

Counter Data Mapping as Communicative Practices of Resistance

Sandra Jeppesen ¹  and Paola Sartoretto ² 

¹ Media, Film, and Communications Program, Lakehead University, Canada

² School of Education and Communication (HLK), Jönköping University, Sweden

Correspondence: Sandra Jeppesen (sandrajeppesen@lakeheadu.ca)

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Abstract

This thematic issue shares research that critically analyzes counter-mapping undertaken by community groups who appropriate, collect, and utilize counter-datasets to unveil and reshape spatial realities. The articles consider a range of multidimensional sociotechnical cartographic practices, including the politics embedded in various uses of representation, visualization, interactivity, and cartographic imaginaries, framing counter data mapping as communicative practices of resistance. They deepen our understanding of how counter-mapping can be understood as a sociotechnical communicative practice through which communities inhabiting marginalized and vulnerable positions have collectively mobilized the affordances of mapping technologies to both visibilize and contest the root causes and consequences of marginalization. Scholars here consider how counter-mapping is embedded in notions of spatiality and relationality, probing dimensions of analysis that include data sourcing, objectives, capacities, processes, collaborations, ownership, strategic invisibility, and so on, providing evidence of the emerging importance of sociotechnical multidimensionality in the production and cartopolitics of community counter-maps.

Keywords

counter-mapping; digital media activism; sociotechnical practices; spatiality; marginalized communities; data activism; cartography; cartopolitics

1. Introduction

Digital counter-mapping has emerged as a new form of digital media activism over the past decade, with intense proliferation initiated during the pandemic and persisting through to today (Jeppesen & Sartoretto, 2023). In counter-maps, the narratives framed by hegemonic state and corporate maps are contested through resistant mapping including data appropriation, reappropriation of big data sets, community-owned datasets,

and more (Milan, 2017). Counter-data mapping includes the redrawing of maps by marginalized groups to reveal hidden inequalities and challenge the cartocracy of hegemonic maps (Kent, 2020) while sometimes also supporting calls for intersectional justice, expressing a community's needs and demands (Alderman & Inwood, 2021).

This thematic issue shares research that critically analyzes counter-mapping by community groups who use data to unveil and reshape spatial realities, considering their multidimensional sociotechnical practices including the politics embedded in various uses of representation, visualization, interactivity, and cartographic imaginaries (Jasanoff & Kim, 2015). In this context, data-driven counter-mapping is understood as a sociotechnical communicative practice through which communities inhabiting marginalized and/or vulnerable positions collectively mobilize the affordances of available mapping technologies to address the causes and consequences (Milan & Treré, 2020). Scholars here consider how counter-mapping is embedded in notions of spatiality and relationality, probing dimensions of analysis that include data sourcing, objectives, capacities, processes, collaborations, ownership, and so on, providing evidence of the emerging importance of sociotechnical multidimensionality in the production and politics of community counter-maps.

2. Multidimensional Social Practices in Relation to Technologies

When considering sociotechnical practices and imaginaries, it is typical that scholars focus on the technical aspects with less attention paid to social practices. Several of the articles collected here offer a nuance to this tendency, focusing on sociotechnical practices of mapping with an emphasis on how mapping can reconstruct and be reconstructed by social mapping practices.

Calvo and Treré (2025), in their consideration of the data mapping of the grassroots online group Frena la Curva in Spain, have found that the maps developed by activists to visualize community needs also served as springboards to facilitate community conversations. They therefore figure mapping as a situated process in which tensions and interpretive practices play out, rendering community values and counter-mapping imaginaries visible and pertinent through "cartographies of negotiation" that may express solidarity and resistance via community maps and the negotiated social practices of producing them.

Social practices engaged in while using mapping technologies were also relevant in the two articles from Brazil, both focusing on decolonization through counter-mapping. Carvalho (2026) has worked with community groups in São Paulo to develop processes of community mapping in the urban periphery. Like Frena la Curva in Spain, the case studies presented by Carvalho engaged in participatory mapping with community members to capture their diverse ideas with respect to space and spatialization. Together they mapped their own territories in a dialogical process, deepening their collective understanding of their neighbourhoods and thus also contributing toward solving local problems such as improving urban planning and policy outcomes, mitigating environmental and climate impacts, and developing community skills and agency.

Also focusing on a participatory mapping project, Indigenous Emergency in Brazil, Sartoretto and Martins (2025) bring an explicitly non-media-centric approach, which contests the centrality of the technical, to the analysis of decolonial counter-mapping practices that include resistant data appropriation and collaborative cartographies for self-representation and visibility, fostering collective political action. Moreover, they note

how decolonial counter-mapping practices are generative of not just maps but also Indigenous-led communicative citizenship based on deep community knowledge of both communication strategies and political action, with important social impacts.

While the above articles focus on the dimensions of social justice via participatory communicative mapping of land-based territories, Torp-Pedersen's (2025) article uses maps of bodies of water to explore human rights, including the right not to drown when migrating from one country to another across waterways. In the case studies explored, counter-mappers used data to render visible those who were not afforded this right and lost their lives, with the maps revealing the culpability of authority neglect.

Ting (2025) explores the social aspects of participatory mapping in the resistant economy in Hong Kong's yellow economic circle, identifying how users put specific businesses on the map of Hong Kong to indicate whether they were supporting the movement or siding with the authorities. They investigated how users could remain both visible in placing businesses on the online map using pins and photos (generative of dissenting spatiality, sociality, and solidarity) and strategically invisible (in anonymizing their own locations and names to provide security from the authorities). While noting the limitations of consumer activism as only one aspect of the movement, this counter-mapping initiative facilitated continued participation in social movements despite policing crackdowns that limited street protest. It illustrates the potential for everyday resistant engagements with data and counter-data mapping.

Also focused on tensions in shifts between invisibility and visibility in both online and offline mapping, Chun and Jeppesen (2026) explore queer social spatialities of offline cruising spaces where queer culture flies under the radar through the counter-epistemologies and curated invisibilities of queer spatiality, looking at affective social relations on dating platforms that both capture and allow for the expression of complex counter-affective relations. Moving through maps and shaping those maps through the movements of cruising, queer affective relations reclaim interstitial spaces and intimacies through counter-mapping and unmapping practices.

Thus, the specific *social* processes and practices, including the community objectives, specific uses imagined for the maps, and relationalities, were key multidimensional contributors to the sociotechnical practices and counter-mapping imaginaries in these papers.

3. Multidimensional Technical Practices in Relation to Socialities

Technology-oriented practices shape and are shaped by collective knowledge that transcends the technologies to which it relates. When it comes to counter-mapping, grassroots knowledge has territorial, historical, and political aspects that foreground technical practices. This collectively and locally grounded knowledge is seldom made visible in media and communication research which tends to have a predominantly technocentric approach. Articles in this thematic issue pay attention to this research gap and address how socially centered aspects of grassroots knowledge production relate to the technical practices that underpin counter-mapping.

Gómez Márquez, Garzón Díaz, and Oviedo Curbelo (2026) explore how counter-mapping practices relate to environmental activism and the territories in Uruguay. The authors recognise the need to create social maps

centered on local knowledge about the territory as a key element in sustainable development and mobilize participatory mapping to co-create Mapa Verde, a platform that connects youth environmental initiatives with society.

McKee (2025) also looks into counter-mapping practices during the Covid-19 pandemic among grassroots groups in Argentina, Brazil, Canada, and the United States, comparing these maps with hegemonic actors such as governments and academic institutions. McKee discusses the tendency toward oversimplification among hegemonic maps in comparison to the intersectional, nuanced storytelling practices of grassroots communities, demonstrating the public pedagogy potential of counter-mapping. Both contributions evidence the critical aspects of grassroots knowledge applied to mapping technologies.

Other contributions in this issue explore resistant interactive mapping practices that recast the relations between communities and the territories where they live. Xu and Chen (2025) discuss how young people in China tap into the affordances of social media platforms such as Baidu Maps, Xiaohongshu, and Douyin to articulate bottom-up forms of navigating and experiencing urban spaces. They argue that commercial platforms can be purposefully and tactically appropriated by citizens to write back to cities that are being “rewritten by code.” Xu and Chen also identify authority as a site of contestation, aiming to escape algorithmic control by engaging in city walks and digital storytelling. They explore a key paradox of counter-mapping platforms which engage in a process of aestheticization, monetization, and commodification, often recuperating the resistance aims of the counter-mappers themselves.

Similarly, Alderman and Inwood (2025) interrogate the territorial aspect of enslavement memories in the United States, exploring how Black Lives Matter activists engage in communicative processes to reclaim place names and the memory of Black resistance against racial oppression and white supremacy. In these cases, local knowledge is mobilized in technical practices that reconfigure the appropriation of space by groups who are less publicly visible.

Lastly, Romano, Schueler, Kerby, and Beraldo (2026) present the concept of platform-mediated proximity as a framework for counter-data mapping. The authors scrape data from the platform TKGO, an archive that collects TikTok geographic metadata, to produce a topographic map of prioritized recommended videos in different locations. This is a unique resource for activists, journalists, and researchers looking into the geographies of cross-national trends, as well as content moderation and promotion.

4. Conclusion

Thematic issue contributors have amplified ongoing scholarly and activist dialogues to deepen our understanding of how counter-data maps have been used within communities to construct new social realities and technical practices that support communities in advocating for social justice. Moreover, to address gaps in the literature, we have foregrounded the important work of communities (including sociotechnical practices, imaginaries, and epistemological frameworks) from lower-income countries and other marginalized communities underrepresented in the scholarly literature.

The thematic issue raises further fundamental questions regarding the importance of community-engaged and participatory counter-mapping. How do communities address barriers to access in order to develop the

resources, skills, and capacities to collect, analyze, and interpret data from their own subject-positions, enabling them to address the inequitable distribution of power evident in hegemonic maps and data used for social control? What are the key sites of contestations of power structures in online and offline maps and how can feminist, queer, Black, Indigenous, and other map-makers continue to make interventions that strategically (in)visibilize their communities to keep themselves safe, healthy, thriving, empowered, and liberated? How can counter-mapping serve as an activist tool that amplifies the voices of those rendered voiceless, as we have argued earlier, while contesting capitalist power regimes of technification, data extraction, misinterpretation, invisibilization, and other forms of data power and cartocracy (Kent, 2020)? Finally, how can community activists engage in the cartopolitics of map-making (van Houtum, 2023) for liberatory ends that do not simultaneously reify and reinscribe the dominant power imbalances in normative practices of cartography?

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Conflict of Interests

The authors declare no conflict of interests.

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About the Authors



Sandra Jeppesen is professor of media, film, and communications and the Social Justice Studies MA at Lakehead University, Canada, social justice lead in the Research Centre for Sustainable Communities, lead researcher of the Media Action Research Group, co-founder of the Smart[er] Cities Research Network, and Lakehead University distinguished researcher award winner (2025).



Paola Sartoretto is associate professor in media and communication at Jönköping University, Sweden, director of the international MA programme Sustainable Communication, and co-founder of the research networks Smart[er] Cities and ComuTTe (Communities, Technologies and Territories).