. Tandoc’s (2014) research documents how these financial priorities steadily wear down editorial resistance, compelling even established news outlets to integrate more clickbait and viral content (e.g., sensationalistic headlines, provocative content, uncivil discourse, etc.) into their coverage as they chase web traffic and advertising revenue.

This process of professional destabilization is further accelerated by emerging media actors who deliberately employ adversarial and confrontational discourse to challenge journalism's institutional authority. Figenschou and Ihlebæk (2019) demonstrate how these actors use provocative rhetorical strategies not merely as stylistic choices, but as deliberate challenges to mainstream journalism's claims to professional legitimacy and exclusive authority to define what constitutes legitimate news discourse. By operating outside conventional professional norms while claiming journalistic functions, these actors blur the boundaries between professional and amateur journalism, creating competitive pressure that forces traditional outlets to reconsider their own standards in response to this institutional challenge. Although Figenschou and Ihlebæk's work does not specifically focus on incivility, it provides crucial context for understanding how evolving professional dynamics, combined with the economic incentives referred to earlier, create conditions in which inflammatory and provocative discourse can proliferate.

2.5. Political Parallelism and Digital Transformation: The Italian Case Study

The Italian media system represents a particularly relevant case study for analyzing the relationship between media hybridization and political incivility. Historically framed by Hallin and Mancini (2004) as a Mediterranean or polarized pluralist model, this system is characterized by significant political parallelism and a journalistic tradition in which opinion and comments occupy a more central role than factual reporting.

In this context, the epistemological tradition of Italian journalism has historically been marked by a tendency toward subjectivism—interpreting reality through elite perspectives—and analytical approaches that prioritize persuasive reasoning over empirical verification (Splendore & Iannelli, 2022). This epistemological predisposition has contributed to creating an environment in which the boundaries between information, commentary, and entertainment are particularly permeable.

Digital evolution has further transformed this scenario through a process of “media polarization” in which news outlets differentiate themselves not only by political orientation but also through distinctive approaches to political reporting (Splendore & Piacentini, 2024). This process unfolds in a landscape characterized by high levels of partisan perception of sources and by information consumption oriented toward confirming pre-existing positions (Newman et al., 2020).

This dynamic environment enhances the “strategic value” of political incivility, which provides both economic benefits through increased engagement and political utility through the reinforcement of partisan identities (Bentivegna & Rega, 2024a).

2.6. Hybridity as a Key to Understanding Contemporary Journalism

This brief summary highlights how various theoretical facets of the concept of hybridity can offer useful keys to interpreting and analyzing contemporary journalism, a field that hovers between stability and change. Whether considered as digital media impact or as an everyday phenomenon, hybridity underscores the fluid, multidimensional nature of journalistic practices. Relationships between components of the media system are continuously redefined, and professional roles are constantly rearranged. Journalists' concrete practices emerge from negotiation between external expectations (normative roles), personal values (cognitive roles), everyday constraints (practiced roles), and professional self-perception (narrated roles; Hanitzsch, 2017).

Within this complex media ecosystem, political incivility emerges as an integral component of the journalistic field's adaptation to hybrid media logics, with journalists playing an active role in shaping how this incivility takes form in professional practice.

3. Research Objectives and Design

This study analyzes the structural and discursive mechanisms through which uncivil political communication is incorporated into journalistic practices. By examining the intersection of traditional journalistic norms with emerging digital logics, I investigate how various principles, practices, and languages of journalism in the hybrid media age (Hallin et al., 2023) influence the selection, framing, and amplification of political incivility as “newsworthy” content. The analysis focuses on three main dimensions:

- Hybridity of media platforms and production strategies as an amplifier of political incivility in journalistic discourse, focusing on cross-platform dynamics, algorithmic logics, content fragmentation practices, and monetization mechanisms.
- Hybridity of journalists' roles and professional practices, the mismatch between professional ideals and digital market pressures, the rise of new professional figures, and the fluidness of journalistic roles in adapting to an increasingly complex media environment.
- Hybridity of genres and journalistic content, with a focus on the blending of information and entertainment formats in political journalism, and on the various ways journalists employ incivility in their daily work.

To explore these aspects, I followed critical discourse analysis principles (Wodak & Meyer, 2015), examining how journalistic discourse both reflects and constructs professional identities and power relations. The analytical process progressed through interconnected phases, first identifying discursive formations linked to the three dimensions of hybridity, then analyzing how power relations emerge in journalists' positioning toward political incivility. Throughout, special attention was paid to metaphors, narrative strategies, and explanatory frameworks journalists used to make sense of their changing professional environment and their relationship to uncivil discourse. This approach reveals not just journalists' stated opinions about incivility, but the underlying discursive structures through which they negotiate their professional identities and exercise agency in the context of media hybridization.

Semi-structured interviews were conducted with thirty-two Italian political journalists through purposive sampling designed to capture the stratification of the Italian media landscape. The selection systematically represented varied professional roles (editors-in-chief, correspondents, political reporters), media types (print, web, television), and political alignments of outlets (partisan/non-partisan according to Giglietto et al., 2020). This comprehensive selection of respondents across multiple variables also ensured gender balance (18 men, 14 women) and professional diversity across generations (age range of 30–70), enabling examination of how organizational contexts, professional positions, platform characteristics, and demographic factors shape journalists' approaches to incivility across different segments of the Italian journalistic field.

The selection specifically included professionals from some historically politically-aligned outlets (e.g., *Libero*, *La Verità*, *Il Fatto Quotidiano*) and others with less pronounced political positioning (e.g., *Il Corriere della Sera*, *La Repubblica*), facilitating analysis of how political parallelism dynamics influence approaches to incivility.

The use of 32 participants was guided by two main factors. First, stratified representation: This number allowed adequate representation of all identified demographic and professional strata, ensuring at least 2–3 participants for each main combination of variables (e.g., women aged 41–50 in non-partisan web outlets). Second, theoretical saturation: The data collection process was accompanied by continuous preliminary analysis. After approximately 25 interviews, significant redundancy was observed in emerging analytical categories. Specifically, discursive patterns related to the legitimization of incivility and framing strategies showed clear signs of convergence around recurring schemes. The final seven interviews confirmed this trend, producing no significant new conceptual categories but enriching and consolidating those already identified.

The interviews, conducted March–July 2024 via Google Meet, averaged 75 minutes and were based on broad thematic cues concerning perceptions of incivility, involved actors, and consequences. All interviews were conducted in Italian and subsequently translated by a professional translator for analysis and reporting purposes. To maintain confidentiality, the interviews were anonymized (the excerpts below are identified by the letter attributed to each interviewee; see Table 1). To stimulate reflections on professional practices, interviewees were asked to comment on examples of news coverage of political incivility episodes and explain their approach to handling such occurrences.

Table 1. List of journalists.

Code	Gender	Age	Role	Media type	Partisanship	Interview date
A	F	50+	Editor in chief	Paper print	Non partisan	11/03/2024
B	M	35–50	Deputy editor in chief	Web	Non partisan	15/03/2024
C	M	35–50	Reporter	Web	Non partisan	20/03/2024
D	M	<35	Content creator	Web	Non partisan	21/03/2024
E	M	<35	Editor	Paper print	Non partisan	26/03/2024
F	M	35–50	Editor	Paper print	Non partisan	27/03/2024
G	M	35–50	Editor	Paper print	Non partisan	29/03/2024
H	M	50+	Editor	Paper print	Partisan	04/04/2024
I	F	50+	Editor	Paper print	Non partisan	04/04/2024
J	F	<35	Assignment editor	Web	Non partisan	05/04/2024
K	M	50+	News presenter	TV	Non partisan	08/04/2024
L	F	35–50	Managing editor	Web	Non partisan	10/04/2024
M	F	50+	Managing editor	Paper print	Non partisan	10/04/2024
N	M	35–50	Editor in chief	Paper print	Partisan	15/04/2024
O	M	35–50	Correspondent	Paper print	Non partisan	16/04/2024
P	M	35–50	News presenter	TV	Non partisan	16/04/2024
Q	M	50+	Talk show presenter	TV	Non partisan	17/04/2024
R	M	35–50	Editor in chief	Web	Partisan	18/04/2024
S	F	50+	Editor	Paper print	Partisan	22/04/2024
T	F	50+	Reporter	Paper print	Partisan	23/04/2024
U	M	35–50	Reporter	Paper print	Non partisan	25/04/2024
V	F	35–50	News presenter	TV	Non partisan	02/05/2024

Table 1. (Cont.) List of journalists.

Code	Gender	Age	Role	Media type	Partisanship	Interview date
W	M	35–50	Reporter	Paper print	Non partisan	11/05/2024
X	M	35–50	Editor	Web	Non partisan	13/05/2024
Y	M	50+	Editor	Paper print	Partisan	16/05/2024
Z	F	35–50	Assignment editor	Paper print	Partisan	18/05/2024
AA	F	50+	Reporter	Paper print	Partisan	30/05/2024
BB	F	50+	Editor	TV	Non partisan	12/06/2024
CC	M	50+	Editor	Web	Partisan	14/06/2024
DD	F	50+	Deputy editor	Paper print	Non partisan	15/06/2024
EE	M	35–50	Deputy editor	Paper print	Partisan	02/07/2024
FF	M	35–50	Deputy editor	Paper print	Partisan	03/07/2024

Notes: The newspapers *Libero*, *La Verità*, *Il Fatto Quotidiano*, *Il Manifesto*, and *Il Giornale* were the most politically-aligned news outlets from which journalists were interviewed; the newspapers *La Stampa*, *La Repubblica*, *Il Corriere della Sera*, *Il Post*, *Il Foglio*, *Il Domani*, *The Post Internazionale*, and *FanPage*, the social media news *Will Media*, the TV newscasts *Rai News 24* and *TgLa7*, and the TV talk show *In Onda* were the least politically-aligned outlets used in the study. Source: Adapted from Splendore and Piacentini (2024).

4. Results

4.1. Hybridity of Media Platforms and Production

Analysis of the interviews indicates that hybridity in contemporary media emerges primarily through the interconnection and permeable boundaries between traditional and digital media environments, creating conditions that systematically facilitate the spread of uncivil content in political journalism. As theorized by Chadwick (2013) and Hallin et al. (2023), this interconnection fundamentally shifts how information circulates across the mediascape. The findings identify four interconnected dimensions through which platform hybridization shapes the strategic use of political incivility: cross-platform amplification, algorithmic prioritization, content fragmentation, and monetization.

The cross-platform amplification of uncivil discourse has become a central feature of contemporary news production. Inflammatory political rhetoric gains exceptional visibility as it circulates across interconnected media environments, creating what Bentivegna and Rega (2024a) describe as a “hall of mirrors” effect: “There’s this ricocheting that happens between talk shows, television, newspapers, social media, that creates an echo chamber....Basically, it all becomes an indistinguishable sludge that just serves to boost audience numbers” (AA).

This circulation disrupts standard news hierarchies, eroding the organized structure of information: “The presentation format of news carries inherent value. On the internet there’s no hierarchy. You open Twitter or Facebook, you find a piece of news, but you don’t understand where it fits into the big picture” (C).

All interviewees acknowledged that violations of civil norms carry intrinsic news value that influences editorial decisions through multiple dimensions: novelty (norm violations attract attention), conflict (antagonistic interactions generate drama), and emotionality (uncivil behavior triggers audience responses).

These characteristics make incivility inherently attractive to journalists despite concerns about societal impact, confirming Mutz's (2007) findings about audience preferences for conflict over civility.

Driving these amplification effects, algorithmic prioritization systems on social media platforms and search engines systematically favor engaging content. Approximately two-thirds of interviewees (20 of 32) identified these digital platform algorithms as key factors in promoting polarizing and aggressive political discourse.

These systems create what several journalists described as a "virality imperative" that has reshaped editorial decision-making: "But there's the virality mechanism, which causes newspapers to sort of lose the function of putting some reasoning behind a news story, and that has to do with the logics of the platforms: the algorithm sets the priorities" (B).

Such technological influences establish structural constraints that permeate the entire media landscape, compromising the profession's overall commitment to rigorous journalism. These digital pressures consistently reward sensational material and clickable content at the expense of informational depth, a phenomenon acknowledged by most participants (27 of 32):

Publishers are not thriving, and that has consequences. Since we need to fill our pages, and others have to fill television space, very often we make do with what's there. And the level clearly declines. (EE)

I have to say that often, especially on the daily newspapers' websites, the need to be fast and beat the competition to a story, to follow a trend, makes you say "well, let's do that too, because the internet is talking about it"; let's say the profession's immune system defenses are dropping frequently. (G)

These algorithmic pressures also reshape how content is produced and distributed. Journalists increasingly adapt their work to maximize engagement across multiple platforms, leading to systematic fragmentation and recontextualization of political content to optimize cross-platform performance, transforming how incivility is presented:

When you do a long interview, which can last half an hour...you need to provide smaller bits of content because a half-hour is too long and won't fit in a reel, and then you have to extrapolate a little part to use the stuff on all your outlets. (L)

This repackaging practice privileges provocative elements divorced from their original context, sacrificing nuance while uncivil components are lent disproportionate prominence, often boosting elements of incivility that quickly gain traction online.

Complementing these fragmentation dynamics, the monetization of political incivility proved to be a powerful economic factor driving editorial decisions. Numerous interviewees (B, CC, D, E, EE, G, L, O, and V) explicitly recognized this dynamic, with one television presenter noting:

This has to do with the hybrid nature of journalism, which is on one hand a public service, and on the other part of a pure market environment. So, a video like that [explicitly racist], which has no political importance but goes viral after two minutes, I'll put it all over our website immediately, because unfortunately, I have to make money. (V)

In the Italian context, these hybridization processes interact with the tradition of political parallelism in distinctive ways. The historical interdependence between media and politics creates conditions where uncivil discourse can grow:

Italy's specific historical nature is to have journalism complicit with politics—almost an accomplice of politicians. (U)

To get votes, politicians tend to keep content at the shallowest possible depth. The media act as a megaphone, contributing in turn to this flattening. (EE)

This pattern varies depending on outlet type, with partisan media more consistently engaging in practices that spread incivility directed at perceived opponents, systematically deploying various forms of uncivil discourse against perceived enemies, and reinforcing narratives that conform to audience expectations (Arceneaux & Johnson, 2013).

Social media were specifically identified by many interviewees (21 of 32) as the primary sources of these algorithmic pressures, i.e., as significant catalysts for increased toxicity in public debate through algorithmic amplification, reduced gatekeeping, and ease of content manipulation. Notably, journalists' accounts revealed a somewhat techno-deterministic perspective, positioning these platforms as key drivers of political incivility rather than merely amplifying existing tendencies.

These dimensions interconnect to create a self-reinforcing cycle: Data-driven content ranking encourages fragmentation practices, which enhance the cross-platform circulation of uncivil content, thereby increasing its monetization potential. While individual journalists express varying degrees of comfort with these practices, the structural conditions of contemporary journalism create powerful incentives for incorporating incivility into political reporting.

4.2. The Hybridization of Journalistic Roles and Practice

Journalistic roles are adapting to digital technologies and being profoundly transformed, creating conditions that facilitate the strategic deployment of political incivility. Such change aligns with Hanitzsch and Vos's (2017) concept of continuous discursive reconstruction of journalistic identity. The study identifies three key dimensions of role hybridization within contemporary political journalism: the blending of entertainment and information functions, the emergence of community-building roles, and the professional role conflict between journalistic ideals and market demands. Each of these hybridized dimensions creates specific pathways through which uncivil discourse shapes political coverage.

The adoption of entertainment functions represents a fundamental shift in how journalists conceptualize their professional identity, with journalists increasingly required to perform entertainment-oriented tasks alongside usual reporting duties. This shift reflects what Mellado et al. (2017) describe as hybrid role performance, where different professional orientations—watchdog, interventionist, service, and infotainment—are activated simultaneously in response to changing media demands, without necessarily entailing a radical transformation of journalists' identity: "There's also complaisance in showing a clown, because in this case journalism can easily slip towards infotainment" (U).

The adoption of entertainment functions reshapes journalists' professional approach to political coverage, requiring them to privilege conflict, personalize political issues, and amplify emotionally charged content. This evolution constitutes a fundamental reconfiguration of role expectations that systematically compels journalists to engage with uncivil discourse as part of their everyday work: "We try to go a little news, a little entertainment...so trying to have both popular content and news, which is useful to people in some way even if they don't want [to be informed about politics]" (M).

These changes are further reinforced through organizational restructuring within newsrooms themselves. The digital transformation of media has compelled news organizations to integrate specialized roles that can navigate the complex demands of multi-platform publishing and audience engagement. The proliferation of specialized digital roles within newsrooms—search engine optimization specialists, engagement editors, social media strategists—introduces algorithmic rationality into editorial decision-making, creating institutional incentives that prioritize engagement metrics over traditional news values. These developments mirror broader industry shifts toward optimization strategies that quantify audience behavior and shape content accordingly.

Beyond these organizational changes that blur traditional professional boundaries, the hybridization of journalistic roles manifests in how individual journalists relate to their audiences. Interview evidence revealed a significant shift toward what can be termed community-building practices. As one journalist observed:

There are a number of journalists in Italy who actually have a community. In reality, each of us in our own small way has a sort of community, because unfortunately, in some cases, journalism has become similar to being an influencer: Just like Fedez has his community...journalists and news outlets have their community, too. (C)

As established institutional authority diminishes, journalists progressively function as identity entrepreneurs in fragmented media environments, cultivating audience loyalty through three distinct but interconnected mechanisms: strategic ideological positioning that validates audience worldviews; performative authenticity that simulates interpersonal connection; and identity-reinforcing content that strengthens in-group boundaries. This transformation exemplifies what, drawing on Carlson's (2020) analysis of digital journalism, can be seen as a relational shift in journalism, where audience affiliation becomes central to professional practice.

The professional-ethical strain dimension emerges as a theoretically significant framework for understanding the structural contradictions embedded in contemporary journalistic practice. Journalists experience this tension at multiple levels: as individual ethical dilemmas and as systemic conflicts between competing institutional logics—professional, market, and technological—that cannot be fully reconciled. This creates role ambiguity (Tandoc et al., 2013) with journalists forced to navigate between conflicting imperatives.

The analysis documented this phenomenon across 19 interviewees who highlighted specific mechanisms through which these tensions manifest: cognitive dissonance between ideals and practices; economic pressure overriding ethical considerations; and organizational cultures normalizing compromised standards. Responses to these pressures varied from open frustration with deteriorating standards to critical complicity

(acknowledging personal involvement while maintaining psychological distance) to a sense of entrapment within structural constraints that limit professional autonomy. As one journalist resignedly admitted:

We [journalists] just go along with it....We've accepted the simplification of the message, we've accepted that the tweet of the moment from the politician of the moment, the Facebook post, or the video on social media is enough for a news story. (P)

The friction thus generated translates into a divergence between journalists' normative approaches and effective role performance (Hanitzsch & Vos, 2017); provocation and conflict are incorporated into reporting on everyday politics even when they contradict professional ideals. The data revealed a pattern of journalists describing their participation in a "vicious circle" where economic necessity forces amplification of uncivil speech despite recognition of its harmful effects:

Unfortunately, it's a vicious circle, meaning that politicians are, without a doubt, increasingly more ignorant and uncouth. They can afford to be, because the media, having to stay in business, put up with this shouting. (V)

Unfortunately, the information system has really changed, and we've changed too....Honestly, I don't want to play along with this. Today, unfortunately, as politics has lowered its standards, news has lowered its standards too. (BB)

These professional tensions have significant implications for democracy and public discourse. Interviewees consistently linked deteriorating journalistic standards to broader patterns of audience disengagement and institutional distrust, suggesting that the spread of incivility may contribute to a cycle of declining media credibility and democratic participation: "Newspapers in Italy [are selling] 10% less every year. And that's also tied to people's loss of trust in newspapers....So that's the first result of newspapers' loss of credibility and authoritativeness" (G).

Overall, the hybridization of journalistic roles both enables political incivility and creates professional tensions affecting journalists' work, audience relationships, and democratic function.

4.3. Hybridization of Genres and Journalistic Content in Political Coverage

The gradual blurring of boundaries between journalistic genres systematically reshapes how political incivility is presented and interpreted. In a scenario where "the texts, genres, institutions, and discourses of public communication are in flux" (Baym, 2017, p. 12), once distinct genres are now merging together. This hybridization exemplifies what Otto et al. (2017) identify as the "softening" of political communication, a process where conventional informative functions progressively merge with entertainment-oriented approaches across multiple dimensions—from topic selection to framing strategies and presentation styles.

This genre hybridization has fundamentally altered the function of entertainment in political coverage. Once considered an "extra" in the news media sphere, entertainment is becoming an essential ingredient of political journalism, often built around instrumental conflict. Contemporary political coverage frequently leverages conflicts and polemics between politicians, with formats designed to amplify them to make the content more

appealing and provocative. This shift embodies what Berry and Sobieraj (2014) identified as the increasing prominence of uncivil discourse that combines traditional journalistic elements with entertainment techniques designed to trigger emotional responses. The economic logic behind this approach was succinctly expressed by two editors:

I don't have to send three reporters to Sicily to do an investigative report to get a big headline, I can get commentators very well-known for colorful, often aggressive, and violent outbursts to say three curse words and I've got it. It cost me less, and it was quicker. (Y)

To pay for investigative reporting, I have to show this other stuff to the public—insults, slurs, vulgarity. That's what they want and what we have to do to survive....So yes, I publish videos with insults, and I'm not ashamed of it. (CC)

This market-driven approach is closely intertwined with reader engagement patterns. Audience preferences strongly influence editorial decisions regarding incivility, especially in politically-aligned outlets targeting specific segments. This process seems to hinge on what Edgerly and Vraga (2020) term “news-ness”—the extent to which audiences perceive content as legitimate news—with journalists strategically managing audience perceptions.

In this hybrid environment, news outlets' capacity to attract and maintain audiences has become paramount. One journalist directly addressed this performative aspect: “You're putting on a show here, which is a part of political journalism. Let's tell it like it is: Right now, some political journalism has become show business” (T).

While stickiness (Stroud, 2017) has usually relied on conflict as a key news-value (Semetko & Valkenburg, 2000), today's media amplifies this approach, emphasizing incivility at the expense of substantive information.

To go deeper into the analysis, it is useful to define the different ways journalists use political incivility and how they intertwine with current media hybridization processes. As news/information and pure amusement/entertainment become less distinct from one another, there seem to be five approaches journalists take with regard to political incivility: providing interpretive frames, spreading uncivil content, contextualizing it, fueling it, and avoiding it. These practices often overlap within individual journalistic works, reflecting the complex interplay between informational objectives, commercial pressures, and audience appetite for sensationalism. Journalists might amplify provocative political statements to drive web traffic while simultaneously providing broader political context.

The largest number of interviewees (23 of 32) said they used a frame-of-interpretation approach, which is in keeping with the active role journalists play in constructing meaning and guiding audience understanding. This approach operates through the active construction of meaning around such discourse, enabling journalists to acknowledge its newsworthiness while maintaining critical distance. This practice reflects what Entman (1993) describes as journalism's role in not simply reporting events but providing interpretive frameworks through which audiences comprehend political reality. When political actors use racist or discriminatory language, journalists adopting this approach explicitly identify and frame it as such, providing readers with an evaluative lens rather than merely repeating the content. Particularly clear on this point are the words of one journalist:

When a phrase is racist, we say it's a racist phrase; when a phrase is homophobic, we say it's homophobic...our way of presenting the issue is to take a position about it. To give an account of what politicians say without any interpretive filters could be a tragic error. (X)

The spreading approach (22 of 32 interviewees) amplifies uncivil political discourse without substantial critical framing, presenting ethical dilemmas between newsworthiness and the risk of normalizing incivility. This strategy treats provocative statements and inflammatory rhetoric as inherently newsworthy, privileging them in headlines and prominent positions. The deliberate nature of these editorial choices emerges clearly from this statement made in reference to a problematic content posted by a politician: "Nobody forces you to post it—it's a choice, but it gets clicks. That's the big problem" (G).

The contextualizing approach (16 interviewees, primarily from less politically-aligned outlets) operates through the strategic provision of background information that allows audiences to critically interpret uncivil discourse. Beyond merely labeling uncivil content, this approach situates it within broader political, historical, or social contexts, helping the public understand both the tactical nature of political incivility and its implications. By offering this deeper perspective, journalists actively resist the superficiality and polarization that characterize much political coverage. As one interviewee points out:

Providing the reader with a context should be the minimum in our job. I realize that sensationalism has to do with us too, the pursuit of clicks, but it's clear that that's the minimum, because otherwise this profession is dying. (W)

The prevalence of this approach at non-partisan outlets suggests that political alignment influences editorial decisions, with non-partisan media, not needing to satisfy partisan audience expectations, having greater flexibility.

The fueling approach (nine interviewees, more prevalent among politically-aligned outlets) distinguishes itself by actively producing and amplifying uncivil discourse rather than simply responding to it. Unlike previous approaches, in these cases, journalists deliberately employ delegitimizing stereotypes, alarmist tones, and misleading information, justifying these practices as necessary to align with readers' expectations. This strategy goes beyond merely covering incivility: Complex political issues are transformed into binary oppositions that reinforce audience loyalty through shared outrage. As one interviewee explained:

You decide you've got to stroke the reader, using language that's direct, below-the-belt, not necessarily tidy or cleaned up. Because "we tell it like it is," ok? "The other guys will trick you with their big words and convoluted sentences," and so on. (P)

Some interviewees even acknowledged that these practices can cross the line from journalism to propaganda through deliberate distortion of facts. This pattern confirms Arceneaux and Johnson's (2013) analysis of how partisan media adopt strategies specifically designed to reinforce existing partisan identities.

Finally, the avoiding approach (seven interviewees) represents professional resistance to the amplification of uncivil discourse and testifies to the fact that some professional autonomy and resistance to prevailing rationales continues to hold out. But as one interviewee noted, "This choice is becoming increasingly difficult,

especially for those who work in the online sphere, because the need for clicks and engagement pushes you in the opposite direction” (FF).

The approach is not only relatively rare but is also described as more of an aspiration than an actual practice, highlighting a misalignment between journalists’ practiced roles and the roles they would ideally like to play (Hanitzsch, 2017). This tension is exemplified by one journalist’s reflection:

I wouldn’t have published this piece of news because it seemed like a stunt intended to get attention, to spice things up and get clicks. I wouldn’t consider it news, but it is. There are all these guys writing about this “social media storm” and so you repeat it. It’s a spiral and nobody wants to get left behind. There’s a mechanism of emulation. (M)

This discrepancy between the duty to inform and the risk of heightening incivility is indicative of the difficulties journalists face in seeking to balance the various demands of their work in the current hybrid environment. On one hand, they have a deontological duty to inform citizens, and an awareness that this responsibility calls for more prudent handling of uncivil political discourse. On the other hand, the need to attract and retain an audience in a hyper-competitive landscape, and the admittedly inherent news value of uncivil discourse as well, make it difficult to resist the temptation to spread it.

The various uses of political incivility by journalists reflect the challenges and contradictions of this profession in the hybrid era. While individual journalists adopt different approaches, market pressures more and more privilege reporting incorporating uncivil elements, illustrating how hybrid environments reshape not just professional practices but the nature of political discourse itself.

5. Discussion and Conclusions

This study advances theoretical understanding of contemporary journalism by demonstrating how the hybridity of the media system serves as a key framework for analyzing the systematic proliferation of uncivil journalistic discourse. Building on theoretical perspectives that conceptualize hybridity as an everyday condition embedded in journalistic practices (Hallin et al., 2023) rather than merely a technological phenomenon, the research has examined how journalists discursively construct, interpret, and utilize political incivility. Through interviews with political journalists, the findings demonstrate how professional identities are negotiated and reshaped within this hybrid environment.

Results indicate how this hybridity is evidenced across three interconnected dimensions. First, regarding media platforms and production, the cross-platform circulation of uncivil content creates a “snowball effect” that amplifies its visibility and resonance as it bounces between interconnected digital and traditional media channels. This dynamic process of content rebounding across platforms generates cumulative momentum, with each transition expanding its reach and impact. This structural transformation has embedded incivility within the new newsworthiness criteria of the hybrid media ecosystem, making it not merely a byproduct but an integral component of digital journalistic practice.

Second, hybridity impacts professional journalistic roles and practices. The analysis documents an increasing fluidity of roles that combine elements of various models (watchdog, interventionist, service, infotainment,

etc.), consistent with Mellado et al. (2017). Newsrooms are experiencing a dual transformation: New digital-sphere professionals are orienting editorial strategies toward maximizing traffic and engagement—sometimes through incivility—while traditional journalists find themselves adapting in various ways to the logic of the digital landscape, often at the expense of quality and professional ethics. This hybridization of roles creates systemic conditions in which incivility can flourish. Professionals experience deep tensions between adhering to internalized normative roles and adapting to new economic demands.

Third, regarding hybridity of genres and content, this research attests to an increasing amalgamation of information, entertainment, and punditry that blurs the boundaries between different forms of political journalism. This hybridity is transforming formats, but also ways of constructing journalistic meaning. Five particular ways of using (or avoiding) incivility were highlighted in interviews (providing interpretive frames, spreading, contextualizing, fueling, and avoiding) demonstrating that journalists' approach to incivility is not uniform but varies significantly based on different priorities, sensibilities, editorial demands and, last but not least, the political orientation of the news outlet they work for.

These findings contribute to the literature on the evolution of journalistic genres in the digital age (Baym, 2017; Edgerly & Vraga, 2020), showing how incivility has become structurally embedded in new hybrid forms of political journalism. The distinct patterns in how media organizations handle uncivil content are particularly significant in the Italian media landscape. While Berry and Sobieraj (2014) have documented how incivility functions as an editorial strategy across various media systems, the Italian case illustrates its intensified role in an environment where numerous news outlets maintain explicit political alignments that both reflect and amplify societal divisions. In this environment marked by strong political parallelism and high media polarization, uncivil discourse becomes embedded in the system, reinforced at multiple levels of hybridization. This dynamic is most evident in partisan outlets, which strategically deploy incivility to discredit perceived enemies (Europe, political and economic “élites,” immigrants, sexual minorities) while simultaneously strengthening audience identification by capitalizing on pre-existing biases.

The process accelerates as algorithms and digital metrics gain authoritative status in Italian newsrooms (Splendore & Iannelli, 2022), fostering an environment where incivility's strong performance in audience metrics lends it a veneer of professional legitimacy. The Italian case reveals how incivility thrives at the intersection of longstanding political parallelism and digital transformation. The normalization of uncivil discourse stems from the interplay of professional norms, market forces, and audience demands, reflecting how journalistic practices incorporate technological innovations while maintaining core characteristics of the polarized pluralist model.

However, the specificity of the Italian context notwithstanding, there are also meaningful parallels in other national contexts. Meltzer's research (2015) on American journalists indicates that there, too, punditry has gained the upper hand over traditional news, and incivility has become a natural evolution of political journalism in response to public preference. The observable demand for more direct, confrontational approaches to political coverage creates similar pressures across otherwise distinct media systems. Similar dynamics have been documented in other European contexts, where increasing commercial pressures and digital competition have led to a softening of political communication even in systems historically defined by strong public service orientations (Otto et al., 2017). Though incivility takes different forms across cultural and media system settings, the structural relationship between media hybridization and political discourse reflects broader transformations unfolding in journalism globally.

Beyond these cross-national comparisons, the study offers several substantial contributions to our understanding of contemporary journalism. On a theoretical level, this research advances the interpretive model of journalism by illustrating through journalists' accounts how hybridity operates as a structural condition that fundamentally reshapes the profession. The study identifies recurring patterns through which algorithmic logics have permeated long-standing news values, transforming how incivility is evaluated and processed across the information ecosystem. The findings expand on Hanitzsch and Vos' (2017) discursive approach by revealing the complex emotional experiences of journalists as they navigate competing demands for professional legitimacy.

These tensions align with Carlson's (2017) relational model of journalistic authority, which conceptualizes authority as emerging from dynamic relationships rather than fixed professional attributes. In this context, journalists must continuously renegotiate these relationships as they balance established professional norms with industry dynamics that reward incivility, creating ongoing struggles over their own legitimacy and credibility. This study demonstrates how these struggles manifest in Italian journalists' varied responses to uncivil political content, uncovering a significant contradiction: Despite journalists' expressed ethical concerns about incivility, economic pressures consistently lead them to incorporate it into their professional practice.

Furthermore, the identification of five distinct approaches to incivility contributes to boundary work theories by revealing how professionals tend to delimit professional jurisdiction within their field. While Carlson's framework explains how journalists maintain authority through relational dynamics, boundary work theory illustrates the mechanisms through which they define professional boundaries and set the criteria for inclusion/exclusion, even with regard to uncivil political content. Rather than following fixed professional codes, journalists actively negotiate what constitutes professional standards through their daily editorial choices. However, this boundary negotiation reveals a fundamental tension: While journalists may attempt to resist incivility, their everyday editorial choices frequently reproduce it, illustrating the gap between professional aspirations and practical constraints in boundary negotiation.

Some limitations of this research must be acknowledged. Its qualitative approach and emphasis on journalists' perceptions preclude statistical generalizations and a comprehensive understanding of audience perceptions of incivility. The focus on the current Italian context limits possibilities for tracking the evolution of the situation or making international comparisons. While the study captures journalists' varying approaches to political incivility, it cannot definitively establish the relative prevalence of each approach across the broader media landscape, which would require complementary content analysis. Future research might aim to fill these gaps by integrating qualitative data with quantitative content analysis and audience surveys. Areas of inquiry could include: strategies developed by news outlets for resisting pressure to use incivility while maintaining high standards of quality; long-term implications of the normalization of incivility on media credibility and the quality of democratic debate; how different aspects of national media systems (e.g., degree of polarization, pluralism, regulation) mediate the impact of hybridity on the spread of incivility; the role professional and organizational cultures play in promoting or curbing the strategic use of incivility.

Finally, this study demonstrates that media hybridization and journalistic incivility are linked by a reciprocal relationship that operates at multiple levels. Specific aspects of hybridization (competitive pressures, algorithmic logics, monetization) create systemic conditions favorable for the normalization of incivility,

while uncivil content actively reshapes hybrid journalistic practices, influencing newsworthiness criteria and editorial strategies. However, this dynamic is not deterministic. Rather than merely responding to technological and market forces, journalists exercise professional agency by actively participating in the reconfiguration of norms for their field, strategically deploying political incivility, and assigning interpretive meaning to these practices based on their professional judgment. This professional agency operates within the broader context of cultural-political factors—political polarization, economic precarity in journalism, and cultural shifts—that shape the conditions within which journalists make these choices.

By conceptualizing incivility as deeply rooted within journalism's evolving professional field, rather than as a mere consequence of digital transformations, this study highlights why developing effective interventions to combat the impoverishment of political news and preserve the democratic function of journalism requires attention to both broader hybrid media system dynamics and the active role of professionals in negotiating field boundaries.

Acknowledgments

The author wishes to thank the 32 Italian journalists who participated in this study for their time and valuable insights.

Funding

The author disclosed receipt of the following financial support for the research by the F-CUR fund allocated to finance “Curiosity-driven” projects—2022. Grant code: 2272-2022-RR-CONRICMIUR_PC-FCUR2022_002, Political Incivility in Public Debate: Uses, Motivations and Awareness of Politicians and Journalists (IP-PG).

Conflict of Interests

The author declares no conflicts of interest.

Data Availability

The interview data that support the findings of this study are not publicly available due to privacy and confidentiality considerations. Anonymized excerpts are available from the corresponding author upon reasonable request and subject to ethical approval.

References

- Arceneaux, K., & Johnson, M. (2013). *Changing minds or changing channels? Partisan news in an age of choice*. University of Chicago Press. <https://doi.org/10.7208/chicago/9780226047447.001.0001>
- Baym, G. (2017). Journalism and the hybrid condition: Long form television drama at the intersections of news and narrative. *Journalism*, 18(1), 11–26. <https://doi.org/10.1177/1464884916657521>
- Bentivegna, S., & Rega, R. (2022). Searching for the dimensions of today's political incivility. *Social Media + Society*, 8(3). <https://doi.org/10.1177/20563051221114430>
- Bentivegna, S., & Rega, R. (2024a). *Un(Civil) democracy: Political incivility as a communication strategy*. Springer Nature. <https://doi.org/10.1007/978-3-031-54405-7>
- Bentivegna, S., & Rega, R. (2024b). What are the predictors of political incivility perceptions? *European Journal of Communication*, 39(4), 375–394. <https://doi.org/10.1177/02673231241271008>
- Berry, J. M., & Sobieraj, S. (2014). *The outrage industry: Political opinion media and the new incivility*. Oxford University Press.

- Boczkowski, P. J. (2010). *News at work: Imitation in an age of information abundance*. University of Chicago Press. <https://doi.org/10.7208/chicago/9780226062785.001.0001>
- Borah, P. (2014). Does it matter where you read the news story? Interaction of incivility and news frames in the political blogosphere. *Communication Research*, 41(6), 809–827. <https://doi.org/10.1177/0093650212449353>
- Carlson, M. (2017). *Journalistic authority: Legitimizing news in the digital era*. Columbia University Press. <https://doi.org/10.7312/car17444>
- Carlson, M. (2020). Journalistic epistemology and digital news circulation: Infrastructure, circulation practices, and epistemic contests. *New Media & Society*, 22(2), 230–246. <https://doi.org/10.1177/146144819856921>
- Carlson, M., Robinson, S., & Lewis, S. C. (2021). *News after Trump: Journalism's crisis of relevance in a changed media culture*. Oxford University Press. <https://doi.org/10.1093/oso/9780197550342.001.0001>
- Chadwick, A. (2011). The political information cycle in a hybrid news system: The British prime minister and the “bullygate” affair. *The International Journal of Press/Politics*, 16(1), 3–29. <https://doi.org/10.1177/1940161210384730>
- Chadwick, A. (2013). *The hybrid media system: Politics and power*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199759477.001.0001>
- Chen, G. M. (2017). *Online incivility and public debate: Nasty talk*. Palgrave Macmillan. <https://doi.org/10.1007/978-3-319-56273-5>
- Coe, K., Kenski, K., & Rains, S. A. (2014). Online and uncivil? Patterns and determinants of incivility in newspaper website comments. *Journal of Communication*, 64(4), 658–679. <https://doi.org/10.1111/jcom.12104>
- Edgerly, S., & Vraga, E. K. (2020). That's not news: Audience perceptions of “news ness” and why it matters. *Mass Communication and Society*, 23(5), 730–754. <https://doi.org/10.1080/15205436.2020.1729383>
- Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication*, 43(4), 51–58. <https://doi.org/10.1111/j.1460-2466.1993.tb01304.x>
- Figenschou, T. U., & Ihlebæk, K. A. (2019). Challenging journalistic authority: Media criticism in far-right alternative media. *Journalism Studies*, 20(9), 1221–1237. <https://doi.org/10.1080/1461670X.2018.1500868>
- Gervais, B. T. (2015). Incivility online: Affective and behavioral reactions to uncivil political posts in a web-based experiment. *Journal of Information Technology & Politics*, 12(2), 167–185. <https://doi.org/10.1080/19331681.2014.997416>
- Giglietto, F., Righetti, N., Rossi, L., & Marino, G. (2020). It takes a village to manipulate the media: Coordinated link sharing behavior during 2018 and 2019 Italian elections. *Information, Communication & Society*, 23(6), 867–891. <https://doi.org/10.1080/1369118X.2020.1739732>
- Gitlin, T. (2013). The uncivil and the incendiary. In D. M. Shea & M. P. Fiorina (Eds.), *Can we talk? The rise of rude, nasty, stubborn politics* (pp. 53–66). Pearson.
- Hallin, D. C., & Mancini, P. (2004). *Comparing media systems: Three models of media and politics*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511790867>
- Hallin, D. C., & Mellado, C. (2018). Serving consumers, citizens or elites: Democratic roles of journalism in Chilean newspapers and television news. *The International Journal of Press/Politics*, 23(1), 24–43. <https://doi.org/10.1177/1940161217736888>
- Hallin, D. C., Mellado, C., & Mancini, P. (2023). The concept of hybridity in journalism studies. *The International Journal of Press/Politics*, 28(1), 219–237. <https://doi.org/10.1177/19401612211039704>

- Hamilton, J. T. (2004). *All the news that's fit to sell: How the market transforms information into news*. Princeton University Press. <https://doi.org/10.1515/9781400841417>
- Hanitzsch, T. (2017). Professional identity and roles of journalists. In M. Powers (Ed.), *Oxford research encyclopedia of communication*. <https://doi.org/10.1093/acrefore/9780190228613.013.95>
- Hanitzsch, T., & Vos, T. P. (2017). Journalistic roles and the struggle over institutional identity: The discursive constitution of journalism. *Communication Theory*, 27(2), 115–135. <https://doi.org/10.1111/comt.12112>
- Harcup, T., & O'Neill, D. (2017). What is news? News values revisited (again). *Journalism Studies*, 18(12), 1470–1488. <https://doi.org/10.1080/1461670X.2016.1150193>
- Herbst, S. (2010). *Rude democracy: Civility and incivility in American politics*. Temple University Press.
- Lewis, S. C. (2012). The tension between professional control and open participation: Journalism and its boundaries. *Information, Communication & Society*, 15(6), 836–866. <https://doi.org/10.1080/1369118X.2012.674150>
- Mellado, C., Hellmueller, L., Márquez-Ramírez, M., Humanes, M. L., Sparks, C., Stepinska, A., Pasti, S., Schielicke, A.-M., Tandoc, E., & Wang, H. (2017). The hybridization of journalistic cultures: A comparative study of journalistic role performance. *Journal of Communication*, 67(6), 944–967. <https://doi.org/10.1111/jcom.12339>
- Meltzer, K. (2015). Journalistic concern about uncivil political talk in digital news media: Responsibility, credibility, and academic influence. *The International Journal of Press/Politics*, 20(1), 85–107. <https://doi.org/10.1177/1940161214558748>
- Muddiman, A. (2017). Personal and public levels of political incivility. *International Journal of Communication*, 11, 2182–3202. <https://ijoc.org/index.php/ijoc/article/view/6137>
- Mutz, D. C. (2007). Effects of “in-your-face” television discourse on perceptions of a legitimate opposition. *American Political Science Review*, 101(4), 621–635. <https://doi.org/10.1017/S000305540707044X>
- Mutz, D. C. (2015). *In-your-face politics: The consequences of uncivil media*. Princeton University Press. <https://doi.org/10.23943/princeton/9780691165110.001.0001>
- Newman, N., Fletcher, R., Schulz, A., Andi, S., & Nielsen, R. K. (2020). *Reuters Institute digital news report 2020*. Reuters Institute for the Study of Journalism. <https://doi.org/10.60625/risj-048n-ap07>
- Otto, L., Glogger, I., & Boukes, M. (2017). The softening of journalistic political communication: A comprehensive framework model of sensationalism, soft news, infotainment, and tabloidization. *Communication Theory*, 27(2), 136–155. <https://doi.org/10.1111/comt.12102>
- Patterson, T. E. (2000). *Doing well and doing good: How soft news are shrinking the news audience and weakening democracy* (Discussion Paper R-21). Harvard University. <https://doi.org/10.2139/ssrn.257395>
- Poljak, Ž. (2024). Give the media what they need: Negativity as a media access tool for politicians. *The International Journal of Press/Politics*, 30(3), 727–751. <https://doi.org/10.1177/19401612241234861>
- Rega, R. (2017). Le testate su Twitter e la scommessa sulle soft news. *Comunicazione Politica*, 18(3), 459–480. <https://doi.org/10.3270/87973>
- Rossini, P. (2020). Beyond incivility: Understanding patterns of uncivil and intolerant discourse in online political talk. *Communication Research*, 49(3), 399–425. <https://doi.org/10.1177/0093650220921314>
- Santana, A. D. (2014). Virtuous or vitriolic: The effect of anonymity on civility in online newspaper reader comment boards. *Journalism Practice*, 8(1), 18–33. <https://doi.org/10.1080/17512786.2013.813194>
- Schudson, M. (1978). *Discovering the news: A social history of American newspapers*. Basic Books.
- Semetko, H. A., & Valkenburg, P. M. V. (2000). Framing European politics: A content analysis of press and television news. *Journal of Communication*, 50(2), 93–109. <https://doi.org/10.1111/j.1460-2466.2000.tb02843.x>

- Splendore, S. (2017). *Giornalismo ibrido. Come cambia la cultura giornalistica italiana*. Carocci.
- Splendore, S., & Iannelli, L. (2022). Non-elitist truth? The epistemologies of Italian journalists in the hybrid media system. *Social Media + Society*, 8(3). <https://doi.org/10.1177/20563051221118378>
- Splendore, S., & Piacentini, A. (2024). Navigating political polarization in news production: The case of Italy. *Journalism & Mass Communication Quarterly*, 101(2), 405–427. <https://doi.org/10.1177/10776990231221487>
- Stroud, N. J. (2017). Attention as a valuable resource. *Political Communication*, 34(3), 479–489. <https://doi.org/10.1080/10584609.2017.1330077>
- Stryker, R., Conway, B. A., & Danielson, J. T. (2016). What is political incivility? *Communication Monographs*, 83(4), 535–556. <https://doi.org/10.1080/03637751.2016.1201207>
- Tandoc, E. C., Jr. (2014). *Journalism is twerking? How web analytics is changing the process of gatekeeping*. *New Media & Society*, 16(4), 559–575. <https://doi.org/10.1177/1461444814530541>
- Tandoc, E. C., Jr., Hellmüller, L., & Vos, T. P. (2013). Mind the gap: Between journalistic role conception and role enactment. *Journalism Practice*, 7(5), 539–554. <https://doi.org/10.1080/17512786.2012.726503>
- Van't Riet, J., & Van Stekelenburg, A. (2022). The effects of political incivility on political trust and political participation: A meta-analysis of experimental research. *Human Communication Research*, 48(2), 203–229. <https://doi.org/10.1093/hcr/hqab022>
- Ward, S. J. A. (2004). *The invention of journalism ethics: The path to objectivity and beyond* (Vol. 38). McGill-Queen's University Press.
- Wodak, R., & Meyer, M. (Eds.). (2015). *Methods of critical discourse studies* (3rd ed.). Sage. <https://doi.org/10.4135/9780857028020>

About the Author



Rossella Rega is associate professor at the Department of Social, Political and Cognitive Sciences, University of Siena, Italy. Her main fields of study are political incivility, journalism and new media, the public sphere, and political communication. Recent publications include *(Un)Civil Democracy. Political Incivility as a Communication Strategy* (with S. Bentivegna, Palgrave Macmillan, 2024).

Artificial Amplification and Intermedia Dynamics in the Hybrid Media System: The Case of #LaschetLacht

Florian Muhle  and Indra Bock 

Department of Cultural Studies and Communication Studies, Zeppelin University, Germany

Correspondence: Florian Muhle (florian.muhle@zu.de)

Submitted: 28 February 2025 **Accepted:** 24 July 2025 **Published:** 16 October 2025

Issue: This article is part of the issue “Journalism in the Hybrid Media System” edited by Silke Fürst (University of Zurich), Florian Muhle (Zeppelin University Friedrichshafen), and Colin Porlezza (Università della Svizzera italiana), fully open access at <https://doi.org/10.17645/mac.i494>

Abstract

The article demonstrates intermedia dynamics in the hybrid media system and reveals the susceptibility of traditional media to attempts to influence their agenda and public opinion formation. Specifically, it deals with the thematization of a faux pas by the conservative chancellor candidate Armin Laschet during the German federal election campaign in 2021. To analyze the intermedia dynamics in this case, the first step is a content analysis of journalistic reporting of the faux pas, which illustrates the responsiveness of traditional media to social media trends and activities. The research shows that journalistic media addressed the faux pas only after it was problematized on social media and became visible through the trending hashtag #LaschetLacht on Twitter. Building on this, the next step involves network and content analyses of Twitter users and their posts about the faux pas, which shed light on how the hashtag trend emerged and gained momentum. Key actors who were particularly relevant to the emergence and dissemination of the hashtag are identified, as well as their strategies to reinforce the trend and draw the attention of journalistic media to it. As the analysis reveals, highly active accounts played a significant role by attempting to artificially amplify the emerging Twitter trend, aiming to exploit the attention logics in the hybrid media system.

Keywords

artificial amplification; attention logics; hybrid media system; legacy media; political communication; social media

1. Introduction

The establishment of major social media platforms as part of the current transformation of the public sphere has not led to the displacement of traditional media or a complete fragmentation between different media spaces. Instead, new and old media form a hybrid media system (Chadwick, 2017) in which continuous

interrelationships between social media and legacy media exist. As research on intermedia agenda setting has shown, topics that first appear in one media space are often addressed shortly thereafter in another (Conway et al., 2023; Su & Borah, 2019; Weimann & Brosius, 2017). This means that, on the one hand, people in the dispersed personal publics on social media often discuss topics that originate from traditional mass media. On the other hand, journalists observe the activities of social media users and increasingly cover issues that receive broad attention online (Fürst & Oehmer, 2021). In this way, they ensure that topics emerging in the fragmented sub-publics of social media can gain general visibility, provided they are deemed attractive and relevant according to journalistic selection criteria.

The latter plays a significant role in the field of politics, especially during election campaigns. In this context, social media have the potential to “drive traditional media coverage” (Chadwick, 2017, p. 255), which is also strategically utilized by political actors, whose online activities often aim to “set the agendas and shape the frames of journalists and influence campaign coverage in legacy media” (Kreiss et al., 2018, pp. 16–17). On the one hand, there are powerful and professional actors who aim, as “primary definers” (Anstead & Chadwick, 2018), to exercise their influence on journalists’ coverage. On the other hand, activists and other actors, including bots (Howard et al., 2018; Muhle, 2022) and “disinformation workers” (Ayeb & Bonini, 2024), need to be considered. These actors engage in online activities, among other reasons, to amplify trending hashtags and draw public attention to certain topics and opinions, thereby influencing the formation of public opinion.

This is where the present article positions itself. Building on existing research on intermedia agenda setting and artificial amplification on social media, it presents a case study addressing the public thematization of a faux pas by the conservative chancellor candidate Armin Laschet during the 2021 German federal election campaign (Section 3). This faux pas was initially problematized on social media, brought to public attention under the trending hashtag #LaschetLacht (#LaschetLaughs), and subsequently picked up as a topic by the journalistic media. As a result, the candidate’s public image suffered noticeably, and he and his party, the Christian Democratic Union of Germany (CDU), actually lost the election two months later, which hardly seemed conceivable before the faux pas.

To analyze the intermedia dynamics, after presenting the case (Section 3) and methods of analysis (Section 4), a content analysis of journalistic reporting on the faux pas is used to illustrate the responsiveness of traditional media to social media trends (Section 5.1). The analysis shows that the journalistic media initially did not address the faux pas. Only after it was problematized on social media and became visible through the hashtag and social media comments from political elite actors did the media change their coverage. Building on this, in the next step, content and network analyses of Twitter (now X) users and their posts about the faux pas shed light on how the Twitter trend emerged and gained momentum (Section 5.2). Key actors who were particularly relevant for its emergence and dissemination are identified, as well as their strategies to reinforce the trend and draw the attention of journalistic media to it. As the analysis reveals, highly active accounts played a significant role by attempting to artificially amplify the emerging Twitter trend.

Based on the empirical findings, the article closes with critical remarks on public opinion formation, attention dynamics, and the changing journalistic role in the hybrid media system (Section 6). The article begins with a literature-based examination of artificial amplification in the context of a hybrid media system (Section 2). This outlines the theoretical background for the subsequent case analysis.

2. Artificial Amplification in the Hybrid Media System

In democratic societies, the political public sphere mediates between politics on the one hand and civil society on the other. Its function is to ensure that the interests of the general public are perceived by politics and that political decisions are linked to the citizens' opinions and (majority) will (Gerhards & Neidhardt, 1991; Habermas, 2021). This essentially happens through the identification and articulation of socially relevant issues and the enabling of democratic will formation, which becomes visible as public opinion. Traditionally, it is journalism that is responsible for the representation of public opinion (Habermas, 2022; Hardy, 2019). For this, journalists select relevant topics and include "opinions and perspectives of a broad range of social actors and groups" (van Dijck et al., 2018, p. 51) in their reporting, which is realized in accordance with professional norms in a manner committed to neutrality and balance. In this sense, journalism is responsible for the "throughput" of the public sphere and thus for filtering out from the multitude of existing topics and opinions those that can be considered generally relevant (Habermas, 2022, p. 157) and representative (McGregor, 2019, p. 1072).

With the establishment of social media, the conditions for public opinion formation have changed drastically. Now, political actors can directly address their constituents online, attract attention, and bypass the filters of mass media (Enli, 2017; Nuernbergk & Conrad, 2016; Stier et al., 2018). In line with the selection logic of social media (van Dijck & Poell, 2013), this potentially contributes to the fragmentation and polarization of the political public sphere (Fischer & Jarren, 2024; Van Aelst et al., 2017). At the same time, however, due to the extensive datafication of online communication (Mejias & Couldry, 2019; van Dijck & Poell, 2013), topics and opinions that are circulating in the scattered personal online publics have the chance to become accessible to broader audiences. This is possible because algorithms "aggregate, categorize, and combine their observations of our communication" (Brosius, 2022, p. 56). In doing so, they make the results of these processes observable, e.g., in the form of trending topics (Duguay, 2018).

This algorithmic aggregation of online activities, therefore, transforms the scattered private online activities into public communication. This allows social media users to gain insights into currently discussed topics and opinions, and in this way contributes to the emergence of larger online publics. In addition, it makes online activities visible to interested third parties, such as journalism or politics, which observe the social media discourse to get a glimpse of what people are concerned about (Beckers & Harder, 2016; Wehner, 2020). As Fürst and Oehmer (2021) point out, a news factor called "public response" has even developed. This means that journalists increasingly attribute news value to topics that generate particularly high resonance among online publics, which is reflected, for example, in the fact that news reports include references to trending hashtags on social media, thereby informing the general public about what is happening online (McGregor, 2019, p. 1073). As research on intermedia agenda setting shows, sometimes, social media discourses even manage to set entirely new topics that are then picked up by legacy media (Abdi-Herrle, 2018; Chadwick, 2017; Conway et al., 2023). This is especially the case when topics are presented pointedly and picked up by popular accounts (Abdi-Herrle, 2018) as well as "right after the occurrence of breaking news" (Su & Borah, 2019, p. 10).

In this sense, social media serve as an important resource for journalists in the hybrid media system to quickly, easily, and cost-effectively generate information about "hot" and controversial topics and opinions in the (online) public sphere that have news value and can be further communicated almost in real-time to

the general public (Dubois et al., 2020). This is regularly used, especially during election campaigns, which, in view of the increasing relevance of social media and the cost and time pressure on legacy media associated with the digital transformation, is not surprising: “By the nature of their quantification, social media data also give journalists a near-instantaneous metric by which to measure political winners and losers, meeting news values like timeliness and conflict, while working in favor of horserace-style coverage” (McGregor, 2019, p. 1074).

At the same time, however, the inclusion of easily obtained online data in journalistic reporting also comes with some problems. Fundamentally, under the conditions of an accelerated hybrid media system, there is often a lack of time for careful research and verification of news that attracts attention on social media. In addition, journalists often do not have the ability to analyze and evaluate aggregated online data (Toff, 2019). Consequently, for example, undifferentiated generalizations are often found in reporting. This is the case, when certain trends are associated with statements about the “internet users” or the “Twitter community” as such (Beckers & Harder, 2016), or metaphors like “wave of outrage” or “Twitter storm” are used, which create the impression of a uniform public opinion in social media and tend to dramatize and amplify the perceived intensity of the observable trend. In connection with this, there is usually a lack of contextualization of the online trends reported on, for example, regarding the size and composition of those trends (Fürst, 2023).

This goes hand in hand with the risk that journalistic reporting on online trends will give a voice to “loud minorities” and hence fail to fulfil journalism’s own claim of a balanced and neutral representation of public opinion. Online trends often do not come about “naturally” but through the strategic activities of professional or hyperactive political actors (Martini et al., 2021; Papakyriakopoulos et al., 2020). It is not only established political players who try to influence political communication on social media platforms. Activists across the political spectrum also rely on strategic and coordinated action to make their concerns publicly visible and heard. For example, hashtag activism involves the strategic development and distribution of hashtags (Meraz, 2024; Yang, 2016), whereby activities such as “clicktivism” and “metavoicing,” i.e., sharing and commenting on messages, are used for amplification (George & Leidner, 2019).

While it is an expression of active citizenship—and thus the legitimate right of citizens—to draw attention to their issues and opinions, it becomes problematic when such activities are deliberately employed not merely to influence the formation of public opinion, but to manipulate it. This particularly takes place when civic engagement is simply simulated, as is the case with: (a) astroturfing (Keller et al., 2020; Kovic et al., 2018); (b) individual users who are disproportionately active (Matuszewski & Szabó, 2024; Papakyriakopoulos et al., 2020); (c) bots that are deployed to mimic human activities (Chadwick, 2017, pp. 275–279; Gehl & Bakardjieva, 2017; Hagen et al., 2022; Keller & Klinger, 2019); or (d) paid disinformation workers on troll farms who create and operate fake profiles (Ayeb & Bonini, 2024; McCombie et al., 2020).

Such activities can be commissioned or carried out by individual actors operating independently or within the context of orchestrated campaigns. In addition, such manipulative attempts can be carried out manually, automatically, or in a hybrid manner. But what all of these activities have in common is that they show “inauthentic behavior” (de-Lima-Santos & Ceron, 2023) and, in this sense, aim at amplifying certain topics and opinions artificially. Strategies of artificial amplification that have been identified in the literature include the dissemination of particular content, e.g., via (co-)retweet (Keller et al., 2020; Muhle, 2020), targeting

popular users through mentions and replies (Shao et al., 2018), or misdirecting users to unrelated content (Khaund et al., 2022).

Such activities can be characterized as *artificial amplification* (Colombo & De Gaetano, 2020; Lin et al., 2025) because they aim at exerting influence on online trends whose visibility is artificially increased (Papakyriakopoulos et al., 2020)—not least to address the journalistic news factor “public response” in this way (Fürst, 2021; Fürst & Oehmer, 2018; Muhle, 2022). The battle for attention and opinion formation is therefore taking on new forms in the hybrid media system, which is also changing the role of journalism. Not only are public activities and opinions on social media becoming visible in unprecedented ways, making them attractive to journalists, but their visibility has also become a contested commodity in struggles over attention and opinion leadership. In this context, political actors utilize the attention and selection logic of journalism to draw attention to certain topics and opinions even beyond platform publics in the hope that the legacy media will respond to this and make artificially amplified social media trends visible across the general public.

The work of Fürst and Oehmer (2018) and Fürst (2021) shows that corresponding strategies can be successful. Using the 2016 US presidential election campaign as an example, the authors show that hashtags promoted by automated accounts on Twitter actually made it into news media coverage and thus contributed to the creation of a distorted image of public opinion, at least temporarily. As the following case study on the 2021 German parliamentary election campaign shows, this is not an isolated case. Highly active and (partially) automated accounts also play a significant role in the German-speaking Twittersphere and can contribute to the emergence and spread of trends and thus draw the attention of journalists to corresponding trends.

3. #LaschetLacht: A Case Study on Artificial Amplification

The case study revolves around a faux pas of the conservative candidate for chancellor, Armin Laschet, during the German federal election campaign in 2021. The incident, which later became the “defining moment” of the election campaign, happened in July 2021, while regions of Germany were hit by severe flooding that claimed many lives and caused extensive damage. On July 17, Armin Laschet, who was not only a candidate for chancellor but also Minister President of North Rhine-Westphalia, a federal state that was particularly affected by the floods, together with Frank-Walter Steinmeier, the Federal President of Germany, visited an area that had been hit particularly hard by the flooding. The two politicians—Laschet officially in his capacity as Minister President—wanted to get a sense of the situation on the ground and express their solidarity for those affected. This included pre-announced public statements from the two politicians. After talking to residents and aid workers, they appeared one after the other in front of the press to make their statements. In this situation, Laschet could be seen joking and laughing in the background with other people standing next to him, while Federal President Steinmeier expressed his empathy and condolences to those affected by the flood in front of the media microphones and cameras.

The Federal President’s statement with Laschet’s laughter in the background (and later Laschet’s own statement) was broadcast live on social media channels of different legacy media. Later, the news media additionally reported on the politicians’ visit to the flood area and their press statements in their programs and news portals. Initially, in the coverage, the laughter went unnoticed or at least it remained insignificant

(see Section 5.1). However, social media users, who watched livestreams of the statements, recognized Laschet's laughter, and some of them started commenting on it online. Thus, Laschet and his companions unintentionally became part of the situation in which the Federal President was speaking. The laughter then became the subject of public outrage because it created the impression of disrespectful behavior—unbecoming of a representative aspiring to a position as chancellor.

Over the course of the afternoon, an increasing number of posts—particularly on Twitter—began to criticize Laschet's behavior, with the hashtag #LaschetLacht gaining significant traction. By the evening, the hashtag had reached the top position among trending topics in Germany (see Section 5.2). As a result, the outrage was picked up by political rivals, and the legacy media began reporting on the laughter and outrage on social media that same evening. Laschet apologized later that day but could not prevent the faux pas from damaging his public image. From that point on, he and his party's poll ratings dropped significantly, while the Social Democratic Party (SPD), which had been lagging until then, caught up and ultimately won the most votes in the election (Klein et al., 2022, p. 29; Oppelland, 2023, p. 117).

The case exemplifies how attention dynamics between social media and legacy media develop and how topics that initially emerge in scattered online publics can reach the general public. At the same time, it shows how the attention logics in the hybrid system are exploited by strategic actors to artificially fuel topics and increase their visibility. To demonstrate this, the following section will first explain the methodical approach of the case study (Section 4). Building on this, Section 5.1 shows how the legacy media reported on the politician's visit to the flood area and how they later changed their coverage. After this, the analysis focuses on how the trending hashtag emerged and which strategies and actors were important in this context (Section 5.2).

4. Methods

The case study is based on two different data sets: news articles, on the other hand, and Twitter messages using the hashtag #LaschetLacht, on the other. How these data sets were collected and analyzed will be explained in more detail in this section.

4.1. Analysis of News Coverage

The analysis of the news coverage aims at investigating the responsiveness of traditional media to the hashtag trend. It is based on a quantitative content analysis of German-speaking news articles that were published in online news portals and dealt with the politicians' visit to the flood area on July 17th. The articles were collected using the Media Cloud database. The query referred to all German media available on Media Cloud (Germany state and local) and to the period from July 17th (visit to the flood area) to September 26th (federal election). This period was chosen to examine the duration and manner in which the media referred to the laughter incident or the related Twitter phenomena. To narrow down the results to relevant articles, keywords were developed through an iterative process of searching and reading articles (see the Supplementary File). In total, a list of 2,136 URLs of news reports was gathered. After processing the data (e.g., deleting duplicates and articles that were no longer available), 865 articles of 137 news outlets were examined. Most of the articles are news, but they also include a few opinion pieces, reports, and (very few) interviews. The news outlets under study are online portals of major national newspapers (e.g., *Zeit*, *FAZ*, *Bild*, *Sueddeutsche*, *taz*), national news magazines (e.g., *Spiegel*, *Focus*, *Stern*, *Cicero*), regional newspapers (e.g., *Rheinische Post*, *Ruhrnachrichten*,

Hamburger Abendblatt), national and regional radio and television media (e.g., ARD, ZDF, rbb, WDR), as well as digital-only sources (e.g., t-online, Yahoo, inFranken.de).

In a first step, all 865 articles were coded using the ATLAS.ti program. In addition to formal coding such as date, time, medium, and text type, the articles were coded according to whether or not they addressed the event of the politicians' visit to the flood area and whether or not they referred to the laughter of the chancellor candidate Laschet. In this way, it was possible, on the one hand, to ensure that the articles with the corresponding keywords were indeed thematically relevant. On the other hand, it allowed for the identification of when articles began to address the laughter and to what extent the faux pas started to dominate the reporting.

To analyze how the coverage of the faux pas related to public responses, in the next step, a subsample of the articles mentioning the laughter incident was coded as to whether and how the articles referred to public reactions, especially on social media. The subsample consists of all relevant articles that were published by the 15 major news outlets that achieved the greatest reach online in Germany in September 2021 and/or recorded the most visits (see list in the Supplementary File). The decision not to examine the entire sample in the second step was made for pragmatic research reasons. While the first step aimed to identify when news outlets began reporting on the incident, the second step focused on analyzing references to public resonance in general. For this purpose, a smaller sample is sufficient, which also reduces the coding effort. In sum, 154 articles were coded in the second step.

During the initial reading of the articles, codes were created for various references to public response, which were further developed inductively during the coding process. On the one hand, the codes distinguish between unspecific, general references to public reactions on Laschet's laughter (e.g., "outraged reactions"), references to reactions on social media (e.g., tweets, shares, or likes), and references to specific public reactions offline (e.g., polls, interview statements). On the other hand, the codes reflect references to individual expressions of opinion by specific persons and organizations (e.g., political parties) and those to aggregated reactions (e.g., use of a hashtag). The coding scheme can be found in the Supplementary File.

4.2. Analysis of the Twitter Trend

The analysis of the Twitter trend is based on all tweets that used the hashtag #Laschetlacht on 17 July and thus contributed to the hashtag trend. In sum, the trend involved 34,300 tweets sent by 16,027 different accounts. The tweets were collected using the Twitter API v2. Only a small proportion of the collected tweets are original tweets (a total of 4,848 tweets from around 3,500 different accounts). Retweets make up the largest share (22,268 retweets), accounting for around 65% of the total volume. In addition, 7,200 tweets (or 21%) are quotes, mentions, or replies.

Methodologically, the analysis of the tweets applies a mixed-methods approach (Creswell & Plano Clark, 2018), which combines quantitative and qualitative analyses to gain the most comprehensive insights possible into the dynamics and composition of the Twitter trend. Quantitative analyses were carried out to determine how the hashtag #LaschetLacht developed over time on 17 July and to identify central actors. For this purpose, networks were created from the collected Twitter data, and different centrality measures were applied for analysis. In particular, the indegree, the outdegree, and the diffusion degree were calculated. While indegree

basically is the number of incoming ties of a node, outdegree is the number of outgoing ties (Brass & Borgatti, 2020). In the case of the constructed Twitter networks, this means that the outdegree equals the number of activities (different types of tweets) of a single account and thus allows for the identification of highly active accounts. The indegree equals the sum of mentions, replies, or retweets an account received and normally is interpreted as an indicator for the prestige or popularity of a node (Brass & Borgatti, 2020). In the present case, the analysis of the indegree provides insights into which accounts stimulated other accounts to become active and, in this way, specifically influenced the dissemination of the hashtag. Indegree and outdegree were calculated using the *R* package *igraph*.

Diffusion degree is a more complicated measure. It measures the cumulative contribution score of a node and its neighbors. That is, the diffusion degree of a node is high when, in a diffusion process, all of its neighbors are activated after an activity of the node (Pal et al., 2014). Diffusion degree, therefore, aims to identify nodes that are central to the diffusion of an object in a network, e.g., a hashtag. Diffusion degree was calculated using the *R* package *centiserve*.

Qualitative analyses were conducted to take a closer look at when the faux pas was first discussed and which strategies for spreading the hashtag could be identified. For this, samples of the posts that were authored by or sent to the most central accounts were inspected manually to be able to categorize the communication strategies of strategic actors and their role in the Twitter trend. In this way, three important strategies of artificial amplification could be identified (See 5.2.3). To enhance the transparency of the categorization process, selected tweets are cited as illustrative examples. These tweets were translated from German into English by the authors.

5. Results

We begin the presentation of the empirical findings by first examining the development of news coverage, particularly over the course of July 17. In doing so, we demonstrate how this coverage changed and highlight the relevance of references to outrage on social media (Section 5.1). We then turn to the dynamics of the Twitter trend and show the role that artificial amplification played in this context (Section 5.2). The temporal dynamics of reporting and the trending hashtag are visualized employing the 24-hour clock to allow for an unambiguous interpretation of time-dependent patterns.

5.1. Coverage of the Politicians' Visit to the Flood Area

When was Laschet's laughter brought up and to what extent did this change the number and content of the articles? This is visualized by Figure 1 which shows the number of articles per hour on the day of the incident. The lighter area represents all articles that reported on the politician's visit and the darker area those that addressed Laschet's laughter.

As the diagram demonstrates, the first peak in coverage was reached between 14:00 and 15:00, when the journalistic media reported on the visit of the two politicians to the flood area in general and the press statements in particular, which were broadcast live at 13:30. The articles in this period focused primarily on the content of the statements. Especially, the emotionally charged sentence "Their fate tears our hearts apart!," which Steinmeier expressed in his statement, was quoted by many reports or carried in the headlines,

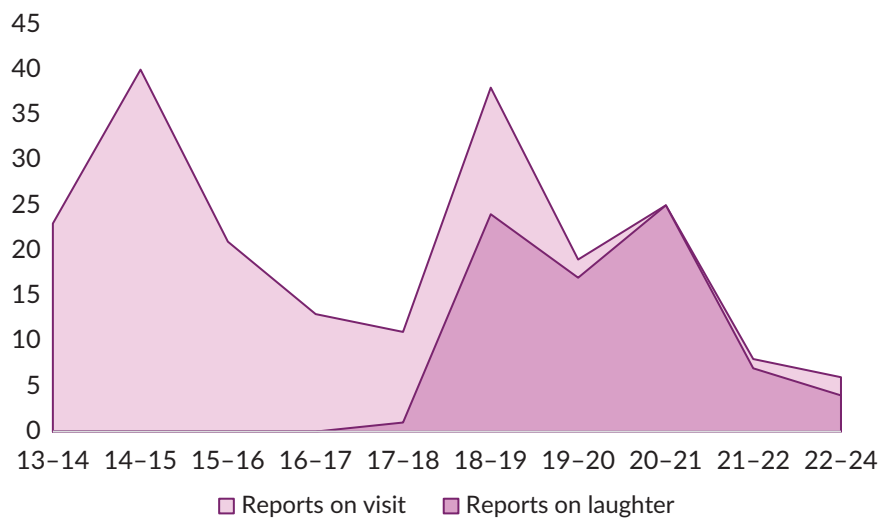


Figure 1. Number of news articles on the politicians' visit to the flood area on July 17th. Notes: Y line: number of news articles; X line: time in hourly intervals (24-hour time).

while Laschet was quoted as promising to send financial support quickly and unbureaucratically (see, for example, the headline in Figure 2a). In the first hours of reporting, not a single article referred to Laschet's laughter. The media outlets reported in a routine mode, and the news value of the visit and the accompanying statements predictably declined after the initial coverage, leading to a slowdown in reporting during the following hours (15:00–18:00).

From 18:00 on, however, the number of articles shot up again and reached a second peak in the early evening. As Figure 1 shows, this is directly related to the fact that reporting on Laschet's laughter had begun. Evidently, this aspect of the visit was deemed newsworthy several hours after the event and was picked up by numerous media outlets. According to our sample, at 17:50, the news portal *stern.de* was the first medium that reported on Laschet's laughter, using the headline "laughing Laschet in Erftstadt causes outraged reactions" ("Lachender Laschet," 2021). After that, other legacy media outlets began reporting on the incident as well. Figure 2 shows how the change in reporting took place. It shows a headline and caption (including a video of Steinmeier's statement) from *n-tv* the online platform of the news channel *n-tv* and one of the largest news portals in Germany. On the left is the afternoon report, and on the right is the evening report. The headline and caption were changed completely at around 18:00. While the headline on the left states "Laschet promises 'money very unbureaucratically,'" a few hours later, the headline says "Laschet-laughter causes outrage." Evidently, the news media became aware of the incident in the early evening of July 17, several hours after it occurred. As the results of the second step of the content analysis will show, the outrage that had emerged on Twitter in the meantime played a significant role.

For the second step of the content analysis, which focused on whether and how the news reports related to reactions on social media, articles that did not mention Laschet's laughter were excluded, as they were not relevant to it. In sum, 154 articles from 15 major news outlets were examined (see Section 4.1). Figure 3 shows the percentage of news reports that relate to social media data with a focus on the days following the incident.



Figure 2. Coverage of the visit on n-tv.de on July 17: (a) afternoon report. Source: "Mit Steinmeier in Erftstadt" (2021); (b) evening report. Source: "Besuch im Hochwasser-Gebiet" (2021).

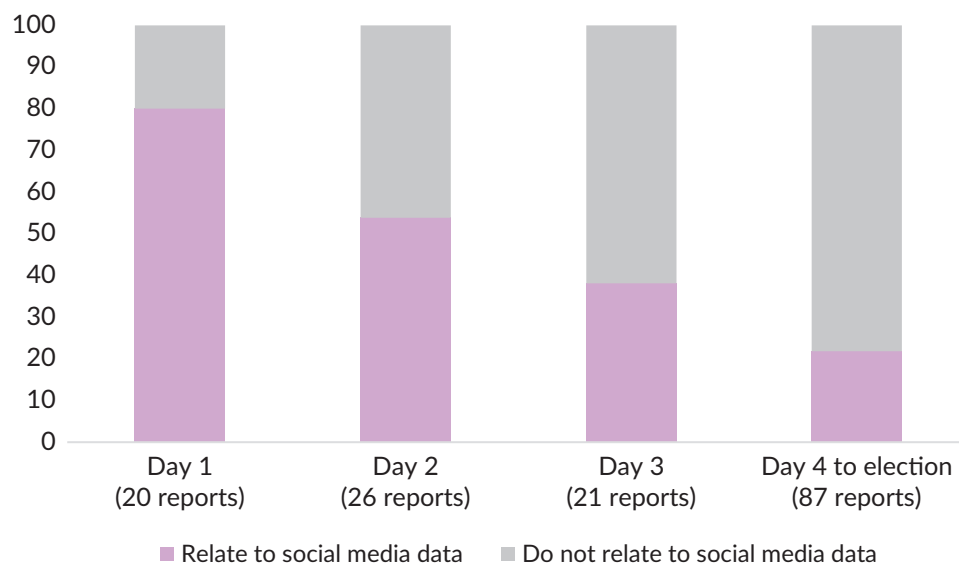


Figure 3. Share (in %) of news reports with reference to social media data related to Laschet's laughter.

As Figure 3 shows, especially at the beginning of reporting, a large proportion of the articles about the (mis)conduct of the chancellor candidate referred to social media data. On the first day, 80% (16 out of 20) of the articles, which were published by the 15 major outlets, included references to responses to Laschet's laughter on Twitter. These references served both as a hook and a means for contextualizing the reporting. Different types of references could be identified (see Figure 4), namely references to particular tweets from public actors (tweets), the hashtag trend #LaschetLacht (hashtag usage), and other aggregated activities on social media, such as multiple sharing or liking (aggregated activities).

As Figure 4 shows, tweets by well-known public figures played the most important role. On the first day, 75% of the reports referred to tweets from public elite actors in response to Laschet's laughter. In particular,

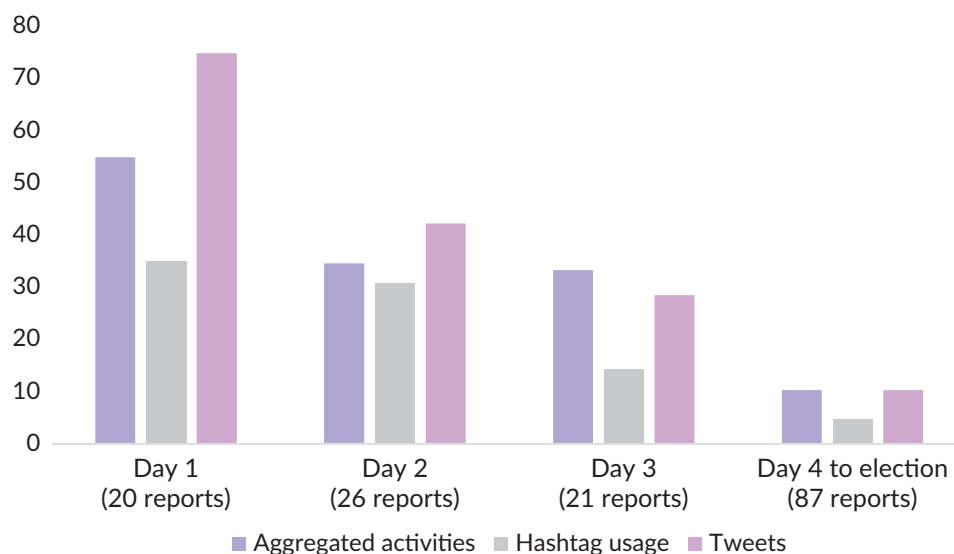


Figure 4. Share of news reports (in %) that address certain kinds of social media data related to Laschet's laughter.

tweets of two “primary definers,” namely the well-known politicians Lars Klingbeil and Kevin Kühnert from the opposing party SPD, were cited at the beginning of the coverage. Later on, tweets from many other politicians and public figures were also mentioned. One example of this is an excerpt from an article of the Funke Media Group, published on July 17, at 18:26:

The pictures had triggered clear criticism. “I am truly speechless,” wrote SPD General Secretary Lars Klingbeil on Twitter. The pianist Igor Levit spoke of “undignified behavior.” Peter Dabrock, the former chairman of the German Ethics Council, criticized the “irreverence” shown toward the victims. (“Armin Laschet lacht,” 2021)

In addition, explicit references to the hashtag #LaschetLacht also played an important role. In an article published on the morning of July 18 by *RND*, a major news network and content provider for numerous regional newspapers, the article states, for example: “There was a great deal of excitement, especially on social networks. Hashtags such as #Laschetlacht or #LaschetDarfNichtKanzlerWerden briefly dominated German Twitter trends. It's a media super-disaster” (Cleven, 2021).

Similarly, the hashtag was explicitly mentioned in about one in three reports on the first day. This manner of referring to the trending topic was accompanied by other kinds of references to aggregated activities, which were made in more than half of the posts on the first day. For instance, *Spiegel*, the largest German-language online news portal, published an article on the evening of July 17, 2021, which says that “the video of the short scene, which lasted around 20 seconds, was shared thousands of times on Twitter.” (“Lachen im Katastrophengebiet,” 2021).

The numerous references to the online outrage indicate that journalists, in fact, became aware of the incident due to the Twitter trend. In accordance with the news factor of “public response” they began reporting on it, which clearly shows the responsiveness of news media to social media activities, particularly when “hot” topics are picked up by popular actors, and in times of election campaigns (see Section 2). Within just a few hours, the

faux pas of the chancellor candidate—initially unnoticed by traditional media and only discussed in scattered publics on social networks—became widely known to the general public and evolved into a significant topic of media coverage.

Unsurprisingly, overall reporting, including references to the outrage on social media, declined again in the following days (see Figures 3 and 4). At the same time, however, the issue remained virulent. As the bar on the right side of Figure 3 shows, the laughter remained a permanent theme in the coverage of the election campaign. In the two months between the incident and election day, there were 87 reports on the topic in the major outlets which contributed to keeping the issue persistently present in the public discourse.

Articles that were published in the aftermath of the event often described the laughter incident as the candidate's biggest mistake and interpreted falling approval ratings as directly linked to this, indicating that it had become the defining moment of the election campaign. The following example from *Tagesspiegel* (August 5, 2021) demonstrates this:

Laschet was filmed laughing heartily—directly behind the head of state. It only lasted a few seconds, but the action still haunts the CDU/CSU leadership candidate. According to a Forsa survey for RTL and ntv, Laschet's poll ratings have been in free fall ever since. Although he apologized for the joke shortly afterwards, the impression of a lack of empathy and seriousness remains. On Twitter, the hashtag #Laschetlacht was trending. (Straub, 2021)

Overall, the analysis of the news coverage demonstrates how legacy media responded to the news value of the online trend and, in doing so, brought the incident to the attention of the general public, allowing it to unfold its full effect. The case thus stands as a compelling example of intermedia dynamics in the hybrid media system and demonstrates how, under certain conditions, social media activities can shape the public agenda.

5.2. The Twitter Trend and its Artificial Amplification on Twitter

How the Twitter trend came about, and which role artificial amplification played in the development and dissemination of the outrage, is the subject of the following analyses. They first show how the hashtag #LaschetLacht emerged and developed over time. Building on this, different strategies of artificial amplification and key actors who applied these strategies are identified.

5.2.1. The Emergence of the Twitter Trend

While journalistic media initially reported on the press statements in a routine mode (see Section 5.1), some viewers who followed the statements on television or on the online channels of media outlets very quickly pointed out Armin Laschet's laughter with critical intent. The hashtag #LaschetLacht was used for the first time at 13:33, almost as a live comment during the broadcast of the press statements. A common user who, according to his Twitter profile, is neither an activist nor has many followers, wrote, "Steinmeier talks Laschet laughs. Great guy" (germanni, 2021). This ironic comment was supplemented with the hashtags #laschetlacht and #ArminLaschet. Other users were also quick to point out the faux pas without using the hashtag. An example of this is a tweet published at 14:01 that stated, "There was just a press conference with President #Steinmeier in #Erftstadt: Two clowns in the background on the left. That's Armin

#Laschet...and Frank #Rock...from the #neveragainCDU” (Simon, 2021). Embedded in this post was a small video clip that the user took from the livestream of the statements on the Facebook channel of the news magazine *Spiegel*. Laschet’s laughter could be seen in this clip.

Until around 16:00, however, there were only a few tweets on the topic. Up to this point, only 16 tweets used the hashtag #LaschetLacht. But from 16:00 onwards, a recognizable trend set in, and the messages using the hashtag multiplied (see Figure 5). Consequently, after 17:00, the hashtag made it into the top 10 trending topics in Germany. From around 18:30, it took first place for the rest of the day. By making it into the trending topics, the hashtag—and the outrage it expressed—became publicly visible, enabling journalists, who monitor Twitter activity closely (see Sections 2 and 5.1), to become aware of the trend.

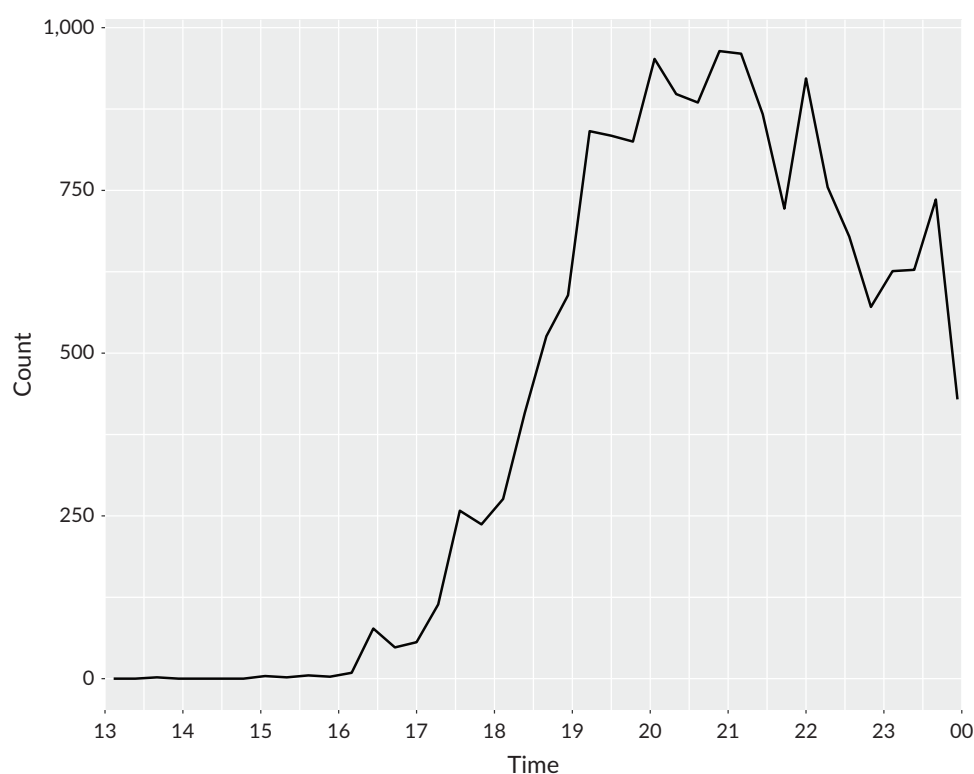


Figure 5. Dissemination of the hashtag #LaschetLacht.

But how did the hashtag gain momentum from 16:00 onwards? Of great importance here is that Twitter users began to use the hashtag strategically in the afternoon. On the one hand, popular accounts were made aware of the hashtag, including accounts from the established news media. On the other hand, the hashtag was also deliberately disseminated by hyperactive accounts, thereby amplifying the trend. Later, bot networks also appropriated the trend, hijacking the hashtag to disseminate spam and other content. In doing so, however, they also further amplified the trend.

5.2.2. Targeting Primary Definers

An important strategy to amplify the spread of the hashtag and to make the broader public aware of the incident was to address popular accounts, which can be seen as potential primary definers and therefore as multipliers that may be able to influence journalists’ coverage (see Section 1). Popular accounts within the

Twittersphere played a particularly important role here. Politicians such as Ruprecht Polenz, a conservative politician who campaigns for more climate protection and criticizes his own party's policies in this regard, and Lars Klingbeil, the then secretary general of the SPD, were addressed particularly frequently to draw their attention to the faux pas and encourage them to make their own critical contributions. As Section 5.1 shows, in the case of Lars Klingbeil, legacy media in fact picked up on a tweet that was authored by him.

In addition, an account with the handle @watch_union was addressed en masse. This is a watchdog account that is critical of Armin Laschet's party and has many followers (over 56,700 followers in July 2021). At 15:38, this account was asked by another Twitter user to disseminate the hashtag #LaschetLacht. The tweet from this user explicitly addressed @watch_union, using the @ operator, and stated "After #LaschetLügt [#LaschetLies] and #LaschetKneift [#LaschetChickensOut], it's time for a new hashtag...#LaschetLacht" (Christine, 2021).

As demonstrated by a subsequent tweet published by @watch_union 30 minutes later, this aim was achieved. This tweet, in fact, included the hashtag, while stating, "#Laschet is mucking around while #Steinmeier expresses his #empathy. The man is unbearable on so many levels and his character alone makes him unsuitable to hold political office" (UnionWatch, 2021). Later, this tweet became one of the most shared tweets of the day, being retweeted 528 times. Moreover, the account @watch_union became one of the most central accounts within the Twitter trend. It ranks eighth among the accounts with the highest diffusion degree scores (see Table 1). In terms of its indegree, it ranks third. In numbers, this means that other accounts referred to it 869 times, which mainly happened through retweets, and hence contributed significantly to the dissemination of the hashtag.

Not only did users address accounts that are important within the Twittersphere, but they also strategically addressed accounts that belong to legacy media. Particularly, the accounts of the news programs *ZDF heute* and *WDR Aktuell* were targeted very often. *WDR Aktuell* is even the most addressed account within the whole hashtag trend, which means that in terms of indegree it ranks first. *WDR Aktuell* is a regional program of a public broadcaster, which was central to reporting from the areas affected by the floods. An exemplary tweet, addressed at *WDR Aktuell*, reads as follows: "Hello #wdr: Have a look at #laschetslacht. Should be worth new (critical) reporting on Mr MP #Laschet!" (Wetterau, 2021, no longer available). This example clearly shows how social media users explicitly aimed to get the news program to report on the faux pas—and thus spread the outrage.

In fact, in the evening, the Twitter accounts of both news programs published tweets that addressed the faux pas and hence further fueled the trend. @WDRAktuell even got actively involved in the debate on Twitter and published several posts on the topic. One post, which was published at 18:59, even became the most retweeted message within the Twitter trend. It reads:

NRW Minister President @ArminLaschet has expressed his sorrow at the suffering caused by the flood disaster in #Erftstadt. While Federal President Steinmeier remembers those who have lost so much, Laschet can be seen joking in the background. This caused outrage. #LaschetLacht. (WDR aktuell, 2021, no longer available)

This tweet was shared 971 times on the evening of 17 July and thus significantly contributed to the fact that @WDRAktuell became a central node in the Twitter trend. As mentioned, in terms of indegree, it ranks

first, and in terms of diffusion degree, it ranks sixth (see Table 1). This not only demonstrates the success of the strategy of targeting popular accounts as potential multipliers, but it also shows how the established media, mediated through their own social media channels, were themselves becoming significant actors in the spread of the hashtag and the associated public outrage. What is important here is not only that they themselves became active with their own posts, but also that these in turn were disseminated en masse by other accounts, which practiced “metavoicing” (see Section 2) and in doing so significantly amplified the trend and its visibility. As the further analysis reveals, hyperactive accounts played an important role in practicing this strategy.

Table 1. Accounts with the highest diffusion degree, including their activity count.

Username	Activity Count
Soulfly_Germany	934
Krisloer	126
gjfortunas1966	120
KaRi57453570	110
OrangeUtane	67
WDRaktuell	5
KatzastrophienK	96
watch_union	10
peanut60418183	53
Crypto_Schurke	44

5.2.3. Amplification Strategies of High-Active Accounts

A total of 16,027 accounts were involved in spreading the hashtag #LaschetLacht on 17 July, sending a total of 34,300 tweets (see Section 4.2). This means that, on average, each account posted around two tweets. A look at the distribution of activities, however, shows that they were extremely unevenly distributed. While most accounts (approximately 85%) actually sent one to three tweets (of which the vast majority only sent one tweet), there are also a few extremely active accounts. A total of 85 accounts authored between 21 and 50 tweets, while 17 accounts sent more than 50 tweets. Five of these accounts were even active more than 100 times. The most active account authored 934 messages. It alone is responsible for almost 3% of activity.

The sheer activity of the accounts contributed significantly to the spread of the hashtag. The top 10 accounts with the highest diffusion degree values in the data set include seven accounts that were active 50 times or more. The first five places were occupied by corresponding accounts, followed by the @WDRaktuell account. In eighth place was the handle @watch_union, as described above. In 10th place was an account that was active 44 times (see Table 1).

If one takes a closer look at the posts of the highly active accounts, various strategies for pushing the hashtag can be identified, which, according to the literature, are typical for artificial amplification activities (see Section 2). The strategy of targeting popular accounts (see Section 5.2.2) can also be found here. This strategy was applied, for example, by the most active account in the data set, which posted identical content every few seconds and addressed it to different (popular) accounts. Table 2 shows six tweets from this

account, which were published in less than a minute. These tweets share the same content but were addressed at different accounts—most of them popular ones, including @watch_union and @larsklingbeil.

Table 2. Example tweets of the most active account.

Tweet Content	Time	Source
@ErwinLindeman20 @PaulZiemiak @ulfposh #LaschetLacht	18:34:56	Soulfly_Germany (2021a, no longer available)
@Christian_E_ER #LaschetLacht	18:35:05	Soulfly_Germany (2021b, no longer available)
@DaCo0609 @larsklingbeil #LaschetLacht	18:35:11	Soulfly_Germany (2021c, no longer available)
@xbutzemann64 @fridays_freedom @GerdLorsch #LaschetLacht	18:35:15	Soulfly_Germany (2021d, no longer available)
@wernerkeil @faust_birgit @MMittermeier @ArminLaschet #LaschetLacht	18:35:18	Soulfly_Germany (2021e, no longer available)
@matze2001 @watch_union #LaschetLacht	18:35:24	Soulfly_Germany (2021f, no longer available)

Highly active accounts also employed “hashtag bombing” (Woolley, 2020, p. 100) as an amplification strategy. Here, the hashtag is simply used en masse. This can also be seen in the posts shown in Table 2, as only the hashtag appears as content in the messages sent to other accounts. Addressing popular accounts and hashtag bombing are therefore combined here.

However, the dissemination of the hashtag via retweets is also a significant strategy that can be found in the data set. Tweets containing the hashtag were often retweeted by highly active accounts. The content of the retweeted posts was not always consistent, which suggests an automated form of dissemination. Examples of this are retweets from one of the most active accounts, which can be seen in Table 3. These are seven retweets that were sent within a period of one and a half minutes. Of these, however, only four retweets were explicitly critical. Three retweets, which were used to disseminate messages from the @WDRAktuell Twitter account, were more balanced. One of these posts (retweet 5) even contained an explicit defense of the chancellor candidate’s behavior. Irrespective of this, however, the hashtag was further amplified with each retweet.

Finally, another notable form of strategic amplification by highly active accounts that could be found in the data is “hashtag hijacking.” This strategy involves jumping on a trend to spread other content that has nothing to do with the trend (Mousavi & Ouyang, 2021). In other words, strategic players enter the trend dynamic to use the attention for the topic to place other content. At the same time, however, this pushes the hashtag used even further. In the case of #LaschetLacht, according to the analysis of a random sample of 200 tweets, this applies to about 10% of tweets. In some cases, spambots were simply active under the hashtag. However, most of the hijacking activity came from a botnet that fired messages in various languages advertising an imam who claims to be the “Mahdi” and thus a descendant of Muhammad who will redeem humanity from injustice in the world (see Figure 6). The bots belonging to this network were among the most active accounts in the entire data set. Some accounts sent original tweets, while other accounts disseminated them via retweets.

Table 3. Exemplary retweets of a highly active account.

Tweet Content	Time	Source
RT @JRehborn: In a just world, that would have been it for Laschet. #LaschetLacht	23:04:39	Krisloer (2021a, no longer available)
RT @watch_union: #Laschet is mucking around while #Steinmeier expresses his #empathy. The man is unbearable on so many levels and his character alone makes him unsuitable to hold political office #Hochwasser #LaschetLacht	23:04:44	Krisloer (2021b, no longer available)
RT @WDRaktuell: NRW Prime Minister @ArminLaschet has expressed his sorrow at the suffering caused by the flood disaster in #Erftstadt. While Federal President Steinmeier remembers those who have lost so much, Laschet can be seen joking in the background. This caused outrage. #LaschetLacht	23:05:37	Krisloer (2021c, no longer available)
RT @WDRaktuell: Many users rate #LaschetLacht as "irreverent" or "embarrassing." Among the critics is SPD Secretary General @LarsKlingbeil: "I am speechless." Several users question Laschet's suitability as a candidate for chancellor.	23:05:44	Krisloer (2021d, no longer available)
RT @WDRaktuell: @larsklingbeil But not everyone is criticising #LaschetLacht. BR journalist @BSchmeitzner, for example, tweeted: "Let he who has never reacted weird in an exceptional situation cast the first stone. Let's talk and argue about content, please."	23:05:51	Krisloer (2021e, no longer available)
RT @WDRaktuell: @larsklingbeil @BSchmeitzner NRW Minister President Laschet has now responded: He said he regrets the impression created by a dialogue situation. "This was inappropriate and I am sorry." #LaschetLacht	23:05:58	Krisloer (2021f, no longer available)
RT @TomGoesGreen: @WDRaktuell @ArminLaschet So, let's imagine #Laschet visiting #Israel's Holocaust memorial #YadVashem before..... #Laschetlacht #LaschetDarfNichtKanzlerWerden #LaschetVerhindern #Hochwasser https://t.co/KrVZXJ3Y0S	23:06:04	Krisloer (2021g, no longer available)

فهل تحدّي كافة أطباء البشر أم تحدّي المهدي المنتظر
 ..عبد الله وخليفته الإمام المهدي ناصر محمد اليماني؟
 الإمام ناصر محمد اليماني
 رمضان - 1441 هـ - 26
 19 - 05 - 2020 م
 مساءً 06:37
<https://t.co/k1eNV5XUew>
 5
 #CoronaundKlimakrieg
 #Laschetlacht
 QILvft

Figure 6. Spam tweet from a bot account. Source: Ibrāhīm ibn Ishāq (2021, no longer available).

In sum, the analysis reveals that artificial amplification strategies played an important role in the emergence and development of the Twitter trend. Not only did users strategically establish and disseminate the hashtag to popular actors, but hyperactive accounts also played a central role in amplifying it, thereby promoting the

trending topic. For the journalistic observers who monitored the Twitter activities, however, these strategic activities remained hidden. On their screens, they could simply see that the hashtag #LaschetLacht was trending without the composition of the trend being recognizable. In line with journalistic news values (see Section 2) and in combination with popular actors and political opponents who also commented on Laschet's faux pas online, this gave rise to reporting (see Section 3.2). The coverage brought the trend to the attention of the general public and, ultimately, turned journalism into a vicarious agent of strategic actors who deliberately fueled and amplified the trending topic.

6. Conclusion

The present article adds a case study to existing research on intermedia agenda setting and artificial amplification on social media. In line with the first strand of research, it shows how personal publics in social media and the general public sphere, which continues to be created by the legacy media, are deeply interwoven. On the one hand, media organizations and their editorial teams are themselves active on social media with their own accounts. These are used to disseminate content but also to be addressable to the audience on social media. On the other hand, newsroom staff observe what is happening on social media—always seeking topics that seem newsworthy. Journalists follow the accounts of elite actors in the Twittersphere but they are also interested in trends that are treated as indicators of public response (Fürst & Oehmer, 2021) and public opinion (McGregor, 2019), and are therefore considered newsworthy.

As the empirical findings show, media coverage can shift within a very short period of time, which serves as further evidence of the increasing speed and responsiveness of information flows in the hybrid media system (see Section 5.1). This is precisely what strategic players in social media are aware of. They try to exploit the attention and selection logic of journalism, as well as the time pressure under which newsrooms operate, to set and amplify trends and draw the attention of journalistic media to them. Through high activity, the use of bots, and strategic messaging, social media actors can succeed in drawing the attention of the legacy media (see Section 5.2) and thereby reach and influence a broader public. In research on artificial amplification, this aspect has so far received little attention. While much of the existing research focuses on specific online platforms, the findings of the present study highlight the importance of a broader perspective—one that also considers attention dynamics across different platforms and media spaces.

For the journalistic representation of public opinion, the empirical findings indicate that it no longer fulfils its own claim to balance and neutrality if journalists unquestioningly present artificially amplified online trends as public opinion. Instead, journalists unintentionally contribute to a distorted image of public opinion when they pick up manipulated online trends. On the one hand, this shows the importance of considering a stricter regulation of communication flows in social media to make the described amplification of online trends more difficult. In this sense, social media platforms should no longer be treated as “intermediaries ‘without responsibility’” (Habermas, 2022, p. 159). On the other hand, journalists must increase their sensitivity to the problem of artificial amplification of online trends and develop a professional distance from them (Fürst, 2021). A first important step in this direction would be to view observable online trends not as “matters of fact” and thus as a given, but rather as “matters of concern” that need to be scrutinized more closely. This could be an important task not only for scientists but also for (data) journalists and fact checkers that have evolved as new journalistic roles in the hybrid media system (Cazzamatta, 2025; Hermida & Young, 2017).

However, existing research on artificial amplification and the journalistic skills in dealing with (manipulated) online trends has its limitations. The same holds true for the present article. While most research on intermedia agenda setting is designed as a longitudinal analysis, this study focused on a very short time frame and hence is very limited in this regard. In addition, the selected case is highly specific: it occurred during an election campaign, in the context of a natural disaster, and involved a candidate whose performance was already controversial—even within his own party. These factors likely contributed significantly to the observed dynamics and, as such, the findings cannot be broadly generalized. Moreover, the analysis of the observed intermedia dynamics remains open to further sophistication. For instance, it would be worth examining the role played by social media accounts of legacy media more closely in the spread of the online trend, and at what point they actively became part of it. Additionally, further research could explore when elite actors on social media began engaging with the topic and what strategies they employed to push it forward and position themselves as primary definers. Finally, a more comprehensive analysis could examine whether and how the media coverage of the conservative chancellor candidate in general changed following the faux pas. Such in-depth analyses could offer a much more nuanced picture of the communication dynamics in the hybrid media system.

Acknowledgments

The authors would like to thank three anonymous reviewers, Elena Esposito, Silke Fürst, and Colin Porlezza for their valuable suggestions that improved earlier versions of this article.

Funding

The research underlying this article was conducted as part of the project Bots Building Bridges, which is funded by the Volkswagen Foundation within the framework of the program AI and the Society of the Future. This open-access publication was supported by the Open Access Publication Fund of Zeppelin University.

Conflict of Interests

The authors declare no conflict of interests. In this article, editorial decisions were undertaken by Silke Fürst (University of Zurich) and Colin Porlezza (Università della Svizzera italiana).

Data Availability

The data underlying the empirical analyses presented in this article are available from the authors upon reasonable request.

LLMs Disclosure

Microsoft Copilot was used for translating parts of the manuscript from German into English. The translations were thoroughly checked, modified, and refined by the authors.

Supplementary Material

Supplementary material for this article is available online in the format provided by the author (unedited).

References

- Abdi-Herrle, S. (2018). *Mediale Themensetzung in Zeiten von Web 2.0: Wer beeinflusst wen? Das Agenda-Setting-Verhältnis zwischen Twitter und Online-Leitmedien*. Nomos Verlagsgesellschaft. <https://doi.org/10.5771/9783845295909>

- Anstead, N., & Chadwick, A. (2018). A primary definer online: The construction and propagation of a think tank's authority on social media. *Media, Culture & Society*, 40(2), 246–266. <https://doi.org/10.1177/0163443717707341>
- Armin Laschet lacht in Video—CDU-Chef entschuldigt sich. (2021, July 17). WAZ. <https://www.waz.de/politik/article232816889/armin-laschet-lachen-video-entschuldigung.html>
- Ayeb, M., & Bonini, T. (2024). "It was very hard for me to keep doing that job": Understanding troll farm's working in the arab world. *Social Media + Society*, 10(1). <https://doi.org/10.1177/20563051231224713>
- Beckers, K., & Harder, R. A. (2016). "Twitter just exploded": Social media as alternative vox pop. *Digital Journalism*, 4(7), 910–920. <https://doi.org/10.1080/21670811.2016.1161493>
- Besuch im Hochwasser-Gebiet: Laschet-Lachen sorgt für Empörung. (2021, July 17). N-TV. <https://www.n-tv.de/politik/Laschet-Lachen-sorgt-fuer-Empoerung-article22688641.html>
- Brass, D. J., & Borgatti, S. P. (2020). Centrality: Concepts and measures. In D. J. Brass & S. P. Borgatti (Eds.), *Social networks at work* (pp. 9–22). Routledge.
- Brosius, H.-B. (2022). Is communication via the internet public communication? In B. Krämer & P. Müller (Eds.), *Questions of communicative change and continuity* (pp. 53–66). Nomos Verlagsgesellschaft.
- Cazzamatta, R. (2025). Fact-checkers as new journalistic mediators: News agencies' verification units and platform dynamics. *Media and Communication*, 13, Article 9867. <https://doi.org/10.17645/mac.9867>
- Chadwick, A. (2017). *The hybrid media system: Politics and power* (2nd ed.). Oxford University Press. <https://doi.org/10.1093/oso/9780190696726.001.0001>
- Christine. [@CB77Berlin]. (2021, July 17). Nach #LaschetLuegt und #LaschetKneift wird es Zeit für einen neuen Hashtag... #LaschetLacht Bitte. Danke. [Post]. X. <https://x.com/i/web/status/1416391897002782721>
- Cleven, T. (2021, July 18). Laschet lacht: Zur falschen Zeit, am falschen Ort. RND. <https://www.rnd.de/politik/laschet-lacht-in-hochwassergebiet-ein-kanzlerkandidat-zur-falschen-zeit-am-falschen-ort-ZBDZ5A3MLVFAZIHXYNYN765QGYQ.html>
- Colombo, G., & De Gaetano, C. (2020). Dutch political Instagram: Junk news, follower ecologies and artificial amplification. In R. Rogers, S. Niederer, G. Torres, M. Groen, C. De Gaetano, G. Colombo, S. Hagen, E. Jokubauskaitė, M. Tuters, & S. Peeters (Eds.), *The politics of social media manipulation* (pp. 147–168). Amsterdam University Press. https://doi.org/10.5117/9789463724838_ch05
- Conway, B. A., Tsetsi, E., Kenski, K., & Shmargad, Y. (2023). Tipping the twitter vs. news media scale? Conducting a third assessment of intermedia agenda-setting effects during the presidential nomination season. In J. C. Baumgartner & B. I. Newman (Eds.), *Political marketing and the election of 2020* (pp. 49–60). Routledge. <https://doi.org/10.4324/9781003367482-5>
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3rd ed.). Sage.
- de-Lima-Santos, M., & Ceron, W. (2023). Coordinated amplification, coordinated inauthentic behavior, orchestrated campaigns. In T. E. Filibeli & M. Ö. Özbek (Eds.), *Mapping lies in the global media sphere* (1st ed., pp. 165–184). Routledge. <https://doi.org/10.4324/9781003403203-14>
- Dubois, E., Gruzd, A., & Jacobson, J. (2020). Journalists' use of social media to infer public opinion: The citizens' perspective. *Social Science Computer Review*, 38(1), 57–74. <https://doi.org/10.1177/0894439318791527>
- Duguay, S. (2018). Social media's breaking news: The logic of automation in Facebook trending topics and Twitter moments. *Media International Australia*, 166(1), 20–33. <https://doi.org/10.1177/1329878X17737407>
- Enli, G. (2017). Twitter as arena for the authentic outsider: Exploring the social media campaigns of Trump and Clinton in the 2016 US presidential election. *European Journal of Communication*, 32(1), 50–61. <https://doi.org/10.1177/0267323116682802>

- Fischer, R., & Jarren, O. (2024). The platformization of the public sphere and its challenge to democracy. *Philosophy & Social Criticism*, 50(1), 200–215. <https://doi.org/10.1177/01914537231203535>
- Fürst, S. (2021). Neue Öffentlichkeitsdynamiken: Zu selbstverstärkenden, plattformübergreifenden Effekten von ‚Popularität.‘ In M. Eisenegger, M. Prinzing, P. Ettinger, & R. Blum (Eds.), *Digitaler Strukturwandel der Öffentlichkeit* (pp. 339–359). Springer. https://doi.org/10.1007/978-3-658-32133-8_19
- Fürst, S. (2023). Blockbuster, Quotenhits, Shitstorms und virale Botschaften. In F. Muhle, T. Sutter, & J. Wehner (Eds.), *Das sichtbare Publikum? Publikumsbeziehungen der Massenmedien im digitalen Wandel* (pp. 193–219). Springer. https://doi.org/10.1007/978-3-658-41172-5_8
- Fürst, S., & Oehmer, F. (2018). „Twitter-Armies“, „Earned Media“ und „Big Crowds“ im US-Wahlkampf 2016: Zur wachsenden Bedeutung des Nachrichtenfaktors Öffentlichkeitsresonanz. In M. Oswald & M. Johann (Eds.), *Strategische Politische Kommunikation im digitalen Wandel* (pp. 35–61). Springer. https://doi.org/10.1007/978-3-658-20860-8_3
- Fürst, S., & Oehmer, F. (2021). Attention for attention hotspots: Exploring the newsworthiness of public response in the metric society. *Journalism Studies*, 22(6), 799–819. <https://doi.org/10.1080/1461670X.2021.1889396>
- Gehl, R. W., & Bakardjieva, M. (2017). Socialbots and their friends. In R. W. Gehl & M. Bakardjieva (Eds.), *Socialbots and their friends: Digital media and the automation of sociality* (pp. 1–16). Routledge.
- George, J. J., & Leidner, D. E. (2019). From clicktivism to hacktivism: Understanding digital activism. *Information and Organization*, 29(3), Article 100249. <https://doi.org/10.1016/j.infoandorg.2019.04.001>
- Gerhards, J., & Neidhardt, F. (1991). Strukturen und Funktionen moderner Öffentlichkeit. Fragestellungen und Ansätze. In S. Müller-Doohm & K. Neumann-Braun (Eds.), *Studien zur Soziologie und Politikwissenschaft. Öffentlichkeit, Kultur, Massenkommunikation: Beiträge zur Medien–und Kommunikationssoziologie* (pp. 31–90). Bibliotheks–und Informationssystem der Universität Oldenburg.
- Germanni. [@Germanni3]. (2021, July 17). Steinmeier redet Laschet lacht. Toller Typ. #laschetlacht. #ArminLaschet [Post]. X. <https://x.com/Germanni3/status/1416360455833014273>
- Habermas, J. (2021). *Strukturwandel der Öffentlichkeit: Untersuchungen zu einer Kategorie der bürgerlichen Gesellschaft* (17th ed.). Suhrkamp.
- Habermas, J. (2022). Reflections and hypotheses on a further structural transformation of the political public sphere. *Theory, Culture & Society*, 39(4), 145–171. <https://doi.org/10.1177/02632764221112341>
- Hagen, L., Neely, S., Keller, T. E., Scharf, R., & Vasquez, F. E. (2022). Rise of the machines? Examining the influence of social bots on a political discussion network. *Social Science Computer Review*, 40(2), 264–287. <https://doi.org/10.1177/0894439320908190>
- Hardy, B. W. (2019). Public opinion and journalism. In M. Powers (Ed.), *Oxford research encyclopedia of communication*. Oxford University Press. <https://doi.org/10.1093/acrefore/9780190228613.013.865>
- Hermida, A., & Young, M. L. (2017). Finding the data unicorn. *Digital Journalism*, 5(2), 159–176. <https://doi.org/10.1080/21670811.2016.1162663>
- Howard, P. N., Woolley, S., & Calo, R. (2018). Algorithms, bots, and political communication in the US 2016 election: The challenge of automated political communication for election law and administration. *Journal of Information Technology & Politics*, 15(2), 81–93. <https://doi.org/10.1080/19331681.2018.1448735>
- Ibrāhīm ibn Ishāq. [@abraham_fec]. (2021, July 17). Fa-hal taḥaddī kāffat aṭibbā’ al-bashar am taḥaddī al-mahdī al-muntaẓar ‘Abd Allāh wa-khalīfatuhū al-imām al-mahdī Nāṣir Muḥammad al-Yamānī? [Post]. X. https://x.com/abraham_fec/status/1416475467754920000
- Keller, F. B., Schoch, D., Stier, S., & Yang, J. (2020). Political astroturfing on Twitter: How to coordinate a disinformation campaign. *Political Communication*, 37(2), 256–280. <https://doi.org/10.1080/10584609.2019.1661888>

- Keller, T. R., & Klinger, U. (2019). Social bots in election campaigns: Theoretical, empirical, and methodological implications. *Political Communication*, 36(1), 171–189. <https://doi.org/10.1080/10584609.2018.1526238>
- Khaund, T., Kirdemir, B., Agarwal, N., Liu, H., & Morstatter, F. (2022). Social bots and their coordination during online campaigns: A Survey. *IEEE Transactions on Computational Social Systems*, 9(2), 530–545. <https://doi.org/10.1109/TCSS.2021.3103515>
- Klein, M., Springer, F., & Kühling, C. (2022). „Last man standing“: Zur Bedeutung der Kanzlerkandidatin und -kandidaten für das Wahlergebnis der Bundestagswahl 2021. *Zeitschrift für Parlamentsfragen*, 53(1), 17–38. <https://doi.org/10.5771/0340-1758-2022-1-17>
- Kovic, M., Rauchfleisch, A., Sele, M., & Caspar, C. (2018). Digital astroturfing in politics: Definition, typology, and countermeasures. *Studies in Communication Sciences*, 18(1), 69–85. <https://doi.org/10.24434/j.scoms.2018.01.005>
- Kreiss, D., Lawrence, R. G., & McGregor, S. C. (2018). In their own words: Political practitioner accounts of candidates, audiences, affordances, genres, and timing in strategic social media use. *Political Communication*, 35(1), 8–31. <https://doi.org/10.1080/10584609.2017.1334727>
- Krisloer. [@Krisloer]. (2021a, July 17). In einer gerechten Welt wär's das für Laschet jetzt gewesen. #LaschetLacht [Repost]. X. <https://x.com/Krisloer/status/1416534340792640000>
- Krisloer. [@Krisloer]. (2021b, July 17). #Laschet feixt sich einen während #Steinmeier seine #Empathie ausdrückt. Der Mann ist auf so vielen Ebenen unerträglich [Repost]. X. <https://x.com/Krisloer/status/1416534363676750000>
- Krisloer. [@Krisloer]. (2021c, July 17). NRW-Ministerpräsident @ArminLaschet hat sich in #Erftstadt betroffen gezeigt vom Leid in der Unwetter-Katastrophe. Während Bundespräsident Steinmeier an die erinnert [Repost]. X. <https://x.com/Krisloer/status/1416534585937120000>
- Krisloer. [@Krisloer]. (2021d, July 17). Viele Nutzer bewerten #LaschetLacht als "pietätlos" oder "peinlich". Zu den Kritikern zählt SPD-Generalsekretär @LarsKlingbeil: "Ich bin sprachlos". Mehrere Nutzer hinterfragen [Repost]. X. <https://x.com/Krisloer/status/1416534611593780000>
- Krisloer. [@Krisloer]. (2021e, July 17). @larsklingbeil Aber nicht alle üben Kritik wegen #LaschetLacht. BR-Journalistin @BSchmeitzner twittert zum Beispiel: "Wer noch nie in einer Ausnahmesituation komisch [Repost]. X. <https://x.com/Krisloer/status/1416534642048500000>
- Krisloer. [@Krisloer]. (2021f, July 17). @larsklingbeil @BSchmeitzner NRW-Ministerpräsident Laschet hat mittlerweile reagiert: Er bedauere den Eindruck, der durch eine Gesprächssituation entstanden sei. "Dies war unpassend [Repost]. X. <https://x.com/KrisLoer/status/1416534672939670000>
- Krisloer. [@Krisloer]. (2021g, July 17). @WDRaktuell @ArminLaschet So, stellen wir uns jetzt mal #Laschet zu Besuch in #Israels Holocaust Mahnmal #YadVashem vor [Repost]. X. <https://x.com/KrisLoer/status/1416534697014960000>
- Lachen im Katastrophengebiet—Laschet bittet um Entschuldigung. (2021, July 17). *Spiegel*. <https://www.spiegel.de/politik/deutschland/armin-laschet-bittet-fuer-lachen-im-katastrophengebiet-um-entschuldigung-a-4cf9b3b4-a2fd-4920-bded-84e1074978b9#ref=rss>
- Lachender Laschet in Erftstadt sorgt für empörte Reaktionen. (2021, July 17). *Stern.de*. https://www.stern.de/news/lachender-laschet-in-erftstadt-sorgt-fuer-empoerte-reaktionen-30620164.html?utm_campaign=alle-nachrichten&utm_medium=rss-feed&utm_source=standard
- Lin, H., Zhang, M., Qi, X., & Shen, W. (2025). Social bots shape public issue networks in China's dual-carbon agenda: A network analysis using MRQAP. *Humanities and Social Sciences Communications*, 12(1), Article 432. <https://doi.org/10.1057/s41599-025-04472-0>
- Martini, F., Samula, P., Keller, T. R., & Klinger, U. (2021). Bot, or not? Comparing three methods for detecting

- social bots in five political discourses. *Big Data & Society*, 8(2). <https://doi.org/10.1177/20539517211033566>
- Matuszewski, P., & Szabó, G. (2024). The role of hyperactive Twitter accounts in the diffusion of political information. *Policy Studies*, 45(5), 792–817. <https://doi.org/10.1080/01442872.2023.2237911>
- McCombie, S., Uhlmann, A. J., & Morrison, S. (2020). The US 2016 presidential election & Russia's troll farms. *Intelligence and National Security*, 35(1), 95–114. <https://doi.org/10.1080/02684527.2019.1673940>
- McGregor, S. C. (2019). Social media as public opinion: How journalists use social media to represent public opinion. *Journalism*, 20(8), 1070–1086. <https://doi.org/10.1177/1464884919845458>
- Mejias, U. A., & Couldry, N. (2019). Datafication. *Internet Policy Review*, 8(4). <https://doi.org/10.14763/2019.4.1428>
- Meraz, S. (2024). Hashtag activism. In D. Lilleker, D. Jackson, B. Kalsnes, C. Mellado, F. Trevisan, & A. Veneti (Eds.), *The Routledge handbook of political campaigning* (pp. 481–496). Routledge. <https://doi.org/10.4324/9781003333326-41>
- Mit Steinmeier in Erftstadt: Laschet verspricht „sehr unbürokratisch Geld“. (2021, July 17). N-TV. <https://www.n-tv.de/politik/Laschet-verspricht-sehr-unbuerokratisch-Geld-article22688477.html>
- Mousavi, P., & Ouyang, J. (2021). Detecting hashtag hijacking for hashtag activism. In A. Field, S. Prabhumoye, M. Sap, Z. Jin, J. Zhao, & C. Brockett (Eds.), *Proceedings of the 1st workshop on NLP for positive impact* (pp. 82–92). Association for Computational Linguistics. <https://doi.org/10.18653/v1/2021.nlp4posimpact-1.9>
- Muhle, F. (2020). Alles Bots? Ein Vorschlag zur Typisierung (teil-)automatisierter Accounts auf Twitter. In S. Breidenbach, P. Klimczak, & C. Petersen (Eds.), *Soziale Medien: Interdisziplinäre Zugänge zur Onlinekommunikation* (pp. 45–70). Springer.
- Muhle, F. (2022). Socialbots at the gates. Plädoyer für eine holistische Perspektive auf automatisierte Akteure in der Umwelt des Journalismus. *Medien & Kommunikationswissenschaft*, 70(1/2), 40–59. <https://doi.org/10.5771/1615-634X-2022-1-2-40>
- Nuernbergk, C., & Conrad, J. (2016). Conversations and campaign dynamics in a hybrid media environment: Use of twitter by members of the German Bundestag. *Social Media + Society*, 2(1). <https://doi.org/10.1177/2056305116628888>
- Oppelland, T. (2023). Die Niederlage der CDU: Folge einer ungelösten Führungskrise. In U. Jun & O. Niedermayer (Eds.), *Die Parteien nach der Bundestagswahl 2021: Neueste Entwicklungen des Parteienwettbewerbs in Deutschland* (pp. 101–129). Springer.
- Pal, S. K., Kundu, S., & Murthy, C. A. (2014). Centrality measures, upper bound, and influence maximization in large scale directed social networks. *Fundamenta Informaticae*, 130(3), 317–342.
- Papakyriakopoulos, O., Serrano, J. C. M., & Hegelich, S. (2020). Political communication on social media: A tale of hyperactive users and bias in recommender systems. *Online Social Networks and Media*, 15, Article 100058. <https://doi.org/10.1016/j.osnem.2019.100058>
- Shao, C., Ciampaglia, G. L., Varol, O., Yang, K.-C., Flammini, A., & Menczer, F. (2018). The spread of low-credibility content by social bots. *Nature Communications*, 9, Article 4787. <https://doi.org/10.1038/s41467-018-06930-7>
- Simon | Einbinden ist illegitim. [@Simmerl19]. (2021, July 17). *Eben PK mit Präsident #Steinmeier in #Erftstadt: Dabei auch links im Hintergrund zwei Clowns. Das sind Armin #Laschet (MP) und Frank #Rock (LR) [Post]. (now X)*. <https://x.com/Simmerl19/status/1416367440150282244>
- Soulfly_Germany. [@Soulfly_Germany]. (2021a, July 17). @ErwinLindeman20 @PaulZiemiak @ulfpsh #LaschetLacht [Post]. X. <https://x.com/i/web/status/1416436264165860000>

- Soulfly_Germany. [@Soulfly_Germany]. (2021b, July 17). @Christian_E_ER #LaschetLacht [Post]. X. <https://x.com/i/web/status/1416436304728970000>
- Soulfly_Germany. [@Soulfly_Germany]. (2021c, July 17). @DaCo0609 @larsklingbeil #LaschetLacht [Post]. X. <https://x.com/i/web/status/1416436326879170000>
- Soulfly_Germany. [@Soulfly_Germany]. (2021d, July 17). @xbutzemann64 @fridays_freedom @GerdLorsch #LaschetLacht [Post]. X. <https://x.com/i/web/status/1416436345057200000>
- Soulfly_Germany. [@Soulfly_Germany]. (2021e, July 17). @wernerkeil @faust_birgit @MMittermeier @ArminLaschet #LaschetLacht [Post]. X. <https://x.com/i/web/status/1416436359699570000>
- Soulfly_Germany. [@Soulfly_Germany]. (2021f, July 17). @matze2001 @watch_union #LaschetLacht [Post]. X. <https://x.com/i/web/status/1416436382944330000>
- Stier, S., Bleier, A., Lietz, H., & Strohmaier, M. (2018). Election campaigning on social media: Politicians, audiences, and the mediation of political communication on Facebook and Twitter. *Political Communication*, 35(1), 50–74. <https://doi.org/10.1080/10584609.2017.1334728>
- Straub, C. (2021, August 5). Pannen-Statistik der Kanzlerkandidaten: Laschet, Baerbock und Scholz im Fettnäpfchen-Check. *Tagesspiegel*. <https://www.tagesspiegel.de/politik/pannen-statistik-von-baerbock-laschet-und-scholz-die-kanzlerkandidaten-im-fettnaepfchen-vergleich/27486814.html>
- Su, Y., & Borah, P. (2019). Who is the agenda setter? Examining the intermedia agenda-setting effect between Twitter and newspapers. *Journal of Information Technology & Politics*, 16(3), 236–249. <https://doi.org/10.1080/19331681.2019.1641451>
- Toff, B. (2019). The ‘Nate Silver effect’ on political journalism: Gatecrashers, gatekeepers, and changing newsroom practices around coverage of public opinion polls. *Journalism*, 20(7), 873–889. <https://doi.org/10.1177/1464884917731655>
- UnionWatch / @watch_union@mastodon.social. [@watch_union]. (2021, July 17). #Laschet feixt sich einen während #Steinmeier seine #Empathie ausdrückt. Der Mann ist auf so vielen Ebenen unerträglich [Post]. X. https://x.com/watch_union/status/1416401986472325121
- Van Aelst, P., Strömbäck, J., Aalberg, T., Esser, F., de Vreese, C., Matthes, J., Hopmann, D., Salgado, S., Hubé, N., Stępińska, A., Papathanassopoulos, S., Berganza, R., Legnante, G., Reinemann, C., Sheafer, T., & Stanyer, J. (2017). Political communication in a high-choice media environment: A challenge for democracy? *Annals of the International Communication Association*, 41(1), 3–27. <https://doi.org/10.1080/23808985.2017.1288551>
- van Dijck, J., & Poell, T. (2013). Understanding social media logic. *Media and Communication*, 1(1), 2–14. <https://doi.org/10.17645/mac.v1i1.70>
- van Dijck, J., Poell, T., & de Waal, M. (2018). *The platform society: Public values in a connective world*. Oxford University Press. <https://doi.org/10.1093/oso/9780190889760.001.0001>
- WDR aktuell. [@WDRaktuell]. (2021, July 17). NRW-Ministerpräsident @ArminLaschet hat sich in #Erftstadt betroffen gezeigt vom Leid in der Unwetter-Katastrophe. Während Bundespräsident Steinmeier an die erinnert [Post]. X. <https://x.com/i/web/status/1416442530758120000>
- Wehner, J. (2020). „Numerical Coupling.” Zum Verhältnis von Massenmedien und Internet. In S. Maasen & J.-H. Passoth (Eds.), *Soziologie des Digitalen—Digitale Soziologie?* (pp. 176–197). Nomos Verlagsgesellschaft. <https://doi.org/10.5771/9783845295008-176>
- Weimann, G., & Brosius, H.-B. (2017). Redirecting the agenda: Agenda-setting in the online era. *The Agenda Setting Journal*, 1(1), 63–101. <https://doi.org/10.1075/asj.1.1.06wei>
- Wetterau, J. [@DrWetti]. (2021, July 17). @WDRaktuell @polenz_r @ArminLaschet Hallo #wdr: Schauen Sie mal unter #laschetlacht nach. Sollte eine neue (kritische) Berichterstattung zu Herrn MP #Laschet wert sein! [Post]. X. <https://twitter.com/i/web/status/1416411857133390000>

- Woolley, S. C. (2020). Bots and computational propaganda: Automation for communication and control. In N. Persily & J. A. Tucker (Eds.), *SSRC anxieties of democracy: Social media and democracy* (pp. 89–110). Cambridge University Press. <https://www.cambridge.org/core/product/A15EE25C278B442EF00199AA660BFADD>
- Yang, G. (2016). Narrative agency in hashtag activism: The case of #blacklivesMatter. *Media and Communication*, 4(4), 13–17. <https://doi.org/10.17645/mac.v4i4.692>

About the Authors



Florian Muhle works as a professor for communication studies with a focus on digital communication at Zeppelin Universität Friedrichshafen, Germany. One of the focal points of his research lies in the theoretical and empirical examination of various forms of automated communication.



Indra Bock is a research fellow at Zeppelin Universität Friedrichshafen, Germany. Her background lies in qualitative social research and media sociology. Her work surrounds human–robot interaction as well as automated communication in online social networks and its influence on political opinion formation.

Climate Communication in the Hybrid Media System: Media and Stakeholder Logics on Social Media

Simon M. Luebke , Nadezhda Ozornina , Mario Haim , and Jörg Haßler 

Department of Media and Communication, LMU Munich, Germany

Correspondence: Simon M. Luebke (simon.luebke@ifkw.lmu.de)

Submitted: 20 January 2025 **Accepted:** 29 April 2025 **Published:** 17 June 2025

Issue: This article is part of the issue “Journalism in the Hybrid Media System” edited by Silke Fürst (University of Zurich), Florian Muhle (Zeppelin University Friedrichshafen), and Colin Porlezza (Università della Svizzera italiana), fully open access at <https://doi.org/10.17645/mac.i494>

Abstract

Climate change is a major political challenge affecting millions of people worldwide. Journalists—while following media logic—have a strong responsibility to inform the public of the scientific evidence on the causes and consequences of climate change and to explain the motivations driving the climate policies under discussion. However, within hybrid media systems, journalists increasingly compete for attention with climate stakeholders, who tend to follow a political logic in climate communication and bypass journalism to share their perspectives on climate change. Despite this dynamic, the extent to which the climate communication of media organizations and stakeholders diverges in terms of content and focus remains largely unexplored, as does whether their topics and communication styles show signs of convergence. This article addresses these gaps by comparing how journalistic media and climate stakeholders communicate about climate change on social media and by examining the user engagement their content creates. We conducted a manual quantitative content analysis of visual posts about climate change published by media organizations and climate stakeholders in Germany on Instagram, Facebook, TikTok, and YouTube during the 2023 UN Climate Change Conference in Dubai ($N = 1,050$). The results deepen our understanding of the national climate discourse in Germany and show that journalistic content in climate communication adheres strongly to media logic, presenting climate change in a more event-oriented, personalized, and negative manner. However, climate stakeholders’ communication is characterized by political logic, using strategic framing and focusing less on current climate events.

Keywords

climate change; climate journalism; hybrid media system; media logic; political logic; social media; stakeholders

1. Introduction

Climate change is a major political challenge that affects millions of people worldwide (Guenther et al., 2023; León et al., 2022). Effective climate journalism plays a crucial role in informing the public about the causes and consequences of climate change and in discussing appropriate action (Schäfer & Yan, 2023). However, climate journalism faces two major challenges that complicate achieving this goal. First, climate change is not an inherently newsworthy issue. Due to its complexity, long-term nature, and the fact that it is not a new phenomenon, climate change has a comparatively low news value (Comfort, 2019; León et al., 2023). As a result, it is often overshadowed in coverage by other political issues (Wozniak et al., 2015). Second, journalists must compete in the climate discourse of the hybrid media system with a growing number of climate stakeholders, such as climate activists, politicians, and alternative media, all striving for attention and interpretive dominance (Chadwick, 2017). These climate stakeholders are individuals or organizations that influence the discourse on climate change and climate policy decisions and that can bypass journalists to communicate their perspectives on climate change in different arenas of the hybrid media system, primarily on social media. Yet, they often pursue political objectives distinct from those of journalism and employ a different logic in the selection and presentation of political messages (Hopke & Hestres, 2018). Accordingly, climate stakeholders can use social media not only to raise awareness but also to challenge dominant narratives or criticize (a lack of) coverage (Molder et al., 2022; Schäfer, 2024). Given these differences between media logic and political logic in climate change communication, the hybrid media system has been described as a “battlefield for climate politics” (Eilders, 2023, p. 13).

However, the extent to which the climate communication of media organizations and climate stakeholders actually differs in terms of content and focus remains largely unexplored. Assuming that their communication is rooted in different logics, we expect distinct thematic structures and presentation mechanisms in their climate communication. At the same time, the competition for attention within discursive arenas of the hybrid media system could lead to the hybridization of these logics, resulting in similar communication efforts and minor thematic differences (Guenther et al., 2021). Yet, empirical studies comparing these aspects in the climate discourse are still scarce. Moreover, there is limited research on whether the popularity of content from media organizations and stakeholders in the climate discourse differs and how features of media logic and political logic influence the reach of climate change content.

This study aims to address this research gap by examining climate communication within the hybrid media system and comparing the climate communication of media organizations and climate stakeholders in Germany across different social media. Given the importance of visual content for political communication and especially in climate change discourse (Mooseder et al., 2023), we focus on visual and multimodal social media content. Using a manual quantitative content analysis, we analyze the characteristics and popularity of climate change posts published during the 2023 UN Climate Change Conference on profiles of media organizations and climate stakeholders in Germany on Instagram, Facebook, YouTube, and TikTok ($N = 1,050$).

Our study contributes to climate communication research in several ways. First, it offers insights into the thematic structures of the current visual climate discourse on social media. Second, it sheds light on different competing logics of news selection and presentation within the hybrid media system by comparing the climate communication of media organizations and climate stakeholders. Third, the study deepens our

understanding of the national climate discourse in Germany, where, after a long period of consensus, alliances of more skeptical actors are emerging (Ruser, 2022). Finally, the study advances our understanding of how audience attention to climate content is distributed.

2. Climate Change Communication in the Hybrid Media System

The concept of the hybrid media system originates from Andrew Chadwick (2017) and has become a widely used umbrella concept for studying various processes in the current digital media environment. In his book, Chadwick (2017) observes that digitization and the advent of new communication technologies have led to a system in which traditional and new media coexist, compete, and adapt to one another.

A central argument in Chadwick's work is that within the hybrid media system, traditional and new media logics collide, interact, and partially merge. He broadly defines media logics as "bundles of technologies, genres, norms, behaviors, and organizational forms" (Chadwick, 2017, p. 285). They encompass traditional, new, and hybrid methods of selecting, prioritizing, and presenting topics and messages in political discourse. These old and new logics are often associated with different political actors that converge in the same digital arenas of the hybrid media system and influence each other (Guenther et al., 2021). Journalism must now compete for the attention of the public with other political and social actors and groups, many of which operate according to different logics (Büchi, 2017). These political actors include, for instance, social movements that use social media to generate attention to an issue and their goals (Eilders, 2023). Politicians and political parties can also rely on social media to bypass traditional journalism and directly communicate their agendas and perspectives to the public (Hopke & Hestres, 2018). According to Chadwick (2017), political actors within the hybrid media system often seek to control information flows in ways that serve their objectives while simultaneously enabling or constraining the agency of other (competing) actors.

2.1. Comparing Media Logic and Political Logic

A key assumption of the hybrid media system is the presence of various logics that coexist, influence one another, and compete for dominance. In our interpretation, Chadwick's (2017) broad concept of "logic" also encompasses the different principles by which various actors select political messages and the ways in which they present them. Two prominent traditional logics commonly distinguished in political discourse, and on which we focus in our article, are media logic and political logic.

The distinction between media logic and political logic originates in part from mediatization research, which argues that politics, on a macro and meso but sometimes also on a micro level, adapts to the conditions imposed by the media (Kepplinger, 2002). Following this view, politics can also be said to be oriented towards media logic (Strömbäck, 2008, p. 235). The term "media logic" describes a form of communication that can encompass formats and content but also processes (Altheide & Snow, 1979). As such, the term is used to analyze how media organizations select, organize, and present information. Scholars have assumed that these journalistic rules are shared by nearly all media organizations (Haßler et al., 2014) and serve democratic functions such as ensuring transparency and accountability (Esser, 2013). Key features of institutional media logic are the selection of events for reporting based on their newsworthiness (Galtung & Ruge, 1965) and the use of recurring narrative techniques such as simplification, personalization, or stereotyping (Strömbäck, 2008, p. 233).

In contrast, the concept of political logic refers to how information is selected and presented by political actors. The original conception of political logic has focused primarily on the communication strategies of political parties (Esmark & Mayerhöffer, 2014). Unlike journalism, politics is concerned with collective decision-making and the implementation of those decisions (Strömbäck, 2008). Therefore, political actors often emphasize societal problems and propose solutions to address them in their messaging (Strömbäck, 2008). In contrast to media logic, political logic essentially aims to set the political agenda and establish certain perspectives on political events (Chadwick, 2017; Esmark & Mayerhöffer, 2013).

Considering these different logics, Strömbäck (2008) concludes that political communication within a society can be shaped to varying degrees by either media logic or political logic. In their work in this field, Haßler et al. (2014, pp. 328–330) identified five key aspects that allow for the differentiation and comparison of media logic and political logic. First, it is assumed that journalism tends to focus on the procedural (politics) and structural (polity) dimensions of democracy, whereas political actors would rather address policy issues (Strömbäck & van Aelst, 2010). Second, journalism is thought to focus intensely on individuals, while political actors emphasize political groups in their communication, such as governments or parties (Strömbäck & van Aelst, 2013). Third, it is assumed that journalism uses a more negative tone compared to political actors (Galtung & Ruge, 1965). As an important caveat, research on negative campaigning shows that political actors also often use negative statements to criticize their political competitors, especially during election campaigns (Klinger et al., 2023). Fourth, Haßler et al. (2014) argue that the media tends to focus on short-term events, while political actors generally—but not exclusively—focus on long-term processes (Kepplinger, 2002). Finally, journalists strive to deliver information that is clear and precise, whereas political actors may employ ambiguity for strategic reasons (von der Wense & Hoffjann, 2023).

2.2. Media Logic and Political Logic in Climate Change Communication

The different goals and logics of the media and political spheres lead to differences in their respective political communication. Previous research comparing the content of journalistic media with that of stakeholders supports this claim (Chen et al., 2023). However, only a few studies directly compare media and stakeholder communications simultaneously. In contrast, much of the research in the field compares independent studies that focus on only one of the two logics. As this approach relies on different time periods and methods to compare media and political logics, its conclusions may lack precision. Second, much of the research has focused on election campaigns and rarely examined other political discourses. As a result, it remains unclear whether these different logics manifest in communication channels in other contexts, such as the climate debate. Another limitation of prior research is its focus on the content level, which ignores the question of how popular these different logics are among audiences.

This research gap also applies to the climate change discourse—an issue of great political importance that often struggles to attract sustained media attention (León et al., 2023). Public focus on climate change typically peaks during severe weather events or major political conferences such as the UN Conference of the Parties (COP; Mooseder et al., 2023). As such, the COP event serves as an ideal example to explore the differences between media and political logics in climate communication. Furthermore, it can be hypothesized that the five content-related dimensions distinguishing media logic from political logic can also be used to identify communication differences in climate-related discourses. Drawing on Haßler et al. (2014), we propose an interpretation of these five aspects in the climate discourse to observe potential differences between media and political logics.

First, climate change is a complex political issue with multiple political dimensions. To address climate change, individual aspects such as causes, effects, and climate actions can often be emphasized in the discourse (Wessler et al., 2016). A focus on policy issues in climate discourse could manifest in an emphasis on climate action and strategies rather than structural or procedural dimensions. Second, climate change is an inherently abstract issue and is often considered to have low news value due to its complexity (León et al., 2023). However, climate conferences bring together leading politicians and climate stakeholders, such as climate activists, offering opportunities for personalization (Haßler et al., 2014; Molder et al., 2022). Visual personalization, emphasizing the significance of the involved actors, could make complex negotiation processes less abstract. Third, the level of negativity in climate discourse is reflected in a focus on the consequences of climate change, such as extreme weather events and environmental degradation, rather than a positive vision of the future (Molder et al., 2022). Fourth, climate discourse is influenced by short-term events that draw attention to the broader, long-term climate change process. Indicators of topicality might include explicit references to events like climate conferences (Wozniak et al., 2021). In contrast, general discussions of climate change without such references would indicate lower topicality. Finally, climate change discourse is often marked by ambiguity, as there is no single, universally accepted solution to combat climate change, and various actions and responsibilities coexist (Post et al., 2019). Assigning responsibility for addressing the crisis offers a way to inject clarity into an otherwise vague discourse. Against this backdrop, we pose the following research question:

RQ1: To what extent do climate stakeholders and media organizations follow different logics when discussing climate change on social media?

Furthermore, we investigate how audience attention to climate discourse content is distributed between media organizations and climate stakeholders. We aim to understand whether the potential use of specific logics in climate discourse also explains variations in the popularity of content on social media. This research interest is inspired by scholarly arguments suggesting that a distinct social media logic exists “which remixes traditional media logic” (Mooseder et al., 2023, p. 2). Social media logic refers to the processes, principles, and practices through which these platforms process information, news, and communication (van Dijck & Poell, 2013). A key aspect of social media logic is the quantification and diffusion of content based on its popularity, which is reflected in user engagement statistics (Mooseder et al., 2023). For example, profiles with a higher number of followers have the chance of a greater reach on platforms, which in turn can lead to higher engagement rates (Eslami et al., 2022). These user interactions influence the algorithmically determined relevance of posts and their reach so that popular content quickly receives even more attention (Bucher, 2012; Klinger & Svensson, 2015). It can, therefore, be assumed that media and stakeholders adjust their content to improve the reach of their current and future messages by increasing their number of followers (Jost, 2023).

Various studies have thus identified characteristics of social media logic as opposed to traditional media logic (e.g., Haim et al., 2021; Hendrickx & Vázquez-Herrero, 2024). However, the aim of our study is not to identify elements of posts that adhere to the original social media logic, such as specific sentence structures, emojis, or calls to action (Haim et al., 2021). Instead, we are interested in understanding whether and to what extent the traditional media and political logics persist and converge on social media. Accordingly, we interpret social media logic as a combination of various traditional logics and expectations in a new environment. In line with the hybrid media system approach, this hybridization can manifest as actors adopt elements from other

logics and integrate them into their social media communication. For example, climate stakeholders may use elements of media logic by personalizing their climate communication visually to attract more attention on social media. This behavior raises the question of whether the popularity of content from different actors remains tied to traditional logics and whether social media users reward different logics across profile groups through likes. We ask:

RQ2: Which content characteristics explain the popularity of climate change posts by media organizations and climate stakeholders?

3. Climate Change Communication in Germany

This study examines climate change communication in Germany and considers the German case as particularly interesting for several reasons. First, Germany was the highest-ranked G7 country in 2024 according to the Climate Change Performance Index, thereby assuming a leading role regarding climate change mitigation in the global context (Burck et al., 2024). Second, Germany is the most populous country in the EU, giving it significant weight in European politics. Germany is also the country with the highest greenhouse gas emissions in the EU, which means that action against climate change would target one of the main contributors. Third, climate change occupies a prominent position in German political discourse. For example, Olaf Scholz, who was chancellor at the time of COP28 but lost a vote of confidence before the end of his legislative period, successfully ran his election campaign in 2021 with the title “Climate Chancellor” (“Berlin calls climate,” 2022). Finally, there has long been a public consensus in Germany that climate change is human-made and requires action (Moreno et al., 2022). However, skeptical voices are increasingly emerging on social media, particularly fueled by the rise of the far-right party Alternative for Germany (AfD), which publicly advocates climate-skeptical positions and is highly active on social media (Kuner, 2024; Ruser, 2022).

4. Method

To answer our research questions, we conducted a manual quantitative content analysis of posts published by German media organizations and climate stakeholders on Facebook, Instagram, TikTok, and YouTube. The four platforms were selected in accordance with the German leg of the Reuters' *Digital News Report 2024* (Newman et al., 2024), which covers the most-used social networks in the country. The data from the platforms was collected during the UN Conference of the Parties (COP28) in Dubai, which took place from November 30 to December 13, 2023. Previous research has shown that the amount of social media content on climate change has peaked annually during previous conferences, making it a key event for climate change communication (Mooseder et al., 2023). We collected data from all of these days as well as three days before and after the conference. Due to ethical concerns, we analyzed only publicly available posts.

To compare the climate communication of media organizations and climate stakeholders, we first compiled lists of relevant media and stakeholder categories for the German climate debate based on existing literature and our background knowledge (Hopke & Hestres, 2018). We have selected accounts from high-reach media and from individuals and institutions that influence climate discourse and climate-related political decisions in Germany: (a) news agencies (e.g., *dpa*), (b) public broadcasters (e.g., *tagesschau*), (c) quality newspapers (e.g., *Zeit Online*), (d) tabloids (e.g., *BILD*), (e) political magazines (e.g., *Spiegel*),

(f) alternative news (e.g., *Compact TV*), and (g) satire formats (e.g., *extra 3*). The media profiles we selected represented the outlets with the widest reach in each category. As in previous studies on German media coverage, we ensured that the most important quality newspapers were included, as well as outlets with different political orientations (e.g., Magin et al., 2025). Climate stakeholder accounts include profiles of (a) federal politicians (e.g., Olaf Scholz), (b) political parties (e.g., Christian Democratic Union of Germany), (c) federal institutions (e.g., the federal government), (d) climate activists (e.g., Fridays for Future Germany), (e) environmental NGOs (e.g., Greenpeace), (f) scientific institutions (e.g., GFZ Potsdam), and (g) climate skeptics (Europäisches Institut für Klima und Energie). We included the accounts of all politicians from the government, parliamentary party leaders, and members of the parliamentary committee on climate protection and energy. We also collected posts from the profiles of parties represented in parliament and their parliamentary groups. In addition, we included the environmental NGOs with the greatest reach. An overview of all profiles can be found in the Supplementary Material (Appendix 1).

A total sample of 14,879 social media posts was collected from the four platforms, representing all posts published on the selected profiles during the study period. We used official APIs to collect posts from TikTok and YouTube and relied on CrowdTangle to access Instagram and Facebook posts (see Supplementary Material, Appendix 2, for details on data access and limitations). We tracked the number of likes for each post 10 days after it was published as an indicator of popularity. Likes are an effective means of analyzing the communication of the actors under study as they represent a measure of user engagement that users are likely to interpret similarly across social media.

Approximately 80% of these posts were published by media organizations, while about 20% were from various climate stakeholder groups. For the manual analysis, we selected all 2,978 stakeholder posts and a weighted random sample of 6,000 media posts. We manually analyzed these 8,978 posts to determine whether they contained at least one image or video. Due to our research focus on visual climate communication, we excluded posts containing only text from the analysis. Additionally, we excluded posts that only included a link to an external website, as they did not represent original social media content. After applying these criteria, 5,152 original visual social media posts remained, which included posts on a range of political topics.

To ensure that only social media posts on climate change were included, we coded whether the post contained any reference to climate change. Posts were considered relevant when they addressed the causes or consequences of climate change or depicted or mentioned measures to combat climate change. Posts were also included when they implicitly referred to climate change by discussing topics such as climate protection and protests related to environmental or energy issues. A reference to climate change was also considered present if, for example, the causes, consequences, and/or measures related to climate change were criticized or denied (e.g., questioning the need for renewable energy). This filtering step resulted in a final sample of 1,050 visual social media posts on climate change, of which 34% were media posts and 66% were stakeholder posts. An overview of the filtering and data preparation steps is provided in the Supplementary Material (Appendix 3).

To analyze the use of different logics in climate communication, we coded multiple categories corresponding to the five aspects of media logic proposed by Haßler et al. (2014). Most of these categories focused on the entire post, considering the caption, the image or video, and any text within the image or video. The account name and profile were used for further contextualization during the coding process. For videos, the first minute was

coded. For posts with multiple images (so-called carousel posts), only the first visible image was coded. Most of the following categories were coded in binary form for each post, indicating whether it was included in the post (=1) or not (=0). The categories were coded independently so that several categories could be coded for each post.

To examine the thematic focus of the posts and thereby assess the focus on policy issues, we coded several categories. These categories aim to test whether climate posts focus more on negative climate change consequences (media logic) or causes of climate change and mitigation strategies (political logic). First, we identified thematic priorities within the posts by capturing various causes, consequences, and mitigation measures related to climate change. We applied an operationalization by Wessler et al. (2016), which we expanded inductively. For the statistical analysis, we aggregated all causes, consequences, and mitigation strategies into three indices. Additionally, we analyzed the dominant themes of the posts using a smaller subset of climate change frames that had been identified in a systematic review by Guenther et al. (2024).

The authors of the review compiled the 16 most salient frames from different frame locations, such as communication research (e.g., Daub, 2010), journalism research (e.g., Engesser & Brüggemann, 2016), and audience research (e.g., van Eck et al., 2020). The original list of 16 predefined frames was reduced to five frames during the coding process: climate action and policy, populism and scientific uncertainty, negative consequences, human touch, and protest. This step was necessary to ensure reliable coding of the frames and was also theoretically reasonable, as the initial list also included frames derived from frame locations that were not necessarily relevant to our content study (Guenther et al., 2024). Based on the theoretical considerations, the climate action and policy frame, and the focus on negative consequences and human touch would be more in line with media logic. The use of strategic political frames, such as protest and populism frames, would be more in line with political logic.

For visual personalization in climate change posts, we first used a binary measurement to determine whether at least one person was depicted in the image or video (Haßler et al., 2024). If a person was present, we further coded the types of individuals in the visual material, categorizing them as, for example, politicians, activists, journalists, or ordinary citizens. The visual personalization dimension is closer to the logic of the media.

To measure negativity as an indicator of media logic, we captured different variables. First, as described above, we identified the predefined frame labeled negative consequences. Additionally, through the thematic focus analysis, we identified posts that highlighted at least one (negative) consequence of climate change.

Topicality and the focus on short-term events were described as a tendency in climate journalism and an indicator of media logic. We tested the topicality of posts based on whether they explicitly referenced COP28, marking it as a current event. More specifically, we coded whether posts (a) referenced climate change without mentioning COP28, (b) mentioned only COP28, or (c) addressed both the COP28 and climate change as a broader topic. The latter two were categorized as COP-related and thus coded as topical content.

Since the use of political logic is considered to employ more ambiguity for strategic reasons, we analyzed the extent to which posts explicitly attributed responsibility for addressing the climate crisis at a particular societal level. This assessment involved determining actors or institutions that should take action against climate change (e.g., implementing environmental protection or reducing emissions). Responsibility could be

explicitly assigned or implied through the listing of measures targeting specific groups. Initially, responsibility was categorized into three levels: micro (e.g., individual politicians and citizens), meso (e.g., individual companies and governments), and macro (e.g., society and humankind). However, since the comparison of ambiguity between media logic and political logic only asks about the presence of attribution, we calculated a binary index for the analysis indicating whether or not posts explicitly assigned any responsibility.

Two coders were extensively trained to code the posts from all four platforms. To ensure reliable coding of the data, each annotator independently coded a random selection of 100 posts, some of which were part of the final sample. For the calculation of the intercoder reliability tests, we used the R package tidycomm (v0.4.10; Unkel et al., 2024) and achieved satisfactory values for three reliability indicators (Brennan & Prediger's κ , Holsti's CR, Fretwurst's Lotus) and almost all variables ($>.70$, see Supplementary Material, Appendix 4). The codebook, data, and analyses are publicly available at: <https://osf.io/82khj>

We share all data necessary to reproduce our analyses. This corpus does not include raw data, as the sharing of raw data might infringe upon privacy rights, social media terms of service, and, in the case of imagery, copyright. Raw data is available upon request.

5. Results

RQ1 examines whether climate journalism and climate stakeholders employ different logics when discussing the topic of climate change on social media. In the first step to answer this question, we aggregated posts from all media organizations on one side and all stakeholder profiles on the other. In the second step, we calculated mean values for the dichotomous content analysis categories in the dataset, reflecting the relative frequency of specific features. This process allowed us to perform tests to compare the mean values of posts between the two groups. An example of this metric is the share of climate change posts with an explicit reference to COP28. An explicit reference to COP28 was coded as either absent (value 0) or present (value 1). The share of posts with an explicit reference to COP28 among stakeholders was 20.6%, which corresponds to a mean of 0.206 on a scale of 0 to 1. Figure 1 shows these mean values, along with confidence intervals, for each category and separately for media and stakeholder profiles.

The results of the statistical tests were calculated with tidycomm (v0.4.10; Unkel et al., 2024) and revealed significant differences between journalists and stakeholders in their use of social media platforms for climate communication. Effect sizes for Cohen's d were interpreted as small ($d = 0.2$), medium ($d = 0.5$), and large ($d = 0.8$) based on benchmarks suggested by Cohen (2013). To ensure the robustness of the findings, we also calculated Mann-Whitney U tests in each case using rstatix (v0.7.2; Kassambara, 2023). This nonparametric procedure yielded the same test decision as the t-tests for each mean comparison. The t-tests show that stakeholders use Facebook ($t(814) = 7.99$, $p < 0.001$, $d = 0.5$), Instagram ($t(783) = 3.70$, $p < 0.001$, $d = 0.23$), and TikTok ($t(917) = 2.55$, $p < 0.05$, $d = 0.15$) significantly more frequently for climate communication than journalistic media. Conversely, we find a significant effect showing that media organizations publish climate-related content significantly more often on YouTube than stakeholders ($t(525) = -12.6$, $p < 0.001$, $d = 0.93$).

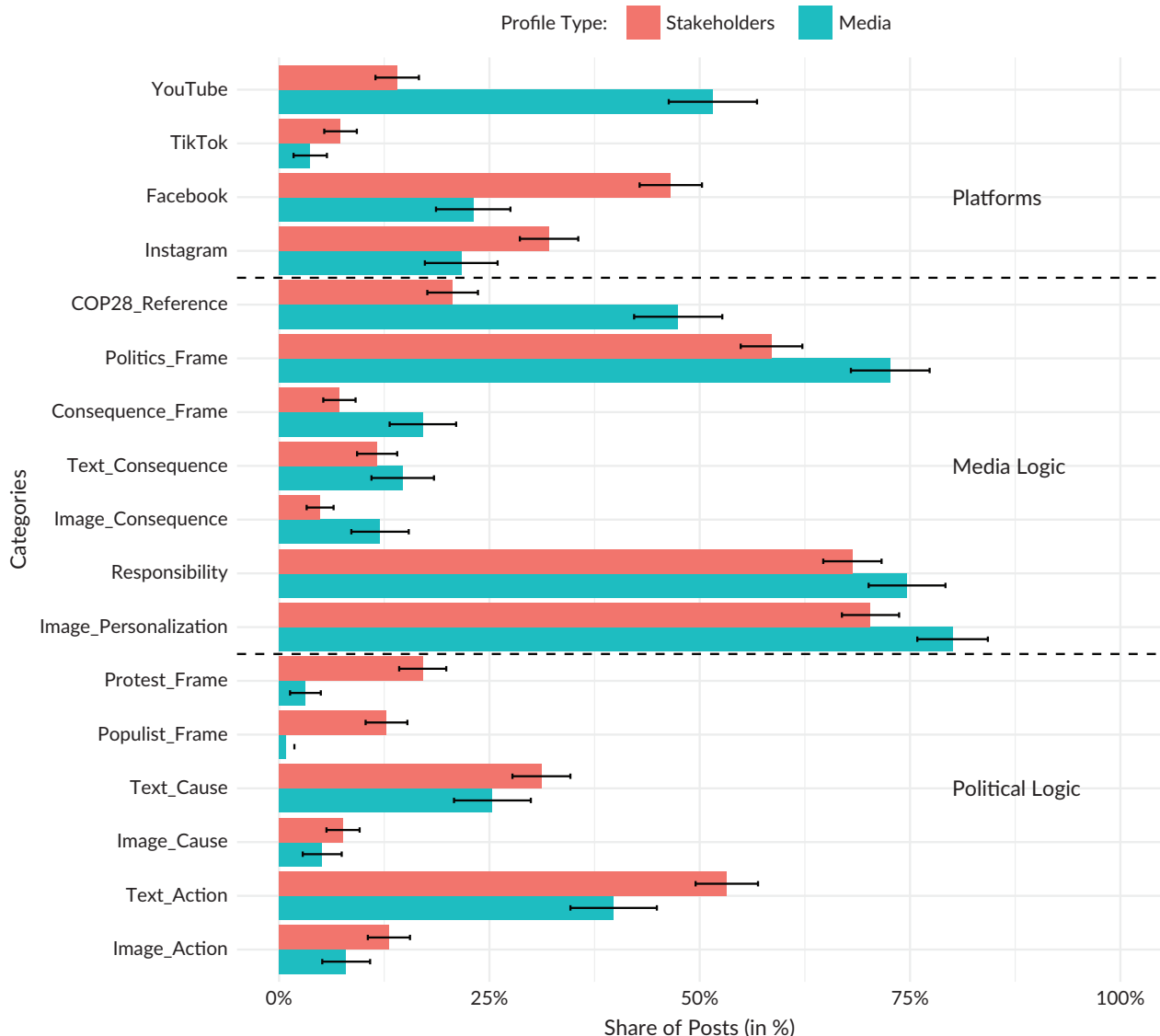


Figure 1. The share of climate-related posts from stakeholders and media profiles on social media platforms and with different content features. Notes: Mean values are shown as percentages (i.e., on a scale from 0 to 1) with the corresponding confidence intervals; the figure is based on the table in the Supplementary Material (Appendix 5).

Moreover, the climate communication by journalism and stakeholders differs across all content dimensions outlined in the theory section, albeit the effect sizes tend to be small. Regarding policy issues, climate journalism is more likely to frame climate change as a political issue that involves political negotiations between different nations or politicians. The politics frame is employed significantly more frequently by climate journalism (72.6%, $n = 262$) than by stakeholders (58.5%, $n = 408$; $t(767) = -4.66$, $p < 0.001$, $d = 0.30$). At the same time, stakeholders' visual ($t(848) = 2.63$, $p < 0.01$, $d = 0.16$) and textual climate communications ($t(717) = 4.10$, $p < 0.001$, $d = 0.27$) focus significantly more often on concrete strategies for combating climate change compared to media posts.

A second area of divergence between the climate communication of journalism and stakeholders is the degree of personalization. Social media posts by media organizations exhibit a higher level of visual personalization

than those by stakeholders ($t(790) = -3.55, p < 0.001, d = 0.22$). While roughly 70% of stakeholder posts feature at least one person (70.3%, $n = 490$), this figure rises to 80% in media posts (80.1%, $n = 281$).

Regarding negativity, we find that journalistic media are significantly more likely to use the negative consequences frame compared to stakeholders ($t(520) = -4.43, p < 0.001, d = 0.33$). While climate change is regularly framed as an issue with negative consequences in journalistic media (17.1%, $n = 60$), this framing plays only a marginal role in stakeholder communication (7.2%, $n = 50$). This result is further supported by the emphasis on climate change consequences in visual content in climate journalism, which is significantly more common in media profiles than in stakeholder communication ($t(507) = -3.71, p < 0.001, d = 0.28$).

We also find a medium effect for differences in climate communication by media and stakeholders in *topicality* ($t(589) = -8.72, p < 0.001, d = 0.61$). Our indicator for topicality was how frequently posts made explicit references to COP28, a short-term media event within the climate debate. Almost half of the media organizations' posts about climate change in our sample also referenced COP28 (47.4%, $n = 167$). In contrast, stakeholder posts were less likely to refer to COP28 (20.6%, $n = 144$) and instead focused more on the general phenomenon of climate change without mentioning the conference.

Finally, the fifth content aspect is the absence of ambiguity. As an indicator of low ambiguity, we examined the explicit attribution of responsibility for taking action against climate change. The content analysis shows a minimal but significant difference in explicit responsibility attribution between media and stakeholders ($t(745) = -2.22, p < 0.05, d = 0.14$). Posts by media organizations are slightly more likely to include explicit responsibility attributions (74.4%, $n = 262$) compared to stakeholder communication (68.1%, $n = 475$).

RQ2 investigates features of climate change posts that explain the popularity of content on various social media platforms. This analysis allows us to examine the extent to which audience attention in the hybrid media system also operates according to specific logics. A first analysis of the like count reveals that media profiles, on average, received significantly more attention for climate-related content ($M = 2,538, SD = 9,189, Md = 168, n = 352$) than stakeholder profiles ($M = 967, SD = 3,951, Md = 59, n = 698$; $t(418) = -3.07, p < 0.01, d = 0.25$).

Figure 2 illustrates the distribution and median of the like variable for climate change posts across different profile types on the four social media platforms. The platform comparison shows that climate posts on Instagram receive more likes than those on the other three platforms. Additionally, media profiles tend to receive more likes for climate change posts than stakeholder profiles on three of the four platforms. The exception is Facebook, where the mean number of likes for climate change posts from stakeholder profiles is higher than for media profiles. This overall tendency is probably due to the generally higher follower numbers of media organizations compared to stakeholder profiles in the sample.

However, to address the question of how platform contexts and the use of specific content features in climate change posts contribute to the popularity of posts by media and stakeholders, we ran two multilevel negative binomial regressions in R using the glmmTMB package (v1.1.10; Brooks et al., 2017). Negative binomial regression is appropriate for dependent count variables, which are typically not normally distributed (Cameron & Trivedi, 2014). Since the observed variance in the dependent variables for both actor groups is larger than its mean, which confirms the overdispersion of the data, we considered the negative

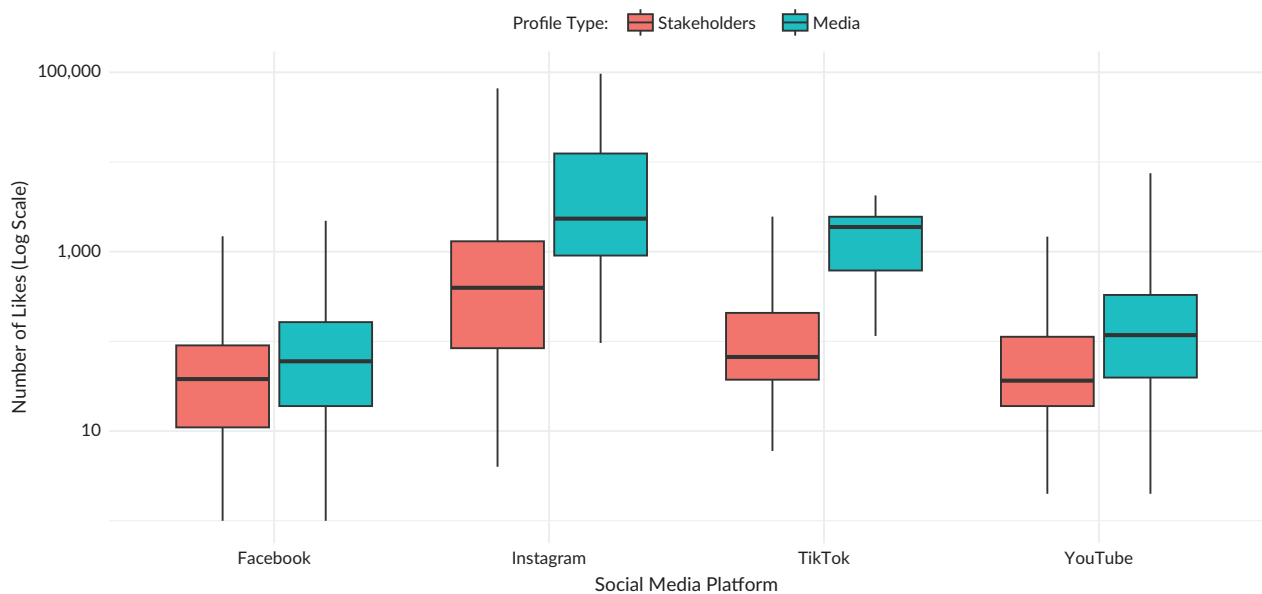


Figure 2. Number of likes per climate post from media and stakeholders on social media. Notes: The y-axis is displayed on a logarithmic scale to visualize a wider range of data and to better compare both small and large values proportionally; to improve readability, outliers are not depicted.

binomial model as more appropriate than a Poisson model. In these models (see Figure 3), we predicted the number of likes that climate-related posts received by independent variables like platform use and post features. We also integrated the user profiles as random intercepts to account for the fact that some accounts receive more interactions due to their different numbers of followers.

The results underscore the influence of platforms on post popularity. We used TikTok as the reference category for the different platforms in the model using incident rate ratios (IRRs). Posts on climate change from media ($IRR = 11.79$, 95% CI [5.89, 23.59], $p < 0.01$) and stakeholder accounts ($IRR = 4.83$, 95% CI [3.39, 6.88], $p < 0.01$) receive more likes on Instagram compared to TikTok. Stakeholder posts on YouTube receive fewer likes than on TikTok ($IRR = 0.54$, 95% CI [0.36, 0.82], $p < 0.01$), whereas there is no difference in the number of likes for YouTube and TikTok posts for media profiles. For media ($IRR = 0.24$, 95% CI [0.12, 0.49], $p < 0.01$) and stakeholder profiles ($IRR = 0.46$, 95% CI [0.32, 0.66], $p < 0.01$), using Facebook for climate communication was associated with lower popularity of climate-related posts compared to their posts on TikTok.

Our analyses of the effects of content characteristics on likes find significant effects for the different actor types. For climate stakeholders, the use of two thematic frames is consistently associated with higher like counts. When stakeholders frame climate change as a protest issue ($IRR = 1.91$, 95% CI [1.11, 3.34], $p < 0.05$) or apply a populist perspective ($IRR = 3.02$, 95% CI [1.55, 5.90], $p < 0.01$), it is linked to an increase in likes, with a more potent effect observed for the populism frame. The populism frame is the only frame significantly associated with higher popularity for media profiles ($IRR = 9.36$, 95% CI [1.10, 79.32], $p < 0.05$); all other frames have no significant effect on the like count for media posts.

Visual personalization exhibits no significant effect regarding media and stakeholder posts. However, posts by media profiles that include at least one person in their visual content on climate change show a tendency to have fewer likes compared to those without personalization ($IRR = 0.73$, 95% CI [0.52, 1.03], $p = 0.07$).

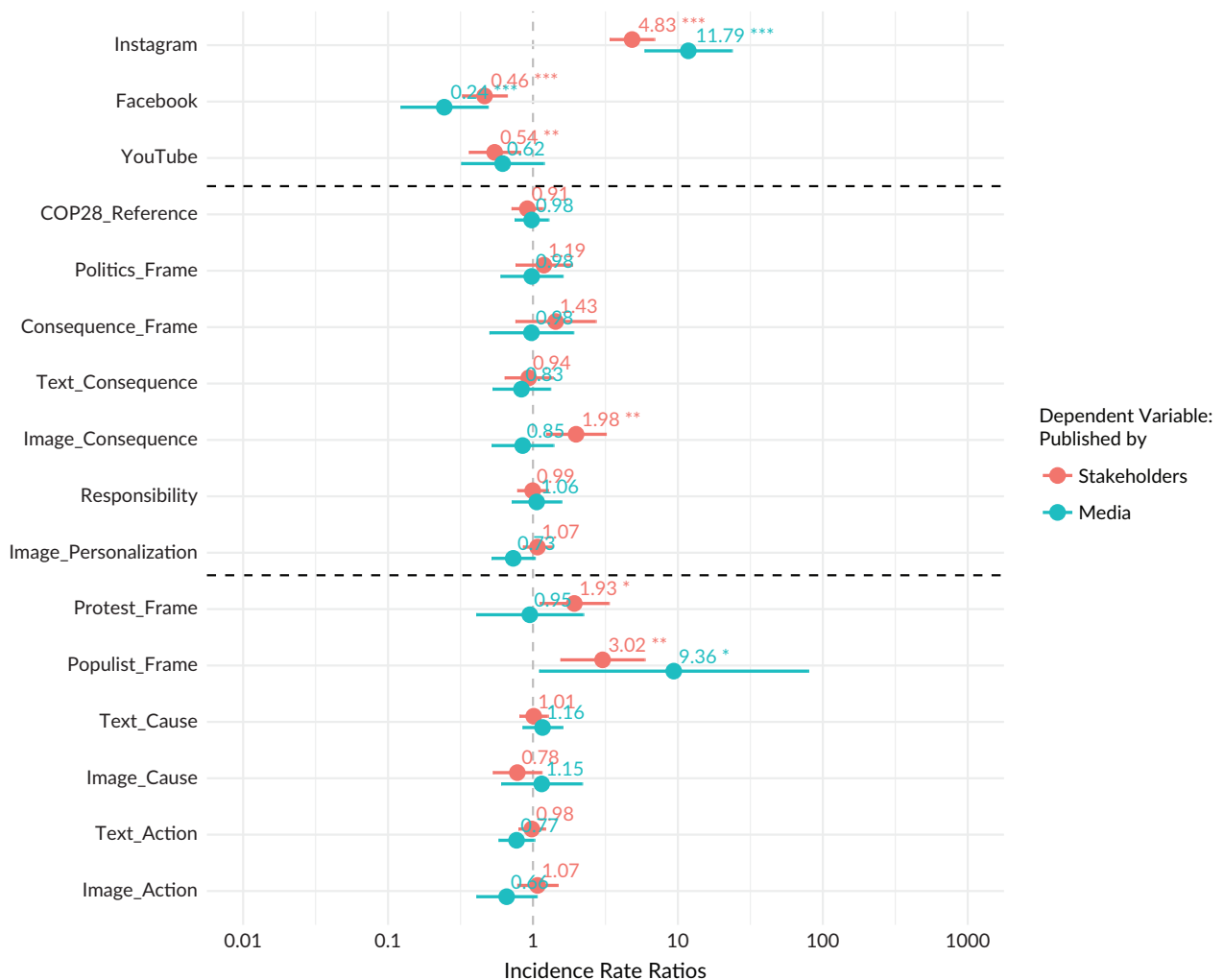


Figure 3. Multilevel negative binomial regressions for the number of likes received for climate posts from media profiles and climate stakeholder profiles. Notes: Independent variables include the social media platform with TikTok as a reference category and post features; the x-axis is log-scaled to better visualize differences in incidence rate ratios; Model 1 media— $n = 346$; Model 2 stakeholder— $n = 649$; the figure is based on Model 1 and Model 2 in the Supplementary Material (Appendix 6); * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

For stakeholder posts, however, visual personalization is not associated with post popularity ($IRR = 1.07$, 95% CI [0.85, 1.35], $p = 0.54$).

The use of negativity does not show significant effects on the number of likes for either of the two actor types. Neither the use of the negative consequence frame nor discussing the consequences of climate change in post texts and visuals is related to the popularity of posts on climate change.

Topicality, measured through explicit references to COP28, did not affect the popularity of posts for the two actor types.

Finally, the absence of ambiguity, measured as the explicit attribution of responsibility for actions against climate change to a specific group or actor, does not affect the popularity of climate posts from either of the two actor groups. Posts that attribute responsibility from media organizations ($IRR = 1.06$, 95% CI [0.72, 1.57],

$p = 0.77$) and stakeholders ($IRR = 0.99$, 95% CI [0.78, 1.27], $p = 0.97$) receive neither more nor less likes than those without an explicit attribution of responsibility.

6. Discussion

The comparative analysis of climate communication by German media organizations and climate stakeholders on social media reveals several differences but also some similarities between groups. The actors differ in how frequently they post about climate change on different social media platforms, the thematic aspects of climate change they address, and the types of posts that generate higher audience engagement. Our findings suggest that media and political logic persist in hybrid media systems, as evidenced by the different choices communicators from both groups make regarding platforms, styles, and thematic aspects.

To start with, we observe differences in the platform prioritization for climate communication by journalistic and political actors. Climate stakeholders tend to use Facebook, Instagram, and TikTok more frequently, whereas media organizations publish a higher share of climate-related posts on YouTube. This pattern likely reflects the tendency of media organizations to repurpose or re-upload pre-aired video content on YouTube, adhering to a traditional media logic in format selection and production. In contrast, climate stakeholders favor platforms with original social media content and conform to a newer media logic.

Furthermore, climate communication by journalists and stakeholders differs across the five thematic dimensions we applied to compare communication logics (Haßler et al., 2014). Consistent with the dichotomy suggested in the literature, climate change posts by media organizations are more likely to exhibit features consistent with media logic. Climate communication by media organizations shows higher levels of visual personalization (e.g., Strömbäck & van Aelst, 2013), greater emphasis on the negative consequences of climate change (e.g., Galtung & Ruge, 1965), greater topicality related to the climate conference as a specific event, and less ambiguity, indicated by explicit attribution of responsibility (e.g., Galtung & Ruge, 1965). Media organizations also frame climate change more often in terms of institutional contexts (polity) and negotiations (politics) than concrete policy solutions (e.g., Strömbäck & van Aelst, 2010).

In contrast, stakeholders publish climate content that is more closely aligned with political logic. Posts by climate stakeholders are more likely to discuss concrete strategies to combat climate change, are less visually personalized, use less negative framing, and are less event-driven. Instead, they tend to frame climate change more in the context of protests or simplify and critically question the issue using populist rhetoric. The lower levels of negativity and topicality, as well as the strategic framing of climate change aligned with stakeholder interests, are interpreted as clear evidence of political logic. This finding supports the assumption that political actors within the hybrid media system control information flows in ways that serve their own objectives (Chadwick, 2017).

However, there are also aspects where media organizations and stakeholders show minimal or no differences, suggesting a partial convergence of logics in the hybrid media system. It should be noted that both groups use all four social media platforms we investigated for their communication on climate change, creating a common space for opinion formation and discussion among actors and competition for interpretive authority (Sultana et al., 2024). We find that stakeholders also use elements of media logic, engage in event-driven communication, and frame climate change in terms of the negative consequences.

Other similarities are evident in the use of visual language. While the proportion of visually personalized posts is slightly higher among media organizations, posts from both groups show a generally high level of visual personalization. Moreover, there are only minor differences in how often the visual content of their posts addresses different aspects of climate change, such as causes, consequences, or mitigation strategies. In terms of presentation style, we find fewer differences between the two groups, which can also be interpreted as an adaptation to the practices on social media (van Dijck & Poell, 2013) and a blurring of the strict distinction between media and political logic.

Despite this convergence in different elements, the overall analysis of climate communication in Germany reveals that media organizations and actors still mostly adhere to their respective logics in selecting and presenting climate change aspects. Journalistic content on climate change reflects a selection and emphasis based on newsworthiness criteria, favoring event-driven, personalized, and negative coverage. Climate stakeholders, on the other hand, communicate within the framework of political logic by strategically framing climate change according to their positions and emphasizing the broader issue of climate change rather than specific events. Our findings indicate a continued adherence by journalism and political actors to their respective logics, even within the hybrid media system. Despite the competition journalism faces from other actors in this hybrid system, it remains true to its principles in climate reporting. Therefore, in answering RQ1, we find evidence that climate stakeholders and media organizations still follow different logics when discussing climate change on social media. Our results thus confirm findings from earlier research on climate change communication that investigated climate stakeholders (e.g., León et al., 2023) and climate journalism (e.g., Hase et al., 2021) separately.

Furthermore, we also examined the extent to which post characteristics influence the popularity of posts by both journalists and stakeholders. Our results for the popularity of climate communication show a less consistent pattern compared to the content dimensions. In a few cases, the audience rewards the use of specific logic, while in others, it does not. We find that in the same media environment, specific content characteristics have different effects on the popularity of climate communication depending on which actor uses them. One possible assumption that can be derived from this is that audience attention in the hybrid media system may also operate according to different logics depending on the communicator rather than following a unified or fully hybrid logic. A notable tendency here is the influence of visual personalization on the popularity of media posts. While personalizing climate change in visuals does not lead to more likes for stakeholder posts, the same feature tends to decrease the popularity of media posts. This distinction may be due to the types of people depicted in the posts. An additional descriptive analysis of the categories of individuals depicted in images and videos shows that the proportion of visual content featuring political actors is similar in both groups. However, we observe that stakeholder posts more often depict activists and members of NGOs, while media representatives, ordinary citizens, and economic actors are more often depicted in climate journalism. Another interpretation is that these numbers reflect different audience expectations regarding the logic of communicators.

We also find that framing climate change as a political issue or a protest topic positively affects the number of likes for stakeholder posts but has no effect on the popularity of media posts. We hypothesize that stakeholders' strategic framing of climate change within a political logic resonates more strongly with their social media audiences and meets followers' expectations for content on these accounts.

The populist frame positively affects the popularity of both stakeholder and media posts. Posts that criticize current climate policies and, in some cases, challenge the consensus on human-induced climate change receive significantly more likes. This result aligns with the observation made by researchers that there is a recent increase in climate-skeptic voices within Germany's climate discourse (e.g., Ruser, 2022). While there has long been a cross-party consensus on human-made climate change in the German climate debate and the need for climate action, the rise of the AfD has amplified skeptical positions in the public sphere. According to our analysis, posts that convey these skeptical positions by both media and stakeholders, such as the profiles of the AfD and the think-tank Europäisches Institut für Klima und Energie (Moreno et al., 2022), attract considerable attention on social media platforms. This finding has implications for the visibility of these skeptical perspectives in the digital climate discourse, as liking increases their visibility for a broader audience.

Overall, and answering RQ2, which asks about content characteristics that explain the popularity of climate change posts, we find that the use of media and political logic alone does not explain the popularity of posts. Additional expectations of climate communication towards communicators by users, e.g., adopting the affordances of individual social media, are a possible explanation for this finding.

7. Limitations and Conclusion

This study has some limitations that affect the generalizability of our findings and may be addressed in future investigations. First, our analysis focuses on the content of social media posts, which we interpret as indicators of communication strategies. Our approach is, therefore, limited to the analysis of the visual features in social media posts. Our analysis also focused only on the first image and the first minute of each video. To gain a deeper understanding of specific communication strategies and the motives behind them, researchers could hold interviews with journalists and stakeholders (León et al., 2023).

Second, we analyzed the climate discourse on social media based on visual posts that have been published during COP28 in Dubai. This does not only limit our findings to the communication of actors that rely on visual content but also to the social media content surrounding this specific event. The results of our analysis may have been influenced by events or circumstances surrounding COP28. These include, for example, the fact that the event was hosted by the United Arab Emirates and that one of the key conference topics was the transition away from fossil fuels. As a result, there may have been specific discussions and criticism of the events in the United Arab Emirates that cannot be generalized beyond COP28. It is also likely that the prominence of climate change decreases outside such events, both among climate stakeholders and in climate journalism. Future studies could examine climate communication outside of key events to determine the level of attention that the issue receives and whether media and stakeholders discuss other aspects of climate change more frequently.

Third, we focused exclusively on the content characteristics of posts based on our content analysis when explaining the popularity of content. As a result, the analysis lacks consideration of other factors that could also influence reach and popularity, such as algorithmic ranking or the different audiences on each platform.

Fourth, we had to use different data access points to collect data from the four platforms which have their own biases (e.g., Corso et al., 2024). As a result, we were limited to the content available through the respective

tools at the specific times of access. A detailed explanation of the data access methods and their limitations can be found in the Supplementary Material (Appendix 2).

A fifth limitation is the selection of media organizations and stakeholders for our sample. We aimed at selecting the key outlets and stakeholders for the German discourse. A broader range of profiles or relevant other groups in future studies may provide an even more comprehensive understanding of the different issues and actors shaping climate communication in the hybrid media system.

Finally, our analysis focuses on climate change communication in Germany. The specific national context and political culture in Germany likely influenced our findings. Therefore, our results may differ from climate communication in countries where the debate on climate change is more polarized (Wang & Huan, 2024), and where some of the social media platforms we analyzed may play a different role in political discourse.

Despite these limitations, our study makes an important contribution to the literature on climate change discourse and the use of different logics by media organizations and climate stakeholders in the hybrid media system. It is one of the few studies in the research field that systematically analyzes social media data from multiple social media, thereby addressing the lack of cross-platform research in communication studies (Hase et al., 2023). Our findings reveal differences in climate communication strategies between media organizations and climate stakeholders within the hybrid media system, which can be attributed to distinct and sometimes competing logics. Despite the competition for attention in discursive arenas and the assumption of a hybridization of these logics, climate communication by media organizations and interest groups remains clearly distinguishable in many discourse dimensions.

Our findings have important implications for strategic climate change communication by different actors, as well as for the general understanding of the political discourse on climate change in Germany. We find that media and climate actors tend to favor certain social media platforms for climate communication, while using others less frequently for climate-related content. As a result, users of certain social media are less likely to encounter climate-related posts and a less diverse range of perspectives on climate change. This raises the risk that climate stakeholders and media organizations may not be able to reach some audiences. At the same time, it is desirable that both groups of actors frequently address not only the consequences but also the causes of climate change and measures for climate action. This can promote public understanding of the issue and facilitate political discussion about appropriate climate action. However, our findings also indicate a positive correlation between the use of populist framing by media and stakeholders and higher engagement metrics. This suggests that climate change content on social media receives more attention when it criticizes mainstream climate policy or subtly questions the urgency of the issue. This raises the question for future research of how these patterns and trends in climate communication influence public attitudes toward climate change and the support for climate policies.

Acknowledgments

The authors would like to thank the academic editors and the three anonymous reviewers for their helpful comments. We also thank the two coders, Marlene Geigl and Laura Stengl, for their excellent work.

Funding

This research project is funded by the Bavarian Research Institute for Digital Transformation (bidt), an institute of the Bavarian Academy of Sciences and Humanities. Publication of this article in open access was made possible through the institutional membership agreement between the Ludwig-Maximilians-Universität München and Cogitatio Press.

Conflict of Interests

The authors declare no conflict of interests.

Supplementary Material

The supplementary material for this article (Appendix 1–6) is available online as an additional file. The codebook, the data, and the analyses are publicly available at: <https://osf.io/82khj>

References

- Altheide, D. L., & Snow, R. P. (1979). *Media logic*. Sage.
- Berlin calls climate activist's criticism of Scholz 'absurd.' (2022, May 30). *Deutsche Welle*. <https://www.dw.com/en/berlin-calls-climate-activists-criticism-of-olaf-scholz-absurd/a-61980300>
- Brooks, M., Bolker, B., Kristensen, K., Maechler, M., Magnusson, A., Skaug, H., Nielsen, A., Berg, C., & van Benthem, K. (2017). *glmmTMB: Generalized linear mixed models using template model builder* (R package version 1.1.10) [Computer software]. <https://cran.r-project.org/package=glmmTMB>
- Bucher, T. (2012). Want to be on the top? Algorithmic power and the threat of invisibility on Facebook. *New Media & Society*, 14(7), 1164–1180. <https://doi.org/10.1177/1461444812440159>
- Büchi, M. (2017). Microblogging as an extension of science reporting. *Public Understanding of Science*, 26(8), 953–968. <https://doi.org/10.1177/0963662516657794>
- Burck, J., Uhlich, T., Bals, C., Höhne, N., & Nascrimiento, L. (2024). *2024–Climate change performance index: Results*. Germanwatch; NewClimate Institute; Climate Action Network. <https://ccpi.org/download/climate-change-performance-index-2024>
- Cameron, A. C., & Trivedi, P. K. (2014). *Regression analysis of count data*. Cambridge University Press. <https://doi.org/10.1017/CBO9781139013567>
- Chadwick, A. (2017). *The hybrid media system: Politics and power* (Vol. 1). Oxford University Press. <https://doi.org/10.1093/oso/9780190696726.001.0001>
- Chen, K., Molder, A. L., Duan, Z., Boulianne, S., Eckart, C., Mallari, P., & Yang, D. (2023). How climate movement actors and news media frame climate change and strike: Evidence from analyzing Twitter and news media discourse from 2018 to 2021. *The International Journal of Press/Politics*, 28(2), 384–413. <https://doi.org/10.1177/19401612221106405>
- Cohen, J. (2013). *Statistical power analysis for the behavioral sciences*. Routledge. <https://doi.org/10.4324/9780203771587>
- Comfort, S. E. (2019). From ignored to banner story: The role of natural disasters in influencing the newsworthiness of climate change in the Philippines. *Journalism*, 20(12), 1630–1647. <https://doi.org/10.1177/1464884917727426>
- Corso, F., Pierri, F., & Morales, G. D. F. (2024). *What we can learn from TikTok through its Research API*. arXiv. <https://doi.org/10.48550/arXiv.2402.13855>
- Daub, S. J. (2010). Negotiating sustainability: Climate change framing in the communications, energy and paperworkers union. *Symbolic Interaction*, 33(1), 115–140. <https://doi.org/10.1525/si.2010.33.1.115>

- Eilders, C. (2023). The hybrid media system as battlefield for climate politics: Media and politics in transformation. In D. Briesen & S. P. Das (Eds.), *Springer studies in media and political communication: Media, politics and environment* (pp. 13–21). Springer. https://doi.org/10.1007/978-3-031-31252-6_2
- Engesser, S., & Brüggemann, M. (2016). Mapping the minds of the mediators: The cognitive frames of climate journalists from five countries. *Public Understanding of Science*, 25(7), 825–841. <https://doi.org/10.1177/0963662515583621>
- Eslami, S. P., Ghasemaghahi, M., & Hassanein, K. (2022). Understanding consumer engagement in social media: The role of product lifecycle. *Decision Support Systems*, 162, Article 113707. <https://doi.org/10.1016/j.dss.2021.113707>
- Esmark, A., & Mayerhöffer, E. (2014). Public agenda-setting between media logic and political logic. In B. Pfetsch (Ed.), *Political communication cultures in Western Europe* (pp. 219–245). Palgrave Macmillan.
- Esser, F. (2013). Mediatization as a challenge: Media logic versus political logic. In H. Kriesi, S. Lavenex, F. Esser, J. Matthes, M. Bühlmann, & D. Bochler (Eds.), *Democracy in the age of globalization and mediatization* (pp. 155–176). Palgrave Macmillan.
- Galtung, J., & Ruge, M. H. (1965). The structure of foreign news: The presentation of the Congo, Cuba and Cyprus crises in four Norwegian newspapers. *Journal of Peace Research*, 2(1), 64–90. <https://doi.org/10.1177/002234336500200104>
- Guenther, L., Jörges, S., Mahl, D., & Brüggemann, M. (2024). Framing as a bridging concept for climate change communication: A systematic review based on 25 years of literature. *Communication Research*, 51(4), 367–391. <https://doi.org/10.1177/00936502221137165>
- Guenther, L., Meyer, H., Kleinen-von Königslöw, K., & Brüggemann, M. (2023). A distant threat? The framing of climate futures across four countries. *Environmental Communication*, 17(7), 775–793. <https://doi.org/10.1080/17524032.2023.2253500>
- Guenther, L., Ruhrmann, G., Zaremba, M. C., & Weigelt, N. (2021). The newsworthiness of the “March for Science” in Germany: Comparing news factors in journalistic media and on Twitter. *Journal of Science Communication*, 20(2), Article A03. <https://doi.org/10.22323/2.20020203>
- Haim, M., Karlsson, M., Ferrer-Conill, R., Kammer, A., Elgesem, D., & Sjøvaag, H. (2021). You should read this study! It investigates Scandinavian social media logics ¶. *Digital Journalism*, 9(4), 406–426. <https://doi.org/10.1080/21670811.2021.1886861>
- Hase, V., Mahl, D., Schäfer, M. S., & Keller, T. R. (2021). Climate change in news media across the globe: An automated analysis of issue attention and themes in climate change coverage in 10 countries (2006–2018). *Global Environmental Change*, 70, Article 102353. <https://doi.org/10.1016/j.gloenvcha.2021.102353>
- Hase, V., Boczek, K., & Scharrow, M. (2023). Adapting to affordances and audiences? A cross-platform, multi-modal analysis of the platformization of news on Facebook, Instagram, TikTok, and Twitter. *Digital Journalism*, 11(8), 1499–1520. <https://doi.org/10.1080/21670811.2022.2128389>
- Haßler, J., Maurer, M., & Oschatz, C. (2014). Media logic and political logic online and offline: The case of climate change communication. *Journalism Practice*, 8(3), 326–341. <https://doi.org/10.1080/17512786.2014.889451>
- Haßler, J., Wurst, A.-K., & Pohl, K. (2024). Politicians over issues? Visual personalization in three Instagram election campaigns. *Information, Communication & Society*, 27(5), 815–835. <https://doi.org/10.1080/1369118X.2023.2227684>
- Hendrickx, J., & Vázquez-Herrero, J. (2024). Dissecting social media journalism: A comparative study across platforms, outlets and countries. *Journalism Studies*, 25(9), 1053–1075. <https://doi.org/10.1080/1461670X.2024.2324318>

- Hopke, J. E., & Hestres, L. E. (2018). Visualizing the Paris climate talks on Twitter: Media and climate stakeholder visual social media during COP21. *Social Media + Society*, 4(3). <https://doi.org/10.1177/2056305118782687>
- Jost, P. (2023). How politicians adapt to new media logic: A longitudinal perspective on accommodation to user-engagement on Facebook. *Journal of Information Technology & Politics*, 20(2), 184–197. <https://doi.org/10.1080/19331681.2022.2076271>
- Kassambara, A. (2023). *rstatix: Pipe-friendly framework for basic statistical tests* (R package version 0.7.2) [Computer software]. <https://cran.r-project.org/web/packages/rstatix/index.html>
- Kepplinger, H. M. (2002). Mediatization of politics: Theory and data. *Journal of Communication*, 52(4), 972–986. <https://doi.org/10.1111/j.1460-2466.2002.tb02584.x>
- Klinger, U., Koc-Michalska, K., & Russmann, U. (2023). Are campaigns getting uglier, and who is to blame? Negativity, dramatization and populism on Facebook in the 2014 and 2019 EP election campaigns. *Political Communication*, 40(3), 263–282. <https://doi.org/10.1080/10584609.2022.2133198>
- Klinger, U., & Svensson, J. (2015). The emergence of network media logic in political communication: A theoretical approach. *New Media & Society*, 17(8), 1241–1257. <https://doi.org/10.1177/1461444814522952>
- Kuner, L. (2024, May 24). Populist AfD “sand in the gears” of German climate efforts. *Clean Energy Wire*. <https://www.cleanenergywire.org/news/populist-afd-sand-gears-german-climate-efforts>
- León, B., Bourk, M., Finkler, W., Boykoff, M., & Davis, L. S. (2023). Strategies for climate change communication through social media: Objectives, approach, and interaction. *Media International Australia*, 188(1), 112–127. <https://doi.org/10.1177/1329878X211038004>
- León, B., Negrodo, S., & Erviti, M. C. (2022). Social engagement with climate change: Principles for effective visual representation on social media. *Climate Policy*, 22(8), 976–992. <https://doi.org/10.1080/14693062.2022.2077292>
- Magin, M., Kösters, R., Jandura, O., Weiß, R., Stark, B., Udris, L., Klein, M., & Riedl, A. A. (2025). Viewpoint diversity, balance, deliberativeness: Assessing the media performance of migration coverage multi-dimensionally based on deliberative democratic theories. *Mass Communication and Society*. Advance online publication. <https://doi.org/10.1080/15205436.2025.2461082>
- Molder, A. L., Lakind, A., Clemmons, Z. E., & Chen, K. (2022). Framing the global youth climate movement: A qualitative content analysis of Greta Thunberg’s moral, hopeful, and motivational framing on Instagram. *The International Journal of Press/Politics*, 27(3), 668–695. <https://doi.org/10.1177/19401612211055691>
- Mooseder, A., Brantner, C., Zamith, R., & Pfeffer, J. (2023). (Social) media logics and visualizing climate change: 10 years of #climatechange images on Twitter. *Social Media + Society*, 9(1). <https://doi.org/10.1177/20563051231164310>
- Moreno, J. A., Kinn, M., & Narberhaus, M. (2022). A stronghold of climate change denialism in Germany: Case study of the output and press representation of the think tank EIKE. *International Journal of Communication*, 16, 267–288.
- Newman, N., Fletcher, R., Robertson, C. T., Ross Arguedas, A., & Nielsen, R. K. (2024). *Reuters Institute digital news report 2024*. <https://doi.org/10.60625/risj-vy6n-4v57>
- Post, S., Kleinen-von Königslöw, K., & Schäfer, M. S. (2019). Between guilt and obligation: Debating the responsibility for climate change and climate politics in the media. *Environmental Communication*, 13(6), 723–739. <https://doi.org/10.1080/17524032.2018.1446037>
- Ruser, A. (2022). The skeptic who came in from the cold? The formation of a climate-skeptic alliance in Germany. In M. Hoelscher, R. A. List, A. Ruser, & S. Toepler (Eds.), *Civil society: Concepts, challenges, contexts* (pp. 349–358). Springer. https://doi.org/10.1007/978-3-030-98008-5_24

- Schäfer, M. S. (2024). Social media in climate change communication: State of the field, new developments and the emergence of generative AI. *Dialogues on Climate Change*, 2(1), 49–55. <https://doi.org/10.1177/29768659241300666>
- Schäfer, M. S., & Yan, X. (2023). News and social media imagery of climate change. In Z. Baker, T. Law, M. Vardy, & S. Zehr (Eds.), *Climate, science and society* (pp. 66–73). Routledge. <https://doi.org/10.4324/9781003409748-11>
- Strömbäck, J. (2008). Four phases of mediatization: An analysis of the mediatization of politics. *The International Journal of Press/Politics*, 13(3), 228–246. <https://doi.org/10.1177/1940161208319097>
- Strömbäck, J., & van Aelst, P. (2010). Exploring some antecedents of the media's framing of election news: A comparison of Swedish and Belgian election news. *The International Journal of Press/Politics*, 15(1), 41–59. <https://doi.org/10.1177/1940161209351004>
- Strömbäck, J., & van Aelst, P. (2013). Why political parties adapt to the media. *International Communication Gazette*, 75(4), 341–358. <https://doi.org/10.1177/1748048513482266>
- Sultana, B. C., Prodhan, M. T. R., Alam, E., Sohel, M. S., Bari, A. B. M. M., Pal, S. C., Islam, M. K., & Islam, A. R. M. T. (2024). A systematic review of the nexus between climate change and social media: Present status, trends, and future challenges. *Frontiers in Communication*, 9, Article 1301400. <https://doi.org/10.3389/fcomm.2024.1301400>
- Unkel, J., Haim, M., & Kobilke, L. (2024). *tidycomm: Data modification and analysis for communication research* (R package version 0.4.1) [Computer software]. <https://cran.r-project.org/web/packages/tidycomm/index.html>
- van Dijck, J., & Poell, T. (2013). Understanding social media logic. *Media and Communication*, 1(1), 2–14. <https://doi.org/10.17645/mac.v1i1.70>
- van Eck, C. W., Mulder, B. C., & Dewulf, A. (2020). Online climate change polarization: Interactional framing analysis of climate change blog comments. *Science Communication*, 42(4), 454–480. <https://doi.org/10.1177/1075547020942228>
- von der Wense, I., & Hoffjann, O. (2023). “They are always ambiguous when they don’t know how it will turn out.” Dissemination, practices, and ethical assessment of strategic ambiguity. *Journal of Communication Inquiry*. Advance online publication. <https://doi.org/10.1177/01968599231216702>
- Wang, G., & Huan, C. (2024). Negotiating climate change in public discourse: Insights from critical discourse studies. *Critical Discourse Studies*, 21(2), 133–145. <https://doi.org/10.1080/17405904.2023.2198725>
- Wessler, H., Wozniak, A., Hofer, L., & Lück, J. (2016). Global multimodal news frames on climate change. *The International Journal of Press/Politics*, 21(4), 423–445. <https://doi.org/10.1177/1940161216661848>
- Wozniak, A., Lück, J., & Wessler, H. (2015). Frames, stories, and images: The advantages of a multimodal approach in comparative media content research on climate change. *Environmental Communication*, 9(4), 469–490. <https://doi.org/10.1080/17524032.2014.981559>
- Wozniak, A., Wessler, H., Chan, C.-H., & Lück, J. (2021). The event-centered nature of global public spheres: The UN climate change conferences, fridays for future, and the (limited) transnationalization of media debates. *International Journal of Communication*, 15, 688–714.

About the Authors



Simon M. Luebke (PhD) is a research associate (PostDoc) at the chair of computational communication research at the Department of Media and Communication at LMU Munich, Germany. His research interests are political communication, media effects, and empirical methods. Photo by Lena Fleischer.



Nadezhda Ozornina (MA) is a research associate at the chair of computational communication research at the Department of Media and Communication at LMU Munich, Germany. Her research interests are computational methods, multimodal analysis, and comparative communication research. Photo by Tatiana Druzhinina.



Mario Haim (PhD) is full professor for communication science with a focus on computational communication research at the Department of Media and Communication at LMU Munich, Germany. His research interests revolve around algorithmic influences, such as in political communication, journalism, health communication, or media use, as well as on (computational) methods and meta-science. More information: <https://haim.it>. Photo by Lena Fleischer.



Jörg Haßler (PhD) is PostDoc (Akademischer Rat auf Zeit) at the Department of Media and Communication at LMU Munich and consortium leader of the consortium project CLIMATE-MEMES which is funded by the Bavarian Research Institute for Digital Transformation (bidt), an institute of the Bavarian Academy of Sciences and Humanities. His research interests include (digital) campaigning, social media, political communication, and empirical methods. Photo by Valerio Agolino.

Issue Attention and Semantic Overlap in Vaccination Coverage Within Switzerland's Hybrid Media System

Dario Siegen ^{1,2}  and Daniel Vogler ^{1,2} 

¹ Department of Communication and Media Research (IKMZ), University of Zurich, Switzerland

² Research Center for the Public Sphere and Society (fög), University of Zurich, Switzerland

Correspondence: Dario Siegen (d.siegen@ikmz.uzh.ch)

Submitted: 31 January 2025 **Accepted:** 25 June 2025 **Published:** 26 August 2025

Issue: This article is part of the issue “Journalism in the Hybrid Media System” edited by Silke Füst (University of Zurich), Florian Muhle (Zeppelin University Friedrichshafen), and Colin Porlezza (Università della Svizzera italiana), fully open access at <https://doi.org/10.17645/mac.i494>

Abstract

Despite broad scientific support, vaccination is traditionally a contested issue among the public. During the Covid-19 pandemic, the issue of vaccination received widespread attention in news media and on social media. Although we know that public debates on such disputed issues evolve over time in hybrid media systems, there is still little knowledge about the extent to which news media and social media align or differ in their issue attention dynamics and semantics. Furthermore, empirical studies, particularly on social media data, tend to focus on periods of high issue attention, often missing relevant reference points before or after such phases. Focusing on the issue of vaccination in Switzerland, we examine 77,798 news articles by 20 Swiss online newspapers and 929,431 posts by 22,672 Swiss Twitter (now X) users to investigate the similarities and differences between the two spheres through a time series analysis between April 1, 2019, and June 30, 2022. The findings show how vaccination gained vastly in issue attention—measured as the share of total coverage and tweet volume, respectively—during the Covid-19 pandemic. Twitter and news media were closely aligned during the crisis in terms of issue attention and semantics, but less so before and after the pandemic. These findings substantiate previous works on issue agendas in hybrid media systems that converge toward a dominant issue in times of crisis.

Keywords

Covid-19; crisis communication; issue attention; journalism; news media; public sphere; social media; vaccination

1. Introduction

During large-scale societal crises, such as the Covid-19-pandemic, as people experience a strong need for orientation (Matthes, 2006; McCombs & Weaver, 1973), they turn to various kinds of media to learn about the events, debates, and policies regarding the crisis (Althaus, 2002; Van Aelst et al., 2021; Westlund & Ghersetti, 2015). The emergence of digital media channels has resulted in modern hybrid media systems (Chadwick, 2017) in which the number of available information sources and the number of producers of information have increased. In these high-choice media environments, users can access a wide array of sources that can both facilitate and complicate information acquisition. A defining feature of hybrid media systems is not the replacement of traditional media by digital channels but their coexistence and interaction. While new sources have emerged and gained influence, traditional media continue to play an important role (Djerf-Pierre & Shehata, 2017). This is mirrored by the large number of different sources people used for information during the Covid-19 pandemic (Friemel et al., 2020; Ilic et al., 2022). The increased demand by audiences for journalism, coupled with high news values, led to a vast amount of news coverage focused on the pandemic on the supply side (Eisenegger et al., 2021; Ort et al., 2023). Not least because of the strong dependence on mediated communication during public lockdowns, debates related to the pandemic were also highly salient on social media such as Twitter (now X; Rauchfleisch et al., 2023). Although social media were not necessarily among the most used sources for information during the pandemic in Switzerland (Friemel et al., 2020), Twitter specifically has been shown to play an important role in the agenda-setting process, as journalists source the platform for information about current (political) events (Metag & Rauchfleisch, 2017). Therefore, news media and Twitter are shown to have a complex, mutual influence on each other's agendas (Gilardi et al., 2022; Su & Borah, 2019). Due to the high demand for information by the public and the pronounced salience of the pandemic, news media coverage and communication on social media also played an important role in how people perceived the pandemic, and the key issues related to it (Ahmed et al., 2022; Geber et al., 2024). Notably, Twitter was rebranded as X in July 2023, after its acquisition by Elon Musk in October 2022. Throughout this manuscript we use the term "Twitter" to refer specifically to the platform as it existed during the study period (April 2019 to June 2022).

Crises typically lead to a narrowing of the issue agenda—that is, a reduced set of issues and increased attention to issues related to the crisis across different arenas (Imhof, 2011). One of the most salient issues regarding the pandemic was the debate on vaccination, particularly once a vaccine became available (Ort et al., 2023). Therefore, the issue of vaccination is a compelling case to study the relationship between legacy news media and online platforms, such as Twitter, in hybrid media systems. Understanding the alignment and distinctions in vaccination coverage between news media and social media is important, as media representations of vaccination shape public willingness to get vaccinated (Allington et al., 2021; Chadwick et al., 2021; Lin & Lagoe, 2013; Motta & Stecula, 2023). Despite much research on debates on the Covid-19 vaccination in news media (Motta & Stecula, 2023; Ort et al., 2023; Zeid & Tang, 2022) or on social media (Bonnevie et al., 2021; Jiang et al., 2021; Johnson et al., 2020), little is known about the similarities and differences between the public debates on this issue in hybrid media systems. Furthermore, most studies on the Covid-19 vaccination have focused on periods of high issue attention, often missing relevant reference points before or after such phases. As a result, there is little research comparing phases of high issue attention for vaccination in the media with phases of little issue attention (for an exception, see Bonnevie et al., 2021).

In this study, we address these two research gaps. Using extensive news and Twitter datasets covering the period from April 1, 2019, to June 30, 2022, we investigate the issue attention and semantic overlap of the vaccination debate in Swiss news media and in the Swiss Twittersphere before, during, and in the aftermath of the Covid-19 pandemic. Thus, the study shows how the Covid-19 pandemic, as a public health crisis, affected the debate on vaccination in the news and on Twitter and in two language regions of Switzerland.

2. Conceptual Framework

Over the past three decades, digitization has led to increasingly complex information ecosystems characterized by new communication channels and media logics (Carlson, 2020). Social media, in particular, have emerged as significant channels for disseminating information and facilitating public discussions. The communication environment within such hybrid media systems (Chadwick, 2017) poses challenges to some traditional functions of journalism in society, such as gatekeeping and agenda setting. While journalism continues to serve as a central authority in assigning publicity to issues and actors (Langer & Gruber, 2021), it now competes and interacts with newer media, algorithms, and diverse actors (Wallace, 2018).

In his seminal work, Chadwick (2017) underscored that in hybrid media systems, (political) communication is increasingly shaped by interactions between older and newer media logics. As a result, the construction of the public issue agenda has become more complex, influenced by a wide array of actors utilizing digital communication tools, algorithms, and alternative media (Wallace, 2018). In this process, newer and older media observe, compete with, influence, and interact with one another (Langer & Gruber, 2021). This dynamic has even raised questions about whether a unified public agenda still exists or, at least temporarily, can be established, or if the communication patterns within hybrid media systems have led to the fragmentation of the public, with separate agendas and differing issue priorities (Bruns, 2023). Consequently, we can expect temporal variations in issue attention and semantics when examining debates on the same issue across different communication arenas, such as social media and legacy news media.

The relevance and salience of issues in the public evolve over time. Pressing societal issues, such as public health, migration, or climate change, have been shown to continuously compete for attention in the public (Geiß, 2011). Downs (1972) introduced the concept of issue-attention cycles to describe the rise and fall of the salience of issues in the public. According to Downs (1972, p. 38), “public attention rarely remains sharply focused upon any one domestic issue for very long.” Following a triggering event, issues will receive increased public attention for some time before gradually fading from the center of attention again (Downs, 1972). The concept of issue-attention cycles has been used to describe and empirically analyze the dynamics of health-related issues, such as vaccination (Arendt & Scherr, 2019) and epidemics (Shih et al., 2008), and other issues, such as the environment (Djerf-Pierre, 2013) and migration (Greussing & Boomgaarden, 2017). The concept of issue-attention cycles has also been applied to debates on social media, such as Twitter (Wang & Guo, 2018).

Crises are often tipping points for issue attention, leading to greater uniformity in the public agenda. During major societal crises, a few key issues tend to dominate public discourse (Imhof, 2011; Rauchfleisch et al., 2021, 2023). The range of topics discussed narrows, converging into those directly related to the crisis, with certain issues perceived as particularly urgent and gaining attention (Imhof, 2011). The Covid-19 pandemic, perhaps the most prototypical example, dominated the public agenda for months. Issues related to the crisis

gained prominence, often overshadowing other important issues such as the climate crisis (Rauchfleisch et al., 2023). Therefore, it is of interest whether events that affect large segments of the population, such as the pandemic, lead to a temporarily unified public sphere characterized by heightened attention to one or a few topics across different channels or arenas.

However, why do crises receive so much attention in the news media and on social media? Crises and related events often represent key events that reshape public debates, influencing factors such as an issue's salience in the news or on social media (Jang & Pasek, 2015; Kepplinger & Habermeier, 1995). Key events can also cause certain issues to be displaced by others (Geiß, 2011). For example, Rauchfleisch et al. (2023) showed that the announcement of the outbreak of the Covid-19 pandemic in Switzerland not only increased media coverage of the pandemic itself but also led to the displacement of the climate issue on Twitter and in the news. Such effects of real-world key events on issue attention are often amplified by journalistic working routines and audience needs. For news media, crises are times when the demands of audiences and the interests of news media align. Crises are events with high newsworthiness, and they promise high reach among news audiences (Vasterman & Ruigrok, 2013). Especially when an issue is explicitly linked to a crisis, it usually gains salience. An example is the issue of migration, which gained attention after the so-called "migration crisis" in 2015 (Greussing & Boomgaarden, 2017). Waldherr (2014) identified several factors that increased the news media's attention to an issue over time: characteristics of the issue itself, such as perceived threat, proximity, or novel information, which lead to high news value, and amplification by working routines in journalism, such as increased reporting as journalists observe and follow their colleagues' reporting. The increased reporting on crises meets the demands of audiences for reliable and trustworthy information related to the crisis. Most importantly, audience studies have shown that negativity, which is inherent in issues related to crises, drives online news consumption (Robertson et al., 2023) and the spread of content on Twitter (Schöne et al., 2021).

2.1. Issue Attention for Vaccination in News Media and on Social Media

Vaccination was one of the most central issues during the Covid-19 pandemic. In an inductive automated analysis of news coverage of the pandemic in Switzerland, Ort et al. (2023) identified vaccination as one of eight distinct overarching issues. They also showed that the start of the vaccine campaign in January 2021 altered the issue structure of pandemic-related news, with the issue of vaccination peaking around the start of the vaccination rollout. Vaccinations are a great medical achievement and have led to the elimination or containment of various infectious diseases (Rodrigues & Plotkin, 2020). Nevertheless, there have long been groups of vaccination opponents that deny the effectiveness of vaccines (Blume, 2006; Bonnevie et al., 2021). These groups are typically highly outspoken, and with social media, they have new avenues of dissemination for their beliefs (Gruzd et al., 2023; Milani et al., 2020). Thus, vaccine opposition has been found to rise on Twitter (Bonnevie et al., 2021), Facebook (Johnson et al., 2020), and YouTube (Kaiser et al., 2021). Due to its relevance as one of the main measures against the pandemic and opposition by certain population groups, the issue of vaccination gained significant attention and was discussed controversially by the public. The Covid-19 pandemic was undoubtedly a critical moment that changed the public debate about vaccination. Therefore, we ask the following question:

RQ1: How does issue attention for vaccination evolve in the Swiss news media and in the Swiss Twittersphere over time?

2.2. Relationship Between News Media and Twitter

News production does not occur in isolation. Journalists often monitor their peers and pick up on relevant stories and topics covered by others. Research on intermedia agenda setting has explored how different journalistic media “emulate and adopt each other’s stories” (Vliegenthart & Walgrave, 2008, p. 860; see also Boyle, 2001). In hybrid media systems, in which channels have multiplied, the question of how different types of media influence one another becomes increasingly important. Therefore, the concept of intermedia agenda setting has been used to examine the interaction between traditional news media and social media platforms, such as Twitter.

However, we still know little about the extent to which these debates on highly contested issues, such as vaccination, are aligned or independent between news media and social media. While intermedia agenda setting is an often-used theory to explain how content is transferred between the news media and social media (Conway et al., 2015; Gilardi et al., 2022; Harder et al., 2017), the literature is at odds when it comes to the question of which sphere can set the agenda of the other sphere. Some studies have shown that, at least for specific issues, actors using social media can influence the agenda of the news media (e.g., Gilardi et al., 2022), while other studies have shown that the news media can set the agenda on social media (Harder et al., 2017). Most of these studies present results of mutual influence (Conway et al., 2015; Gilardi et al., 2022; Su & Borah, 2019; van Heijkant et al., 2019). For Switzerland, Gilardi et al. (2022) determined the salience of four political issues using a trained classifier that analyzed news media coverage, tweets by politicians, and tweets by party accounts. Using vector autoregression, they found that the salience of issues in the news media and the Swiss political Twittersphere are strongly related to each other, with no clear direction of influence. This finding aligns with previous research indicating that in Switzerland, Twitter is used by journalists to source political news (Metag & Rauchfleisch, 2017) and by politicians to communicate with journalists (Rauchfleisch & Metag, 2016). Therefore, it can be inferred that similar responses to the Covid-19 pandemic outbreak are apparent in the two spheres. However, the spheres are also characterized by different fields of communicators and communication logics (Chen et al., 2023). The coverage of news media is produced by a few communicators selecting newsworthy events and presenting them in a professional manner (Wallace, 2018). On social media (i.e., Twitter), the field of actors is much broader and includes professional and non-professional communicators (Rauchfleisch et al., 2021). Interestingly, Su and Borah (2019) showed that intermedia agenda-setting dynamics could be influenced by key events, implying that the effects are issue- and time-dependent. They analyzed eight newspapers from five countries, combined with the corresponding Twitter data, across four waves. The researchers manually coded subtopics within the climate change coverage, used rank-order analyses to compare issue saliency, and employed cross-lagged correlations to predict intermedia agenda-setting effects between news media and the Twittersphere.

The investigation of intermedia agenda setting in hybrid media systems presents significant methodological challenges. Many of the mentioned studies relied on measures based on *daily* volumes of social media content or news coverage. While such approaches yield valuable insights, modern hybrid media systems can involve much faster interactions in which journalists can pick up social media content and publish a story within hours, while social media users react, comment, and share news articles within minutes of publication (Lee, 2015; Peters, 2012). This greatly complicates the determination of causality or the direction of reciprocal influences. Therefore, in this study, which is also based on daily data, we do not aim to identify the causality

or directionality of reciprocal influence. Instead, we examine the strength of their correlation—that is, whether and how strongly the two time series (social media and news media) move in unison or independently of each other. Focusing on the case of vaccination issue salience before, during, and after the Covid-19 pandemic, we therefore ask the following:

RQ2: How aligned is issue attention for vaccination in the Swiss news media and in the Swiss Twittersphere?

2.3. Semantic Overlap Between News Media and Twitter

The relation of salience of issues is only one aspect of intermedia agenda setting. To obtain an estimate of how news media or social media users emulate and adopt content from other sources (Vliegenthart & Walgrave, 2008), examining the nature of the content is also important. Particularly for major issues, it is not only a matter of whether an issue is covered but also how it is covered. Journalists have to decide what aspects of the issues they cover and which topics they leave out. In the news coverage of the Covid-19 vaccination, different subtopics have been identified, such as side effects, economic aspects, and the administration process (Bai & Lee, 2024; Ort et al., 2023; Wilson & McKee, 2024). Similarly, on social media, users discuss different aspects of an issue and have different opinions and evaluations of the issue. In their analysis of hashtags in Covid-related tweets, Rauchfleisch et al. (2021) demonstrated that the debate evolved over time, with the salience of subtopics shifting. A study by Milani et al. (2020) related to vaccines showed that anti-vaccination content and users were more prevalent on Twitter than pro-vaccine content and users. To capture these subtopics in vaccine-related discussions, we examine the similarity between the content of tweets and news articles within each week. As our analysis begins before the outbreak of the pandemic, the data initially includes news articles and tweets about vaccination in general or related to other diseases. It is only during the pandemic that the focus of the vaccination discourse eventually shifts to Covid-19. We expect that news coverage and social media content will have a higher semantic overlap during times of crisis. Therefore, we ask the following question:

RQ3: How semantically aligned is the coverage on vaccination in the Swiss news media and in the Swiss Twittersphere?

2.4. Differences Between German- and French-Speaking Switzerland

Switzerland has a linguistically segmented media market with four language regions. Although there are frequent interactions between the regions in news media reporting and social media communication, they are also shown to have separate journalistic cultures and distinct social media user communities on Twitter (Rauchfleisch et al., 2021). Related to the Covid-19 pandemic, differences and similarities in news media reporting and social media communication have been identified between the French- and German-speaking regions. In the news and on social media, the salience of the issue and the subtopics discussed within the issue were similar, while the set of experts and actors was very different (Ort et al., 2023; Rauchfleisch et al., 2021). Therefore, we are also interested in whether there are any discernible differences between the two largest language regions, German- and French-speaking, regarding the vaccination issue:

RQ4: Are there any differences between German- and French-speaking regions?

3. Methods

We investigated our RQs through an automated content analysis of the Swiss news media coverage of vaccination and posts about vaccination by Swiss Twitter users. We analyzed all news articles with reference to vaccination published between April 1, 2019, and June 30, 2022, in 20 online news media outlets from the German- and French-speaking regions of Switzerland ($n = 77,798$ news articles). Similarly, we used all tweets with reference to vaccination in the same period ($n = 929,431$ posts by 22,672 unique users). We only included posts in the German and French languages. News articles and tweets were retrieved using the same search query in both spheres (impf* OR vacc* OR vakzin*).

The news articles were accessed through the Swiss Media Database, which is maintained by Swiss publishers and contains full-text articles from the most relevant Swiss news media outlets. We selected online news outlets because they are the most widely used source of information in Switzerland. From three types of online media, namely subscription-based, mass market, and public service, we chose the outlets with the highest reach in the two language regions (Udris et al., 2024). A complete list of the selected outlets is provided in Table 1.

Table 1. Overview of news media outlets in the dataset ($n = 77,798$).

Media outlet	Media type	Language region	Articles
nzz.ch	Subscription	German	6,054
letemps.ch	Subscription	French	5,480
blick.ch	Mass market	German	5,246
tagblatt.ch	Subscription	German	4,808
srf.ch	Public broadcaster	German	4,767
bluewin.ch	Mass market	German	4,199
20minutes.ch	Mass market	French	4,180
20minuten.ch	Mass market	German	4,158
aargauerzeitung.ch	Subscription	German	4,085
tagesanzeiger.ch	Subscription	German	3,974
baslerzeitung.ch	Subscription	German	3,794
bernerzeitung.ch	Subscription	German	3,738
lematin.ch	Mass market	French	3,675
luzernerzeitung.ch	Subscription	German	3,568
24heures.ch	Subscription	French	3,093
watson.ch	Mass market	German	2,749
suedostschweiz.ch	Subscription	German	2,728
lenouvelliste.ch	Subscription	French	2,624
rts.ch	Public broadcaster	French	2,546
tdg.ch	Subscription	French	2,332

To analyze Twitter, we used a tracking instrument (Rauchfleisch et al., 2021) that continuously collected the posts of all Swiss Twitter users ($n = 296,841$ unique users) through the Twitter API. All tweets written by the tracked users were downloaded to a server on a daily basis, resulting in a total dataset of 51,077,295 tweets

from 101,648 active unique users for our period of investigation. The method was developed to track the complete Swiss Twittersphere. Swiss users were identified using an iterative, semi-automated process based on information from the user biography and network analysis. The Swiss Twittersphere was defined as all accounts that mention Switzerland, Swiss nationality, or a Swiss city in their biography or, where applicable, as the location in their Twitter profile description. We included these keywords in all four official languages of Switzerland (i.e., German, French, Italian, and Romansh) and English. As a starting point, we used large, comprehensive datasets on Swiss Twitter debates that we had tracked for previous studies. We then filtered users by applying our set of keywords and downloaded all their followers. This filtering process was repeated in three rounds. The final round yielded only a small number of new followers referencing Switzerland, indicating saturation. Subsequently, we constructed a follower network using the Infomap algorithm (Rosvall & Bergstrom, 2008). We then manually validated the resulting communities and excluded some that were incorrectly identified as Swiss. For example, a group of users based in New Bern (a city in North Carolina, USA) was mistakenly included because the name “Bern” is the same as that of the Swiss capital. We also manually validated individual accounts. Among others, we validated highly active users to exclude automated accounts and checked whether well-known Swiss accounts were included in the dataset (e.g., journalists and news media, politicians, athletes, and companies). Overall, manual validation led to the exclusion of 6,113 accounts (2% of the initial sample). Although it is difficult to precisely assess how representative this dataset is, manual validation and comparison with the datasets collected using the tracker suggest that the results are highly plausible. This user-based approach to defining the Swiss Twittersphere has a key advantage: Due to the shared language with much larger neighboring countries, such as Germany and France, samples solely based on language can hardly be identified as Swiss. The sample presented here provides a more accurate representation of the Swiss Twitter debate, making it particularly well suited for a valid analysis of its relationship with a clearly defined sample of Swiss news media.

In Switzerland, as in most other countries, the Covid-19 pandemic caused major upheavals in society at the beginning of 2020. The first Covid-19 case in Switzerland was registered on February 25, 2020. On March 16, 2020, the government announced wide-ranging measures against the spread of the virus, including a public lockdown that lasted several weeks. Two years of cyclical tightening and loosening of measures followed to prevent the collapse of the health infrastructure. On November 9, 2020, Pfizer and BioNTech announced that their Covid-19 vaccine had demonstrated very promising results; other pharmaceutical companies followed. On December 23, 2020, the first vaccine dose was administered in Switzerland. Several rounds of vaccination were facilitated in the following months. In view of the increasing immunity of the population, in early 2022, the national government decided on far-reaching loosening of the measures, which have not been reintroduced since. Based on this chronology of events, we distinguish four phases in the analysis: a pre-pandemic phase from the first day of data collection to the first confirmed Covid-19 case in Switzerland (April 1, 2019–February 24, 2020); a pre-vaccine phase before the first viable vaccine option was within reach (February 25, 2020–November 8, 2020); a vaccine phase after the first vaccine was developed and rolled out (November 9, 2020–January 12, 2022); and a phase in which the measures against the spread of Covid-19 were slowly being “phased out” (January 13, 2022–June 30, 2022). We used an analysis of variance (ANOVA) to test for significant differences in issue attention and semantic overlap across the four time phases. Pairwise independent t-tests with Bonferroni correction were applied between all phase pairs for issue attention and semantic overlap. We used Spearman’s correlation coefficient to examine the relationship between issue attention in two time series, namely Twitter and news media, each differenced by one day to control for autocorrelation.

To make valid comparisons between news media and Twitter, we measured the daily share of vaccination-related news coverage and Twitter communication. We calculated this by dividing the number of news articles or tweets referencing vaccination per day by the total number of news articles or tweets published on the corresponding day. This procedure was applied in other studies to measure issue attention (e.g., Gilardi et al., 2022; Schäfer et al., 2014) and allowed us to make valid comparisons between news media and Twitter (with more content providers and unrestricted space) and between the larger German-speaking region (with more news media outlets and more Twitter users) and the smaller French-speaking region. The total number of news articles published per day by the 20 analyzed outlets was obtained from the Swiss Media Database. As the Twitter tracker captured all posts from all Swiss users rather than just those containing specific hashtags or keywords, the total number of tweets published per day was also available.

To measure the semantic overlap between news media coverage and Twitter communication about vaccination, we identified the most frequently used words per week in both spheres. To account for the differing lengths of news articles and tweets and to minimize coincidental overlaps, we used only the first 40 words of each news article. This corresponded approximately to the average length of the title and lead section of news articles in our sample and was based on the assumption that the most important aspects of an article are stated at the beginning of most articles. First, the news articles and tweets were cleaned by removing punctuation, numbers, and stop words. Subsequently, common collocations (i.e., words that frequently appear together, such as “covid crisis”) were automatically identified in the data and merged for the analysis (to form “covid_crisis”). The frequency of all remaining words in news articles and tweets was aggregated per week for the two language regions. This process produced a list of the 100 most frequent words per week and language region for both news coverage and tweets about vaccination. These lists served as the basis for analyzing the weekly overlap between the key terms in each sphere (separately for each language region). This overlap was assessed as a percentage: the number of overlapping terms in both lists (news media and Twitter) divided by the number of terms in each list. We used this measure of semantic overlap as an approximation of the content similarity between the two platforms. The two metrics, issue attention and semantic overlap, allowed us to assess how aligned news media and Twitter were across the different phases before, during, and after the pandemic.

4. Results

We consider issue attention for the vaccination issue in Swiss news media and the Swiss Twittersphere over time (RQ1). The trends on both platforms follow typical patterns of the issue-attention cycle (Downs, 1972). For both news media and Twitter, we can observe low salience in the pre-pandemic phase, followed by a moderate increase after the outbreak of the pandemic, as vaccines were discussed as a possible measure but were not available yet. This initial increase in issue attention is followed by a significant peak once a viable vaccine becomes available and then by a decline in the phase-out of measures against the pandemic (Figure 1).

Various subtopics shape news reporting and tweets on the issue of vaccination over time. Before the Covid-19 pandemic, Twitter and media coverage on vaccination were limited, mainly featuring terms such as measles, influenza, Ebola, and vaccine skepticism. During the pre-vaccine phase, discussions center on the new virus, mitigation measures, and the potential development of a vaccine. With the development of the first Covid vaccine and the launch of the national vaccination campaign, issue attention for vaccination and

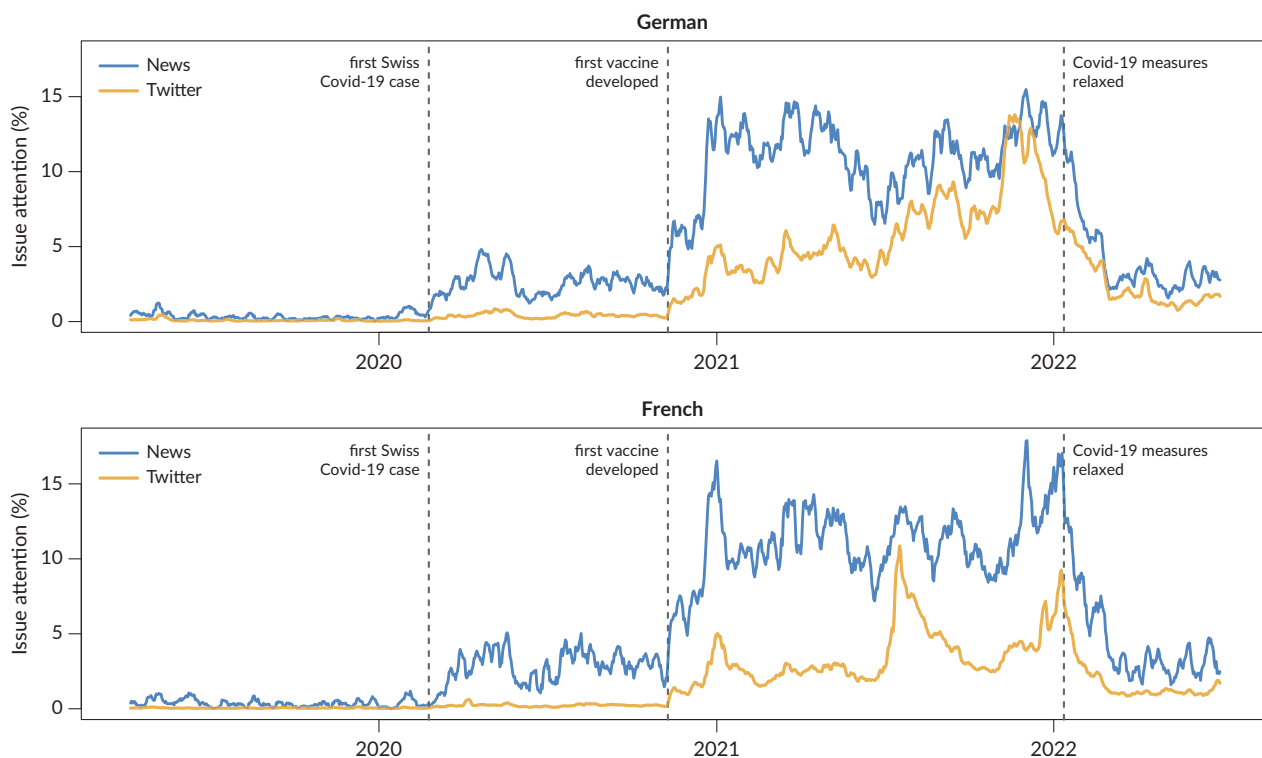


Figure 1. Issue attention for vaccination in news media (daily share of articles, blue) and on Twitter (daily share of tweets, yellow) in the German-speaking (top) and French-speaking (bottom) regions.

its related subtopics increases rapidly. The vaccine phase is marked by: debates such as the strategies, modalities, and progress of the national vaccination campaign; the procurement, efficacy, and side effects of the various vaccines available (with particularly unfavorable reports about the AstraZeneca vaccine); the comparisons with other countries (notably Israel, which achieved an exceptionally early vaccine rollout); and the vaccination rate disparities among certain population groups. Later subtopics include booster doses, Covid-19 vaccinations for children, vaccine certificates, restrictions on the unvaccinated (notably Novak Djokovic's Australian Open affair), and discussions on mandatory vaccination. With the gradual lifting of Covid-19 control measures during phase-out, the volume of discussion declines rapidly in both spheres and language regions. Case numbers (which continued to rise), vaccination rates, and comparisons with neighboring countries are still discussed but to a much lesser extent.

Issue attention for vaccination, measured as a share of the total news coverage or tweets, respectively, is higher in news media than on Twitter across all phases of the analysis (Table 2). Therefore, the vaccination issue is generally discussed more prominently in the news media than on Twitter. Furthermore, we observe similar levels of salience in news media across the German- and French-speaking regions (5.23% vs. 5.37%). However, salience on Twitter is higher in the German-speaking region (2.55%) than in the French-speaking region (1.57%).

Table 2. Average daily issue attention for vaccination, measured as the daily percentage of total news articles or tweets, for each phase and for both language regions.

Language region	Medium	Pre-pandemic (n = 330)	Pre-vaccine (n = 258)	Vaccine (n = 430)	Phase-out (n = 169)	Overall (n = 1,187)
German	News	0.35%	2.61%	11.08%	3.86%	5.23%
	Twitter	0.08%	0.42%	5.82%	2.30%	2.55%
French	News	0.37%	2.86%	11.18%	4.18%	5.37%
	Twitter	0.05%	0.23%	3.54%	1.60%	1.57%

Note: The number of days in the analysis is attached to each phase in the header.

A one-way ANOVA was conducted to test the differences in issue attention for vaccination across the four phases. The results reveal that the phases differ significantly ($F(3, 4,744) = 2,002.43, p < 0.001$), with a large effect size ($\eta^2 = 0.56$). Pairwise post hoc comparisons (with Bonferroni correction) show that all phase pairs differ significantly in issue attention (Table 3). These results confirm the substantial shifts in the salience of vaccination across different phases, with the highest issue attention observed during the vaccine phase and the lowest during the pre-pandemic phase.

Table 3. Results of six post-hoc tests to assess the pairwise differences in issue attention between individual phases across all media types and language regions.

Phase A	Phase B	t-Statistic	Degrees of freedom
Pre-pandemic	Pre-vaccine	-25.63***	1,114.37
Pre-pandemic	Vaccine	-71.30***	1,749.23
Pre-vaccine	Vaccine	-53.80***	2,364.11
Phase-out	Pre-pandemic	29.99***	691.32
Phase-out	Pre-vaccine	13.93***	1,076.06
Phase-out	Vaccine	-34.83***	2,182.01

Notes: The issue attention for vaccination differs significantly between all phases; *** $p < 0.001$, ** $p < 0.01$; * $p < 0.05$.

To answer RQ2, we investigated whether issue attention for vaccination in news media and on Twitter is related. The plot of issue attention over time shows that the salience of debates on vaccination follows similar patterns in news media and on Twitter (Figure 1). Issue attention in the language regions shows some variance but still follows similar general trends.

We used correlations to statistically analyze how strongly related news coverage and Twitter activity are. Spearman's correlation coefficient between issue attention in news media and on Twitter is significant in the German data across all phases but one (Table 4). During the pre-pandemic phase, a moderately positive correlation between tweets and news reports is observed for the German data ($r = 0.19$), while the correlation for the French data ($r = 0.10$) is positive but not significant. As the pandemic advanced to the pre-vaccine stage, the correlation strengthens to a high level for the German data ($r = 0.27$), while the correlation for the French data ($r = 0.09$) remains not significant. In the vaccine phase, both German ($r = 0.31$) and French ($r = 0.30$) correlations reach their highest levels. No significant correlation is found during the phase-out period in either the German data ($r = 0.04$) or the French data ($r = 0.08$). Across all phases, the correlation is strong for the German ($r = 0.24$) and French ($r = 0.21$) data, indicating a robust alignment in issue attention between news media and Twitter over time, particularly in the German-speaking region.

Table 4. Spearman correlation between the daily issue attention for vaccination in news articles and tweets, shown per language region and time phase.

Language region	Pre-pandemic (n = 329)	Pre-vaccine (n = 258)	Vaccine (n = 430)	Phase-out (n = 169)	Overall (n = 1186)
German	0.19***	0.27***	0.31***	0.04	0.24***
French	0.10	0.09	0.30***	0.08	0.21***

Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

To answer RQ3, we investigated the semantic overlap between news coverage and Twitter communication within the vaccination issue. Our examination of the most frequently used words each week shows that the semantic overlap between news media coverage and tweets increases as the pandemic progresses (Figure 2), peaking during the vaccine phase.

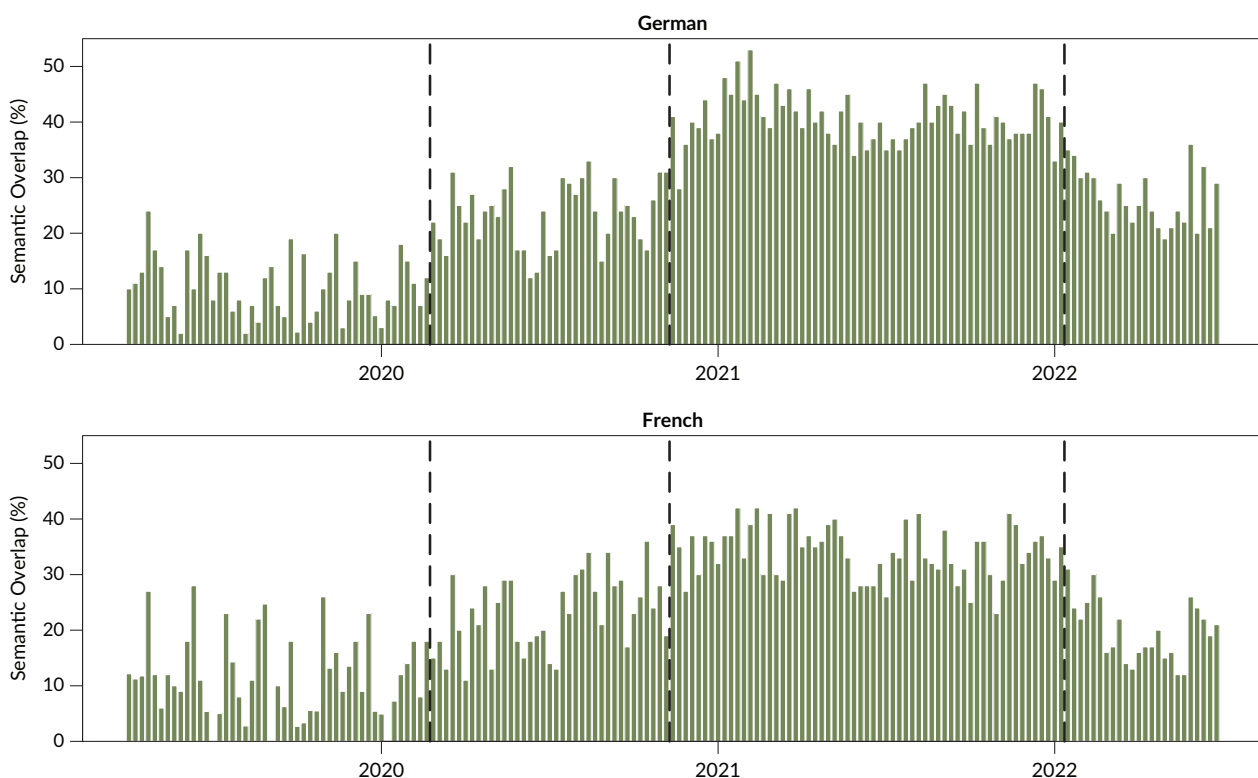


Figure 2. Weekly semantic overlap between Swiss Twitter and news media in the German-speaking (top) and French-speaking (bottom) regions.

The semantic overlap between tweets and news articles on vaccination shows striking differences between phases (Table 5). For instance, in the German-speaking region, the overlap intensifies from 10.33% pre-pandemic to 40.64% during the vaccine phase, suggesting a convergence of messaging or themes between news media and social media as the pandemic evolves. Similarly, the French-speaking region exhibits an increase from 11.72% during the pre-pandemic period to 34% during the vaccine phase. Interestingly, both regions experience a decrease during the phase-out period, with the German semantic overlap decreasing to 26.25% and the French semantic overlap to 19.88%. Overall, along with issue attention, both regions show an increase in overlap during the vaccine phase, which indicates an alignment

of public discourse between social media and news reports. Thus, news media and Twitter feature similar debates around vaccination, the higher the salience of the issue.

Table 5. Weekly semantic overlap in news articles and tweets on the issue of vaccination, shown per phase and language region.

Language region	Pre-pandemic (n = 47)	Pre-vaccine (n = 37)	Vaccine (n = 61)	Phase-out (n = 24)	Overall (n = 169)
German	10.33%	23.32%	40.64%	26.25%	26.38%
French	11.72%	22.97%	34.00%	19.88%	23.38%

The results of the one-way ANOVA show that the time phases differ significantly in terms of semantic overlap ($F(3,334) = 332.04$, $p < 0.001$, $\eta^2 = 0.75$). This is also evident in the pairwise post hoc comparisons. Significant differences are found between all phase pairs, except one. The only non-significant result is between the phase-out and pre-vaccine periods, in which semantic overlap does not seem to differ substantially. The overlap of information between Twitter and news media increases significantly with the pandemic, with the largest difference observed during the transition from the pre-pandemic to the vaccine phase (Table 6).

Table 6. Results of six post-hoc tests to assess the pairwise differences in weekly semantic overlap between individual phases across language regions.

Phase A	Phase B	t-Statistic	Degrees of freedom
Pre-pandemic	Pre-vaccine	-12.28***	159.34
Pre-pandemic	Vaccine	-31.07***	186.78
Pre-vaccine	Vaccine	-15.88***	143.99
Phase-out	Pre-pandemic	10.83***	99.29
Phase-out	Pre-vaccine	-0.08	101.65
Phase-out	Vaccine	-13.87***	80.97

Notes: The semantic overlap of news media and tweets differs significantly between all phases except between the phase-out and pre-vaccine phases; *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

RQ4 concerns the differences between the German- and French-speaking regions of Switzerland. As previously discussed in our findings, for the first three RQs, we do not observe major differences overall. The vaccination issue follows a similar pattern in both regions in terms of general issue attention and semantic overlap. However, the most notable difference is that, despite following the same trend, issue attention for vaccination is lower in the French-speaking Twittersphere than in its German-speaking counterpart.

5. Discussion and Conclusion

By analyzing 77,798 news articles and 929,431 tweets, we investigated how the issue attention and semantics of news media and Twitter content are related in a hybrid media system using the case of the vaccination issue in Switzerland. Our analysis shows that issue attention for vaccination follows similar patterns in news media and on Twitter, with some traction in the pre-vaccine phase and a particularly high increase in the vaccine phase before a rapid decline during the phase-out period. News media and Twitter are more strongly correlated in the pre-vaccine (for the German-speaking region) and vaccine phases than in the pre-pandemic

phase or phase-out. Before and after the pandemic, public debate on vaccination has more distinct dynamics in each sphere. We find typical patterns of issue-attention cycles (Downs, 1972) on Twitter and in news media for the issue of vaccination.

Regarding semantic overlap, similar to issue attention, keywords overlap the most during the vaccine phase. However, semantic overlap remains higher during phase-out than in the pre-pandemic phase. This finding shows that the news media and the Twittersphere feature similar debates around vaccination during crises. It is quite striking how issue attention and semantic overlap run parallel to one another, which highlights how closely news media and Twitter are aligned in the hybrid media system. This finding is consistent with earlier studies demonstrating the proximity between the two spheres (Gilardi et al., 2022; Metag & Rauchfleisch, 2017; Su & Borah, 2019).

The salience data show various peaks in issue attention, which can be traced back to key events—the first Covid-19 case in Switzerland, the first promising vaccine development, and the easing of pandemic measures—which we used to divide the four phases of the study. Other major and minor key events in the data include the start of the national vaccination campaign in December 2020, the introduction of a national certificate requirement (vaccinated, tested, or recovered) for many public spaces in September 2021, or the emergence of the Omicron variant in December 2021. Events abroad also repeatedly influenced the topics discussed in Switzerland, such as Israel's introduction of a health pass and the associated opening of many public spaces in Israel in February 2021 or the controversy over Novak Djokovic's deportation from Australia due to his lack of Covid-19 vaccination before the January 2022 Australian Open. Neighboring countries played a recurring role too, such as France's introduction of its version of a health pass in July 2021 and Austria's discussion of mandatory vaccination in November 2021.

This study set out to measure the extent to which issue attention and the semantics of the vaccination debate align between news media and social media in the different phases of a crisis, specifically the Covid-19 pandemic. The results show that the two spheres, news media and Twitter, are significantly more closely aligned in times of crisis. These findings substantiate previous works on issue agendas converging toward a dominant issue in times of crisis (Imhof, 2011; Rauchfleisch et al., 2023). Although the dissemination of information and the number of actors involved in today's hybrid media environment have clearly become much more complex (Chadwick, 2017; Wallace, 2018), traditional news media still seem to play a significant role in shaping public debate, especially in the earlier stages of a debate. Journalists seem to have adapted to the hybrid media environment in consolidating their former agenda-setting power. In a US context, journalists have been found to increasingly focus on algorithmic strategies and audience numbers while upholding fundamental journalistic values and attempting to regain control over content (Walters, 2022). This finding also corresponds with previous studies on intermedia agenda setting (Gilardi et al., 2022; Harder et al., 2017), particularly Su and Borah's conclusion (2019, p. 246), which established that "newspapers are more likely to influence Twitter in terms of ongoing discussions during non-breaking news periods, while Twitter is more likely to influence newspapers right after the occurrence of breaking news." In terms of the implications for vaccine information, news media and social media are relevant to the public debate on this important issue, especially at the height of the crisis. We assume that traditional news media will not only remain significant sources of information on vaccines but will also remain particularly important due to their higher credibility and trust (Piltch-Loeb et al., 2021; cf. Gehrau et al., 2021). Social media content tends to attract less attention to vaccine issues outside of crisis periods but can reach groups that traditional media may not reach directly (Chadwick et al., 2021).

The underlying data of this study enabled us to measure and compare tweets and news articles related to the issue of vaccination as shares of their respective total volume, which is often neglected in research. The advantage of the measurement as a share of total volume, or issue attention, is that it allows for a more accurate assessment of the dimension of a debate. As issue attention values are measured on a standardized scale (0% to 100%), this measurement makes the data suitable for comparisons, for example, between different platforms or language regions. In the case of the vaccination issue in Switzerland, we found similar overarching trends in the two language regions (German and French). In these regions, the salience of the issue is higher in news media than on Twitter. This difference is most likely an effect of the “unlimited” or “uncurated” space in Twittersphere compared with the somewhat limited and certainly stronger curated space in news media (cf. Jang & Pasek, 2015). When examining the development over time, we observed that issue attention was higher in news media than on Twitter during the first few months following the outbreak of the pandemic (pre-vaccine phase). This suggests that vaccination was already being discussed within the context of the pandemic before vaccines became available and were rolled out, while the debate on Twitter gained momentum only afterward. This challenges the common assumption that social media act as an early indicator of emerging public debates to be later picked up by traditional news media—that is, that social media set the agenda of journalism. Conversely, the data highlight the central role of (constructive) journalism: anticipating adverse events and exploring potential solutions (Hallin et al., 2023; Mast et al., 2019). Interestingly, we found only minor differences between language regions when focusing on the four main phases and disregarding short-term fluctuations. One notable exception is the significantly higher issue attention in the German-speaking Twittersphere at the end of the vaccination phase in autumn 2021, when case numbers increased in the wake of the Omicron variant, a national vote on the pandemic measures was held, and internationally, debates about vaccine mandates started to emerge. This is also the only period when issue attention on Twitter briefly exceeds that in news media.

These results invite further in-depth research. The question arises as to whether the alignment of issue attention and semantics means that perspectives and frames coincide or whether similar topics are discussed with different frames and evaluations. Moreover, the mechanisms behind this alignment can be further explored. For example, news media organizations and journalists’ accounts on social media play a crucial role in intermedia agenda setting (Harder et al., 2017), and content from social media is often directly embedded in news articles (Oschatz et al., 2022).

Our method also has some limitations that should be taken into account when interpreting these results. We deliberately kept the analysis of issue attention relatively simple and intuitive, focusing on the strengths and patterns of the relationship between news media and Twitter rather than determining the direction or causality of these connections. We acknowledge that, similar to many previous studies, we analyzed daily data (for issue attention) and even weekly data (for semantics), despite underscoring the need for sub-daily analyses to capture the complex interplay between social media and news media. Therefore, although this study successfully identified patterns in issue attention and semantic overlap between news media and Twitter over time, it did not evaluate the directionality of this relationship. Employing additional time series analysis methods with a specific focus on measuring directionality and precise timing in future research would allow for a more detailed examination of whether news media activity precedes or influences Twitter discussions and to what extent (or vice versa). However, it should be noted that these effects can be challenging to isolate reliably, even with sub-daily media data. Newspapers often lag behind social media due to structural constraints, such as publishing bundled articles the next day. By contrast, interactions between online news and social media

unfold within minutes or hours, especially during breaking news. Thus, without tailored strategies, even data with minute-level precision may not reliably establish causality on their own.

Moreover, although many of the findings are consistent with previous research, the results of this single-country study should always be combined with findings from other contexts. Semantic analysis is also a relatively simple method of analysis, in which we used 100 terms per medium and week as an approximation of the content of the articles and tweets. This approach has the advantage of being relatively straightforward and consistent across languages with differing modalities. However, follow-up studies could analyze content in more depth, for example, by capturing topics, frames, or sentiments. Another limitation is that we considered Twitter a unified discursive space, thereby ignoring the diversity of actors involved in the debate on vaccination. Future studies could address this aspect by investigating how issue attention for vaccination and semantic focus in debates differ between user communities on Twitter and how these variables are related to news media coverage. It remains uncertain whether the results can be transferred to other social media platforms, especially as Twitter is used by many journalists and news media outlets to source and publish stories, a characteristic that may be less evident in other social networks. Notably, Twitter has changed substantially since Elon Musk's takeover in October 2022, including a name change to X (Claesson, 2024). Our analysis was not immediately affected by these circumstances, as the entire period under investigation was prior to Musk's operational control. Therefore, although the results may not be directly transferable to X, they still provide valuable insights into the alignment of issue attention and semantics between social media and news media in the age of hybrid media systems.

Acknowledgments

The authors would like to express their gratitude to the academic editors and the three anonymous reviewers for their valuable comments, which contributed substantially to the quality of the final publication.

Funding

This work was supported by the Swiss National Science Foundation [Project no.: 198299]. The publication of this article in open access was made possible through the institutional membership agreement between the University of Zurich and Cogitatio Press.

Conflict of Interests

The authors declare no conflicts of interest.

Data Availability

Data on the number of articles or tweets per day can be provided upon reasonable request.

LLMs Disclosure

The authors used AI tools from DeepL and OpenAI to assist with translation and wording when preparing this manuscript.

References

Ahmed, S., Rasul, M. E., & Cho, J. (2022). Social media news use induces Covid-19 vaccine hesitancy through skepticism regarding its efficacy: A longitudinal study from the United States. *Frontiers in Psychology*, 13, Article 900386. <https://doi.org/10.3389/fpsyg.2022.900386>

- Allington, D., Duffy, B., Wessely, S., Dhavan, N., & Rubin, J. (2021). Health-protective behaviour, social media usage and conspiracy belief during the Covid-19 public health emergency. *Psychological Medicine*, 51(10), 1763–1769. <https://doi.org/10.1017/S003329172000224X>
- Althaus, S. L. (2002). American news consumption during times of national crisis. *PS: Political Science & Politics*, 35(3), 517–521. <https://doi.org/10.1017/S104909650200077X>
- Arendt, F., & Scherr, S. (2019). Investigating an issue-attention-action cycle: A case study on the chronology of media attention, public attention, and actual vaccination behavior during the 2019 measles outbreak in Austria. *Journal of Health Communication*, 24(7/8), 654–662. <https://doi.org/10.1080/10810730.2019.1652709>
- Bai, S. Y., & Lee, E. W. (2024). Examining media's coverage of Covid-19 vaccines and social media sentiments on vaccine manufacturers' stock prices. *Frontiers in Public Health*, 12, Article 1411345. <https://doi.org/10.3389/fpubh.2024.1411345>
- Blume, S. (2006). Anti-vaccination movements and their interpretations. *Social Science & Medicine*, 62(3), 628–642. <https://doi.org/10.1016/j.socscimed.2005.06.020>
- Bonnevie, E., Gallegos-Jeffrey, A., Goldbarg, J., Byrd, B., & Smyser, J. (2021). Quantifying the rise of vaccine opposition on Twitter during the Covid-19 pandemic. *Journal of Communication in Healthcare*, 14(1), 12–19. <https://doi.org/10.1080/17538068.2020.1858222>
- Boyle, T. P. (2001). Intermedia agenda setting in the 1996 presidential election. *Journalism & Mass Communication Quarterly*, 78(1), 26–44. <https://doi.org/10.1177/107769900107800103>
- Bruns, A. (2023). From “the” public sphere to a network of publics: Towards an empirically founded model of contemporary public communication spaces. *Communication Theory*, 33(2/3), 70–81. <https://doi.org/10.1093/ct/qtad007>
- Carlson, M. (2020). Journalistic epistemology and digital news circulation: Infrastructure, circulation practices, and epistemic contests. *New Media & Society*, 22(2), 230–246. <https://doi.org/10.1177/1461444819856921>
- Chadwick, A. (2017). *The hybrid media system: Politics and power*. Oxford University Press.
- Chadwick, A., Kaiser, J., Vaccari, C., Freeman, D., Lambe, S., Loe, B. S., Vanderslott, S., Lewandowsky, S., Conroy, M., Ross, A. R. N., Innocenti, S., Pollard, A. J., Waite, F., Larkin, M., Rosebrock, L., Jenner, L., McShane, H., Giubilini, A., Petit, A., & Yu, L. M. (2021). Online social endorsement and Covid-19 vaccine hesitancy in the United Kingdom. *Social Media + Society*, 7(2). <https://doi.org/10.1177/20563051211008817>
- Chen, K., Molder, A. L., Duan, Z., Boulianne, S., Eckart, C., Mallari, P., & Yang, D. (2023). How climate movement actors and news media frame climate change and strike: Evidence from analyzing Twitter and news media discourse from 2018 to 2021. *The International Journal of Press/Politics*, 28(2), 384–413. <https://doi.org/10.1177/19401612221106405>
- Claesson, A. (2024). Twitter: A necessary evil? Journalistic responses to Elon Musk and the denormalization of social media. *Journalism*, 25(12), 2604–2621. <https://doi.org/10.1177/14648849231221616>
- Conway, B. A., Kenski, K., & Wang, D. (2015). The rise of Twitter in the political campaign: Searching for intermedia agenda-setting effects in the presidential primary. *Journal of Computer-Mediated Communication*, 20(4), 363–380. <https://doi.org/10.1111/jcc4.12124>
- Djerf-Pierre, M. (2013). Green metacycles of attention: Reassessing the attention cycles of environmental news reporting 1961–2010. *Public Understanding of Science*, 22(4), 495–512. <https://doi.org/10.1177/0963662511426819>
- Djerf-Pierre, M., & Shehata, A. (2017). Still an agenda setter: Traditional news media and public opinion during

- the transition from low to high choice media environments. *Journal of Communication*, 67(5), 733–757. <https://doi.org/10.1111/jcom.12327>
- Downs, A. (1972). Up and down with ecology: The issue-attention cycle. *The Public Interest*, 28, 38–50.
- Eisenegger, M., Oehmer, F., Udris, L., & Vogler, D. (2021). Lessons learned? The quality of media coverage in the first and second waves of the coronavirus pandemic. In fög—Forschungszentrum Öffentlichkeit und Gesellschaft & Universität Zürich (Ed.), *Jahrbuch Qualität der Medien 2021* (pp. 37–50). Schwabe. <https://doi.org/10.5167/uzh-210608>
- Friemel, T. N., Geber, S., Egli, S., & Udris, L. (2020). Informations—und Kommunikationsverhalten in der Corona-Pandemie. In fög—Forschungszentrum Öffentlichkeit und Gesellschaft; Universität Zürich (Ed.), *Jahrbuch Qualität der Medien 2020* (pp. 51–60). Schwabe. <https://doi.org/10.5167/uzh-191302>
- Geber, S., Fretwurst, B., Vogler, D., Siegen, D., Eisenegger, M., & Friemel, T. (2024). Norm setting in times of crisis: A time-series analysis of the dynamics between media reporting and perceived norms in the context of the Covid-19 vaccination roll-out. *Mass Communication and Society*. Advance online publication. <https://doi.org/10.1080/15205436.2024.2389833>
- Gehrau, V., Fujarski, S., Lorenz, H., Schieb, C., & Blöbaum, B. (2021). The impact of health information exposure and source credibility on Covid-19 vaccination intention in Germany. *International Journal of Environmental Research and Public Health*, 18(9), Article 4678. <https://doi.org/10.3390/ijerph18094678>
- Geiß, S. (2011). Patterns of relationships between issues: An analysis of German prestige newspapers. *International Journal of Public Opinion Research*, 23(3), 265–286. <https://doi.org/10.1093/ijpor/edq050>
- Gilardi, F., Gessler, T., Kubli, M., & Müller, S. (2022). Social media and political agenda setting. *Political Communication*, 39(1), 39–60. <https://doi.org/10.1080/10584609.2021.1910390>
- Greussing, E., & Boomgaarden, H. G. (2017). Shifting the refugee narrative? An automated frame analysis of Europe's 2015 refugee crisis. *Journal of Ethnic and Migration Studies*, 43(11), 1749–1774. <https://doi.org/10.1080/1369183X.2017.1282813>
- Gruzd, A., Abul-Fottouh, D., Song, M. Y., & Saiphoo, A. (2023). From Facebook to YouTube: The potential exposure to Covid-19 anti-vaccine videos on social media. *Social Media + Society*, 9(1). <https://doi.org/10.1177/20563051221150403>
- Hallin, D. C., Mellado, C., Cohen, A., Hubé, N., Nolan, D., Szabó, G., Abuali, Y., Arcila, C., Attia, M., Blanchett, N., Chen, K., Davydov, S., De Maio, M., Garcés, M., Himma-Kadakas, M., Humanes, M. L., Lin, C. I.-H., Lecheler, S., Lee, M., . . . & Ybáñez, N. (2023). Journalistic role performance in times of COVID. *Journalism Studies*, 24(16), 1977–1998. <https://doi.org/10.1080/1461670X.2023.2274584>
- Harder, R. A., Sevenans, J., & Van Aelst, P. (2017). Intermedia agenda setting in the social media age: How traditional players dominate the news agenda in election times. *The international Journal of Press/Politics*, 22(3), 275–293. <https://doi.org/10.1177/1940161217704969>
- Ilic, A., Roser, K., Sommer, G., Baenziger, J., Mitter, V. R., Mader, L., Dyntar, D., & Michel, G. (2022). Covid-19 information-seeking, health literacy, and worry and anxiety during the early stage of the pandemic in Switzerland: A cross-sectional study. *International Journal of Public Health*, 67, Article 1604717. <https://doi.org/10.3389/ijph.2022.1604717>
- Imhof, K. (2011). *Die Krise der Öffentlichkeit: Kommunikation und Medien als Faktoren des sozialen Wandels*. Campus Verlag.v
- Jang, S. M., & Pasek, J. (2015). Assessing the carrying capacity of Twitter and online news. *Mass Communication and Society*, 18(5), 577–598. <https://doi.org/10.1080/15205436.2015.1035397>
- Jiang, X., Su, M.-H., Hwang, J., Lian, R., Brauer, M., Kim, S., & Shah, D. (2021). Polarization over vaccination: Ideological differences in Twitter expression about Covid-19 vaccine favorability and specific hesitancy concerns. *Social Media + Society*, 7(3). <https://doi.org/10.1177/20563051211048413>

- Johnson, N. F., Velásquez, N., Restrepo, N. J., Leahy, R., Gabriel, N., El Oud, S., Zheng, M., Manrique, P., Wuchty, S., & Lupu, Y. (2020). The online competition between pro- and anti-vaccination views. *Nature*, 582, 230–233. <https://doi.org/10.1038/s41586-020-2281-1>
- Kaiser, J., Rauchfleisch, A., & Córdova, Y. (2021). Comparative approaches to mis/disinformation | Fighting Zika with honey: An analysis of YouTube's video recommendations on Brazilian YouTube. *International Journal of Communication*, 15, 1244–1262.
- Kepplinger, H. M., & Habermeier, J. (1995). The impact of key events on the presentation of reality. *European Journal of Communication*, 10(3), 371–390. <https://doi.org/10.1177/0267323195010003004>
- Langer, A. I., & Gruber, J. B. (2021). Political agenda setting in the hybrid media system: Why legacy media still matter a great deal. *The International Journal of Press/Politics*, 26(2), 313–340. <https://doi.org/10.1177/1940161220925023>
- Lee, A. M. (2015). Social media and speed-driven journalism: Expectations and practices. *International Journal on Media Management*, 17(4), 217–239. <https://doi.org/10.1080/14241277.2015.1107566>
- Lin, C. A., & Lagoe, C. (2013). Effects of news media and interpersonal interactions on H1N1 risk perception and vaccination intent. *Communication Research Reports*, 30(2), 127–136. <https://doi.org/10.1080/08824096.2012.762907>
- Mast, J., Coesemans, R., & Temmerman, M. (2019). Constructive journalism: Concepts, practices, and discourses. *Journalism*, 20(4), 492–503. <https://doi.org/10.1177/1464884918770885>
- Matthes, J. (2006). The need for orientation towards news media: Revising and validating a classic concept. *International Journal of Public Opinion Research*, 18(4), 422–444. <https://doi.org/10.1093/ijpor/edh118>
- McCombs, M., & Weaver, D. (1973). Voters' need for orientation and use of mass communication. *Journalism Quarterly*, 44, 545–548.
- Metag, J., & Rauchfleisch, A. (2017). Journalists' use of political tweets: Functions for journalistic work and the role of perceived influences. *Digital Journalism*, 5(9), 1155–1172. <https://doi.org/10.1080/21670811.2016.1248989>
- Milani, E., Weitkamp, E., & Webb, P. (2020). The visual vaccine debate on Twitter: A social network analysis. *Media and Communication*, 8(2), 364–375. <https://doi.org/10.17645/mac.v8i2.2847>
- Motta, M., & Stecula, D. (2023). The effects of partisan media in the face of global pandemic: How news shaped Covid-19 vaccine hesitancy. *Political Communication*, 40(5), 505–526. <https://doi.org/10.1080/10584609.2023.2187496>
- Ort, A., Rohrbach, T., Diviani, N., & Rubinelli, S. (2023). Covering the crisis: Evolution of key topics and actors in Covid-19 news coverage in Switzerland. *International Journal of Public Health*, 67, Article 1605240. <https://doi.org/10.3389/ijph.2022.1605240>
- Oschatz, C., Stier, S., & Maier, J. (2022). Twitter in the news: An analysis of embedded tweets in political news coverage. *Digital Journalism*, 10(9), 1526–1545. <https://doi.org/10.1080/21670811.2021.1912624>
- Peters, C. (2012). Journalism to go: The changing spaces of news consumption. *Journalism Studies*, 13(5/6), 695–705. <https://doi.org/10.1080/1461670X.2012.662405>
- Piltch-Loeb, R., Savoia, E., Goldberg, B., Hughes, B., Verhey, T., Kayyem, J., Miller-Idriss, C., & Testa, M. (2021). Examining the effect of information channel on Covid-19 vaccine acceptance. *Plos One*, 16(5), Article e0251095. <https://doi.org/10.1371/journal.pone.0251095>
- Rauchfleisch, A., & Metag, J. (2016). The special case of Switzerland: Swiss politicians on Twitter. *New Media & Society*, 18(10), 2413–2431. <https://doi.org/10.1177/1461444815586982>
- Rauchfleisch, A., Siegen, D., & Vogler, D. (2023). How Covid-19 displaced climate change: Mediated climate change activism and issue attention in the Swiss media and online sphere. *Environmental Communication*, 17(3), 313–321. <https://doi.org/10.1080/17524032.2021.1990978>

- Rauchfleisch, A., Vogler, D., & Eisenegger, M. (2021). Public sphere in crisis mode: How the Covid-19 pandemic influenced public discourse and user behaviour in the Swiss Twitter-sphere. *Javnost-The Public*, 28(2), 129–148. <https://doi.org/10.1080/13183222.2021.1923622>
- Robertson, C. E., Pröllochs, N., Schwarzenegger, K., Pärnamets, P., Van Bavel, J. J., & Feuerriegel, S. (2023). Negativity drives online news consumption. *Nature Human Behaviour*, 7(5), 812–822. <https://doi.org/10.1038/s41562-023-01538-4>
- Rodrigues, C. M. C., & Plotkin, S. A. (2020). Impact of vaccines: Health, economic and social perspectives. *Frontiers in Microbiology*, 11, Article 1526. <https://doi.org/10.3389/fmicb.2020.01526>
- Rosvall, M., & Bergstrom, C. T. (2008). Maps of random walks on complex networks reveal community structure. *Proceedings of the National Academy of Sciences*, 105(4), 1118–1123. <https://doi.org/10.1073/pnas.0706851105>
- Schäfer, M. S., Ivanova, A., & Schmidt, A. (2014). What drives media attention for climate change? Explaining issue attention in Australian, German and Indian print media from 1996 to 2010. *International Communication Gazette*, 76(2), 152–176. <https://doi.org/10.1177/1748048513504169>
- Schöne, J. P., Parkinson, B., & Goldenberg, A. (2021). Negativity spreads more than positivity on Twitter after both positive and negative political situations. *Affective Science*, 2(4), 379–390. <https://doi.org/10.1007/s42761-021-00057-7>
- Shih, T. J., Wijaya, R., & Brossard, D. (2008). Media coverage of public health epidemics: Linking framing and issue attention cycle toward an integrated theory of print news coverage of epidemics. *Mass Communication & Society*, 11(2), 141–160. <https://doi.org/10.1080/15205430701668121>
- Su, Y., & Borah, P. (2019). Who is the agenda setter? Examining the intermedia agenda-setting effect between Twitter and newspapers. *Journal of Information Technology & Politics*, 16(3), 236–249. <https://doi.org/10.1080/19331681.2019.1641451>
- Udris, L., Rivière, M., Fürst, S., & Eisenegger, M. (2024). *Reuters Institute digital news report 2024: Länderbericht Schweiz*. fög—Forschungszentrum Öffentlichkeit und Gesellschaft/Universität Zürich. <https://doi.org/10.5167/uzh-261185>
- Van Aelst, P., Toth, F., Castro, L., Štětka, V., de Vreese, C., Aalberg, T., Cardenal, A. S., Corbu, N., Esser, F., Hopmann, D. N., Koc-Michalska, K., Matthes, J., Schemer, C., Sheaffer, T., Splendore, S., Stanyer, J., Stępińska, A., Strömbäck, J., & Theocharis, Y. (2021). Does a crisis change news habits? A comparative study of the effects of Covid-19 on news media use in 17 European countries. *Digital Journalism*, 9(9), 1208–1238. <https://doi.org/10.1080/21670811.2021.1943481>
- van Heijkant, L., van Selin, M., Hellsten, I., & Vliegenthart, R. (2019). Intermedia agenda-setting in a policy reform debate. *International Journal of Communication*, 13, 1890–1912.
- Vasterman, P. L., & Ruigrok, N. (2013). Pandemic alarm in the Dutch media: Media coverage of the 2009 influenza A (H1N1) pandemic and the role of the expert sources. *European Journal of Communication*, 28(4), 436–453. <https://doi.org/10.1177/0267323113486235>
- Vliegenthart, R., & Walgrave, S. (2008). The contingency of intermedia agenda setting: A longitudinal study in Belgium. *Journalism & Mass Communication Quarterly*, 85(4), 860–877. <https://doi.org/10.1177/107769900808500409>
- Waldherr, A. (2014). Emergence of news waves: A social simulation approach. *Journal of Communication*, 64(5), 852–873. <https://doi.org/10.1111/jcom.12117>
- Wallace, J. (2018). Modelling contemporary gatekeeping: The rise of individuals, algorithms and platforms in digital news dissemination. *Digital Journalism*, 6(3), 274–293. <https://doi.org/10.1080/21670811.2017.1343648>

- Walters, P. (2022). Reclaiming control: How journalists embrace social media logics while defending journalistic values. *Digital Journalism*, 10(9), 1482–1501. <https://doi.org/10.1080/21670811.2021.1942113>
- Wang, W., & Guo, L. (2018). Framing genetically modified mosquitoes in the online news and Twitter: Intermedia frame setting in the issue-attention cycle. *Public Understanding of Science*, 27(8), 937–951. <https://doi.org/10.1177/0963662518799564>
- Westlund, O., & Ghersetti, M. (2015). Modelling news media use. *Journalism Studies*, 16(2), 133–151. <https://doi.org/10.1080/1461670X.2013.868139>
- Wilson, H., & McKee, M. (2024). Newspaper representation of mandatory vaccination against Covid-19 for healthcare workers in England: A qualitative framing analysis. *Journal of Health Communication*, 29(9), 580–589. <https://doi.org/10.1080/10810730.2024.2394763>
- Zeid, N., & Tang, L. (2022). Egyptian newspapers coverage of Covid-19 vaccines: A theoretically driven content analysis. *Journal of Health Communication*, 27(10), 727–736. <https://doi.org/10.1080/10810730.2022.2157908>

About the Authors



Dario Siegen (MA) is a research and teaching assistant at the Department of Communication and Media Research (IKMZ) and the Research Center for the Public Sphere and Society (fög) at the University of Zurich, Switzerland. His research interests include issue attention in public spheres, science and environmental journalism, automated content analysis, and computational methods.



Daniel Vogler (PhD) is the research director of the Research Center for the Public Sphere and Society (fög) at the University of Zurich and a senior research associate at the Department of Communication and Media Research at the University of Zurich (IKMZ). His research focuses on crisis communication, public relations, journalism, online communication, and computational communication science.



MEDIA AND COMMUNICATION
ISSN: 2183-2439

Media and Communication is an international, peer-reviewed open access journal dedicated to a wide variety of basic and applied research in communication and its related fields. It aims at providing a research forum on the social and cultural relevance of media and communication processes.

The journal is concerned with the social development and contemporary transformation of media and communication and critically reflects on their interdependence with global, individual, media, digital, economic and visual processes of change and innovation.



www.cogitatiopress.com/mediaandcommunication