Youth Digital Participation: Opportunities, Challenges, Contexts, and What's at Stake

Editors

Neta Kligler-Vilenchik and Ioana Literat

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Editorial

Youth Digital Participation: Now More than Ever

Neta Kligler-Vilenchik [1,*] and Ioana Literat [2]

[1] Department of Communication and Journalism, Hebrew University of Jerusalem, 9190501 Jerusalem, Israel;
E-Mail: neta.kv@mail.huji.ac.il
[2] Teachers College, Columbia University, New York, NY 10027, USA; E-Mail: literat@tc.columbia.edu

* Corresponding author

Abstract
One of the far-reaching implications of the current global COVID-19 pandemic has been the sudden boost in use of digital media due to social distancing and stay-at-home orders. In times of routine, youth are often the first to adopt new technologies and platforms, to experiment with modes of production and practices of sharing, and often spend significant time and energy socializing online. Now such digital practices have become common among much wider demographics. Moreover, the move to online learning in schools and the spurt of innovative digital experiences offered has abruptly shifted the rhetoric of concern often associated with youth's so-called "screen time." The articles in this thematic issue—though written long before the COVID-19 pandemic—address many of the questions that now are significantly brought to the forefront. What are the potentials and opportunities offered by youth digital participation for learning, for self-expression, for identity formation, and for social connection? How does digital participation shape civic and political life? And finally, especially when digital participation is so ever-present, what are barriers to youth participation online, and what are the challenges and risks it poses?

Keywords
covid-19; digital opportunities; digital participation; digital risks; online learning; screen time; youth; youth political participation

Issue
This editorial is part of the issue "Youth Digital Participation: Opportunities, Challenges, Contexts, and What's at Stake" edited by Neta Kligler-Vilenchik (Hebrew University of Jerusalem, Israel) and Ioana Literat (Teachers College, Columbia University, USA).

1. Introduction

We are writing the introduction to this thematic issue in April 2020, at what may be the height of the global COVID-19 pandemic. Around the globe, nearly 3 billion people are in some form of lockdown, and are ordered to stay at home. One of the far-reaching implications of this crisis has been the sudden boost in use of digital media among the entire population and, naturally, among one of its trailblazing demographics—youth. In times of routine, youth are often the first to adopt new technologies and platforms, to experiment with modes of production and practices of sharing, and often spend

significant time and energy socializing online (Ito et al., 2009, 2019; Jenkins, Shresthova, Gamber-Thompson, Kligler-Vilenchik, & Zimmerman, 2016). Now such digital practices have become the daily bread-and-butter for much wider demographics, including younger children and older adults. Moreover, the move to online learning in schools around the world, and the spurt of innovative digital experiences offered—from online yoga classes to virtual museums—has abruptly shifted the rhetoric of concern often associated with youth's so-called "screen time" (see Blum-Ross & Livingstone, 2016). The ways in which children and youth play and socialize digitally, which only a few weeks ago were a cause of worry, are

now accepted not only as legitimate, but as an essential connection to educational, social, and cultural life.

The articles in this thematic issue were all written long before the COVID-19 pandemic, and thus do not directly touch on the ways in which digital practices might be shifting or evolving in its aftermath. Yet, at the same time, the topics discussed in the thematic issue address many of the questions that now are significantly brought to the forefront. What are the potentials and opportunities offered by youth digital participation for learning, for self-expression, for identity formation, and for social connection? How does digital participation—currently the main form of participation available to most of us—shape civic and political life, including civic learning, cross-cutting exposure, and political socialization? And finally, especially when digital participation is so ever-present, what are barriers to youth participation online, and what are the challenges and risks it poses?

2. Youth Digital Participation: An Overview of the Thematic Issue

The five contributions to this thematic issue represent a range of geographical contexts, methodological approaches (surveys, content analyses, ethnographic approaches), and foci (opportunities and risks, politics and activism, learning outcomes). Taken together, they paint a rich, nuanced picture of youth digital participation in the current age.

One of the key themes in research on youth digital participation is striking a balance between the opportunities offered by digital media participation and the risks inherent in participation—ranging from privacy risks to psychological risks that may compromise wellbeing. In the first article of this thematic issue, Vissenberg and d'Haenens (2020) consider the trade-off between digital opportunity and risk empirically, focusing on the concept of online resilience. As the authors show through a survey of Flemish youth, engaging with myriad activities online inevitably comes with increased exposure to risky online content, that may cause feelings of harm. Yet, structural equation modeling shows that online resilience—the ability to effectively cope with online risks and deal with their negative consequences—moderates this association, so that the opportunities of participation outweigh harms to youths' wellbeing.

Reinikainen, Kari, and Luoma-aho (2020) consider online opportunities (and risks) in a different, specific context—young people's relationship with brands on social media. Aiming to understand youth perspectives on this relationship, these authors surveyed Finnish and British youth about their perception of organizational listening, that is, to what extent youth trust the information provided by brands, whether they feel brands show interest in people, and who they believe benefits from brands' presence on social media. The results show that youth are fairly skeptical about the way brands use social media to connect with them, and saw brand presence on social media as beneficial mostly to the brands; this was particularly true the younger the respondents. Those with higher perceptions of organizational listening also showed higher levels of trust towards brands—as well as towards authorities and non-profit organizations—pointing to potential societal benefits of active listening to young people on social media.

In addition to commercial brands, another stakeholder attempting to forge relationships with young people through social media are politicians. For politicians, social media offer a way to communicate with citizens—including young citizens—directly, circumventing the influence of traditional news outlets. Surveying Danish youth, Marquart, Ohme, and Möller (2020) investigate to what extent young Danes follow politicians on social media, and how this is related to their civic messaging and campaign participation. The authors find that following politicians on social media is related to increased campaign engagement, but it is youths' friends and followers who are the main node in their political online networks. At the same time, they find that traditional media lose their influence as primary information sources for young citizens, which may raise concerns about increasing power of populist rhetoric and the spread of misinformation.

In terms of political participation, social media can be not only a space to receive and consume political messages, but also to actively campaign and advance political aims. Climate change is currently one of the most prominent causes associated with youth activism, with Swedish teenager Greta Thunberg its salient symbol. Boulianne, Lalancette, and Ilkiw (2020) consider the School Strike for Climate movement, initiated by Thunberg, and its use of Twitter. Employing a combination of qualitative and quantitative analysis, the authors analyze the functions of tweets connected to this movement, finding that they aim not only to share information, but particularly to document local events from across the globe. This function helps shape the movement as a global one, with international protest events connected to each other through social media and other digital media tools.

The final contribution to this thematic issue, analyzing youth digital participation in the form of online journalism, brings youth voices to the forefront. The five authors of this contribution include an adult adviser (Dzula) and four youth co-authors—Chen, Cook, Luna, and Wuu. Together, Dzula et al. (2020) examine the affordances and constraints offered by high school journalism programs. Through a qualitative study incorporating group interviews, reflection prompts, and participant observation, the authors ask how journalism programs can amplify student voice, but also how they may unduly limit students' self-expression. Through a process of collaborative research and writing, the authors qualitatively analyzed the various affordances and constraints of high school journalism, leading them to consider the concept of "risk context"—the vulnerability of an actor,

brought on by digital participation. This concept allows them to acknowledge that not all digital participation is inherently positive, while pushing to maximize affordances and mitigate constraints. This contribution thus incorporates several of the key themes of the issue—risks and opportunities, civic participation, and learning outcomes—while highlighting the youth perspective: Here, youth are not only the object of research, but the researchers themselves. We commend the team for this endeavor and hope to see more youth-authored research in the future.

We see the work conducted in this thematic issue as a significant contribution to the already rich area of youth digital participation. As research has shown, youth digital participation facilitates opportunities in areas such as learning and professional development (e.g., Ito et al., 2019), self-expression and identity exploration (e.g., Renninger, 2015), social connection (e.g., Weinstein, 2018), as well as for civic and political participation and expression (e.g., Kligler-Vilenchik & Literat, 2018). At the same time, youth digital participation should not be uncritically celebrated: Rather, researchers should be cognizant of the nuances of youth participation and a focus on when, how, why and for what youth digital participation *matters* (Literat, Kligler-Vilenchik, Brough, & Blum-Ross, 2018). These questions are imperative, now more than ever.

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Conflict of Interests

The authors declare no conflict of interests.

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About the Authors

Neta Kligler-Vilenchik is Assistant Professor of Communication and Journalism at the Hebrew University of Jerusalem. Her work focuses on civic and political engagement in the context of the changing media environment, particularly among young people. Neta has published work in leading communication journals, including the *Journal of Communication*, *New Media & Society*, *International Journal of Communication*, *Social Media + Society*, and *Computers in Human Behavior*. She is a Co-Author of the book *By Any Media Necessary: The New Youth Activism* (NYU Press, 2015).

Ioana Literat is Assistant Professor in the Communication, Media & Learning Technologies Design program at Teachers College, Columbia University. Her research examines creative participation in online contexts, with a particular focus on the civic dimensions of youth digital participation. Her work has been published in the *Journal of Communication*, *New Media & Society, Communication Theory*, the *International Journal of Communication*, and *Information, Communication & Society*, among others.

Article

Protecting Youths' Wellbeing Online: Studying the Associations between Opportunities, Risks, and Resilience

Joyce Vissenberg * and Leen d'Haenens

Institute for Media Studies, KU Leuven, 3000 Leuven, Belgium; E-Mails: joyce.vissenberg@kuleuven.be (J.V.),
leen.dhaenens@kuleuven.be (L.d'H.)

* Corresponding author

Abstract

As youths engage in different activities on the Internet, it is inevitable that they are exposed to risky online contents that might bother or upset them. Previous research has shown that online resilience, or the ability to effectively cope with online risks and to deal with their negative consequences, protects youths against these feelings of harm that sometimes emerge after a risk experience. However, knowledge about the role of resilience in protecting youths' overall wellbeing seems rather limited. The current study analyzes new EU Kids Online data using structural equation modeling to fill this gap. The findings corroborate earlier findings that the more opportunities youths take up online, the more they are exposed to risky content. These risk encounters are negatively associated with wellbeing. Online resilience moderates this association and protects youths' overall wellbeing from being harmed by online risk exposure. Implications for further research and practice are discussed.

Issue

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1. Introduction

Digital media have become ubiquitous in youths' everyday lives. Their smartphones allow them to communicate with friends and family, to stay up to date with current events, and to play games against opponents from all over the world. The activities that children and youths engage in online are often termed 'opportunities' due to their substantial value for their psychosocial development and overall wellbeing (Livingstone, Haddon, Görzig, & Ólafsson, 2011; Valkenburg & Peter, 2011).

However, as youths engage in a broader range of online opportunities, it becomes inevitable that they encounter some risks along the way (Livingstone & Helsper, 2010). Three types of online risks that children and youths can be exposed to have been identified

(Hasebrink, Livingstone, & Haddon, 2009). The first type consists of content risks, such as when youths are exposed to violent or sexual images. The second type refers to contact risks, such as when they engage in sexting. The third type relates to conduct risks, with a clear perpetrator, for example in cyberbullying. The current study will specifically focus on content risks, as Flemish youths are generally more exposed to potentially harmful online contents than the European average (Smahel et al., 2020). They are mainly exposed to hate speech (21%), drug-related contents (16%), and violent contents (16%; Vissenberg & d'Haenens, 2020).

Parents, experts, and policy makers have raised concerns about the potentially harmful outcomes of exposure to these risks (Lwin, Li, & Ang, 2012). In this study, we conceptualize feelings of harm as feeling both-

ered, upset, or uncomfortable after an online experience or wishing that they had not seen the risky content (Livingstone et al., 2011). However, research has shown that not all youths feel harmed after encountering a negative experience online (Livingstone et al., 2011). Online resilience is a key protective factor from these feelings of harm: Resilient youths employ effective coping strategies to prevent negative online experiences or to deal with the consequences of them, and are hence more protected than less resilient children to feelings of harm after a risky online experience (Vandoninck, d'Haenens, & Roe, 2013).

Previous research has found evidence for a clear association between online opportunities and online risks and their respectively positive and negative influence on wellbeing (Livingstone, Mascheroni, & Staksrud, 2015). However, knowledge about the role of resilience in protecting youths' wellbeing from potential harmful outcomes from online content risks experiences seems limited, as previous studies have mainly focused on preventing the feelings of harm that take place immediately after a negative online experience. The current study aims to fill this important gap. Early research on the effects of media exposure on children and youths often adopted a protectionist perspective, in which these young audiences were seen as passive, impressionable, and vulnerable receivers of different potentially harmful media contents (Kellner & Share, 2007). Scholars that take this protectionist stance generally assume technological determinism and perceive children and youths as "the product of interacting external forces including media influences" (Livingstone, 2016) without having any control over their developmental trajectories themselves. Furthermore, media are generally seen as the cause of harmful effects. This perception of media has fueled anxieties and moral panics that these contents have effects on young audience's attitudes, beliefs, and behavior (Fry, 2015; Livingstone, 2016), which is seen in the research literature on the effects of violent and pornographic content on children's and youths' perceptions of the world (Livingstone, Mascheroni, & Staksrud, 2018). Researchers that position themselves within this protectionist approach to media mainly propose restrictions to media exposure as a means of preventing the harmful effects of media on younger audiences.

In recent years, however, scholars have increasingly criticized the protectionist approach for "its anti-media bias, its over-simplification of the relationships that audiences have with media and for taking away the potential for empowerment" (Kellner & Share, 2007). As a result, much research on children, youths, and media today has shifted towards an empowerment approach. The current study, and the broader EU Kids Online project, also places itself within this framework. Scholars within this tradition perceive youthful audiences as active agents who dynamically engage with media to shape their lives. Media are considered to be an essential means to their development (Livingstone, 2016). As these media, and

especially the Internet, take an increasingly prominent position in different areas of children's and youths' lives, researchers are focusing on how their Internet use can be optimized to maximize the different opportunities the Internet has to offer and to minimize the risks that come with it (Livingstone et al., 2017). The focus of research on children, youths, and media has hence shifted from Internet safety to a better Internet for children and youths in the digital age (Fry, 2015; O'Neill, Staksrud, & Mclaughlin, 2013). Researchers within the EU Kids Online network have focused on the ways in which children and youths use the Internet, the meanings they give to their Internet use, the opportunities they take up and the risks they encounter, and their digital competences to unravel the ways in which the Internet can benefit different aspects of children's and youths' lives the most (Livingstone et al., 2018).

2. Literature Review

2.1. Online Opportunities and Exposure to Risky Content

Young people's Internet use has been extensively studied and classified. In general, researchers distinguish between different types of online activities such as communication, information seeking, and entertainment, among others (Ito et al., 2010). Studies have revealed that communication-related activities in particular have become popular among youths, especially since the rise of social networking sites (Apestaartjaren, 2018; Vandoninck, d'Haenens, & Ichau, 2014). All online activities which are most likely to produce beneficial outcomes for youths, such as for their psychosocial development or their wellbeing, are termed 'opportunities' (Livingstone et al., 2011). Furthermore, building on Giddens's (1991) notion that identities are shaped through social interactions, Livingstone (2008) argues that the Internet provides youths with the affordances to experiment with different aspects of adolescence. These processes, however, are "understood in terms of a balance between opportunity and risk" (Giddens, 1991, p. 78). The current study includes seven types of opportunities that youths take up online and that allow them to shape their identities in this crucial stage of life: communication, help and information seeking, gaming, participation, creation and sharing of user-generated content, entertainment, and online shopping.

However, these activities do not always prove beneficial to all youths and might even constitute risks, which are online activities that might produce harmful outcomes, for some (Livingstone et al., 2011). More than a third of Flemish youths (38%) indicate having encountered a negative experience on the Internet in the past year, 26% did so at least once a month (Vissenberg & d'Haenens, 2020). Important to note is that these activities are often labeled as risks by parents or other adults, while they are not necessarily perceived as negative experiences by the child itself (Livingstone et al.,

2015). This article studies youths' exposure to risky online content from this adult perspective, as we predefined different types of risky content to which youths can be exposed on the Internet in our questionnaire, such as contents related to self-harm, eating disorders, or drug use. Recent studies have revealed that youths regularly encounter potentially harmful content on the Internet and that exposure to different types of these contents is interrelated: If youths report being exposed more to one type of content, they are also more likely to encounter other types of risky contents on the Internet (Smahel et al., 2020). Flemish youths report being exposed the most to contents concerning hate speech (21%), drug use (16%), and violence (16%; Vissenberg & d'Haenens, 2020).

Several characteristics predict youths' exposure to online risks. Concerning age, younger children are exposed to these types of content to a far lesser extent than adolescents (Livingstone et al., 2011). Especially from the age of 13, which is the age that Belgian youths start secondary school, exposure to potentially harmful content increases (Vandoninck et al., 2014). This can be explained by increased time spent online and the risk-taking behavior that characterizes adolescence (Görzig, 2016; van Nieuwenhuijzen et al., 2009). Gender seems to play a role in the exposure to some types of content. For example, girls, especially between the ages of 14 and 16, are more likely than boys to see pro-anorexic or bulimic contents (Livingstone et al., 2011). Other than demographic characteristics, youths' online risk experiences are predicted by the extent to which they take up online opportunities, even when controlling for the time they spend online (Livingstone & Helsper, 2010). It is indeed inevitable that youths, when they engage in a broader range of online activities, are exposed to some risky content along the way. Based on this finding, we propose the following hypothesis:

H1: There is a positive association between online opportunities and online content risks.

Researchers agree that the distinction between online opportunities and online risks lies in their effects on the user's wellbeing. While 'opportunities' generally produce beneficial outcomes, activities that are termed risks might have harmful consequences (Livingstone et al., 2011), preventing youths to benefit fully from their Internet use (El Asam & Katz, 2018). Research has found support for positive outcomes of online opportunities for youths' wellbeing (e.g., communication opportunities and social wellbeing) and negative effects of exposure to risky online content on their wellbeing. For instance, youths who report being exposed more to online hate messages report lower levels of wellbeing than youths who are less exposed (Keipi, Oksanen, Hawdon, Näsi, & Räsänen, 2017; Keipi, Räsänen, Oksanen, Hawdon, & Näsi, 2018). Similarly, a diary study by McHugh, Wisniewski, Rosson, and Carroll (2018) found that expo-

sure to explicit online content evokes symptoms of post-traumatic stress disorder in youths. Based on these findings, we propose the following hypotheses:

H2: There is a positive association between online opportunities and youths' wellbeing.

H3: There is a negative association between online content risk exposure and youths' wellbeing.

2.2. Online Resilience

While concerns have been raised about the potentially harmful outcomes of exposure to risky online content, it is necessary to mention that not all youths that have a negative experience online feel bothered, harmed, or upset afterwards (Livingstone et al., 2011). For example, only slightly more than a third of European youths (38%) who had been exposed to sexual images on the Internet and only 8% of youths who had an offline meeting with someone they first met online report feeling upset afterwards (Smahel et al., 2020).

Some youths indeed seem to be more resilient to harm after online risk experiences than others (d'Haenens, Vandoninck, & Donoso, 2013; Staksrud & Livingstone, 2009). Resilience is a central concept in different developmental and socialization theories in the field of psychology and is generally defined as the "positive patterns of adaptation in the context of risk or adversity" (Masten & Gewirtz, 2006). Already from a young age, children and youths develop different skills and characteristics that aid them in protecting themselves from and effectively dealing with the negative situations that they might come across. These skills and characteristics include self-confidence (Ito et al., 2008), autonomy (Baumrind, 1991), identity building and self-expression (Strasburger, Wilson, & Jordan, 2014), and social skills (Pabian & Vandebosch, 2016). Resilience is hence understood as a dynamic process of trial and error rather than a fixed trait, in which people gradually learn to deal with or adapt to difficult or stressful situations they encounter. For this resilience to develop, exposure to risky situations is crucial, as this is when people truly learn to deal with the negative situation that they are in at that moment (Coleman & Hagell, 2007; Vandoninck et al., 2013).

In the context of online risks, resilient youths are "able to deal with a negative experience online": i.e., they do not remain passive but display problem-solving coping strategies in order to protect themselves from future harm (Vandoninck, d'Haenens, et al., 2013). Online resilience serves as an important protective factor against feelings of harm after a negative online experience (Hinduja & Patchin, 2017). Youths that are more resilient are less likely to feel harm after an online risk experience than those who are less resilient. The majority of young people seems to be quite resilient to harm from risky online experiences (El Asam & Katz, 2018; Livingstone et al., 2011).

The coping strategies that youths employ to deal with a negative online situation are a good indicator of their level of resilience, as resilient youths cope in proactive ways with the aim of preventing or reducing feelings of harm while less resilient youths often resort to rather passive strategies (Vandoninck, d'Haenens, et al., 2013). Coping is defined as "the efforts to adapt to stress or other disturbances by a stressor or adversity in order to protect oneself from the psychological harm of risky experiences" (Masten & Gewirtz, 2006). Online coping can be described as "Internet-specific problem-solving strategies children adopt after a negative experience online" (Vandoninck et al., 2013). Some youths cope more effectively with online adversities than others and are hence more resilient to harm from online risks (Livingstone et al., 2011; Smahel & Wright, 2014; Staksrud & Livingstone, 2009; Vandoninck & d'Haenens, 2015; Vandoninck et al., 2013). Research has shown that youths that have more difficulties coping with offline risks also have more difficulties coping with online risks (Vandoninck, d'Haenens, & Segers, 2012).

Youths generally employ one or more of three types of coping strategies after online risk experiences (Livingstone et al., 2011). The first type is fatalistic or passive coping, where the child does not take any initiative to actively deal with the cause of the problem. Youths that cope in a passive manner will for example neglect the problem or hope that it will go away by itself. The second type is communicative coping, where the child seeks social support and talks to someone trustworthy, such as parents or peers, about the problem to reduce feelings of harm. The third type of coping is proactive or problem-solving coping, whereby the child will act when faced with problems to reduce or eliminate harmful outcomes in the future, such as blocking the sender of a potentially harmful message. Resilient youths use proactive or communicative coping strategies to deal with risky online experience to prevent feelings of harm (d'Haenens et al., 2013; Vandoninck et al., 2013). Both problem-solving and communicative strategies are favorable coping strategies because they are aimed at actively preventing or tackling the problem. Less resilient children use passive or avoidant coping strategies and often do not succeed at preventing or eliminating negative emotions that resulted from the online risk experience (Vandoninck et al., 2013).

Previous research has laid bare the associations between exposure to risky content and the harmful outcomes for youth wellbeing. Studies that included resilience, however, mostly focused on its role in reducing or preventing feelings of harm that take place after the risky experience. While some studies have found associations between the use of specific coping strategies and overall wellbeing (Lazarus, 2006; Machmutow, Perren, Sticca, & Alsaker, 2012; Seiffge-Krenke & Klessinger, 2000), knowledge about the protective role of resilience between exposure to risky online content and overall wellbeing seems rather limited. Therefore, we propose the following research question:

> RQ1: What role does online resilience play in the association between online content risk experiences and wellbeing?

3. Methods

3.1. Data and Sample

This study uses survey data from the 2018 data collection wave of EU Kids Online, a European research project that aims to enhance the knowledge about European children's and youths' Internet use, risks, and online safety. The research population for this study includes youths between 13 and 20 years old that are enrolled in secondary schools in Flanders—the Dutch-speaking part of Belgium. The respondents were recruited using two-stage sampling. In a first stage, Flemish secondary schools were contacted with a request to participate in the study. Schools that agreed moved on to the second stage, proposing classes of pupils that would take the survey. To gather a sample that was representative to the Flemish adolescent population, we aimed at an even distribution of age, gender, and education option (General Secondary Education, Vocational Secondary Education, Art Secondary Education, and Technical Secondary Education). Data were collected between March and May 2018 and between October and November 2018.

The researchers visited the classes that agreed to participate in the study to provide a short explanation of the purpose of the study and to answer any questions that the pupils might have while taking the survey. The online survey was set up in Qualtrics and was taken on computers in computer classes at the school. It took around 50 minutes to complete the survey. In total, 1436 Flemish youths completed the survey. The sample consists of 668 boys (46.7%) and 704 girls (49.2%) with a mean age of 16.08 (SD = 1.97).

3.2. Measures

Table 1 (in Supplementary File) presents the measurement information and means of items for the latent variables online opportunities, online content risks, and online resilience.

3.2.1. Online Opportunities

The respondents were provided with a list of 30 opportunities that users can take up online. They were asked to indicate how often they had engaged in each activity in the past month on a 6-point Likert scale with answer options ranging from 'never' (1) to 'almost always' (6). Parallel analysis and principal components analysis with direct oblimin rotation show that seven types of opportunities should be distinguished: communication, help and

information seeking, gaming, participation, creation and sharing of user-generated content, entertainment, and online shopping. Confirmatory factor analysis (CFA) reveals that these seven factors all load on the higher-order latent variable 'opportunities.' The CFA model for opportunities was bootstrapped using the Bollen-Stine method (Bollen & Stine, 1992) with 10,000 draws to correct for potential biases due to the non-normal distribution of the data. The results reveal that this model had a good fit ($\chi^2 = 307$, df $= 223$, p $< .05$, CFI $= .99$, RMSEA $= .02$, SRMR $= .02$). The latent variable 'opportunities' has excellent internal consistency (Cronbach's $\alpha = .93$).

3.2.2. Online Content Risks

The respondents were asked to indicate how often they had come across six types of potentially harmful content in the past year on a 5-point Likert scale with answer options ranging from 'never' (1) to 'always or almost always' (5). These six types of content were sexual content, self-harm related content, suicide-related content, eating disorder-related content, hate speech, drug-related content, and violent content. Sexual contents were not included in this list, but were measured in a separate question and later added into the measurement model for online content risks. CFA reveals that these seven types of risk all load on one latent variable 'content risk exposure.' Because the data was not normally distributed, which might cause potential biases, the model was bootstrapped with 10,000 draws using the Bollen-Stine method (Bollen & Stine, 1992). This model showed a good fit to the data ($\chi^2 = 23.36$, df $= 14$, p $> .05$, CFI $= .99$, RMSEA $= .02$, SRMR $= .01$) and excellent internal reliability (Cronbach's $\alpha = .92$).

3.2.3. Online Resilience

The use of coping strategies aimed at preventing or actively reducing feelings of harm was used as a proxy for online resilience. The survey included two questions to identify youths' use of three types of coping strategies: communicative coping, proactive coping, and passive coping. In the first question, the respondents were asked about their communicative coping strategies and had to indicate the people they talk to after an online risk experience, such as their parents or friends (0 = no, 1 = yes). In the second question, the respondents' proactive and passive strategies were surveyed. They were asked to indicate which actions they had taken after an online risk experience (0 = no, 1 = yes), such as neglecting the problem or blocking the sender. As previous studies show that resilient youths employ communicative and/or proactive strategies (Vandoninck et al., 2013), only the items concerning communicative and active strategies, and not passive strategies, were combined into the latent variable 'online resilience.' The CFA model was bootstrapped with 10,000 draws using the Bollen-Stine method (Bollen & Stine, 1992) to correct for

potential biases due to non-normality in the data. The model has a good fit to the data ($\chi^2 = 242.03$, df $= 63$, p $> .05$, CFI $= .95$, RMSEA $= .04$, SRMR $= .03$) and shows good internal consistency (Cronbach's $\alpha = .77$).

3.2.4. Wellbeing

In the EU Kids Online surveys, wellbeing is measured using the following question (Livingstone et al., 2011): "Imagine that 10 is the best life for you and 0 is the worst life for you. Where on the scale do you feel you stand at this moment?" Answer options ranged from 10 to 0 (M = 7.09, SD = 1.71).

3.2.5. Control Variables

This study controls for age, gender, and the time spent online, as previous research has shown that these variables are associated with online opportunities and risk experiences (Livingstone & Helsper, 2010). To measure the time spent online, the respondents had to indicate how much time they spent online during the week and during the weekend, with answer options formulated as 'Never or little time,' 'Approximately 1 hour,' 'Approximately 2 hours,' etc.

3.3. Analysis

We performed Mardia's skewness and kurtosis tests to investigate the multivariate normality of the data. As the p-value for both the skewness and the kurtosis tests was 0, the null hypothesis of Mardia's test that the observations are multivariate normally distributed is rejected, indicating that the data in this study are not normally distributed.

We used structural equation modeling (SEM) to test our hypotheses and to answer our research question, which we performed using the lavaan package in R (Rosseel, 2012). Through a combination of factor analysis and multiple regression analyses, SEM allows for the definition of multiple latent variables and the estimation of the relationships between these variables in one model. Therefore, SEM is the preferred technique when analyzing associations between multiple latent variables (Kline, 2011). Despite the fact that the maximum likelihood estimator is relatively robust to non-normally distributed data, p-values and fit measures might be biased (Bandalos, 2014). Moreover, the bias that results from this non-normality might be inflated due to the presence of missing data. 727 cases in the dataset did not contain any missing values and were included in the model. A total of 709 missing cases seems high, but Kline (2011) suggests that bootstrapping can be applied to deal with these issues. The Bollen-Stine bootstrap method (Bollen & Stine, 1992) proves particularly useful in solving issues related to non-normally distributed datasets containing missing data (Enders, 2002). Therefore, the fit measures of the model were bootstrapped using the Bollen-Stine
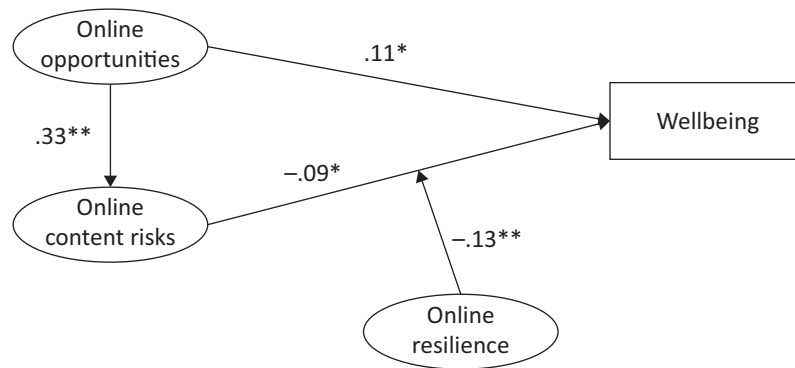
Figure 1. Path model for online opportunities, online content risks, online resilience, and wellbeing. Notes: For clarity, the measurement model is not pictured and the control variables are not included in this figure. Results that include the control variables and unstandardized coefficients can be found in Table 1. Note: * p < .05, ** p < .01.

method (Bollen & Stine, 1992) and the 95% and 99% confidence intervals of the p-values were ordinarily bootstrapped. Both bootstraps contained 10,000 draws.

4. Results

The path model in Figure 1 was constructed to test the hypotheses and to answer the research question. As this model provided answers to all hypotheses and the research question and it has a good fit to the data ($\chi^2 = 1300.80$, df = 1013, p < .01, CFI = .97, RMSEA = .02, SRMR = .03), it was not modified further. The full model, including control variables, is presented in Table 1.

H1 expected a positive association between the opportunities youths take up and their encounters of risky content on the Internet. We found support for this hypothesis, as online opportunities seem to be a positive predictor for online content risk experiences ($\beta = .33$, SE = .14, p < .01). Hence, while we controlled for age, gender, and the time spent online, youths who take up more opportunities on the Internet also encounter more risky content. H2 proposed a positive association between online opportunities and youths' wellbeing. This hypothesis was supported as well, as online opportunities significantly and positively predict youths' wellbeing ($\beta = .11$, SE = .17, p < .05). Controlling for age, gender, and time spent online, youths who take up more opportunities online on average report higher levels of well-

being than youths who take up a smaller range of opportunities on the Internet. H3 predicted a negative association between online content risk experiences and youths' wellbeing. This hypothesis was supported as well: online content risks significantly and negatively predicted youths' wellbeing ($\beta = -.09$, SE = .05, p < .05). Hence, while we controlled for age, gender, and time spent online, youths who encounter more risky content on the Internet report lower levels of wellbeing than youths who encounter these contents less. Important to note, however, is that the associations between both opportunities and risks and wellbeing are of nearly equal strength. Hence, their combined effects on wellbeing seem to cancel each other out.

RQ1 aimed to investigate whether online resilience protects youths' wellbeing when they are exposed to risky online content, and hence whether there is an interaction of online content risk experiences and online resilience on youths' wellbeing. The structural equation model reveals that online resilience significantly and negatively moderates the association between online content risks and wellbeing ($\beta = -.13$, SE = .56, p < .01). The negative coefficient indicates that as resilience increases, the association between online content risks and wellbeing weakens. Hence, higher levels of resilience protect the wellbeing of youths after they have been exposed to potentially harmful content online.

Table 1. Unstandardized and standardized beta's and significance levels of the structural equation model for online opportunities, online content risks, online resilience, and wellbeing.

	Online opportunities		Online risks		Wellbeing	
Gender	−.06	−.07	−.09	−.04	−.41	−.13**
Age	−.01	−.04	.05	.07*	−.01	−.01
Time online	.09	.36**	.06	.09*	−.11	−.11**
Online opportunities			.86	.33**	.38	−.11*
Online risks					−.13	−.09*
Online risks x online resilience					−2.456	−.13**

Notes: Unstandardized coefficients are in italics, standardized coefficients are in regular font. * p < .05, ** p < .01. The reference category for 'Gender' is male.

5. Discussion

As youths take up more opportunities online, it is inevitable that they also have some negative experiences, such as exposure to potentially harmful content (Livingstone & Helsper, 2010). The feelings of harm that result from these experiences can be a threat to their overall wellbeing. Online resilience, or the ability to effectively cope with online adversities, protects youths against these feelings of harm after encountering risky content (Vandoninck et al., 2013). However, knowledge about whether online resilience also protects youths' overall wellbeing is rather limited. The current study aimed to fill this gap in the literature.

This study found a positive association between the opportunities youths take up on the Internet and their levels of wellbeing. These opportunities include communication, help and information seeking, gaming, participation, creation and sharing of user-generated content, entertainment, and online shopping activities. Youths who engaged in a broader range of online activities generally reported significantly higher levels of wellbeing than youths who took up less opportunities. Furthermore, the current study is in line with earlier findings (Livingstone & Helsper, 2010) that the more opportunities youths take up on the Internet, the more they are exposed to potentially harmful online content. The contents that were included in this study were self-harm related content, suicide-related content, eating disorder-related content, hate speech, drug-related content, violent content, and sexual content. These content risks in turn emerge as a negative predictor of youth's wellbeing, as youths who encounter more risky content on the Internet reported lower levels of wellbeing than youths who were exposed less to these contents.

These findings might put parents, teachers, and other caretakers at a crossroads concerning the question whether or not, and to which extent, to encourage or prohibit youths to participate online. On the one hand, taking up a broad range of online opportunities seems to have direct positive value for youths' wellbeing. On the other hand, however, these opportunities inevitably entail exposure to risky online content, which in turn seems to be damaging to their wellbeing. The question about the benefits versus the harm of encouraging youths to engage in a broad range of online activities to their wellbeing arises. Weighing in on this dilemma, Livingstone et al. (2015) argue that it matters less whether youths take up opportunities on the Internet or whether they encounter risky contents online. As both have become inevitable in today's society, the authors argue that youths should protect their wellbeing by successfully balancing both the opportunities they take up and the risks they encounter on the Internet. Our findings corroborate this statement, as they show that the associations between both opportunities and content risks and wellbeing are of similar strength, which means that their effects on wellbeing cancel each other out. Hence, as

long as youths actively engage in activities that they find beneficial, their wellbeing is less endangered by potential risk experiences that they might encounter along the way. Furthermore, parents, teachers, and other caretakers should be aware of the child's individual needs while being careful not to be overprotective of youths' Internet use and should instead find a balance between protecting them and allowing them to explore the online environment through various types of opportunities (Vandoninck, 2016).

Online resilience emerged as an important factor in this balance between online opportunities and exposure to potentially harmful online content. Previous studies revealed that whether youths cope with the negative consequences of online content risks in communicative or proactive ways plays a large role in the degree of harm they experience after being exposed to these contents (Vandoninck et al., 2013). In line with these earlier findings, the current study found that the association between online content risk experiences and lower levels of wellbeing significantly weakens when youths are more resilient. Hence, the wellbeing of youths who seek social support or take action to cope after they have been exposed to risky contents seems to be determined less by exposure to these risks.

Previous studies have shown that most children and youths are quite resilient to feelings of harm after an online risk experience (Livingstone et al., 2011). Is it a problem, then, that youths are exposed to risky online content if they are resilient to its potentially harmful outcomes? Risk exposure certainly is not always problematic and parents and other caretakers should not overly shield their children from these risks, as they are necessary for children and youths to develop online resilience in the first place (Coleman & Hagell, 2007; Livingstone et al., 2011). Through this risk exposure, youths acquire the coping strategies that aid them in effectively eliminating feelings of harm that emerge from it. This is central to the empowerment approach in which this study places itself: Youths should have their own agency over their Internet use and should develop the necessary skills to deal with potential negative consequences of this Internet use. However, parents should remain alert about exposure to online risky content when their child is less resilient to feelings of harm that result from these risks, as the wellbeing of this group of young users will be affected by it the most. By being present when the child is exploring the online world, parents allow their children to be exposed to these risks and hence to gain resilience, but still have the possibility to intervene and provide support when the child is not able to cope with the risks encountered by itself.

Despite its contributions to the literature and its implications for practice, the current study has four limitations. First, cross-sectional data were analyzed, so the current study does not provide evidence to make causal conclusions about the associations that were found. We encourage future research to investigate the associa-

tions between online opportunities, risks, and resilience over a longer period of time. Second, the self-report nature of the data might cause biases. For example, some youths might feel uncomfortable or ashamed about their online risk experiences and might hence not report the truth. Wellbeing is a sensitive subject where youths might inflate their reports of their wellbeing to hide how they truly feel. Third, the scope of this study was only limited to online content risks. Hence, insights about contact and conduct risks are not included in this study. Further research could broaden the scope and focus on each type of these risks. Fourth, the current study did not directly distinguish between different types of opportunities. Furthermore, it did not distinguish between communicative coping and proactive coping as different forms of online resilience: While communicative coping strategies are often employed to deal with negative consequences of online risk experiences, proactive coping is often aimed at preventing further feelings of harm as a result of negative online experiences in the future. Further research could nuance the current findings by exploring the associations between different types of opportunities and their value for youths' online risk experiences and overall wellbeing; as well as the different contributions of communicative and proactive coping strategies on youths' wellbeing.

6. Conclusion

The goal of the current study was twofold. First, it aimed to investigate the associations between online opportunities, online content risk experiences, and youths' wellbeing. Second, it wanted to examine whether online resilience, or the ability to effectively cope with negative experiences, served as a safeguard of youths' wellbeing from the potential negative consequences of exposure to risky online content. These questions were studied using data collected within the EU Kids Online project from 1436 youths in Flanders. This study corroborates earlier findings that the more online opportunities youths take up online, the more they encounter risks. While taking up different opportunities proved beneficial to youths' wellbeing, online content risks proved harmful. Online resilience emerged as a significant moderator. Hence, youths who are more resilient experience less harm to their wellbeing as a result of exposure to risky online content than youths who are less resilient. Based on these findings, we advise parents, educators, and other caretakers to encourage their child's development of online resilience through the creation of a safe environment for the use of communicative and proactive coping strategies.

Conflict of Interests

The author declares no conflict of interests.

Supplementary Material

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

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About the Authors

Joyce Vissenberg is a PhD Student at the Institute for Media Studies. Her research focuses on media and digital literacy, especially in children and youth. In her PhD, where she particularly investigates youths' news literacy, she studies their credibility assessment strategies of online news. Other research interests include the role of online resilience in fostering youth wellbeing.

Leen d'Haenens is Full Professor at the Faculty of Social Sciences, KU Leuven, where she teaches 'Analysis of Media Texts' and 'European Media Policy' at BA level, and 'Media, Audiences and Identity' at MA level. Her current research is on media representations of Islam and migration and the triggers for ideological polarization and radicalization in mainstream and social media. She also conducts research on (social) media use by children and young people in relation to their wellbeing, with a focus on vulnerabilities and young people with a migration background.

Article

Generation Z and Organizational Listening on Social Media

Hanna Reinikainen *, Jaana T. Kari and Vilma Luoma-aho

Jyväskylä University School of Business and Economics, 40014 Jyväskylä, Finland;
E-Mails: hanna.m.reinikainen@jyu.fi (H.R.), jaana.t.kari@jyu.fi (J.T.K.), vilma.luoma-aho@jyu.fi (V.L.-a.)

* Corresponding author

Abstract
Young people are avid users of social media and have appeared as a powerful force for social change, as shown by the ranks of those who have joined Greta Thunberg in the global climate movement. In addition to challenging political institutions and governments, young people today are also holding the corporate world accountable. To respond to young people's expectations, brands, and organizations have turned to social media to interact and build relationships with them. However, critics have lamented that these attempts often fail and that young people's trust in institutions, brands, and organizations continues to decline. This article asks how young people perceive organizational listening on social media and whether their perceptions are related to their trust in the information shared by brands and other organizations on social media. Data for the study were gathered through an online survey in Finland and the UK. The respondents (N = 1,534), aged 15–24, represent the age cohort known as Generation Z. The results show that organizational listening is connected to higher levels of perceived benefits from social media as well as higher levels of trust in the information that brands, public authorities, and non-governmental organizations share on social media. The results highlight the role of competent listening on social media, bolstering the previous literature connecting both organizational listening and trust with higher levels of participation and engagement online.

1. Introduction

Young people have emerged as a powerful force for change, both online and offline. In December 2019, *Time* magazine named the 16-year-old Greta Thunberg as Person of the Year for inspiring a global movement demanding more forceful action against climate change (Alter, Haynes, & Worland, 2019). High school students have also championed the end of gun violence through the #NeverAgain movement (Alter, 2018) and have actively participated in the protests against China's ruling party in Hong Kong (Khan, Wang, & Yoon, 2019).

However, although young people are arguably more politically active than before (Kim, Russo, & Amnå, 2017),

their calls for change are not limited to political issues and governments. Young people today are also challenging the corporate world and expect brands to have a higher purpose beyond the pursuit of economic gains and even take the lead on social change where possible (Edelman, 2018; Minár, 2016). Many brands have answered these calls and have even adopted an approach called "corporate social advocacy" (Dodd & Supa, 2014) or "corporate activism" (Olkkonen & Jääskeläinen, 2019). Examples of such behavior include Nike's collaboration with Colin Kaepernick, the NFL player known for his stand against police violence and racial injustice in America ("Nike's 'dream crazy' advert," 2019), and Gillette's #MeToo-inspired campaign calling for a new

kind of masculinity (Topping, Lyons, & Weaver, 2019). Both campaigns have generated heightened emotions—both positive and negative—on social media.

Olkkonen and Jääskeläinen (2019) have called this kind of corporate activism "mobilizing talk," meaning that brands that raise societal issues in their communication invite discussion and action from consumers and stakeholders, all the while accepting that this might generate critique and even lead to consumers boycotting them. This shows how the lines between branding, politics, and emotion are becoming increasingly blurred and how brands are seeking to build emotional relationships with consumers online (Mukherjee & Banet-Weiser, 2012, p. 19).

While it might seem that young people's activism in driving social change are coalescing with the more societally tuned pursuits of brands, it appears that brands and organizations often fail in achieving true interaction and relationship-building with young people in the online environment (Avidar, Ariel, Malka, & Levy, 2013). In fact, studies have reported on diminishing trust among young people in relation to political institutions, media, and the corporate world (Deloitte, 2019; Edelman, 2018, 2020).

A relatively widely shared understanding among communication scholars is that an ideal way of closing this gap would be through fostering dialogue (Hung-Baesecke & Chen, 2020; Kent & Taylor, 1998; Lane, 2018; Sommerfeldt & Kent, 2015). True dialogue values sharing and mutual understanding (Taylor & Kent, 2014, p. 388) and is based on seeing communication partners as equals, not simply as recipients of persuasive messages (Sommerfeldt & Yang, 2018). However, it seems that instead of real dialogue, brands and organizations often engage in mere two-way communication (Lane, 2018; Russmann & Lane, 2020), or even one-way communication, which allows them to push their messages on social media with "little regard for interaction and dialogue, and no need for empathic and active listening" (Maben & Gearhart, 2018, p. 103).

It has, therefore, been established that an important aspect of dialogue is often missing: organizational listening (Maben & Gearhart, 2018; Macnamara, 2016, 2018b). This perspective highlights that dialogue is more than interactants taking turns recalling their respective lines; rather, it is an act of connecting a "chain of utterances" through listening to one another (Macnamara, 2016). Listening can be seen as a prerequisite to dialogue, understood as enabling a sense of community among those who feel engaged and empowered (Rissanen & Luoma-aho, 2016; Smith & Taylor, 2017).

Employing an online survey, this article explores how young people perceive organizational listening on social media and whether organizational listening is related to trust in the information that brands and organizations share on social media. The young people of interest to this study represent Generation Z, people born circa 1995–2010 (Priporas, Stylos, & Fotiadis, 2017; Turner,

2015), the age cohort following Millennials. More information about this age cohort is needed, as they have already become a strategic target group for many brands and organizations, despite their young age (Len-Ríos, Hughes, McKee, & Young, 2016).

The organizational listening approach offers insights into youth participation, as organizational listening has been connected to increased levels of participation in civil society (Macnamara, 2018a, 2018b). Society itself could be understood to exist on the basis of dialogue between different societal actors (Taylor, 2011), such as organizations and brands, different political and public sector organizations, and non-governmental organizations (NGOs). Ideally, dialogue between societal actors does not only empower those who are engaged; its benefits also spill over to society as a whole (Putnam, 2002; Rothstein & Stolle, 2008). Therefore, this study takes a look at whether organizational listening by brands on social media could be connected with trust in the information shared not just by brands but also by other societal actors, such as public authorities and NGOs.

2. Literature Review

2.1. Generation Z

Generation Z, also known as Net Gen or digital natives, are the age cohort born after the commercial success of the Internet, circa 1995–2010 (Priporas et al., 2017; Turner, 2015). As the generation that has, from the onset, been continuously exposed to the Internet, social networks, and mobile systems (Francis & Hoefel, 2018), many representatives of Generation Z have become accustomed to interacting in a world that is "connected at all times" (Turner, 2015, p. 104).

The imminent and instantaneous nature of the digitalized world has arguably made Generation Z more demanding than earlier generations, and studies have found that they expect interactivity (Southgate, 2017) and value easy and quick transactions and information provision online (Priporas et al., 2017). This tests their relationship with brands and organizations: When compared to Generations X and Y, the representatives of Generation Z have been found to place more trust in user-generated information than on company-generated information (Francis & Hoefel, 2018; Herrando, Jimenez-Martinez, & Martin-De Hoyos, 2019).

Key among the societal experiences of Generation Z are the financial crisis of 2008, the growing income gap, the rise of the platform economy, and the increasing acceptance of the LGBTQ community (Francis & Hoefel, 2018; Turner, 2015). Fear of climate change and a motivation to reverse it also profile many in the Generation Z cohort, which has led to, for example, school strikes for climate change (Barbiroglio, 2019; Ostrander, 2019).

While many of the above depictions about Generation Z might be accurate, it is important to remember that many of the studies related to this age co-

hort are snapshots. Generational cohorts develop certain attitudes and beliefs based on shared life experiences (Meriac, Woehr, & Banister, 2010), but it is difficult to tell at this point whether the features observed in this age cohort are something that they will grow out of or something that they will grow up with (Southgate, 2017).

2.2. Organizational Listening on Social Media

Social media has offered brands and organizations new opportunities not only to speak directly to consumers and stakeholders but also to listen to their needs, opinions, and concerns more carefully. The concept of organizational listening was introduced to communication studies specifically through the works of Macnamara (2016, 2018a, 2018b, 2019), who defined the phenomenon through "the seven canons of listening." These include the recognition and acknowledgement of others, paying attention to others, interpreting and understanding others, considering what others are saying, and responding appropriately (Macnamara, 2018a, pp. 119–120).

These "canons" come close to what Maben and Gearhart (2018) have defined as competent organizational listening: organizational behaviors such as pertinent responding, answering questions, elaborating on the topics being discussed, offering advice, opinions, and perspectives, and asking questions. Organizational listening differs from interpersonal listening, in that, although it is carried out by people working in an organization, it is delegated, mostly mediated, often asynchronous, and "scaled up," as the number of people that organizations need to listen to can feature in the hundreds of thousands or even millions (Macnamara, 2018b, p. 3).

Listening is considered vital for brands and organizations to achieve two-way communication and dialogue (Macnamara, 2016). Organizational listening brings many advantages to organizations themselves, such as strengthening relationships with consumers, improving customer satisfaction (Pina et al., 2019), and gaining a better understanding of how the organization is being discussed online (Crawford, 2009, pp. 531–532). Organizational listening can also benefit consumers and stakeholders by, for example, increasing their sense of community (Crawford, 2009). It is also expected to have other positive repercussions and societal benefits, such as equitable representation, increased participation in politics and civil society, and increased trust and social equity (Macnamara, 2018b). Through these effects, organizational listening might even improve collaboration in societies at large (Putnam, 2002, 2015).

Although people expect organizations to listen to them and give them quality answers (Lovari & Parisi, 2015; Maben & Gearhart, 2018), studies have shown that listening is not very well practiced in reality (Maben & Gearhart, 2018; Macnamara, 2016, 2018a, 2018b, 2019; Willis, 2015). Willis (2015) has pointed out that organizations are primarily involved in monitoring or surveilling instead of actually listening. This suggests that

organizations are inclined to use their resources for reputation management and monitoring (Vos, 2016) in order to avoid financial risk rather than for the purpose of truly competently listening to the sentiments of stakeholders and connecting with them in meaningful ways (Maben & Gearhart, 2018). This may be harmful, as the potential societal benefits may be lost, such as a sense of community or a sense of empowerment. To tackle this, Macnamara (2016, 2018a, 2018b) has suggested that brands and organizations should seek to create a special "architecture of listening" to enable them to further ethical listening.

Previous research on organizational listening has mainly considered how organizations understand and approach listening (Burnside-Lawry, 2012; Dodd & Collins, 2017; Maben & Gearhart, 2018; Macnamara, 2016, 2018a, 2018b, 2019). To capture the views of consumers and stakeholders, researchers have mostly used content analysis (Ji, Li, North, & Liu, 2017; Pina et al., 2019; Tirkkonen & Luoma-aho, 2011), although surveys (Cheng, Jin, Hung-Baesecke, & Chen, 2019; Lovari & Parisi, 2015) have also been used.

According to Macnamara (2018b), further research is necessary, as organizational listening is undertheorized, and the potential benefits of improved organizational listening need further clarification. As organizational listening arguably ensures that both the organization's and stakeholders' interests are met (Burnside-Lawry, 2012), it is potentially beneficial not only to brands and organizations themselves but also to the people who engage with them through social media. Therefore, the first two hypotheses have been formulated on the basis of the previous literature:

> H1: Perceived organizational listening is positively associated with the perception that brands on social media benefit young people.

> H2: Perceived organizational listening is positively associated with the perception that brands on social media benefit brands.

2.3. Trust and Organizational Listening

According to Macnamara (2018b), more and more people have the experience of "being ignored" both by political institutions and the corporate world. Macnamara (2018b) has further connected this lack of listening by organizations to declining trust in public authorities, corporations, and NGOs, which has been reported, for example, through the annual Edelman Trust Barometer (Edelman, 2018, 2020). This can be regarded as potentially harmful, as people come in constant contact with government actors, corporations, and non-governmental and non-profit organizations, all of which play a central role in people's lives (Macnamara, 2018b).

In order to contribute to our understanding about the phenomenon, Hung-Baesecke and Chen (2020) have called for more research on organizational listening and

trust. In their examination of trust in the context of organizational communication and public relations, Hung-Baesecke and Chen (2020) found at least three ways in which to understand the concept of trust in the current research literature: 1) Sociologists perceive trust as a way to reduce or minimize negativity, enhance social relations, and connect the different sectors of a society; 2) the marketing and communication literature presents trust as confidence in making decisions about partners and the associated vulnerability; and 3) studies on interpersonal communication emphasize sincerity, benevolence, and honesty in developing trust in the interaction between individuals or groups of people.

On the societal level, trust is a lubricant for social relations, and it helps to build a prosperous society (Yamagishi, 2005), as it increases the society's ability to compete (Fukuyama, 1995) and engage in cooperation (Putnam, 2002, 2015). On the organizational level, trust advances relationship-building and diminishes risks (Hung-Baesecke & Chen, 2020). Trust in public organizations ensures their legitimacy and furthers both public (Canel & Luoma-aho, 2019) and political (Huang, Ao, Lu, Ip, & Kao, 2017) participation. Trust motivates and empowers people (Harisalo & Stenvall, 2003) and is also an important factor in people's decision-making about which information to consume (Moorman, Zaltman, & Deshpande, 1992), making it essential during times of crisis.

Trust has been described as "a web" (Kim & Ahmad, 2013), and it has also been claimed that trusting relationships help build further trusting relationships (Canel & Luoma-aho, 2019; Smith & Taylor, 2017). In fact, trust has been found to be contagious, especially in the online environment, and that, for example, trust in other people can transfer to trust in brands (Bowden, Conduit, Hollebeek, Luoma-aho, & Solem, 2017; Reinikainen, Munnukka, Maity, & Luoma-aho, 2020). Communication is an important factor in trust, as trust is formed through ongoing interaction (Canel & Luoma-aho, 2019). It is also commonly understood as an important outcome of dialogue (Hung-Baesecke & Chen, 2020; Yang, Kang, & Cha, 2015).

Building on the previous literature on trust and organizational listening, the following hypotheses are suggested:

H3: Perceived organizational listening is positively associated with young people's trust in information that brands share on social media.

H4: Perceived organizational listening is positively associated with young people's trust in information that public authorities share on social media.

H5: Perceived organizational listening is positively associated with young people's trust in information that NGOs share on social media.

3. Method and Data

The study data were obtained through an online survey conducted in Finland and the UK to study social media and its effects on young people aged 15–30. The data were gathered in the spring of 2019 through a survey company utilizing an online panel. The data were anonymous, and the gathering was conducted in compliance with the requirements of the European General Data Protection Regulation, which regulates data protection and privacy in the European Union and the European Economic Area.

The online survey resulted in a total of 2,674 responses. As this study was specifically focused on the perceptions of the Generation Z cohort, respondents representing this generation were selected from the data for further analysis. Limiting the range of respondents to people aged 15–24 reduced the data to 1,534 responses. All the corresponding respondents reported using social media.

A quantitative approach was used to test the hypotheses. The online survey included several sections regarding different elements of social media. The more carefully studied variables included eight questions regarding the ways in which brands show interest in people on social media, two questions regarding perceptions about who benefits from brands' social media presence, and one question each regarding trust in the information provided by brands, public authorities, and NGOs (such as Red Cross or Greenpeace) on social media. All the variables were assessed on a five-point Likert scale (1 = totally disagree, 5 = totally agree). The eight questions about the interest that brands show in people on social media were operationalized as perceived organizational listening, as they captured elements related to answering questions, paying attention to people's opinions, seeking feedback, taking an interest in user-created content, and replying to comments, which have been defined by Maben and Gearhart (2018) as organizational behaviors perceived as demonstrations of competent organizational listening. A summary variable, "perceived organizational listening," was formulated from these eight variables. Cronbach's alpha was calculated to test for internal consistency. The result ($\alpha = 0.924$) indicated good internal consistency.

The IBM SPSS Statistics software, version 24, was used for the statistical analyses. The analyses were based on the ordinary least squares (OLS) models, and to test hypotheses H1–H5, the following five variables were used as an outcome variable: 1) Perceived benefits for young people, generated by brand presence on social media (Model 1, Table 3); 2) perceived benefits for brands, generated by brand presence on social media (Model 2, Table 3); 3) trust in brands (Model 3, Table 4); 4) trust in public authorities (Model 4, Table 4); and 5) trust in NGOs (Model 5, Table 4). Perceived organizational listening was used as the explanatory variable in all five models, all of which were adjusted by gender, age,

daily use of social media, place of residence, country, and education level.

In a post hoc analysis, we tested whether trust in brands, public authorities, and NGOs differed with respect to the level of organizational listening (low, moderate, high; Table 5). This was done by dividing the variable of perceived organizational listening into tertiles (low, moderate, and high), with each group containing a third of the study sample. Thereafter, we tested whether the level of organizational listening (low, moderate, high) was related to trust in brands (Table 6, Model 1), public authorities (Table 6, Model 2), and NGOs (Table 6, Model 3).

4. Results

4.1. Descriptive Evidence

The respondents' background information is presented in Table 1. All respondents aged 15–17 were Finnish, as the data from the UK did not include participants under the age of 18. In Finland 15–17-year-olds are allowed to participate in online surveys without parental consent.

All the respondents were avid users of social media; 70% of them completely agreed with the statement that social media were part of their everyday activity, while only 5% completely disagreed with the statement.

The respondents seemed fairly skeptical about how brands use social media to connect with them (see Table 2). For instance, the mean values of the statements "brands on social media benefit me" and "brands on social media benefit brands" were 3.55 (SD 1.23) and 4.32 (SD 0.98), respectively. This suggests that the respondents saw brand presence on social media as mostly beneficial to the respective brands, perceiving themselves as benefiting to a lesser extent. "They are only thinking about themselves and their reputation," one of the respondents commented through an open-ended field, referring to brand presence on social media.

The respondents also perceived brands as being only moderately interested in their opinions, experiences, recommendations, questions, and comments and as taking very little interest in the content that they have created and shared. As one of the respondents explained, "Brands are interested in the opinions of influencers and people with high profiles more than your average person."

In terms of trust, the respondents seemed to trust information shared by public authorities (mean value 3.66, SD 1.07) and NGOs (mean value 3.47, SD 1.08) more than they trusted information shared by brands (mean value 3.16, SD 1.13).

Table 1. Respondent profiles (N = 1,534).

Variable	%	N
Age		
15–17	12	191
18–20	44	676
21–24	44	667
Social media are part of my everyday activity (N = 1510)		
Completely disagree	5	66
Partly disagree	3	49
Neutral	7	104
Partly agree	15	232
Completely agree	70	1059
Country		
Finland	49	752
UK	51	782
Gender		
Female	51	777
Male	48	743
Other	1	14
Place of residence		
Major city	27	410
Big city	29	442
Small city	27	407
Rural are	18	275
Education		
Elementary school/Middle school	13	192
High school/Vocational school	45	685
College/University	43	657

Table 2. Descriptive statistics of perceived organizational listening and the outcome variables of interest.

Variable	Mean	SD
The benefits of brand presence on social media		
Brands on social media benefit me	3.55	1.23
Brands on social media benefit brands	4.32	0.98
Perceived organizational listening [1]		
I can influence brands by providing ideas for improvement and feedback	3.15	1.33
Brands are interested in my opinions	3.09	1.28
Brands are interested in my experiences	3.42	1.21
Brands are interested in my recommendations	3.10	1.29
Brands are interested in answering my questions	3.31	1.23
Brands are interested in responding to my comments	3.16	1.23
Brands are interested in photos I have shared	2.85	1.37
Brands are interested in videos I have shared	2.75	1.37
Trust in information shared on social media		
I trust information from brands	3.16	1.13
I trust information from public authorities	3.66	1.07
I trust information from NGOs	3.47	1.08

Notes: [1] Perceived organizational listening was formulated from the eight variables listed above. Cronbach's alpha was calculated to test the internal consistency of the variable, with the result ($\alpha = 0.924$) indicating good internal consistency.

4.2. OLS Results

The OLS results based on the respondents' perceptions of the benefits of social media are presented in Table 3, while Table 4 presents the results regarding trust in the information that brands, public authorities, and NGOs share on social media.

In terms of benefits, the results revealed that perceived organizational listening was positively related to the perceptions that brands on social media benefit young people (Table 3, Model 1) and that brands on social media benefit brands (Table 3, Model 2). On average, a one-unit increase in perceived organizational listening was related to a 0.07-unit higher perception that brands on social media benefit young people and a 0.02-unit higher perception that brands on social media benefit brands. Thus, H1 and H2 were supported.

The results further revealed that perceived organizational listening was positively related to trust in the information that brands (Table 4, Model 3), public authorities

Table 3. Regression results for the perceived benefits.

	Model 1 Benefits me	Model 2 Benefits brands
Perceived organizational listening	0.07***	0.02***
	(0.004)	(0.003)
Control variables		
Age in years	−0.02*	−0.10
	(0.013)	(0.011)
Gender (female)	−0.12**	0.11**
	(0.059)	(0.050)
Country (Finland)	0.15**	−0.09
	(0.066)	(0.056)
Use of social media	0.29***	0.34***
	(0.029)	(0.025)
Education	0.02	0.07
	(0.051)	(0.044)
Place of residence	0.01	0.01
	(0.028)	(0.024)
Adjusted R^2	0.29	0.18
N	1277	1275

Notes: Standard errors are in parentheses. Statistically significant at least at the 1% (***), 5% (**), and 10% (*) levels.

Table 4. Regression results for trust in brands, public authorities, and NGOs.

	Model 3 Trust in brands	Model 4 Trust in authorities	Model 5 Trust in NGOs
Perceived organizational listening	0.07***	0.04***	0.04***
	(0.027)	(0.003)	(0.003)
Control variables			
Age in years	−0.01	0.01	−0.02
	(0.012)	(0.012)	(0.013)
Gender (female)	−0.07	0.11*	0.05
	(0.054)	(0.057)	(0.057)
Country (Finland)	−0.27***	0.32***	−0.22***
	(0.060)	(0.063)	(0.064)
Use of social media	0.03	0.20***	0.13***
	(0.027)	(0.028)	(0.028)
Education	−0.06	0.02	0.05
	(0.047)	(0.050)	(0.050)
Place of residence	−0.02	0.01	−0.01
	(0.026)	(0.027)	(0.027)
Adjusted R^2	0.28	0.14	0.14
N	1270	1277	1268

Notes: Standard errors are in parentheses. Statistically significant at least at the 1% (***) and 10% (*) levels.

(Table 4, Model 4), and NGOs (Table 4, Model 5) share on social media. On average, a one-unit increase in perceived organizational listening was related to a 0.07-unit higher trust in brands, a 0.04-unit higher trust in public authorities, and a 0.04-unit higher trust in NGOs. Thus, H3, H4, and H5 were also supported.

Interestingly, adding country as a control variable showed significant differences in the respondents' trust in brands, public authorities, and NGOs. This is likely explained by the fact that Finnish people have traditionally reported higher levels of institutional trust than people from other European countries ("Survey: Finland ranks," 2018). The difference also seems to apply to this age cohort.

4.3. Post Hoc Analysis

Tables 5 and 6 report the results of the post hoc analysis. It appears that trust in brands, public authorities, and NGOs varied significantly with the level of perceived organizational listening (Table 5). For instance, respondents experiencing a low level of perceived organiza-

tional listening also reported lower trust in brands, public authorities, and NGOs, while those experiencing a high level of perceived organizational listening reported higher levels of trust (p < 0.01).

Table 6 presents estimates regarding the relationship between the level of perceived organizational listening and trust in the information shared by brands, authorities, and NGOs on social media. For instance, those with a low level of perceived organizational listening had an approximately 1.22-unit lower trust in brands, a 0.57-unit lower trust in public authorities, and a 0.66-unit lower trust in NGOs compared with those with a high level of perceived organizational listening.

Based on the results of the post hoc analysis, a group of young people appeared to perceive that brands were listening to them on social media and that they had a higher feeling of trust in the information that brands, public authorities, and NGOs shared on social media. However, at the other end of the spectrum, there was a group of young people who felt that brands were not listening to them on social media. This latter group also seemed to have difficulty trusting the information that

Table 5. Summary statistics: Trust in information shared by brands, public authorities, and NGOs on social media, with perceived organizational listening tertiles (low, moderate, and high).

Perceived organizational listening	Trust in brands	Trust in authorities	Trust in NGOs
Low	2.55	3.37	3.17
Moderate	3.10	3.64	3.40
High	3.81	3.97	3.88
F-test	167.05	33.91	50.19
P-value	p < 0.01	p < 0.01	p < 0.01

Notes: Perceived organizational listening divided into tertiles: Low, moderate, and high. Each group contains a third of the study sample.

Table 6. Regression results for trust in brands, public authorities, and NGOs. Reference category: Perceived organizational listening, high.

	Model 1 Trust in brands	Model 2 Trust in authorities	Model 3 Trust in NGOs
Perceived organizational listening, low	−1.22*** (0.070)	−0.57*** (0.072)	−0.66*** (0.072)
Perceived organizational listening, moderate	−0.63*** (0.069)	−0.33*** (0.071)	−0.40*** (0.072)
Adjusted R^2	0.22	0.11	0.11
N	1270	1277	1268

Notes: Standard errors are in parentheses. Statistically significant at least at the 1% (***) level. Perceived organizational listening divided into tertiles: Low, moderate, and high. Each group contains a third of the study sample. Reference category: Perceived organizational listening, high. The models were adjusted by gender, age, daily use of social media, place of residence, country, and education level.

brands and other organizations shared on social media. This suggests polarization in terms of perceived organizational listening and trust.

5. Conclusion

5.1. Discussion

This study has answered calls for more research on organizational listening and trust (Hung-Baesecke & Chen, 2020; Macnamara, 2018b). It contributes to the understanding on organizational listening and trust in information shared on social media, the possible benefits of organizational listening, and perceptions regarding the organizational listening of young people within the age cohort of Generation Z.

The descriptive results showed that the respondents were skeptical about the level of attention they received from brands on social media. This supports the current knowledge that maintains that organizations are often unable to show signs of competent listening on social media (Maben & Gearhart, 2018) and struggle with dialogue, especially when it comes to younger generations (Avidar et al., 2013). It therefore seems that the "architecture of listening" suggested by Macnamara (2016, 2018a, 2018b) remains wanting.

Organizational listening on social media was found to be associated with the perception that brands' social media presence benefits both the brands and young people, although brands are currently perceived as benefitting substantially more. The results support earlier studies emphasizing that listening ensures that the interests of both organizations and stakeholders are met (Burnside-Lawry, 2012).

Further, the results showed that organizational listening was positively associated with trust in information shared on social media. Interestingly, it also seems that not only was organizational listening by brands on social media connected to trust in brands, but the perception of organizational listening by brands was also correlated with trust in the information shared by other organizations, such as public authorities and NGOs. This in-

dicates that as young people perceive that their voices are being heard online, including by commercial organizations, they might be more inclined to trust different kinds of organizations and the content that these organizations share. It has been claimed that trust is contagious (Bowden et al., 2017), highlighting the responsibility that brands have on social media when it comes to listening to young people. Maintaining dialogue is a central value of democratic societies, and listening to young people online can be understood as an important contribution to societal benefits, such as increased trust (Macnamara, 2018b; Smith & Taylor, 2017). Individual experiences matter collectively, as they may turn into more generalized experiences of trust (Rothstein & Uslaner, 2005).

The results also showed a group of young people who seemed to perceive less organizational listening and experience less trust in the information that brands and other organizations share on social media. An earlier study on Millennials showed the different stances that young people take toward organizations in social media: While some actively build interaction with brands and organizations, others withdraw or completely avoid such interaction (Rissanen & Luoma-aho, 2016). The same seems to apply to Generation Z.

Canel and Luoma-aho (2019) have maintained that, in the context of public organizations, citizens' positive experiences build further positive experiences and that high levels of citizen trust serve as a breeding ground for more trust, creating a kind of "virtuous circle of trust." At the same time, a "vicious circle of distrust" (Canel & Luoma-aho, 2019) could be operating in the opposite direction: Negative experiences and distrust can also intensify. This raises the question of whether positive experiences of organizational listening and higher levels of trust can continue to reinforce each other and, thus, also support participation and engagement. In the same vein, negative perceptions of organizational listening and feelings of distrust can also accumulate, possibly contributing to heightened polarization, division, and even withdrawal from interaction on social media.

These developments could also manifest in the aftermath of the Covid-19 pandemic. Many in the Genera-

tion Z cohort have demanded more forceful action against climate change, but they have seen very little response. They are now witnessing how quickly governments and the corporate world can act when faced with serious threats, such as a pandemic. As a result, many young people appear disappointed that a similar willingness to act has not been matched in the area of climate change (Margolin, 2020). These developments could affect their future trust in governments and the corporate world.

As mentioned earlier, Olkkonen and Jääskeläinen (2019) have framed corporate activism as "mobilizing talk," i.e., a phenomenon that brands often engage with in order to build relationships with consumers and stakeholders. If indeed positive experiences of organizational listening, trust, and participation are intertwined, there might also be room for an approach called "mobilizing listening." This would suggest that brands and organizations showing signs of active and competent listening could potentially accelerate young people's trust and, therefore, contribute to their participation and engagement online.

Noteworthy, however, is that this scenario represents an ideal state in the sense that the drivers of brands are seldom individual or societal needs; instead, they are financial gains. While Nike took a risk in its collaboration with Colin Kaepernick to take a stand on an important societal issue and faced criticism and even boycotts because of it, Nike's sales were eventually boosted, and their stock rose by 5% in the weeks following the launch of the campaign ("Nike's 'dream crazy' advert," 2019). The risk was, therefore, well calculated.

True dialogue includes reciprocity and responsiveness (Ciszek & Logan, 2018; Smith & Taylor, 2017), and it seems that when it comes to Generation Z, brands and organizations still have a long way to go. There is an upward trend in young people's expectations toward brands and other organizations, juxtaposed with a downward trend in trust. Young people want their voices heard, and brands and organizations can play a role in facilitating this societal need. By improving their competence in listening on social media, brands and organizations might not only themselves benefit, including in terms of increased trust in them, but they might also increase the perceived benefits of social media for young people and, therefore, possibly even empower them.

5.2. Limitations and Future Studies

Although this study has several limitations, it also opens up interesting avenues for further research. First, the results only showed correlations, as opposed to causal effects, between the variables. The effects of organizational listening would be better observed, for example, through an experimental design, where manipulated conditions for listening (high level of listening versus low level of listening) are presented to the respondents.

Also, the data were secondary in nature, i.e., not originally gathered to study organizational listening.

Therefore, it is possible that the variables used to capture organizational listening did not cover all aspects of what is considered to be good and competent organizational listening on social media. For instance, the dimension of "pertinent response" (Maben & Gearhart, 2018) was lacking from the variables used. A more carefully designed measure for organizational listening should be used in future studies to verify the results. Also, as all the variables were obtained through a self-reported online survey, some measurement errors may exist.

In addition, the questionnaire did not include different types of perceived benefits. Within the context of brands on social media, these could include financial benefits in terms of promotional codes, emotional benefits in terms of contact and interaction with brand representatives or other social media users, or recreational benefits in terms of entertaining or amusing content. Future studies could look at the connections between perceived organizational listening and the different types of perceived benefits.

The study respondents fell exclusively between the ages of 15 and 24, which means that the youngest representatives of Generation Z were missing from the data. Therefore, the results might not be applicable to the entire age cohort of Generation Z. Further studies should seek to include those who are currently 10–14 years old.

The fact that the respondents came from Finland and the UK, both western democracies with relatively high Internet access and social media use, also challenges the representativeness of the study. The results might, therefore, not be applicable to the entire global Generation Z population. A comparison with more countries could offer insights into whether those in Generation Z have more cross-country similarities or differences when it comes to experiencing organizational listening and trust on social media.

The differences in age and culture between the respondents might also have affected the results. The Finnish respondents were aged 15–24, while the UK respondents were 18–24. Although the respondents' age, country, and place of residence were taken into account, a wide range of unobserved factors might have remained. For example, Finnish people have traditionally reported higher levels of trust in public institutions ("Survey: Finland ranks," 2018) than people from other European countries, which might also have affected the results. Future studies could look deeper, for example, at whether different levels of polarization and transparency in different societies affect the perceptions of trust in information shared by brands and organizations on social media.

Finally, as this study is a snapshot, it is difficult to say whether the perceptions of the respondents regarding organizational listening and trust were connected with their life stage or generation. This is something that only longitudinal research can tell. In addition, the entire concept of Generation Z can be questioned. Urwin and Parry (2017), for example, have suggested that generations

may actually be distinct points on a more general social journey as people become more accepting of different ideas.

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Conflict of Interests

The authors declare no conflicts of interest.

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About the Authors

Hanna Reinikainen is a Doctoral Student in Corporate Communication at the Jyväskylä University School of Business and Economics. Her PhD focuses on social media influencers and interaction on social media. She currently works on a research project on young people's agency on social media, funded by the Academy of Finland. https://orcid.org/0000-0002-3165-4889

Jaana T. Kari is a Postdoctoral Researcher in Economics at the Jyväskylä University School of Business and Economics. Her PhD focused on lifelong physical activity and long-term labor market outcomes. Currently, her research focuses on young people's health and wellbeing and their impact on the accumulation of lifetime human capital. https://orcid.org/0000-0001-5205-7031

Vilma Luoma-aho is a Professor of Corporate Communication and the Vice Dean of Research at the Jyväskylä University School of Business and Economics. Her research focuses on intangible assets, and she currently leads an Academy of Finland—funded research project on young people and social media. Her latest edited book, *The Handbook of Public Sector Communication* (Wiley), is out in 2020. https://orcid.org/0000-0003-1316-3725

Article

Following Politicians on Social Media: Effects for Political Information, Peer Communication, and Youth Engagement

Franziska Marquart *, Jakob Ohme and Judith Möller

Amsterdam School of Communication Research, University of Amsterdam, 1018XE Amsterdam, The Netherlands;
E-Mails: f.marquart@uva.nl (F.M.), j.ohme@uva.nl (J.O.), j.e.moller1@uva.nl (J.M.)

* Corresponding author

Abstract

Young citizens increasingly turn to social media platforms for political information. These platforms enable direct communication between politicians and citizens, circumventing the influence of traditional news outlets. We still know little about the consequences of direct contact with politicians on such platforms for citizens' political participation. Here, we argue that the interplay of different actors in the political news diet of citizens should be investigated from a networked communication perspective. Relying on a cross-sectional survey of young Danes (15–25 years old, $n = 567$), we investigate the relationship between following politicians on social media and: (a) the composition of young citizens' political media diet; and (b) their civic messaging and campaign participation. Following political actors on social media relates to increased campaign engagement and can be a catalyst for young people's exposure to campaign news, but their friends and followers function as the main node of their political online networks. We document a process of the de-mediation of politics on social media: Established news media lose influence as primary information sources for young citizens. We discuss these results in the context of users' active curation and passive selection of their political social media diet.

Issue

This article is part of the issue "Youth Digital Participation: Opportunities, Challenges, Contexts, and What's at Stake" edited by Neta Kligler-Vilenchik (Hebrew University of Jerusalem, Israel) and Ioana Literat (Teachers College, Columbia University, USA).

1. Introduction

Young people increasingly turn to social media platforms for news and political information: 50% of citizens between 18–24 years use Facebook, YouTube, Instagram, Twitter, and Snapchat to access and discuss news in different countries (Reuters, 2019). In 2017, 75% of Danes between 18–29 years report getting news daily from social media, and 61% of 20–29 year old Danes discuss politics on Facebook with strangers (Matsa, Silver, Shearer, & Walker, 2018; Rossi, Schwartz, & Mahnke, 2016). During an election campaign, first-time Danish voters see campaign news on more than one third of campaign days and thereby significantly more often than

older citizens (Ohme, 2019). This suggests that how younger generations seek out and consume political information is changing with the shifting modern media environment and growing relevance of social media platforms. News organizations still play a key role in this information environment; however, citizens also 'follow' and 'like' politicians' or parties' social media representation and receive regular status updates on events, policy announcements, or personal news (e.g., Manning, Pennfold-Mounce, Loader, Vromen, & Xenos, 2017). Hence, a key aspect of social media is that it enables direct communication between politicians and citizens, allowing political actors to circumvent traditional news outlets (Parmelee & Roman, 2019; Weeks, Kim,

Hahn, Diehl, & Kwak, 2019). This form of presentation resonates particularly well with younger citizens, who value politicians who are able to show themselves as 'one of us'—that is, a 'regular' person in contrast to the 'official' political persona (Manning et al., 2017). In line with this, more than one fifth of 18–24-year-old Danish citizens report following a political party on social media, and 17% follow at least one politician (Reuters, 2019; see also Fisher, Culloty, Lee, & Park, 2019).

While a growing body of research investigates politicians' strategies on social media (e.g., Kreiss, Lawrence, & McGregor, 2018; Stier, Bleier, Lietz, & Strohmaier, 2018), the *effects* on citizen's political participation of following political actors online are understudied (but see Weeks et al., 2019). Furthermore, we lack insights into the effects of *young* people's engagement with politicians on social media. Late adolescence is a crucial time for the development of political and civil interests (e.g., Literat, Kligler-Vilenchik, Brough, & Blum-Ross, 2018), while youths' online peer networks are a determining source of political socialization (Lee, Shah, & McLeod, 2013). Therefore, the interplay of different actors in young people's political news diet must be investigated from a networked communication perspective to understand the impact of information acquisition on social media for political participation.

We use an original cross-sectional survey study conducted around the 2017 Danish municipality elections. Young citizens (15–25 years old, *n* = 567) were questioned about their social media use and political engagement during an ongoing get-out-the-vote campaign. We take into account a number of relevant predictors established by prior research (e.g., interpersonal communication, general media use, political interest) to determine the effects of following politicians on social media on: (a) the composition of young citizens' political media diet; and (b) their civic messaging and campaign participation. We discuss our results in light of the influence of algorithmic selection and filtering processes (e.g., Thorson, Cotter, Medeiros, & Pak, 2019; Thorson & Wells, 2016) that affect how much political information young people are exposed to on social media. While our analyses rely on cross-sectional data, our findings provide valuable insights into the role that political actors play in the political information environment of the youth.

2. Digital Participation as Part of the Political Socialization Process

How young adults engage with politicians through social media may have a lasting influence on their relationship with politics. Theoretical as well as empirical work in the field of political socialization demonstrates that many civic attitudes and behaviors are primarily developed as young adults become eligible to vote (Valentino & Sears, 1998), and during the period following this first formal exercise of citizenship, the so-called formative years (Mannheim, 1928/1952); it also results from young

citizens perceiving the political world as remote and unresponsive to them (Loader, 2007). Hence, political interest is still developing during late adolescence and early adulthood (e.g., Fisher et al., 2019), and the impact of news and current affairs information is particularly pronounced during those years (Moeller, de Vreese, Esser, & Kunz, 2014).

At the same time, the development of civic attitudes and behaviors goes hand in hand with young citizens' general identity formation: How they orient themselves towards the political world is likely to have a lasting impact on their later lives. Gerber, Green, and Shachar (2003) find, for example, that turnout for earlier elections is significantly associated with electoral participation in later stages of life. This orientation towards politics mostly takes place in the digital sphere (Literat et al., 2018). Online, young citizens can make use of their digital skills and realize their aims through communication practices familiar to them. Research demonstrates that online civic communication mediates political information processing (Lee at al., 2013), and functions as a steppingstone towards offline participation (Moeller et al., 2014). One core mechanism in this process is the development of internal political efficacy (e.g., Maurissen, 2018), or the perception of being competent "to understand and to participate effectively in politics" (Craig, Niemi, & Silver, 1990, p. 290). By engaging with politics in the digital realm, adolescents gain confidence in their civic skills, which later translates into more political participation (Moeller et al., 2014). In this process, communication with politicians on social media may play a decisive role to bridge the gap between the seemingly abstract political world and the reality of adolescent life. Through engagement with politicians and politics online, adolescents can also foster perceptions of external efficacy or feeling heard. In an extensive review of the Civic Web research project that studied political participation of young citizens, Banaji and Buckingham (2010) find that politicians' meaningful engagement with adolescents in the context of peer-to-peer communication raises both adolescents' confidence in the responsiveness of the political system and their motivation to express their citizenship. The authors conclude that many characteristics of online communication, such as interactivity and openness, can empower young citizens to participate. This perspective regards young people as active agents in their own political socialization (Bennett, 2008). Social media facilitate this active role by allowing active curation and passive, algorithmic selections: Political information is not something that happens only in the news, but can be shared, forwarded, commented on, or remixed (Coleman, 2008).

3. Following Politicians on Social Media

Early research into the connection between political actors and citizens on social media finds only weak indicators for direct political communication, with limited
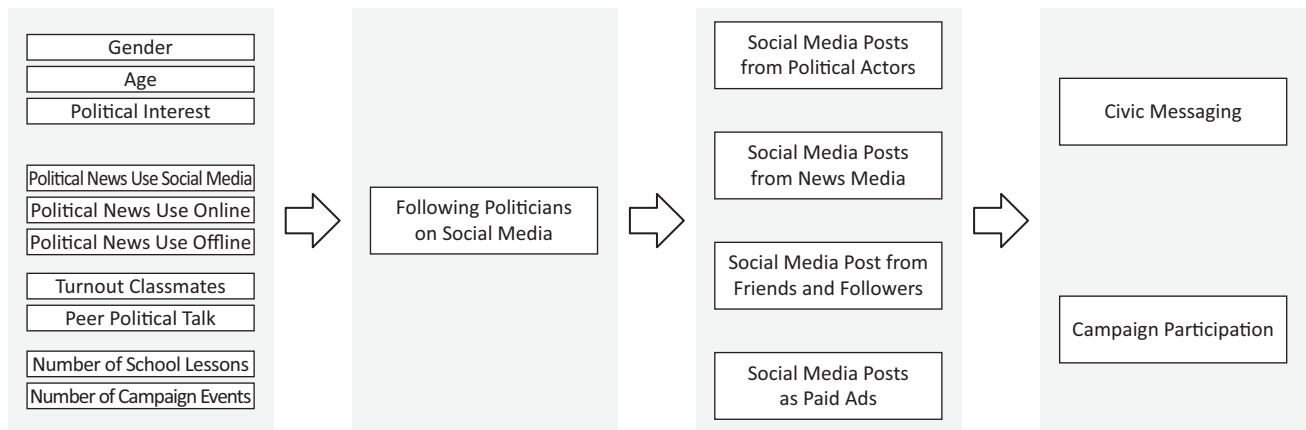
Figure 1. Conceptual model.

numbers of followers for a few prominent political candidates (Nielsen & Vaccari, 2013). This context has changed drastically. In March 2020, 74 million users follow U.S. president Donald Trump's Twitter account. Through their representation within the open and free environment of social media, politicians can engage directly with their prospective electorate and bypass journalistic gatekeeping (e.g., Kreiss et al., 2018; Parmelee & Roman, 2019; Sahly, Shao, & Kwon, 2019). The potential consequences for citizens in general and adolescents in particular are manifold. We explore three important questions here (see Figure 1): (1) Who are the young followers of politicians on social media?; (2) in what way is the news diet of young voters determined by a mix of active curation and passive selection?; and (3) how does exposure to different sources of political content on social media relate to political behavior?

Relying on Reuters data, Fisher et al. (2019) find that politicians' followers are significantly younger than the average citizen, they prefer to "hear directly from a politician/political party [rather] than have their views filtered by others" (Fisher et al., 2019, p. 243). Social media have been associated with the hope that less political interested and resourceful citizens will engage with politics more frequently on these platforms compared to traditional media (Shehata & Strömbäck, 2018). Yet, what personal traits and characteristics those young people who subscribe to politicians on social media have is an open question. We therefore ask:

RQ1: Who follows politicians on social media?

3.1. Following Politicians and Algorithmic Content Selection

On social media, politicians can post status updates, images, and videos, inform about policy positions, comment on current events, or advertise campaign events, which helps them to present themselves in a favorable way. It can be especially effective if it enables interaction with citizens who do not themselves follow politicians or parties, but are exposed to the content through their networks' likes and recommendations (e.g., Karlsen, 2015; Nielsen & Vaccari, 2013). An active digital followership is initially important for politicians on social media; however "how far each message spreads in the networks of their friends and followers depends on the algorithm" (Keller & Kleinen-von Königslöw, 2018, p. 8).

Prior research shows that young citizens attend to different types of political social media posts to different extents. Ohme (2019) finds that, during the 2015 Danish national election campaign, first-time voters encounter posts from political actors more often than from the news media, friends and followers, or in the form of political advertisements. There is therefore variation in the source of political posts young citizens attend to, and political social media diets are not uniform. We ask whether exposure to the different sources of political content are affected by (the amount of) political actors young citizens actively select into their social media environment. Such curation affects the social media algorithm—possibly, individuals encounter related (political) information more frequently and at the expense of other content. This may be particularly pronounced when we assume that peer networks influence each other reciprocally: Through one's similarity with friends' political content preferences, political information is further prioritized in the news feed (see also Kaiser, Keller, & Kleinen-von Königslöw, 2018). However, whether or not this is the case remains an empirical question. Hence, while following politicians is an active act of content curation, algorithmic content selection and the social relevance of those messages encountered determine how often users are exposed to information from politicians (see Messing & Westwood, 2014; Thorson & Wells, 2016). Although the exact function of algorithmic selection is less clear, the choice to include a political actor in one's social media diet is likely to affect one's digital trace data. Accordingly, "individual behavior, motivated by personal interest, shapes how the algorithm categorizes the interests of each user over time" (Thorson et al., 2019, p. 11). To determine what role the decision to follow a politician plays here, we ask:

RQ2: Does following politicians relate to different sources of political posts young citizens encounter on social media during an election campaign?

3.2. Following Politicians and Campaign Mobilization

Politicians use social network sites to create a personalized communication style, distancing themselves from their respective parties and the traditional media (Geber & Scherer, 2015; Kreiss et al., 2018). Mobilization is an important goal of this form of presentation, as is the spread of campaign-relevant information (Stier et al., 2018). Political candidates who emphasize social media over traditional methods of campaigning report direct communication with voters and higher visibility as imperative goals (Skovsgaard & van Dalen, 2013). Enli and Rosenberg (2018) find that citizens' levels of trust in Norwegian politicians are higher when the politicians appear on social media, which might be ascribed to politicians being able to present a (seemingly) honest version of their story, unmediated by journalistic intervention. Getting to know political candidates and their issue positions through social media may help youth socialization processes as well. Young citizens demand politicians be likeable and approachable, but also responsible and trustworthy (Manning et al., 2017). Social media provide an advantageous environment for presenting these qualities and can be particularly helpful in connecting the youth with political leaders (Enli & Skogerbø, 2013). At the same time, issue discussions on social media platforms remain the exception rather than the rule (van Dalen, Fazekas, Klemmensen, & Hansen, 2015), and Keller and Kleinen-von Königslöw (2018) argue that political actors do not take the deliberative potential of social media platforms seriously enough.

Investigations into the effects of engagement with, and exposure to, politicians' profiles for citizens remain scarce, with notable exceptions. Studies demonstrate that politicians' communication on social media can affect perceptions of a political actor's authenticity (Enli & Rosenberg, 2018; Kreiss et al., 2018) and audience engagement (e.g., Sahly et al., 2019). Kristensen et al. (2017) find that voting intention can be linked to citizens 'liking' the representations of politicians on social media. The effects of direct political communication on information exposure and political participation, especially among young citizens, however, remain unstudied, which is noteworthy given the role of social media in young people's lives.

Social media can play a pivotal role for youth mobilization during an election campaign. We differentiate two different types of engagement with the campaign, beyond following the news: Civic messaging and campaign participation (e.g., Kahne, Lee, & Feezell, 2013). Research finds that, especially during their first election campaigns, young citizens are less certain about how to form a vote decision and rely more on information from the media (Aalberg & Jenssen, 2007). Yet it is im-

portant to not only be exposed to election news, but to engage with it. A recent study finds that the effects of social media use on first-time voters' vote choice certainty are fully mediated through campaign participation (Ohme, de Vreese, & Albæk, 2018). Hence, while the use of news during campaigns is a first step to making an informed vote decision, commenting on or discussing politics online (i.e., through civic messaging) or attending political events and getting in touch with political actors (i.e., via campaign participation) can further aid information processing and help to develop an informed vote choice. Ultimately, being certain about what to vote for may be necessary to believing that turning out is efficacious (Sanders, 2001). It is therefore of interest, first, to what extent receiving politicians' messages in their social media diet increases young citizens' campaign engagement. Second, it is possible that including politicians in one's news diet alters how political messages from other sources relate to campaign engagement. Here, both a reinforcement role and an attenuating role of following politicians are possible. Reinforcement takes place through message consistency, for example, when posts from politicians and news media cover the same issue, or when friends and followers post information about a politician that the user follows. Message consistency can strengthen the political self (e.g., Wicks & Drew, 1991) and thereby contribute to young citizens' campaign engagement. In turn, inconsistency between a politician's issue and messages from other sources in a newsfeed may increase uncertainty for young voters, which negatively relates to their level of campaign engagement (Ohme et al., 2018). Lastly, political information stemming from young people's personal networks and political actors are especially influential in contributing to citizens' campaign engagement, compared to posts from news media (Ohme, 2019). Therefore, we expect:

H1: Following political actors on social media positively relates to young citizens' level of civic messaging and campaign participation.

Formally, we ask whether the number of political actors young Danes follow on social media relates to their civic messaging and campaign participation through heightened encounters with political content from different sources. We therefore test a mediation model to unravel a potential algorithmic curation impact and ask:

RQ3: Do political posts from different sources that young citizens encounter on social media mediate the relationship between following politicians and their level of civic messaging and campaign participation?

4. Method

The data for this survey were collected in the fall of 2017 as part of a two-wave panel study fielded shortly before and after the Danish municipality elections (see also

Ohme, Marquart, & Kristensen, 2019). The data were collected on the Danish island Funen; the participants were 567 young Danish citizens (51% male). Participants for the panel were recruited via their teachers in 16 general and vocational upper secondary educational institutions if their classes participated in the non-partisan get-out-the-vote campaign STEM'RNE (*The Voices*). The initiative brought together local news organizations on Funen who collaborated with schools and the main university to increase youth turnout in the county to above 80% for the local elections. The campaign organized events and roundtable discussions and engaged young citizens via several social media networks; teachers in participating classes also dedicated a number of additional school lessons to the elections and political topics. Teachers encouraged their pupils to take part in this survey study, and provided them with the link to the online questionnaire (coordinated by KantarGallup); therefore, students with a highly engaged teacher were more likely to participate. The first wave of the survey ($n = 807$) was conducted before the start of the campaign in October 2017. The second wave collected data from 580 respondents; not all of these had participated in the first wave, and 279 could be matched to Wave 1 (W1) respondents by means of anonymized identifiers. The drop-out rate between W1 and Wave 2 (W2) was therefore quite high. Comparisons of sample descriptives from both waves show similar distributions with regard to age (W1: $M = 18.88$; W2: $M = 18.64$), gender (W1: 50.2% female; W2: 48.6% female), origin (born in Denmark W1: 94.4%; W2: 95.3%), and political interest (W1: $M = 6.57$; W2: $M = 7.06$; range 1 = not at all interested, to 7 = very interested; see also Ohme et al., 2019). We rely on respondents from the second wave only, since it includes the relevant measures of campaign exposure, participation, and civic messaging, and exclude respondents who were above 25 years old; this results in our final sample size of $n = 567$.

Our main independent variable asked respondents whether they 'followed any Danish politicians or political parties on a social media platform' (i.e., Facebook, Instagram, Snapchat, or Twitter). About half of the sample did not follow any politician or party (53.1%); 29.6% followed one or two political actors, 9.9% followed three to five, and 7.7% followed more than five. The variable was recoded into a scale ranging from zero to three ($M = .72$; $SD = .92$). To determine whether following politicians relates to the amount of election-related information received on social media, we asked participants how often, in the weeks before the municipality election, they saw 'posts from parties, politicians, political organizations and political actors' about politics and the election on social media platforms ($M = 2.94$, $SD = .99$; 1—never to 4—daily). They also indicated how often they encountered such posts by 'the news media' (e.g., *Politiken*; $M = 3.14$, $SD = .93$), by 'friends or followers' ($M = 2.35$, $SD = .95$), and as 'paid advertisements' from parties and political actors ($M = 2.78$, $SD = 1.02$).

For our first dependent variable, 'civic messaging,' we assessed how frequently (1—never to 4—daily) participants engaged in six activities (e.g., posted something about politics or the elections; discussed a political or election-related issue publicly online with others; chatted with friends/acquaintances about politics or the elections; see, e.g., Moeller et al., 2014). The six items form a reliable combined scale ($\alpha = .82$); however, since we are interested in the joint impact of the six activities, we recoded them for a range of zero (never) to three (daily) and computed a sum score rather than an averaged index ($M = 2.66$, $SD = 3.37$; possible range 0–18). Respondents' 'campaign participation,' our second dependent variable, was measured by asking whether or not (0/1) they had, during the campaign, engaged in a number of activities (e.g., volunteered for a political party or candidate, or done an election test on the internet). The six items were combined to a sum score ($M = 1.23$, $SD = .88$).

Participants answered questions regarding their 'offline media' use related to politics during the last week (0–7 days; index of three media types; $M = 3.05$, $SD = 1.93$), and indicated how often they encountered political issues through several 'online media' during the same time (index of three media types; $M = 2.96$, $SD = 1.93$). We also take into account how often, during the preceding week, participants had encountered something 'about politics on social media' ($M = 4.57$, $SD = 2.42$; range 0–7 days) and how 'interested they were in politics' (1 not at all–11 very interested; $M = 7.04$, $SD = 2.24$). Importantly, these variables do not specifically relate to the election, but assess general political information and interest. Participants indicated how often they talked about politics during the weeks leading up to the election (range 1—never to 4—daily) with close friends ($M = 2.81$, $SD = .76$) and classmates or colleagues ($M = 2.83$, $SD = .82$); both items were merged to an index of 'peer political talk' ($M = 2.77$, $SD = .76$). In order to control for the political engagement of their classroom environment, we also asked them how many of their 'classmates or fellow students turned out to vote' in the municipality elections (1 = none, 4 = all of them; $M = 2.76$, $SD = .63$). Since our data collection took place immediately after a large get-out-the-vote campaign, we asked them about the 'number of lessons' in which they talked about the local election and politics at their school or university (none, 1–2 lessons, 3–5, 5–10, > 10; $M = 2.89$, $SD = 1.27$). They also indicated how often they participated in *events* organized by the campaign in their region (range 0–8; $M = .96$, $SD = .96$).

5. Results

To answer RQ1, we regress the number of political actors respondents follow on a range of potentially relevant predictor variables ($F(10, 556) = 18.10$, $p < .001$; see Table 1). Students' political interest positively relates to the likelihood of following more politicians on social media ($\beta = .347$, $p < .001$), as does increased political peer

Table 1. Predictors of following politicians on social media.

	Following politicians	
Gender (female)	−.095*	(.071)
Age	.035	(.024)
Political interest	.347***	(.018)
Political news use		
On social media	.139**	(.017)
Online	.092	(.023)
Offline	−.046	(.022)
Turnout classmates	.029	(.058)
Peer political talk	.093*	(.054)
Number of school lessons	.024	(.035)
Number of events	−.037	(.042)
N	567	
Adj. R^2	.232	

Notes: Standardized beta coefficients; standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

talk with close friends and classmates ($\beta = .093$, $p = .039$), and male respondents follow more political actors than females ($\beta = −.095$, $p = .012$). Seeing posts about politics on social media is positively correlated with following politicians as well ($\beta = .139$, $p = .002$), although the direction of this effect needs to be interpreted with caution given the cross-sectional design of the data. The strong correlation with political interest corresponds with findings from earlier work, confirming the importance of individual motivations in shaping social media selection (Thorson et al., 2019).

For our second research question, we test whether following politicians relates to the number of political posts citizens receive from: (a) political actors; (b) the news media; (c) friends and/or followers; and in the form of (d) political ads (Table 2). Following politicians is positively linked to the likelihood that young citizens encounter more political social media posts from political

actors ($\beta = .178$, $p < .001$), but also from friends or followers ($\beta = .130$, $p = .004$). However, the number of political actors one follows plays no role in how frequently political content by news media or paid political ads are encountered. All four sources of political content are more likely to be seen by young Danes who talk to their peers about politics more often, but political interest only correlates with the amount of posts seen by politicians or parties ($\beta = .121$, $p = .008$). We thus find that young citizens' social media environment is indeed shaped by the number of political actors they decide to follow, but that this influence extends beyond posts from politicians or parties and relates to an increased number of encounters with political posts by friends or followers.

In order to assess whether receiving political information from political actors positively relates to citizens' level of civic messaging and campaign participation (H1), and whether both relationships are mediated by politi-

Table 2. Regression results for the likelihood to encounter political posts on social media by different sources.

	Encounter social media posts about the election from different sources							
	Political actors		News media		Friends/ followers		Paid ads	
Gender (female)	−.018	(.073)	−.011	(.070)	.002	(.077)	−.054	(.082)
Age	.017	(.025)	−.024	(.024)	.024	(.026)	−.011	(.028)
Political interest	.121**	(.020)	.053	(.019)	.001	(.021)	.058	(.022)
Political news use								
On social media	.263***	(.018)	.347***	(.017)	.223***	(.019)	.184***	(.020)
Online	.070	(.024)	.058	(.023)	.024	(.026)	.150**	(.027)
Offline	−.001	(.023)	.057	(.022)	.046	(.024)	−.001	(.026)
Turnout classmates	−.036	(.060)	−.069	(.057)	−.033	(.063)	−.020	(.067)
Peer political talk	.148**	(.056)	.111*	(.054)	.142**	(.059)	.147**	(.062)
Number of school lessons	.073	(.036)	.091	(.035)	−.012	(.038)	.031	(.040)
Number of events	−.017	(.043)	.008	(.041)	.008	(.045)	.020	(.048)
Following politicians	.178***	(.044)	.035	(.042)	.130**	(.046)	.048	(.049)
N	567		567		567		567	
Adj. R^2	.294		.266		.138		.170	

Notes: Standardized beta coefficients; standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 3. Results of two mediation analyses on the influence of following politicians through a heightened exposure to political posts by parties and politicians and friends/followers.

	Civic messaging		Campaign participation	
Following politicians	1.098***	(.150)	.193***	(.041)
Gender (female)	−.204	(.247)	−.003	(.067)
Age	−.011	(.084)	.041	(.023)
Political interest	.106	(.068)	.076***	(.018)
Political news use				
On social media	.024	(.063)	−.015	(.017)
Online	.062	(.082)	.019	(.022)
Offline	.016	(.078)	.007	(.021)
Turnout classmates	−.309	(.201)	.102	(.054)
Peer political talk	.336	(.190)	.095	(.052)
Number of school lessons	.252	(.122)	.087**	(.033)
Number of events	.060	(.145)	−.014	(.039)
Mediators: Encounter social media posts from				
Political actors	−.040	(.153)	.038	(.041)
Friends/followers	.985***	(.145)	.084*	(.039)
N	567		567	
R^2	.325		.254	

Notes: Unstandardized coefficients; standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

cal content from different sources encountered on social media (RQ3), we run two mediation analyses using PROCESS (Hayes, 2013; Table 3). Following politicians is the main predictor, and we consider the amount of political posts encountered by political actors and friends/followers as mediators, since they significantly relate to the predictor in the previous analysis. All other variables are included as controls. Both participation ($b = 1.098$, $p < .001$) and civic messaging ($b = .193$, $p < .001$) correlate with the number of political actors young citizens follow on social media (i.e., the direct effect), which confirms H1.

Political interest ($b = .076$, $p < .001$) and the number of school lessons about the upcoming election ($b = .087$, $p = .009$) are only directly related to campaign participation. For civic messaging, the total effect of following politicians through the amount of posts seen by both political actors and friends/followers is positive and significant ($b = .124$, 95% bootstrap CI [.028, .229]), but the indirect effect is only significant through friends' posts. Similarly, campaign participation increases if young citizens follow more political actors on social media and, consequently, encounter more political posts from both sources ($b = .018$, CI [.003, .036]), but only friends and followers' political posts matter significantly. We thus answer RQ3 by stating that it is only encounters with political posts from friends and followers that mediate the relationship between following politicians and both campaign participation and civic messaging.

6. Discussion

While a growing body of research investigates why and how politicians engage on social media, we know little

about the effects of these representations for users' political attitudes and behavior—especially among the age group most attuned to communication through social media. In our study, 46.9% of young Danes between the ages of 15 and 25 follow at least one politician or party on social media: Actively curating politicians into one's personal news feed appears an accepted mode of seeking out political information for young citizens. We observe notable differences between adolescents who click the 'like' button and those who do not. In line with research on other forms of engagement (Lee et al., 2013), we find that political interest and peer talk are associated with a higher chance of following politicians. In this early stage of life, political interest—often described as a personal trait and therefore an individual characteristic (see Moeller, Shehata, & Kruikemeier, 2018)—already shapes citizens' political information environment. When this trait differentiates further in life, the active selection of political actors in citizens' social media news diet may evolve further. Importantly, political interest is not the sole defining prerequisite for young Danes' engagement with political content, nor do we argue that those youths with a comparably lower level of political interest are necessarily at a disadvantage in the socialization process. Findings by Bene (2017) show that young citizens who share and post political content on Facebook have a high level of political interest, but others still passively consume political information shared by their peers and are likely to profit from this curation decision. In addition, we assume a difference between *selection* effects (the choice to follow politicians on social media during formative years) and *media* effects (exposure to content provided by politicians). For the former, we document a significant (albeit not necessarily causal) relationship, and

we believe that the type of content shared on social media due to its characteristics of interactivity, personalization, and brevity (Kruikemeier, van Noort, Vliegenthart, & de Vreese, 2013) might be at least as effective for young audiences characterized by low political interest. In line with research into the capacity of soft news to convey political information to a less politically interested audience (e.g., Baum & Jamison, 2006), we assume that social media content from political actors can lead to an increase in political learning. On a social level, we expect that the presence and visibility of political actors in the social network might lead to a closer relationship with politics in general.

Another important indicator for following politicians in our data is peer talk within young citizens' social networks at school or university, potentially due to the function of social recommendations. This speaks to the mutual influence of self-selecting into peer networks that provide a political-information-rich social media diet and engagement with political content, shaping citizen-oriented identity formation. We also find that following politicians plays a role in young citizens' social media diet. This may seem a tautological finding at first sight, but is not. Even though followers of politicians see more political posts, they do not receive them through the news media but rather through peers and political actors. This means we document a process of de-mediation of politics on social media: Legacy media lose influence as primary information sources and are replaced by direct communication with political actors who can share their information without journalistic interference. This finding is in line with recent advances in the study of populist communication styles, where political actors circumvent the filter of established media (e.g., Engesser, Ernst, Esser, & Büchel, 2017). This limits journalistic possibilities of maintaining a gatekeeping function for young voters and raises concerns about manipulation and misinformation. However, our findings also indicate that young voters seek out a more immediate relation with politics (Manning et al., 2017), in line with a normative direct democratic ideal. Importantly, while following political actors can be the first step in a process of direct communication where politicians and citizens enter into a constructive dialogue, a 'like' is not a sufficient condition for user engagement (Heiss, Schmuck, & Matthes, 2019).

Our results show that when it comes to young citizens' campaign participation and civic messaging, the source of political information posts on social media makes a difference. Tested individually, we find that posts by politicians and friends lead to greater campaign engagement; when tested simultaneously, only information by friends and followers remain a significant factor of both types of campaign engagement. This is a strong indication of a networked communication logic, where personal interests and peer networks shape the information experienced online. We cannot make inferences about youths' motivations for sharing content online, but previous works highlights the importance of

individual considerations when assessing information, its 'repacking' before sharing, and the role the anticipated audience plays in this regard (Park & Kaye, 2019). Interviews with young American citizens (Thorson, 2014) show that some youths are 'social politics curators,' who are greatly engaged in politics and post or share a large number of political messages on social media. Youths further rely on trusted friends to curate their news content and 'filter' important information from the mainstream media for them (Vromen, Xenos, & Loader, 2014). These findings highlight the role of peer curators of political content in the process of news diffusion and distribution among young citizens; this influence may be attributable to heightened credibility perceptions and the content's presumed utility. If information is received via a (personally) known source such as a friend, it is more likely to catch one's attention and be considered more relevant and decisive for behaviour (e.g., Kaiser et al., 2018). These considerations raise further questions regarding the veracity of online information: If friends' recommendations serve as heuristic cues for social media users' assessment of a story's credibility, this may increase the likelihood that false information is spread through social networks. Educational efforts in media literacy may be a promising tool in this regard, particularly if they allow adolescents to develop critical evaluation (e.g., Leeder, 2019).

Furthermore, if citizens follow specific politicians, this may also increase the likelihood that posts and recommendations from peers with a similar political orientation become prioritized in the news feed, strengthening users' political self and positively affecting participatory outcomes. In contrast, a possible reason for the lack of influence of exposure to politicians' posts on behaviors may relate to their specific content: It is feasible to assume that the posts were not (solely) designed to mobilize youth voters, but rather the electorate at large. However, we cannot testify to the content of the different messages, and hence urge further research into this field.

Lastly, we find that following politicians directly relates to campaign engagement. Additional factors may exist that mediate the relationship between following politicians and our dependent variables that we did not account for (Zhao, Lynch, & Chen, 2010). For example, by following politicians, young citizens not only receive more political information on social media, but also become more attentive to such topics in the offline environment. Another explanation may be an increase in interpersonal political discussion offline that leads to heightened political participation, and/or heightened feelings of political efficacy. The fact that we still observe a direct effect irrespective of the significant indirect relationship can indicate that following politicians in and by itself affects civic messaging and campaign participation. We do not know which types of political actor young citizens in our sample followed, which makes it difficult to speculate about their influence. Our data show that the

quantity of politicians one engages with on social media matter for political behaviour, but the quality of these follower-relationships may be just as important.

This study has several limitations. The cross-sectional nature of our data warrants caution in causal interpretation, and we refrained from testing a serial mediation model. Furthermore, while we initially measured citizens' political efficacy, the scale failed to reach sufficient reliability and we excluded it from further analyses. Importantly, it has not been our goal to investigate the relationship between social media use and young citizens' political efficacy, nor do we want to suggest a specific order in which different types of behaviors are influenced. Rather, we add an understudied factor (i.e., following politicians) to the well-established process from personal predispositions over exposure to political behavior (such as suggested, e.g., in the O-S-R-O-R framework; Park & Kaye, 2019). The data for this study were collected in the context of an ongoing get-out-the-vote campaign, making it hard to disentangle campaign effects from the impact of citizens' day-to-day political information diet. While we differentiate between factors relating to election-specific activities and general forms of engagement, our concepts are inherently related; future work should thus aim at establishing causality for these assumptions. Furthermore, we cannot provide information about the content of the political posts young people encountered on social media, and do not know whether these were consistent with their own attitudes. The extent to which citizens are exposed to cross-cutting information, particularly through recommendations on social media platforms, may have important consequences for political behavior (e.g., Messing & Westwood, 2014).

Finally, future work should distinguish between different social media platforms in order to understand whether the interdependence of individual choices and algorithmic curation varies, and how far the relationships investigated here may be more (or less) pronounced depending on specific platforms in line with their affordances (e.g., Kalsnes, Larsson, & Enli, 2017; Ohme et al., 2019).

Our study is part of a recent endeavor that investigates results of content curation and the interplay of different political news sources on social media (e.g., Thorson et al., 2019). Following political actors can be a catalyst for young people's exposure to campaign news; however, their friends and followers function as the main node in their online networks. This interplay likely means that younger generations will be informed about politics in a more selective way that is driven by individual characteristics and social status and thereby supports the 'rich-get-richer' paradigm (Shehata & Strömbäck, 2018). Yet the relationship between active curation and the passive selection mechanism functions as a driver of campaign behavior. The networked communication logic, hence, seems to alter young people's media diet, but also presents opportunities to mobilize the youth.

Conflict of Interests

The authors declare no conflict of interests.

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About the Authors

Franziska Marquart is a Postdoctoral Researcher at the Center for Politics and Communication at the Amsterdam School of Communication Research. She is part of the ERC-funded project Europinions, which investigates the antecedents and consequences of public opinion towards the European Union. She earned her PhD (2015) from the University of Vienna in Austria, studying the content and effects of right-wing populist political advertisements. Her research focuses on political communication effects and experimental methods.

Jakob Ohme is a Postdoctoral Researcher in the Digital Communication Methods Lab at the Amsterdam School of Communication Research, University of Amsterdam. His research interests center on political communication effects, the impact of digital media on political behavior and attitudes, and the development of new methodological approaches in political communication research. As part of the Digital Communication Methods Lab, Jakob investigates effects of mobile media exposure by employing mobile methods, such as mobile data donations, mobile eye-tracking, and the use of specific survey apps. He earned his PhD (2017) from the Centre for Journalism at the University of Southern Denmark.

Judith Möller is a Tenured Assistant Professor for Political Communication at the Department of Communication Science at the University of Amsterdam. She is affiliated with the Amsterdam School of Communication Research, the Center for Politics and Communication, and the Information, Communication, & the Data Society Initiative. In her research, she focuses on the effects of political communication, in particular social and digital media. She is fascinated by the complex relationship between expressions of citizenship and communication characterized by intertwined causal links and conditioned by the political system.

Article

"School Strike 4 Climate": Social Media and the International Youth Protest on Climate Change

Shelley Boulianne [1,*], Mireille Lalancette [2] and David Ilkiw [1]

[1] Department of Sociology, MacEwan University, Edmonton, T5J 4S2, Canada; E-Mails: bouliannes@macewan.ca (S.B.), ilkiwd2@mymacewan.ca (D.I.)
[2] Department of Communication, Université du Québec à Trois-Rivières, Trois-Rivières, G9A 5H7, Canada;
E-Mail: Mireille.Lalancette@uqtr.ca

* Corresponding author

Abstract

Beginning in 2018, youth across the globe participated in protest activities aimed at encouraging government action on climate change. This activism was initiated and led by Swedish teenager, Greta Thunberg. Like other contemporary movements, the School Strike 4 Climate used social media. For this article, we use Twitter trace data to examine the global dynamics of the student strike on March 15, 2019. We offer a nuanced analysis of 993 tweets, employing a combination of qualitative and quantitative analysis. Like other movements, the primary function of these tweets was to share information, but we highlight a unique type of information shared in these tweets—documentation of local events across the globe. We also examine opinions shared about youth, the tactic (protest/strike), and climate change, as well as the assignment of blame on government and other institutions for their inaction and compliance in the climate crisis. This global climate strike reflects a trend in international protest events, which are connected through social media and other digital media tools. More broadly, it allows us to rethink how social media platforms are transforming political engagement by offering actors—especially the younger generation—agency through the ability to voice their concerns to a global audience.

1. Introduction

On March 15, 2019, approximately 1.4 million protesters worldwide joined the youth strike for climate change (Barclay & Amaria, 2019). The global climate strike was founded by Swedish teenager Greta Thunberg as a protest led by youth and younger generations to oppose past and current actions of older generations towards the environment. The strikes occurred over a series of Fridays, spanning more than one year, under the hashtag Fridays for Future. The March 15, 2019, event was the first time that the ongoing events drew more than 1 million protesters. Students went on strike and walked out of schools across the globe in order to draw attention to and encourage action on climate change. The strike continued into 2020; more youth protesters are taking to the streets in order to challenge governments and the media about the climate crisis. These protest initiatives followed similar grassroots-intensive blueprint used by other protest movements in recent years. This article examines 993 tweets with at least one #SchoolStrike4Climate hashtag. We examine the spatial markings of the tweets (local, national, global), which demonstrated a pattern of connecting local action

to global processes. We also examine the functions of the tweets (information, opinion, mobilization, or attacks), which reflected both support and criticism of the movement. As observed with other movements, the most common function was to share information and the least common function was to mobilize citizens to take action.

This article thus sheds light on the dynamics of collective/connective action among younger segments of the public as well as other civil society actors. It also offers a perspective about how youth are using social media while protesting and what kinds of reactions their protest generates from other members of society. Social media platforms are transforming political engagement by offering agency through the ability to voice political views. This research is important as action on climate change requires a global response. Social media can fill a gap in institutional processes which are not currently designed to engage citizens in global policy decisions. Social media can be used to question, contest, and/or support decisions or actions of media, political, private or governmental organizations related to the climate crisis. The global climate strike reflects a trend in international protest events, which are connected through social media and other digital media tools.

2. Youth Activism

There is a widespread concern about youth political participation in democratic countries, especially with regard to voting (Grasso, 2016; Martin, 2012; Sloam, 2016). Far from being apathetic, young people are more involved in other forms of engagement. These forms are ad hoc, issue-oriented, non-electoral, and personalized (Sloam, 2016; Vromen, Loader, Xenos, & Bailo, 2016). However, this political activism could be used to influence government, as documented in the recent climate strikes (Pickard, 2019). In some countries, youth are more likely to engage in protest activities, but in other countries, there are minimal age differences or the patterns reflect generational political action repertoires (Grasso, 2016; Martin, 2012; Sloam, 2016). Pickard (2019) calls this activism 'Do-It-Ourselves' politics, which uses a variety of tactics, including lifestyle choices, such as veganism and recycling, as well as climate strikes and non-violent direct action. Acting collectively is a key feature of this form of activism (Pickard, 2019).

Young people may use social media to express their political views. However, not all youth feel free to express their views online. Youth, as well as others, are reluctant to post their political views online, because of a fear of negative reactions or conflict, privacy concerns, and fear of posting something wrong (Bäck, Bäck, Fredén, & Gustafsson, 2019; Thorson, 2014; Vromen et al., 2016). Yet, social media remain as popular forums for political expression. This form of activism is often regarded as slacktivism, instead of being viewed as an activity along a continuum of participation (Dennis,

2019). Furthermore, a meta-analysis demonstrates that these online activities are correlated with offline activities (Boulianne & Theocharis, 2020). We expect to see youth using social media to express opinions, but we also expect to see others using social media to express opinions about youth and the global climate strike (Lievrouw, 2011; Pappacharissi, 2014). Digital media allows for political expression and this expression links individuals into a loosely organized network (Bennett & Segerberg, 2012). In other words, "identity reference is more derived through inclusive and diverse large-scale personal expression rather than through common group or ideological identification" (Bennett & Segerberg, 2012, p. 744). Thorson, Edgerly, Kligler-Vilenchik, Xu, and Wang (2016) illustrate this connective network in relation the 2014 People's Climate March.

3. Climate Change

The environmental movement has been described as the most influential and global movement of our time (Rootes, 2007). The nature of environmental issues requires a global lens, as environmental problems such as air pollution cannot be contained within political borders. Solutions require international collaboration involving governments and nonprofit organizations (Fisher & Green, 2004). Furthermore, efforts to conserve resources, such as wildlife, also require global interventions, as demonstrated by the World Wildlife Fund. Indeed, the environmental movement is distinctive as a movement, because of the global scale and need for international collaboration (Rootes, 2007).

A major focal point of the current environmental movement is climate change. Public opinion research shows that concern about climate change fluctuates over time with key events triggering increased concern (Ballew et al., 2019; Brulle, Carmichael, & Jenkins, 2012). Economic downturns, political elites, media coverage, availability of scientific information, weather changes, and activities of social movements/counter-movements have been considered as triggers for changing levels of concern about climate change (Benegal, 2018a; Brulle et al., 2012).

Concern about climate change is also marked by age, with young people more likely to express concern and believe in the anthropogenic origins of climate change (Arbuckle, 2017; Benegal, 2018a, 2018b; Hornsey, Harris, Bain, & Fielding, 2016). In the US, even among Republicans, younger people 'worry' more about climate change, than their older counterparts (Republicans: 40% versus 28%, Democrats: 86% versus 78%; Ballew et al., 2019). Beyond the US, there are many studies documenting that young people are more concerned about climate change, compared to older people (Tobler, Visschers, & Siegrist, 2012). In addition, age distinguishes those who are merely concerned from those who are 'concerned activists' in Germany (Metag, Füchslin, & Schäfer, 2017).

4. Hashtag Activism

The School Strike 4 Climate builds on existing movements and their use of social media, including the global Occupy movement (Theocharis, Lowe, van Deth, & Garcia-Albacete, 2015), Arab Spring, and Idle No More (Raynauld, Richez, & Boudreau Morris, 2017) as well as more youth-driven movements (see Raynauld, Lalancette, & Tourigny-Koné, 2016, 2019; Theocharis, 2012). In addition, the social media tactics can reflect practices from more national or localized movements, such as the Black Lives Matter (Freelon, McIllwain, & Clark, 2016) and Euromaidan (MacDuffee-Metzger & Tucker, 2017). These studies use hashtags to identify and analyze a discursive community around a particular topic. Jost et al. (2018) provide a summary of these movements.

These studies tend to find that Twitter is used largely for circulating information and rarely includes calls to action to engage in protest activities, following early work in this field (Theocharis et al., 2015). For example, using #Ferguson, LeFebvre and Armstrong (2018) find that only 4% of tweets were calls for peaceful action, 2% of tweets were calls for digital action, and less than 1% were calls for violent action. Freelon et al. (2016) offer a big picture of 40 million #BlackLivesMatter tweets, noting that invitations to participate were quite rare. Hodges and Stocking (2016) find that only 5% of tweets related to the Keystone XL pipeline involved a request to take action, such as signing a petition or protesting. In 2012, just 3% of tweets about the Quebec student strike were recorded as having a mobilization function (Raynauld et al., 2016). In contrast, Raynauld et al. (2017) find that 14% of #IdleNoMore tweets included details about mobilization. Following this line of research, we have similar expectations.

The infrequency of mobilization tweets is not indicative of the limited mobilization potential of social media, as studies of protesters find that social media use is a popular way to learn about a protest event (Fisher, 2019). Furthermore, many studies document a positive correlation between social media use and the likelihood of participation in protest (Boulianne, Koc-Michalska, & Bimber, 2020). Social media platforms were critical to mobilizing participation in the March for Science in 2017 (Boulianne et al., 2020) as well as for young people in Chile during the 2011 environmental protest (Scherman, Arriagada, & Valenzuela, 2015). There is a legacy of digital media being used to organize and mobilize participants in the environmental movement (Fisher & Boekkooi, 2010).

As mentioned, most of the studies analyzing tweets conclude that the primary objective is to share information about the movement (Jost et al., 2018; LeFebvre & Armstrong, 2018). Interviews with Black Lives Matter tweeters affirm that the motivation is to educate and raise awareness (Freelon et al., 2016). This information can be shared through links to traditional news sources

and sharing photos of the event. Hyperlinks are popular in tweets, recognizing this core function (Jost et al., 2018; Merry, 2013; Pang & Law, 2017; Raynauld et al., 2016, 2017).

Moving research forward, we recognize that the environmental movement is very much a global movement and as such, social media may be used differently. Pang and Law (2017) offer a review of Twitter-based studies in relation to the environmental movement. They explore how the inclusion of hyperlinks in tweets impact retweet patterns related to #WorldEnvironmentDay, and examine how the use of visuals may persuade tweeters. Hodges and Stocking (2016) examine the Keystone XL pipeline Twitter discourse and find that supportive and oppositional groups make different uses of Twitter. Those who opposed the pipeline were more likely to interact with other Twitter users, share tweets about their views, and request donations (Hodges & Stocking, 2016). Merry (2013) studied environmental groups on Twitter in the aftermath of the BP oil spill, and finds that 90% of tweets contained hyperlinks. She concludes that Twitter offers a new venue for conflict expansion and poses a problem for environmental groups trying to control the narrative around the BP oil spill (Merry, 2013). Thorson et al. (2016) explore how hashtags are used in the People's Climate March in 2014. They argue that the use of hashtags creates "a digital space of shared attention for the climate change march" (Thorson et al., 2016, p. 4791). This shared space is important for global protest events.

The key challenge for environmental action is that it requires local action to a global problem. This can lead to free-rider problems or bystander effects, where no one takes action. Individual actions might be perceived as inconsequential, given the global and overwhelming nature of environmental problems. This can deter environmentally friendly practices, as well as reduce the incentive to participate in marches and demonstrations, a high-effort activity. In the case of protests, if everyone can enjoy the benefits of a successful protest, then why would a single individual decide to incur the costs of participation (Jost et al., 2018)? Social media are believed to reduce the costs of participation, because information about the location and turnout are easier to acquire (Jost et al., 2018).

At the institutional level, environmental political action also poses a challenge. Democratic institutions are tied to nation-states, which are bounded to geographically-defined constituencies. Governments are held accountable by citizens within their country. However, the failure to address climate change has impact on global citizens, not just those citizens within one's country. Yet, global citizens do not have access to the global leaders that make decisions about climate change policies. Indeed, some global citizens are more vulnerable than others to the impacts of climate change, but their country may not be equipped to adapt to climate change (Sarkodie & Strezov, 2019). For example, sub-

Sahara Africa is often identified as a vulnerable region for climate change, but the governments in these countries have little control over the fate of global agreements on climate change (Sarkodie & Strezov, 2019). As such, it is important to understand the global dimension to this activism. People are protesting in the streets to raise awareness of this issue at the local level as well as the global level in an effort to encourage global political action.

Social media present an opportunity to voice one's concerns about climate change and the need for action, as well as document the discontent among citizens by posting pictures of the protest event. Social media users may connect their local events to global events. In doing so, they are documenting their and others' discontent so that local political leaders can view their events virtually through social media images. However, they are also documenting their and others' discontent for global leaders to take note. Indeed, the spatial markings of protest events across the globe suggest that there is a global community concerned about climate change. Seeing this global community through protest images might help encourage action on climate change. Global citizens cannot participate in elections to choose global political leaders, nor can they participate in referendums to support climate change agreements. Social media offer a substitute for lacking global governance structures. As such, we are interested in the extent to which social media posts reflect this local-global tension. Our research questions are as follows:

RQ1: What are the spatial markings of tweets (local, national, global) related to #SchoolStrike4Climate?

RQ2: What were the primary functions of tweets (information, opinion, mobilization, or blame) using #SchoolStrike4Climate?

5. Methods

5.1. Sample

In order to systematically study how Twitter was used during the protests, the researchers decided upon several criteria for the sample. The choice of hashtags was based on Twitter trending topics statistics on the day of the event (approximately noon, mountain standard time, on March 15, 2019). At that time, these hashtags were trending: #YouthClimateStrike (10.5K Tweets); #ClimateActionNow (7K Tweets), and #SchoolStrike4Climate (86.6K Tweets). #FridaysforFuture was also trending, but unfortunately was not included in our subsequent scraping efforts. Indeed, this discursive network was difficult to capture, as the hashtag was also tweeted as "FridayforFuture" (missing the 's') and sometimes 4 was used in lieu of "for." Nonetheless, this discourse was picked up through the use of multiple hashtags as many of our tweets included #FridaysforFuture and #SchoolStrike4Climate, as our findings demonstrate.

The data were scraped from Twitter using Netlytics (https://netlytic.org). Netlytics caps the scraps per query at 1,000 (most recent) tweets. As such, we chose a series of hashtags to scrape data and staggered the data collection process over time, beginning on March 15 at 16h through to March 18 at 20h. These strategies allowed us to collect more than 35,000 tweets related to this event (tied to these various hashtags). We then turned our focus to the #SchoolStrike4Climate, because it contained the largest number of tweets (n = 13,542). We narrowed the list by identifying the duplicates within the database. When identifying the distinctive tweets, we sorted these results from most to least frequent, then chose the most frequent/retweeted 1,000 from the 1,842. Focusing on popularity/retweets helps capture the most common messages circulating around this event and the youth participants. Netlytic does not scrape the retweet/like metrics for individual posts. To compensate for this weakness, we added the metrics of the tweets that we quote, using estimates gathered as of December 9, 2019.

5.2. Coding

The number of tweets coded reflects recent practices in this field when using human coders (Pang & Law, 2017; Raynauld et al., 2016, 2017, 2019). We coded 993 tweets into the following broad themes: spatial markings and function. Non-English tweets were translated using Google Translate and then coded. The diversity of languages and regions expressed in these tweets helped to gain a more global perspective in comparison to other hashtags. The codes were created in order to answer our research questions.

The coding of tweets employed the following process. The third author of this article coded tweets, then a second independent coder reviewed the tweets to agree/disagree with the original code, and finally, the first author of this article conducted a final review of each coded tweet. We did not conduct independent coding and as such, inter-coder reliability was not computed. Across all the function tweets, there were only 27 tweets (of 993) where the function was not clear across all three reviewers. In each case, the third reviewer/first author reviewed both coders' rationale and made the final decision. Changing all of these tweets into different functions would not change any of the core findings: Information was the most popular function, opinion was next, followed by attack, and mobilization was the least popular. To establish the validity of the coding scheme, we offer examples of tweets to exemplify each code. Because we are coding a subset of tweets defined by popularity, not randomness, we present statistics about patterns of relative frequency—which functions are more popular than others, rather than the precise percentage of tweets with a particular function in the entire discursive community related to #SchoolStrike4Climate. These quantitative measures allow us to connect with the existing literature on functions. This approach also provides

greater depth about what these functions entail, which is one of the contributions of this article.

As per RQ1, we are interested in the physical location of the protest event. As mentioned, participants in the Student Strike 4 Climate may feel an increased need to ground the movement in physical locations, by posting locations to Twitter. In addition, this practice highlights the global-local challenges of action related to environmental issues. To study mentions of location, we created seven categories for spatial location: 1) local; 2) national; 3) global; 4) local and national; 5) local and global; 6) national and global; and a combination of 7) local, national, and global. The spatial locations were the most straight-forward to code. We coded for any reference to a location: a city (or a key location in a city, such as Buckingham Palace), a country, a region, for example. There were no disagreement per se, rather sometimes a marker was missed and this information was corrected. However, the correction rate was less than 1%. Each coder could 'correct' the coding and offer a rationale for the change.

For RQ2, we used an existing coding scheme from the GGI codebook, which was originally developed to study the 2012 Quebec Student Protest (Raynauld et al., 2016, 2019). From this coding rubric, we adapted the original categories of information tweets, opinion tweets, mobilization tweets, and attack or denunciation tweets to fit this new strike. In line with prior applications of this coding scheme, these categories were treated as mutually exclusive to one another; if a tweet was interpreted as having two or more elements of these categories, it became the responsibility of the coder to determine which category best encapsulated the contents of the tweet. Within each function, we highlight subthemes of tweets. We ordered the subthemes in terms of most frequent to least frequent, without providing exact numbers, because the intent is to establish relative patterns, rather than exact estimates, which would require a larger random sample or the entire population of tweets using this hashtag.

The categories of information tweets were: tweet documenting the protest, tweet about an issue or event related directly to the strike, news reports related to the strike, and tweet sharing climate/environmental informa-

tion. As mentioned, we present subthemes ordered from most to least frequent.

The opinion tweets category was broken down into subcategories: opinion about protest, opinion about climate change, opinion about youth protesters, and opinion about youth in general.

Expanding upon Merry (2013) and Hodges and Stocking (2016), who differentiate between online and offline forms of activism, we adjusted the mobilization category to distinguish between offline and online mobilization. The first category applied to attempts for 'traditional' offline forms of participation. Offline participation included activities like protesting, putting up flyers, and boycotting goods and industries. The second category was online mobilization requests, such as signing petitions and retweeting.

Like opinion tweets, attack tweets could pertain to a wide variety of topics, but unlike opinion tweets, attack tweets cannot express positive opinions: They condemn or denounce the actions of a person, group or social system. The first change we made to this category was to rename it to also include tweets which place environmental blame on particular groups or individuals. This change was influenced by Merry (2013). Using Merry's (2013) definition of blame, we created multiple categories for tweets that attack or create blame. In this paper, we focus on attacks or blame aimed at governments and attacks or blame aimed at media organizations. The purpose of these subcategories was to study how tweets attack or create blame and who or what is subsequently the target of these posts.

6. Findings

6.1. RQ1: Spatial Markings

We first wanted to see how location was mentioned in the tweets in order to understand the local–global dimension of this protest. The results showed that approximately 533 of 993 tweets mentioned a location (Table 1). Tweets that mentioned local protests were the most common (53.1%). Local tweets mentioned towns or cities, including London, New York City, Paris, Montreal,

Table 1. Frequency and percent of spatial marking tweets.

	Frequency	Percent
Spatial marking	533	53.7%
Local	283	53.1%
Global	98	18.4%
National	64	12%
Local and global	38	7.1%
Local and national	25	4.7%
National and global	11	2.1%
Local, national, and global	9	1.7%
Other	5	0.9%
No spatial markings	460	46.3%
Total	993	100%

Dublin, and Stockholm. They were followed by tweets mentioning the protest at a global scale (18.4%), including this tweet by Greta Thunberg:

> Tomorrow we school strike for the climate in 1769 places in 112 countries around the world. And counting. Everyone is welcome. Everyone is needed. Let's change history. And let's never stop for as long as it takes. #fridaysforfuture #schoolstrike4climate #climatestrike [9,751 Retweets; 27,679 Likes].

The framing of this tweet creates a cosmopolitan image of protest rather than an image of protests located in a single city or country.

Tweets also connected the protest to the national level (12%). These tweets referred to the countries in which the strikes occurred. Other tweets connected local cities to the global scale of the protest (7.1%) and also connected local protests to protests across a nation state (4.7%). Although these tweets create a similar cosmopolitan framing as tweets that framed the movement as global, it is worth noting that they were still attached to local and national spaces. There were relatively few tweets connecting local events to broader (national and global) events. These types of tweets would identify a specific city, the country, and link the event to the global events.

6.2. RQ2: Function of Tweets

The main focus of this research was to study the function of #SchoolStrike4Climate tweets. The function of each tweet was broken into four variables with corresponding subcategories connected to each of the four larger variables. The first variable tested was information tweets. Information tweets had the highest frequency of occurrence (52.3%; see Table 2). The next most popular category was opinion tweets (29%), followed by attack/blame tweets (13.6%). Finally, mobilization was not a popular function of tweets (4.8%). As mentioned, the objective was not to establish precise estimates about the function of tweets, but to establish their relative frequency. As observed with other hashtag movements, information tweets were the most popular and mobilization the least popular.

In the next section, we take a qualitative look at how these functions were used to talk about the strike and the youth protesters and frame it/them in a positive or a negative light. We highlight subcategories for tweets that were most common within each of the function areas. The list of subcategories was ordered by frequency: The most frequently appearing subtheme in the dataset is listed first.

6.2.1. Information Tweets

Information tweets documented the protest, an issue or event related directly to the strike, news reports related to the strike, and shared climate/environmental information. The most popular type of information tweet was documentation of the protest, but offering little other information (see Table 2). Documentation tweets provided little actual detail about the protest beyond documenting location and size. For example: "Incredible!!

Table 2. Frequency and percent of tweet function categories.

Function Categories	Frequency	Percentage
Information	519	52.3%
Documentation tweet		
Tweet about an issue or event related directly to the strike		
News reports related to the strike		
Climate/environmental information tweet		
Opinion	288	29.0%
Opinion about the protest		
Opinion about climate change		
Opinion about youth protesters		
Opinion about youth		
Attack/blame	135	13.6%
Attack/blame at government		
Attack/blame at media organization		
Mobilization	48	4.8%
Online mobilization requests		
Offline mobilization requests		
Other (not about school strike or environment or youth or climate change)	3	0.3%
Total	993	100%

Over one million students on school strike for the climate. #FridayForFuture #schoolstrike4climate" (581 Retweets; 1,390 Likes).

While there may be details lacking, this tweet conveys to the readers that over a million students are missing school in a global environmental protest. Even if documentation tweets did not convey a large quantity of information, their brevity might make them more accessible to readers. We might argue that sharing information about the strike can help bring attention to environmental issues since these tweets generally contained information like place and protest size. This tweet also exemplifies the ongoing issue with the Fridays for Future hashtag, which we mentioned in Section 5.1. This hashtag was difficult to track because sometimes 's' is not used in the hashtag.

We also see, albeit less frequently, tweets that convey information about the strike, news reports about the strike, and information about climate change or environment. Tweets included updates about the number of participants and number of countries reporting strikes, including this tweet, also from Greta Thunberg: "According to https://t.co/pzYB6XuR6u we have already passed way over one million students on school strike today. Over 2000 places in 125 countries on all continents. And we have only just started! #fridaysforfuture #schoolstrike4climate (picture from Prague, Czech Republic)" (6,401 Retweets; 18,688 Likes).

She also posted an update of this news: "Over 1,4mn on #SchoolStrike4Climate yesterday according to latest update. 2083 places in 125 countries on all continents. "Biggest day of global climate action ever" says @350 And this isn't even the beginning. Because we have done our homework. #FridayForFuture Pic: Montreal, CAN" (6,841 Retweets; 20,063 Likes).

Both of the above tweets included references to local events (Prague, Montreal, respectively), but connected these local events to the larger global event. Despite the tweet originating from @GretaThunberg's account, we note that the Friday for Future hashtag is missing the 's' in the example above.

In addition, tweets contained news about the strike, such as this tweet which included a video of protesters scaling the barricades: "'Police tried to close the entrance to The Mall leading to Buckingham Palace but they just keep on coming... #ExtinctionRebellion #climatestrike #schoolstrike4climate,' @LdnRebellion. #YouthStrike4Climate #FridaysForFuture @Strike4Youth @UKSCN1 @ukycc" (207 Retweets; 420 Likes).

Information tweets sometimes went beyond simple information about the strike and presented the larger consequences of climate change. In this example, a professor of climate science at Potsdam University tweeted about a *The New York Times* article summarizing the science behind climate change: "'The 20 warmest years on record have all come in the past 22 years, essentially the lifetime of today's children and young adults.' Great collection of images of #school

strike4climate #ClimateStrike from around the world! https://www.nytimes.com/2019/03/15/climate/climate-school-strikes.html#click=https://t.co/XQB2LmKYJL... #FridaysForFuture #Fridays4Future" (89 Retweets; 164 Likes).

Overall, the most popular function of tweets was to share information about the event. In particular, information tweets focused on documenting the size and location of events, with tweets from Greta Thunberg receiving a large number of reactions (retweets, likes).

6.2.2. Opinion Tweets

Opinion tweets were mostly related to opinions about the protest (Table 2). From these tweets, we see support as well as opposition to the climate strike. For example, this tweet was from the Global Warming Policy Forum and it was sharing a piece profiling a young girl who refused to go along with the strike: "Here's why I won't strike: One brave schoolgirl refuses to go along with the crowd and says climate strikers should 'first go study economics.' #schoolstrike4climate #ClimateStrike" (416 Retweets; 811 Likes).

In contrast, we see another tweet in which an Australian TV host Lee Constable (2019) wrote:

> When I was at school we knew climate change was happening and climate action wasn't. We didn't strike. I stayed at school like a good girl so I could go be a scientist and solve it. Now I've got these degrees and I just wish we'd striked. #Strike4Climate #schoolstrike4climate. (418 Retweets; 1,867 Likes)

Additionally, opinion tweets were often about climate change. They stressed the severity of environmental issues like climate change and often used these issues to frame the School Strike 4 Climate as protecting the future of the world. Tweets made claims like "not having a choice." This tweet from Sky News included a link to an interview with a teenager: "'We do not have a choice, we have to act on climate now'— @deespeak says she is a big fan of @GretaThunberg and completely supports the #SchoolStrike4Climate movement. #DeepOceanLive For more, head here: https://t.co/mE2xz5s65c'' (25 Retweets; 66 Likes).

These tweets framed environmental issues as urgent and positioned the protesters as protagonists fighting for the future. They also bring an impression of urgency in relation to climate change.

The next most popular subcategory was tweeting about the youth protesters. In this example, the tweet was a meme with students using an extinguisher to stop a fire in the classroom, while the teacher is complaining that last week it was the climate strike and this week, a fire—students will do anything to skip school. The tweet was from a Swedish cartoonist: "The irresponsible climate activist youth of today! #climechange #climate #FridaysForFuture #earthstrike #extinction

rebellion #RebelForLife #ClimateCrisis #Environment #GreenNewDeal #ClimateAction #GretaThunberg #schoolstrike4climate #SchoolStrike #schoolstrikeforclimate" (588 Retweets; 1,679 Likes).

Opinions were also about youth. The 'brave schoolgirl' story made a reappearance in a tweet but this time with the annotation from a different tweeter that reads "Some young people think for themselves, some just follow the herd #schoolstrike4climate" (154 Retweets; 407 Likes). As another example of negative opinions, a news report quoted the Australian Education Minister condemning the protest: "'Students leaving school during school hours (to protest) is not something to encourage, especially when they're being encouraged to do so by green political activists,' says Education Minister @DanTehanWannon #SchoolStrike4Climate" (55 Retweets; 78 Likes).

It was difficult to code whether the opinion tweets expressed support or criticism for the strike, especially when the tweet was not in English.

6.2.3. Attack/Blame Tweets

Tweets with the function of attacking and blaming were the third most popular category (see Table 2). Approximately, 13.6% of tweets blamed someone or an institution, as the most popular attack/blame tweet targeted the government and government officials. Attacks directed at the government were often based on past discontent with government inaction, and a lack of faith and distrust for future promises of government action. US President Donald Trump was often at the center of the attacks. Many tweets simply have @realDonaldTrump, the number of participants in the specific event, and the hashtag. However, other politicians, including those in the UK and Australia were specifically mentioned. For example, this post was retweeted during our data collection period. The tweet originated with the account @mac123_m, with 30,000 followers, and it criticized the UK's Tory government, specifically Michael Gove, and had a link to a *The Guardian* article:

> The nine green policies killed off by the Tory govt. The Tories do not fight for the climate however much Michael Gove complains. 👇 Hope the young realise the way forward is with LAB & their radical green policies. #ClimateStrike #SchoolStrike4Climate. (227 Retweets; 180 Likes)

Attack/blame tweets were directed at media organizations, especially the BBC. This tweet was posted by a UK magazine, Little Green Space, praising one media outlet and criticizing another media outlet. The tweet included a link to *The Guardian* report: "Great reports from @guardian on today's global #SchoolStrike4Climate. Dear other UK media, including @BBCNews, there's a world beyond Brexit: ps give the 1000s of young people taking action the coverage they deserve and our planet needs. #FridayForFuture https://t.co/aGSKh1NSbS'' (95 Retweets; 177 Likes).

Again, we see that the hashtag for Friday for Future does not contain an 's,' making this hashtag a difficult focal point for a discursive community around this event.

6.2.4. Mobilization

Mobilization tweets comprised the smallest category of tweet functions (4.8%; see Table 2). In these handful of tweets, online mobilization was more popular than offline mobilization. For example, Change.org UK posted an invitation to sign a petition with the fist-raised emoji, earth emoji, and the green heart emoji: "These students are fighting to save our planet ✊🌍💚 Support their demand to declare a climate emergency here: https://t.co/9pGQBVfc6W #YouthStrike4Climate #SchoolStrike4Climate #climatestrike #climatechange #Youth4Climate #FridaysForFuture @GretaThunberg @Strike4Youth" (95 Retweets; 147 Likes).

As for mobilization to offline activities, Amnesty International posted a tweet explaining why people should participate: "Here are 5 reasons students (& everyone else) should strike for climate. #SchoolStrike4Climate" (395 Retweets; 681 Likes). These types of tweets were quite infrequent, as observed with other studies.

7. Discussion

As observed with other protest events, information was the most popular function of tweets and mobilization was the least popular. As mentioned, we borrowed the coding approach from Quebec Student Strike (see Raynauld et al., 2016, 2019) and #IdleNoMore (see Raynauld et al., 2017). However, the results were largely the same. In all three studies, information tweets were the most frequent category recorded (see Table 3). Additionally, the percentage of opinion tweets and attack tweets were fairly similar. The biggest difference is that

Table 3. Percent totals of function categories for #SchoolStrike4Climate, #ggi, and #IdleNoMore.

Function categories	#SchoolStrike4Climate (%)	#ggi (%) (Quebec student strike)	#IdleNoMore (%)
Information	52.3%	59%	52%
Opinion	29%	28%	16%
Attack	13.6%	10%	10%
Mobilization	4.8%	3%	21%

#IdleNoMore tweets called for more mobilization, but this movement is distinctive compared to other movements (Freelon et al., 2016; Hodges & Stocking, 2016; LeFebvre & Armstrong, 2018; Theocharis et al., 2015).

Based on the similarities, we suggest that the uses of the Twitter platform for protest events have stabilized and, for now, no new uses could be observed. We have contributed to this scholarship by examining the nuances within these broad function categories. We also highlight the role of Twitter in documenting the size of these events. We also document the various types of opinions shared on Twitter and nuances about who is blamed for the climate crisis. This discourse moves beyond diagnosing the problem of climate change into discussions about who is responsible for solutions. As it was the case for the 2014 People's Climate March, we also saw different types of stakeholders come together in order to discuss the climate crisis and they were connected through a common hashtag (Thorson et al., 2016).

Twitter as a platform was used by the leader of the School Strike 4 Climate, Greta Thunberg. Her tweets were widely circulated, liked, and commented upon. However, we do not know the extent to which youth, more generally, are using this platform. We did not analyze the users who were tweeting about the strike; instead, we focused on the content being circulated. This content focused on youth. Aside from Greta Thunberg's tweets, every tweet used as an example included a mention of 'students,' 'youth,' 'young,' and 'school girl.' These examples represent the larger database of tweets, which included many mentions of these concepts as well as many @GretaThunberg references. In the larger database of 13,542, the word 'students' appeared 33,000 times and @GretaThunberg appeared 20,000 times. Further research might consider who is tweeting and whether youth are using this platform (or another one) to express their views about climate change and the need for collective action. This information is difficult to acquire from Twitter profiles, which rarely mention age and often do not include a picture. However, since there was a clear leader and focal point for this movement, future research might consider using @GretaThunberg as a central node and examine the pattern of retweets around this node. This research could test the 'committed minorities' versus 'critical periphery' dynamic suggested by Barberá et al. (2015).

Another area for further study would be to study group identity. Hodges and Stocking (2016) note that group membership in modern social movements has become more liquid. As a result, movements like the School Strike 4 Climate are often viewed as collective action performed by individuals motivated by similar political or social interests and belief. #SchoolStrike4Climate tweets should be analyzed over a longer period of time to see if Twitter users view themselves as part of a group. If individuals do indeed see the movement as a unified group, then it also becomes of interest to study times when group identity becomes more impor-

tant and unified. Surveys and individual interviews with strikers would certainly help shed light on these questions. Rohlinger and Bunnage (2017) conducted interviews with Tea Party members over a two year period. These members were initially optimistic about social media use for "helping them cultivate a local political community…social media connected them with like-minded citizens and 'flattened' 'information hierarchies,' which allowed citizens to share information and engage in a conversation about it" (Rohlinger & Bunnage, 2017, p. 8). Later, they became disillusioned with this media. They believed that the discourse on social media had been co-opted by others, such as the Republican Party (Rohlinger & Bunnage, 2017). Twitter may be co-opted by other interests, which may dampen youth leaders' enthusiasm for the platform. Furthermore, retweet networks within Twitter may drown the single youth's voice about why climate change is important and protest is an effective form of political participation. Research might examine these ideas—drawing on Rohlinger and Bunnage's (2017) work on Tea Party members—and also the changing tactics used by this movement over time, as well as whether the use of social media changes as a result of these changing tactics.

Our analysis contributed to the study of social media in protest events, highlighting the documentation feature which connects disparate local events to a larger movement. As we highlight the spatial markings that link local and global events, this becomes a unique feature of our research, which reflects the uniqueness of the environmental movement in terms of local actions for a global problem. We encourage others to pursue this line of research to examine the role of Twitter in connecting local experiences to global processes. Our analysis is also unique in highlighting reactions to this global climate strike. Social media platforms offer opportunities to express opinions about this event, youth leaders, and climate change as a policy issue. Social media can be used to facilitate a global discussion about this policy issue, which is important because action on climate change requires a global response. As mentioned, there were many tweets that contained US President Donald Trump's Twitter account and mentioned the size of the event. These tweets are intended to communicate with a global leader about the importance of climate change. Social media fill a void in governance structures, providing a mechanism to communicate with global leaders who do have the agency to act on climate change. Taking pictures of the event and circulating these images on social media can document the discontent experienced by global citizens who do not have other venues to express their views about climate change.

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Conflict of Interests

The authors declare no conflict of interests.

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About the Authors

Shelley Boulianne is an Associate Professor in sociology at MacEwan University, Canada. She earned her PhD in sociology from the University of Wisconsin-Madison. She conducts research on media use and public opinion, as well as civic and political engagement, using meta-analysis techniques, experiments, and surveys. She has published in many journals, including *New Media & Society*, *Information, Communication & Society*, *Political Communication*, and *Communication Research*.

Mireille Lalancette is Full Professor of Political Communication at Université du Québec à Trois-Rivières. She conducts research on social media and political actors from politicians to interest groups and citizens. She is interested in mediatization of politics as well as gender and politics questions. She is also the editor of *What's #Trending in Canadian Politics? Understanding Transformations in Power, Media, and the Public Sphere* (Vancouver: UBC Press, with V. Raynauld and E. Crandall). Her work has been published in Canadian and international research publications.

David Ilkiw is an Undergraduate Student in the Honours Sociology program at MacEwan University, Canada. His honours thesis explores the formation of collective memory in news publications.

Article

Digital Participation and Risk Contexts in Journalism Education

Mark Dzula *, Sydney Wuu, Janitza Luna, Amelie Cook and Summer Chen

Fawcett Library, The Webb Schools, Claremont, CA 91711, USA; E-Mail: mdzula@webb.org (M.D.)

* Corresponding author

Abstract

High school journalism programs nurture student voice, information literacy, and collaboration. Journalism programs do not merely produce commodities; they help students constitute a public within a school community. When publishing online, student journalists navigate relationships behind the scenes with stakeholders, including peers, adults, and the institution. Publishing can be fraught with hesitation and fear of consequences for speaking out. Because of this implication, journalism programs can serve as "potentially valuable yet imperfect" settings for the amplification of student voice and civic development, but can also unduly limit students' self-expression, especially for girls (Bobkowski & Belmas, 2017). What might be the affordances and constraints of digital participation in a high school journalism program? How might youth journalists and other participants navigate exigencies of publishing online in this context? We, the head editors and adviser, use grounded theory to examine processes and develop pragmatic knowledge (Glaser & Strauss, 2017). Through a mix of prompts, group interviews, and participant observation, we develop a case study that demonstrates implications for 'risk context,' or the total situation of an actor's vulnerability brought on by digital participation in publishing online. We describe what digital participation is good for, and for whom, thus further theorizing relationships between agency and co-production.

1. Introduction

Schools should nurture environments for student media production that encourage free speech and civic development, especially to achieve their missions and help students "find their role in modern society and hear a call to serve others" (Salkin, 2020, p. 2). Journalism programs are often lauded for their academic and civic outcomes, and also show a correlation with job market success (Becker, Han, Wilcox, & Vlad, 2014).

However, youth participation with the news is risky, especially in digital contexts. Youth struggle online when confronting misinformation (Leeder, 2019), outrage language (Middaugh, 2019), and hyper-partisanship (Kahne

& Bowyer, 2017). Trust in media is low and polarized on a partisan basis (Jurkowitz, Mitchell, Shearer, & Walker, 2020) and youth tend to trust family over traditional news sources (Robb, 2017). While the field of media literacy education continues to grow, educators report gaps in training and funding (NAMLE, 2019).

Journalism education shows promise for media literacy and overcoming participation gaps in digital contexts. However, it is risky, too. As students navigate potential roles in society and look to become journalists, they not only learn a journalistic method to gather information, vet sources, and develop an engaging news product; they also learn to mitigate risk as they navigate relationships with their peers and adults who wield power in their lives

(Cybart-Persenaire & Literat, 2018). Journalism programs can serve as "potentially valuable yet imperfect" settings for the amplification of student voice and civic development, but can also unduly limit students' self-expression, especially for girls (Bobkowski & Belmas, 2017).

Literature suggests that youth participation in journalism leads to desirable academic outcomes; participants tend to score higher on standardized reading and writing assessments (Dvorak, Lain, & Dickson, 1994). While there are more complicated and desirable outcomes than standardized test performance, namely civic participation and democratic education, participation in journalism programs is often lauded for what it yields (Dvorak, Bowen, & Choi, 2009; Dvorak & Choi, 2009; Morgan & Dvorak, 1994). Bobkowski, Cavanah, and Miller (2017) cite this research in work that parses whether journalism produces stronger students or whether stronger students (especially English writers) opt into programs. They find that enrollment and participation are affected by factors such as English self-efficacy, English achievement, overall involvement in school, gender, and race and ethnicity, all before the students choose to join the newsroom. More specifically, they find that academically oriented and confident writers tend to choose to participate. Girls are often overrepresented in journalism programs, as well as white students (Bobkowski et al., 2017).

By creating avenues for voice (and thereby expression of affiliation and belonging), high school journalism programs can socialize into civic action and help develop a collective sensibility (Clark & Monserrate, 2011). Furthermore, 'digital engagement literacies' such as the ability to create, comment on, and distribute digital media can foster youth participatory political action online (Kahne & Bowyer, 2019). When student journalists publish online, they develop what the National Writing Project calls 'digital writing,' or, "compositions created with, and oftentimes for reading or viewing on, a computer or other device that is connected to the Internet" (DeVoss, Eidman-Aadahl, & Hicks, 2010, p. 7). Digital writing is open to public scrutiny, encourages youth digital participation, and can facilitate 'participatory culture' (Jenkins, Clinton, Purushotma, Robison, & Weigel, 2006). Skills associated with participatory culture include: play, performance, simulation, appropriation, multitasking, distributed cognition, collective intelligence, judgment, transmedia navigation, networking, negotiation, and visualization (Jenkins et al., 2006).

While these skills seem valuable and the outcomes of digital writing may be celebrated, more attention needs to be paid to nuances and the quality of digital participation in these contexts. Here we ask: What are the affordances and constraints of digital participation in a high school journalism program? How might youth journalists and other participants navigate the exigencies of publishing online in this context?

By understanding youth digital participation in a private high school journalism program, we can develop a better understanding of youths' qualities of experience as they become newsmakers. This research can impact other settings that may be developing or considering developing online journalism programs. It can also inform approaches to collaborative, experiential and project-based learning, as well as digital engagement literacies and digital writing.

2. Methodology

We work with the *Webb Canyon Chronicle*, a student-led digital publication of The Webb Schools—a boarding high school in southern California serving students who live on campus and day students who commute to school. The Webb Schools employ a coordinate model, or two schools on one campus: Vivian Webb School for girls and Webb School of California for boys. While journalism includes participants from both schools, Vivian Webb School students have served as head editors more than their counterparts and constitute the majority of participants in the program.

The *Webb Canyon Chronicle* is produced as part of three for-credit electives in the humanities department: Journalism, Honors Journalism, and Advanced Studies Modern Media. Students can begin as sophomores and may join any time after. Journalism participants are staff writers and contribute content to the publication. Honors Journalism participants contribute content and serve as editors. Advanced Studies Modern Media participants contribute content, serve as editors, and develop a long-form piece of journalism. All courses meet in the middle of Fawcett Library. Currently 22 students are enrolled, which is more than the typical number of students in a class at Webb. The majority of students identify as Asian (n = 11), followed by Hispanic/Latin (n = 4), White (n = 3), Black (n = 3), and Middle Eastern (n = 1). The journalists' ages range between 15 and 18 years old. All 22 members of the journalism program were participants in our study, including four co-authors of this article. To protect privacy, we use pseudonyms for all participants.

During the semester, four senior journalists and their adviser ran a journalism program and simultaneously gathered data to consider the 'aims, actors, context, and intensities' of it (Literat, Kligler-Vilenchik, Brough, & Blum-Ross, 2018). We met during class time or during office hours to prep, plan, and strategize. It was difficult to meet consistently and run the publication at the same time; our entire class typically meets twice a week. Our meetings allowed us to check-in, consider next steps, and reflect on youth digital participation. We collected data through a mix of prompts, group interviews, and participant observation to develop a case study that demonstrates implications about what digital participation is good for, and for whom—further theorizing relationships between agency and co-production. The senior journalists completed prompts like the rest of the participants. The prompts were embedded as goal-setting elements or reflections during class instruction. The se-

nior journalists also led group interviews. They guided and were impacted by the dialogues, as interviews can be mutually constitutive (Kvale & Brinkmann, 2009); their positionality as youth and their experience with the entirety of the program afforded them insights unavailable to novices and adults.

We collaborated to execute this research. We started in the summer before the fall semester by reading literature and developing research questions. Often, the adviser played a lead role in sharing academic literature, writing initial drafts, and coordinating the group's work, while the student journalists read literature, developed prompts, analyzed data, and edited drafts. Throughout the entire process, the adviser acted as a guide to bring the youth researchers into academic research practices while maintaining avenues for them to substantially contribute and shape the study.

Reflecting on our observations and experience led us to choose data-gathering strategies as we went along. For example, early in our collection, we noticed 'risk' emerging as a theme. Returning journalists noted in goal-setting exercises at the beginning of the year that they wanted to branch out and take risks with coverage, ideas, and tech skills. At the beginning of pitch-to-publication cycles during the semester, we filled out circles of risk (low, medium, and high) as suggested by Rachel Simmons (2018) to reflect and set goals. Participants often drew the circles; the adviser designed a risk-circle worksheet at the end of the semester (see Figure 1). To complete the exercise, journalists identified their 'wheelhouse' or something that is comfortable for them to do

and noted it in the innermost (low) circle. They chose something representing more of a 'stretch,' but not entirely uncomfortable and filled in the middle (medium) circle. Finally, they chose something in the program that represented a major, uncomfortable risk and wrote it in the outermost (high) circle.

We also noticed that 'affect' emerged as a theme. While the publication had much to celebrate in terms of achievement and growth, many participants felt upset. To consider the quality of experience in digital participation, our journalists mapped their feelings using an affect grid, noting arousal and pleasantness of feeling (Russell, Weiss, & Mendelsohn, 1989). At the beginning of each class in December, journalists took a few minutes to consider their overall feelings and feelings about their work in the course and graphed it on a handout provided by the adviser (see Figure 2).

The risk circles and affect grids were sources of data and were part of the data analysis. Once the semester ended, we transcribed interviews and combed through our data. To analyze it, we applied the Literat et al. (2018) 'aims, actors, context, and intensities' framework. The bulk of this work occurred during the winter break. As the adviser wrote, the co-authors contributed feedback. We reflected on some texts we read together, like *The Elements of Journalism*, strategized about writing, and ran our draft through a process like the one we use in class.

To answer our research questions, we applied grounded theory, a qualitative research approach that aims to explain a process through a systematic analysis

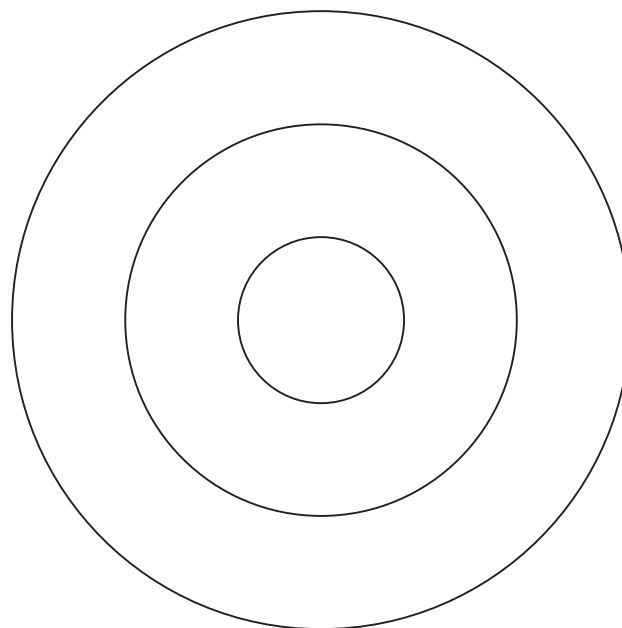*Name _____*

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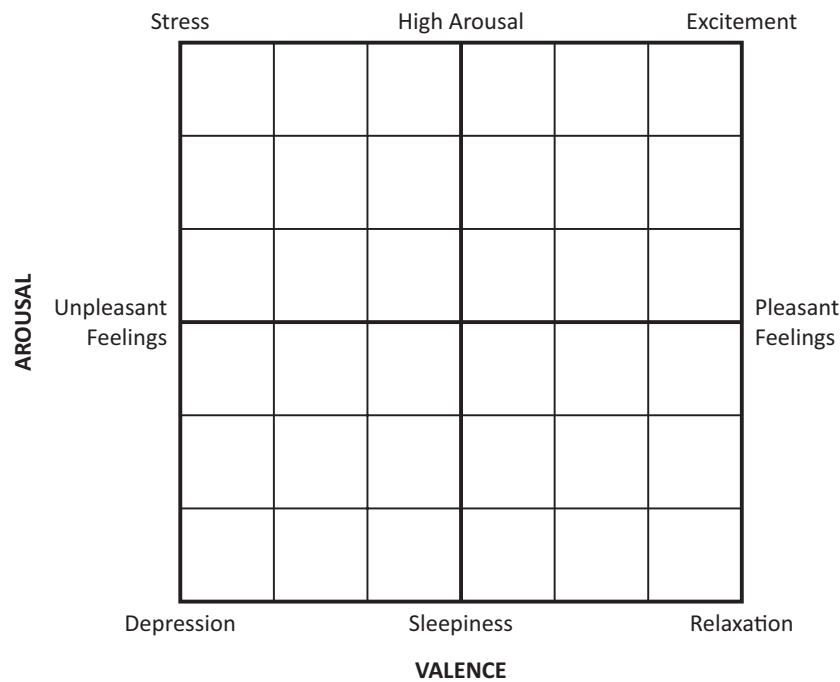

Figure 1. Risk-circle worksheet.

Figure 2. Affect grid worksheet.

of data (Lingard, Albert, & Levinson, 2008). Instead of proving a preconceived hypothesis, higher levels of understanding are developed only after careful analysis of data. Grounded theory has four key properties: It closely fits the field being studied; it can be readily understandable by lay practitioners in the field; it is general enough to apply to other contexts in the field; and it must allow the user some control over "the structure and process of daily situations as they change through time" (Glaser & Strauss, 2017). In this way, grounded theory is pragmatic. As a research team of one adult and four teens, grounded theory allowed us to work together, chart a course for our pedagogy, improve our journalism program, and work to develop a practical theory for others.

3. Findings

While grounded theory was our approach to data analysis, the Literat et al. (2018) framework provided a way to structure our data analysis process and organize our emergent findings. It was a useful tool as we pursued our research question because it is designed to elicit the nuances of digital participation. It helped us look frankly at our work in a systematic way and determine the potential significance of our data. It was only after performing this analysis that we clearly identified affordances and constraints of digital participation in our program.

Building a program that emphasizes digital participation takes time and intentionality. The publication has been produced and housed entirely online since 2018. The gradual move from print to digital took several years and was not immediately embraced. Students expressed a sense of loss when the publication moved online, especially when preparing for our special Senior Issue, our

only full-color edition. They missed the tangible product and asked, "Why won't we get what everyone else got?" The current group of head editors led the transition to digital and established new protocols, policies, and workflows.

Using the Literat et al. (2018) framework allowed us to step out of this work and systematically reflect on the journalists' quality of experience.

The information in Table 1 matters. If we pride ourselves in being a student-run publication, we need to know how students opt-in and develop maximalist intensities. We should understand barriers that may inhibit digital participation. We should understand our formal, institutional context and how to operate effectively within it to maximize the benefits of participation. We should consider the balance we strike between individual and collectivist aims, as well as how we might foster an inclusive and diverse program. Understanding our aims, actors, contexts, and intensities helped us identify the multiple affordances and challenges in digital participation.

Our data analysis pointed to the following affordances of the digital journalism program:

- A sense of belonging to both a publishing team and to the institution;
- A sense of pride in seeing digital writing circulate and garner public attention;
- A sense of satisfaction in learning how to ethically use digital tools effectively;
- A sense of efficacy in mobilizing voice on meaningful platforms of communication;
- A sense of passion and purpose in developing civic identities and civic agency.

Table 1. Aims, actors, contexts, intensities.

Dimensions			*Webb Canyon Chronicle*
Aims	Individualist	Collectivist	Hybrid of individual and collectivist aims, journalists pursue personal and publication goals.
	Voice	Instrumental	Mission aims to amplify student voice; some pieces aim to achieve instrumental changes.
	Process-focused	Product-focused	Both, journalists create news products in a collaborative, peer-editing process.
Actors	Individual	Group/Collectives	Emphasis on teamwork and collaboration, although students build individual publishing records and earn individual grades.
	Exclusive/Homogenous	Inclusive/Diverse	Staff is more diverse than literature suggests, although more girls participate and many journalists are high-achieving, academically oriented students.
Contexts	Formal/Institutional	Informal/Dispersed	Wholly formal and institutional, publication is created in electives taken for credit.
	Bottom-up	Top-down	Mix, while the publication exists within a hierarchy at the school and employs a hierarchy within the class structure, there are opportunities for all journalists to direct the publication.
Intensities	Executory participation	Structural participation	Mostly structural, journalists determine scope and goals of the publication with support from adviser. Some jobs are executory, especially for staff writers, but there is great latitude to define one's focus.
	Minimalist intensities	Maximalist intensities	Mostly maximalist, especially as students gain responsibility and shape the program. Some participants contribute to the program but do so minimally.

We also identified the following constraints:

- Greater vulnerability to attack, online trolling, and criticism;
- Stress when overwhelmed with work in and out of the journalism course;
- Interpersonal strife as student journalists adopt and adapt to their roles in collaboration;
- Risk of both censorship and self-censorship.

The affordances and constraints are detailed in the next section, including some examples from our data to emphasize our context and practice.

3.1. Affordances

3.1.1. A Sense of Belonging to Both a Publishing Team and to the Institution

Our publication operates in a formal/institutional context, as opposed to an informal/dispersed context. The courses are all for-credit and the budget is under the humanities department. The *Webb Canyon Chronicle* is listed on the school's website under potential leadership

opportunities for students and the adviser is a full-time faculty member. The *Webb Canyon Chronicle* is wholly a part of The Webb Schools. The close relationship can help students feel a sense of belonging at school and research shows that members of journalism programs are more likely to demonstrate an attachment to school than non-participants (Clark & Monserrate, 2011; Dvorak et al., 1994).

Editors noted this closeness in an Editorial against publishing anonymously online, entitled, "Why We Write Our Names Alongside Our Work":

> As a student news site, we are supported by the community around us. We are in a position to encourage dialogue while maintaining the support of our adviser, administration, and other members of the Webb community. However, we still carry the responsibility to examine the issues faced among our students. The obligation of informing readers is always the top priority of the *Webb Canyon Chronicle*. By following these steps, we are not only presenting the community, but we are serving to create it. (Chen, Cook, Luna, & Wuu, 2018)

In risk-circle exercises, journalists identified provoking discussion and amplifying student voice as desirable 'medium' to 'high' risk. We sometimes receive criticism from students about whether or not the publication lives up to its mission to foster student voice. Online journalism involves uses of technology that are sanctioned by the school. In some ways, this status gives the journalists visibility and clout, but it also serves to make students suspicious of the program as a hub for youth culture. We are making incremental and purposeful progress at building trust, relationships, and esteem to operate effectively throughout the school's power structures.

As such, our journalists also feel attachment to their peers. A common theme in editors' goals this year was to build and maintain a cohesive team. For example:

Julia: As Copy Editor, I want to ensure that our staff is reporting accurate information in the clearest way possible. I would like to stay on top of my own articles as well as be proactive in my editing responsibilities so that the publication process flows as smoothly as possible for everyone on the team.

Our teamwork encourages bonding between the two schools and grade levels. Senior members of the publication interact extensively with underclassmen and get to know them well. One infrequently finds sophomores and seniors in class together at our school; identity by grade level is prevalent throughout Webb. While students feel a strong bond with their graduating class, sometimes journalists also refer to the publication as a 'family.' Past head editors talked about the benefits of developing working relationships with "people you don't hang out with on the daily."

3.1.2. A Sense of Pride in Seeing Digital Writing Circulate and Garner Public Attention

Across the board, journalists reported enjoying the circulation of their work. Attention from an audience is one of risk's rewards. Students consider their publishing record as an indicator of success. That is, they care about how often they are able to complete the publishing cycle; they like to see their work 'out there.' The publishing records on staff pages indicate depth and breadth of digital participation and allow the audience to seek out particular journalists' digital writing.

Sonni: I feel most like a journalist when my article is published and I can see other people reading it and actually making an impact on their lives, whether it be telling them something they didn't know before or inspiring them to try something new.

In risk-circle exercises, journalists regularly cite breadth in publishing as a significant risk. For example, writing a sports article may seem risky because journalists may feel like they do not understand a sport well enough to write about it. Journalists strive to build authority and hope to use their writing to build our audience.

Cass: I want to release articles that grasp people's attention, which for me is more politically based. I think if the Webb Canyon Chronicle can spread its base, as in the audience, and draw to what a lot of people want to hear/or read about then it can be a successful year.

Our online platform affords access to analytics, which reveal our audience size, when users access the site, which articles they access, and how they access it. We can see how our digital writing circulates as head editors have access to the analytics and want to grow our audience. One head editor switched our Instagram to a business account, allowing her access to analytics, and she was impressed by the number of people that accessed the website from Instagram. Head editors notice spikes in readership, often during campus-focused special coverage.

Finally, our team has begun to incorporate annual feedback and critiques from professional organizations. The critiques mainly focus on our execution, output, and appearance. Instrumental aims include getting better adjudications each year. This past year we earned a 'First Class' rating from the National Scholastic Press Association and moved from a 'Silver' to 'Gold' rating with the Columbia Scholastic Press Association. The honorifics are motivating and help us to vouch for the value of our publication around school, like participating on a championship athletic team. The critiques rate our products and motivate our process. Getting professional advice from career experts allows the editorial team to focus goals and priorities. Head editors review the feedback and care about the points we earn, as well as the comments the judges leave for the publication.

3.1.3. A Sense of Satisfaction in Learning How to Ethically Use Digital Tools Effectively

Digital participation allows modal diversity and increased interactivity compared to print. Technology also offers channels to connect journalists with their audience. That is, technology is not an aim in itself; it serves to extend journalists' reach. In risk-circle exercises, students often identify new modes of communication (like podcasts and video) as opportunities to branch out and take risks. For example, Sonni encouraged our team's use of hyperlinks, a feature that helps emphasize what she calls 'diversity in format.' Hyperlinks distinguish our web platform from the previous 'flat narratives' that we used to produce in print (Kovach & Rosenstiel, 2014, p. 116). Hyperlinks afford journalists attribution tools that allow the audience to explore and learn more and, more importantly, they help weave the website onto itself and show what we have covered in the past.

Sometimes, novice students use technology to extend their capabilities:

Sasha: Sometimes, I feel kind of bad just walking up to especially like a senior when they're very busy, and interviewing them because they seem kind of like, [sucks teeth] hard-to-talk-to, so I've realized that emailing people is the way to go, because it kind of puts this, not a barrier, but a protective barrier between you and them and then they kind of have to respond to your emails.

In this example, technology acts as a bridge and a shield. That is, email not only provides a safe distance from an interviewee but also serves to truncate a social barrier. A potentially intimidating senior does not seem as daunting through a screen. While we prefer face-to-face interviews, email and even texting can be a valuable tool when gathering information; they truncate barriers and extend one's reach.

Technology permeates all aspects of the publication process and successful digital participation in the program requires access to a laptop, cellphone, and internet. The school provides internet access, some laptops, as well as individual access to the Adobe Creative Cloud. The library provides access to microphones, camera, green screen and other tools for publishing. The website serves as a public-facing artifact documenting the outcome of each year's digital participation. Each year's folder on the Google Drive represents a sandbox of activity. Each are testaments to the continuity and change brought by structural digital participation.

3.1.4. A Sense of Efficacy in Mobilizing Voice on Meaningful Platforms of Communication

Connection with the Webb community is a core priority for our publication. Last year, the head editors developed a mission: "The *Webb Canyon Chronicle* strives to foster student voice. We investigate and report to impact the reader personally and provoke discussion. Our publication promotes the diversity of backgrounds, interests, and goals of the Webb community."

Journalists feel proud of work that amplifies their own voice. In the first semester, international political protests inspired several pieces that sparked dialogue and developed an exchange of several articles with different points of view:

Luke: I like the [international political protests] article I did because, yeah, there was a lot of controversy in it, and it took a while to get through, and it was really long-

Student: HA!

Luke: [inaudible] finally got it done. It was something that I kind of stepped out of my comfort zone to do, because I'm not usually into politics but I just wanted to write about it.

Luke's opinion piece described the international situation from a local resident's point of view to inform our audience about perspectives they might not have considered, challenging the lens of western media coverage. National identity was a major motivator and point of contention during the competing international political protests opinion pieces. By creating avenues for voice (and thereby expression of affiliation and belonging), high school journalism programs can socialize into civic action and help develop a collective sensibility (Clark & Monserrate, 2011).

Fostering student voice can also mean amplifying others' points of view:

Eva: I feel most like a journalist when I'm out there interviewing people for my pieces because when we're doing field research you actually feel like you're doing stuff, with your press pass and stuff like that. It's like very formal and I feel like I'm an adult journalist interviewing people for like the *New York Times*….We're actually doing something that's useful and not just for my personal purposes and also for the purpose of other people, as well, because I'm actually projecting the voice of other people.

In risk-circle exercises, journalists cite expanding outside of their immediate social group and representing voices they might not recognize otherwise as 'medium' to 'high' risk.

3.1.5. A Sense of Passion and Purpose in Developing Civic Identities and Civic Agency

Our publishing process is open, and the experiential nature of the newsroom challenges journalists to make their path to publishing. While many articles stem from aims of self-expression and critique, Zuckerman (2014) suggests voice can lead to instrumental forms of civics. He states that voice can foster affiliation, make it easier to talk about controversial issues, set an agenda, and build rallying points around a common narrative. Many journalists advocate for change:

Cass: I think my best piece was the [worldwide student activism] article, the first one I did by myself. Because it came out during the time that everything was going on, and I was also very passionate about it. It is a topic I really like to talk about and learn about. And so, a lot of people actually were active about it. I don't know. It was very fun to interview those students that took place in the [worldwide student activism].

Outside of class, Cass cultivates an activist identity. He attended the Student Diversity Leadership Conference, organized a club called Empowering Student Voices Initiative, and helped the library organize events for the Black Student Union. In risk-circle exercises, Cass identifies writing about school events as 'low-risk,' tackling so-

cial issues in media and entertainment as 'medium-risk,' and addressing activism issues as 'high-risk'.

Journalists regularly cite open-ended fieldwork as exciting, but as Autumn noted, once one gets to writing an article, it can feel like "just another assignment." In interviews, journalists feel proud when they accomplish work they feel passionate about. The ability to pitch and choose the path, the satisfaction of experiencing power in interviews and information gathering, and the pride in seeing work out in public having an impact: These all help stoke journalists' intensity of participation.

3.2. Constraints

3.2.1. Greater Vulnerability to Attack, Online Trolling, and Criticism

For some journalists, digital participation can be fraught. For example, women journalists frequently get attacked on Twitter (Amnesty International, 2018). Last year, a rash of anonymous Instagram accounts popped up around our school, and one specifically targeted *Webb Canyon Chronicle*, criticizing its work, relevance, and ability to speak out at school. It led the editorial team to produce an editorial, "Why We Write Our Names Alongside Our Work":

> As journalists, we accept that our words and opinions have consequences. If a writer is ethical, then they are presenting information that is honest, accurate, and fair. Once these ethical criteria are met, then that individual should have the moral courage to challenge pre-existing ideas. (Chen et al., 2018)

Some fear the impact of their writing. In risk circle exercises, journalists regularly cite opinion pieces and critical stories as having 'medium' to 'high' risk. The focus on impact emphasizes the reciprocal, hybrid relationship between product and process. While pitching, drafting, revising, and publishing are important processes for our course, the articles' impacts also affect the quality of digital participation. While some students welcome criticism, journalists also express fear of negative consequences:

> Eva: My best piece this semester is definitely the [popular rom-com blockbuster] opinion article that I wrote….But I was really scared to project it because people really like this movie, right, so I was like I shouldn't criticize it. So, then I finally got the courage to voice my opinion about how it's actually not doing what it's supposed to do, like the diversity and stuff like that so I feel really proud sharing my opinion. I'm also really happy that people agreed with my view, too, because basically I'm not alone in my opinions.

Anticipating challenges and mitigating vulnerability were common themes in interviews. When we encounter challenges, our mission has been helpful to remind us of our common aim. For example, when an opinion piece about the international political protests received considerable blow-back from students and even inflamed tensions within our staff, we had to pause and invoke our mission, and consider how we could build discussion after provoking angry responses. Since digital participation extends journalists' reach, it also opens them up to new vulnerabilities. In this case, our mission helped journalists stand their ground and mitigate the impact of peer criticism and, as such, the head editors sifted through the article's comments and approved those that met our policies for publication.

3.2.2. Stress When Overwhelmed with Work in and Out of the Journalism Course

A digital workflow has allowed us to significantly increase the pace of reporting and the rate of publishing. Moving to online publication allows much more frequent publishing than in print: multiple times per week compared to once every two months. Managing the overall workload can be challenging. In this way, digital participation can overwhelm emergent journalists as they develop skills to cope successfully. Advisers and editors need to be aware of the amount of rolling demands put on all participants as the program is an elective in the midst of a rigorous, college preparatory program. Not only do all of our journalists have many other academic commitments, they also strive to balance multiple roles in the campus community (leadership, athletics, etc.):

> Ben: I think the teamwork aspect can be complicated because you need to rely on other people to get your stuff published. And sometimes you get caught up in other work, so sometimes you know, your thing won't get published or you can't help someone else because you have other work. I'd say that's the most challenging aspect.

The school is a resource-rich environment, although some students cite computer issues and cell phone glitches for loss of data and incomplete work. This can cause significant stress for students, especially when workflows are tightly interconnected and there is pressure not to 'drop the ball.'

Finally, other aspects of life are not left behind when journalists enter the newsroom. For example, most seniors reported high levels of stress throughout the semester. In reflections afterwards, they explained that early decisions were due in from colleges; based on results, affect tended to shift negatively after a rejection and positively after getting accepted.

3.2.3. Interpersonal Strife as Student Journalists Adopt and Adapt to Their Roles in Collaboration

Online interactions can increase the amplitude of interpersonal conflict within the journalism team and the

school community. Students reported high levels of stress during interpersonal conflict with other journalists. While digital participation may allow speedy communication on the internet, the tools themselves do not guarantee successful exchanges:

Sonni: I think one challenge that I have faced over the past three years was realizing that journalism is all about working as a team….I remember when I was a sophomore, I would get annoyed when my editors wouldn't edit them in time. Then I learned to-

Group: [laughter].

Sonni: I learned to be patient and I learned to respect people. I learned to do my work but then if people weren't able to finish it then I wouldn't blame myself, I wouldn't blame them, I would just be like, "Oh. It's out of my control." And just realizing that is the key to success, because your best work happens when you work as a team.

Group: [laughter].

We give feedback and edit in Google Docs and manage our workflow in a shared folder on Google Drive. Journalists take time to adapt to these platforms and use them according to publication policies, but problems in collaboration online always arise. For example, sometimes journalists resolve comments without making the required edits, a common problem we noted. However, during face-to-face sessions, advice is more likely to be taken.

For example, a staff writer and an editor reported very negative feelings and high arousal during problems with editing online. The editor did not edit the staff writer's work for eight days (our policy is 48 hours) and the staff writer did not accept the copy editor's corrections. While each member reported high stress during the process, both reported increasingly positive feelings and lower arousal once the publishing process was completed. Afterwards, more intentionality was put into having journalists conference in class and talk about edits face-to-face more often, which seemed to help alleviate issues.

Students reported high levels of stress during interpersonal conflict with other students outside of our program, in both online and face-to-face contexts. The competing international political protests pieces tested our ability to maintain collegiality; we were reminded that digital participation alone is not a panacea. In response to our first opinion piece about the conflict, some students became livid and blasted vitriolic reactions beyond the official channels of our program, into direct messages to personal social media accounts and on a school-wide online message board in Outlook (STAS, or 'Students To All Students'). Our policies and procedures helped guide responses to comments and critiques within our official channels, as well as how to go about working with students and adults around the school. Much of the most effective follow-up occurred in face-to-face settings to help redirect and address the anger online.

Sonni cites a maxim in *The Elements of Journalism*, "The ultimate goal of newsroom diversity is to create an intellectually mixed environment where everyone holds firm to the idea of journalistic independence" (Kovach & Rosenstiel, 2014, p. 164). Our mission, protocols, and policies help us maintain this environment, online and offline, especially as we strive to promote digital civility. To this end, we are adapting a staff manual from the Archer School for Girls' journalism program to delineate responsibility and provide best practices. In our hierarchical structure, there are opportunities to speak up, speak out, and shape the program. Much of this work happens in collaboration, sometimes students 'geek out' (Ito, 2010) and radically impact the program. The online dimension of our work complicates maintaining collaboration and managing conflict as students opt-in and become journalists.

3.2.4. Risk of Both Censorship and Self-Censorship

Starting conversations requires courage, especially online. While it may be hard to control audience responses, journalists should be given space to hone their journalistic skills and feel confident as they step into the public arena:

Sonni: I want to challenge myself this year to take more risks in my work. I realize that I've spent much of the past two years covering school-wide events and reporting how impactful they can be to the Webb community. While this is great and I genuinely enjoy showing up/documenting people's experiences, I want to try my best this year to write more articles that provoke discussion amongst students—not only ones that help the school market itself. I want to be a conversation starter.

Students might step away from taking risks and starting conversations online because of their own anticipation of the institution's response; they may fear that they will lose face with peers and/or adults. Journalism challenges students to assert agency with authorities, thereby fostering belonging and civic identities (Clark & Monserrate, 2011). Care needs to be taken by advisers and administrators to encourage journalists' participation and avoid censorship (Bobkowski & Belmas, 2017; Taylor, 2019). While students negotiate hierarchies and relationships with peers and adults, journalism should promote a platform for free speech and agency.

As noted in the affordances, participation in journalism can help students feel a sense of belonging at school. However, closeness to school can also inhibit participation:

Autumn: What is the biggest challenge of being a journalist? I think for me, is the rules and regulations we have to abide by, because we're Webb students and we're high school students first and foremost. Because last year, I wanted to write a piece about HCs [Honor Cabinet/Committee, the deliberative student bodies that hear Honor Code violation cases] and maybe write about my own personal experience…but I wasn't allowed to do that.

While student publications show restraint about publishing details of a disciplinary case (Taylor, 2019), prior review, prior restraint, and self-censorship are serious issues for student publications. By connecting to the institution's mission, exercising ethical care, and knowing their rights, programs can build trust and advocate for covering controversial topics (K. Taylor, personal communication, August, 2019). Due to the public nature of online platforms, which are significantly more accessible than print editions that circulate in a more limited capacity, digital participation requires significant institutional trust in emergent journalists.

4. Discussion: Managing Risk Contexts in Youth Digital Journalism

Throughout our analysis, the theme of 'risk' kept recurring. It led us to consider the 'risk context' of digital participation in a high school journalism program that publishes solely online. That is, our risk context is the total situation of an actor's vulnerability brought on by digital participation. Focusing on risk allows us to address the fact that not all digital participation is inherently positive and it also allows us to encourage healthy risk-taking. By knowing more about risk context, journalists, editors, advisers, and administrators can work to maximize the affordances of digital participation and mitigate the constraints.

Writing coaches and humanities educators may encourage students to take risks with their writing, perhaps encouraging intellectual risks or adventurous leaps in thought to achieve incisive commentary. Insofar, as students do digital writing and open themselves to public scrutiny, the concept of risk grows even broader. As in our case, students might fear blowback from expression that contradicts conventional wisdom or popular opinion. Students might actually incur criticism, even contempt, from speaking up in public. Students may even find themselves on the receiving end of anonymous online attacks, through no fault of their own, simply because of their digital participation in public on a student news platform.

Understanding risk context does not mean being risk-averse or eliminating risk from the newsroom. In fact, it could help all actors manage and take healthy risks. In the case of the *Webb Canyon Chronicle*, we note three areas where we can work to manage risk context: reputation, time and space, and responsive relationships.

4.1. Reputation

Often, novice journalists fear consequences of speaking out in public, even as they report facts. Online platforms open new avenues for journalists to connect with audiences as well as new vulnerabilities. A great deal of high school is oriented towards identity development; everyone cares about reputation. Appearance in the news confers importance to subjects of the stories and can either elevate or tarnish news subjects' reputations, which then affects how they think of themselves (Palmer, 2018). We argue that beyond the people featured in the news, student journalists (and the adults in their lives) are also highly attuned to risks in reputation, too. Experienced editors and advisers should nurture students into sound journalistic practices that will allow novices pursue stories more fearlessly. To this end, they should seek to understand technology's relationship to the development of identity and social connectedness.

We experience a mutually reinforcing relationship between reputation and trust with the *Webb Canyon Chronicle*. The more that we invest in our professionalism, the more we see our esteem go up around the Webb community. Our online platform makes us more relevant to students' lives than we were in print. Like we noted above, honors that we earn from professional organizations are motivating and help us to vouch for the value of our publication around school, not unlike participating on a championship athletic team. Reputation has currency; it can help attract participants and create novel spaces for participation. While awareness of reputation and investment in reputation are important, not every action should be done to save face. Moral courage for justice and bravery in the face of adversity can help build esteem, as well.

4.2. Time/Space

Educators have a finite amount of time with their students and students have a finite amount of energy and attention. Care should be taken to apportion time and space (both technological and physical) wisely. Technology may afford new spaces for expression, but care needs to be taken in order to maximize the benefits of digital participation. Besides mission, policies, and protocols, head editors and advisers should be careful and responsive in planning for class meetings. They should set healthy expectations for the amount of work that emergent journalists are expected to complete online. Digital platforms may facilitate workflow, but we need to take advantage of time together in class. Our classroom is open, in the middle of the library, and so we use a lot of face-to-face 'studio time' dedicated to peer editing. This process is especially important because it grants journalists a 'preview' audience before their work is published online. Not all digital writing goes through this process; it is important for burgeoning journalists to understand the care put into ethical and reliable online publishing.

4.3. Responsive Relationships

Collaboration is messy. While online platforms may facilitate internal communication and external circulation, ethical and effective use of these tools requires intentionality. While we have a hierarchical structure and clear policies to guide publishing, they do not always work as planned. Each year, we initiate new members into the fold and say goodbye to valuable members of our team. Negotiating responsibilities in the newsroom is compounded by the fact that we are a for-credit elective in the midst of a challenging academic program. Understanding where feelings are coming from can help orient work and relationships with others that promotes digital civility, especially in online educational contexts. Unfortunately, affect does not always have a home in the classroom. In order to manage risk context, educators and journalists should develop opportunities to check in, reflect, and work to understand their feelings as they go through the publishing process.

All actors in contexts like ours including journalists, editors, advisers, administrators and audience would be wise to consider their impacts on each other. It is easy to get siloed and isolated and not consider others' experiences when doing a job. In online environments, this can be painfully true. Part of the impetus of involving teens in research like ours is to open avenues for scholarship and expression in an effort to understand each other better as we live online. We end by invoking the second pillar of the Society of Professional Journalists code of ethics: "Minimize Harm: Ethical journalism treats sources, subjects, colleagues and members of the public as human beings deserving of respect" (2014). Demonstrating awareness and care for others in the midst of challenging work will help to control risk context, helping to challenge young journalists to fill an important role in modern society and heed a call to serve others.

Conflict of Interests

The authors declare no conflict of interests.

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About the Authors

Mark Dzula is the Director of Teaching and Learning Resources at the Webb Schools and is the Adviser to the *Webb Canyon Chronicle*. He is an Adjunct Assistant Professor in the Communication, Media, and Learning Technologies Design department at Teachers College, Columbia University, and a Lecturer in the School of Leadership and Education Sciences at the University of San Diego. He focuses on democracy, equity, ethics, and social issues of educational technology, as well as interdisciplinary STEAM education.

Sydney Wuu has served as Staff Writer, Copy Editor, and Co-Editor-in-Chief for the *Webb Canyon Chronicle*. Outside of school, Sydney interned as a Research Assistant for the *Los Angeles Times*, Head of Social Media for the *Love Boat: Taiwan* documentary, and Staff Writer for VRScout. Some notable recognitions include: Valedictorian, Americanism in Action Award, Harvard University Book Award, Cum Laude induction, and Arthur E. Bailey Award in Biology. Sydney will study the intersections of economics and sociology at Dartmouth College.

Janitza Luna is currently a Co-Editor-in-Chief of the *Webb Canyon Chronicle*. During her time in the journalism program, she has also contributed as Staff Writer, Assistant Editor-in-Chief, and Editor of Social Media. Her involvements at The Webb Schools include acting as a day student prefect and participating in community service. She intends to study sociology and global health at Northwestern University.

Amelie Cook has acted as a Staff Writer, the Editor of News & Opinion, and the Copy Editor of the *Webb Canyon Chronicle*. She was also a Head Editor at the Webb Schools' literary magazine, *Breakfast*, and a founding Editor-in-Chief of *Phoenix Magazine*, an online literary magazine for teens all around the world. After taking a year to work for AmeriCorps serving others across the country, Amelie will continue her education at Carleton College, where she will study sociology and anthropology.
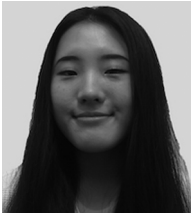
Summer Chen is Editor-in-Chief of two student-run publications at the Webb Schools: the *Webb Canyon Chronicle* and *El Espejo Yearbook*, where she previously served as Staff Writer and Photographer, respectively. She is also a Chinese Language Tutor and French Club President. She gives campus tours to prospective families as an Admissions Ambassador. She is interested in psychology and philosophy and plans to study cognitive sciences at Wellesley College.

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