

Editorial

Expanding the Boundaries of Digital Inclusion: Perspectives From Network Peripheries and Non-Adopters

Rob McMahon^{1,*}, Nadezda Nazarova², and Laura Robinson³

¹ Department of Political Science, University of Alberta, Canada

² Nord University Business School, Norway

³ Department of Sociology, Santa Clara University, USA

* Corresponding author (rdmcmaho@ualberta.ca)

Submitted: 14 July 2023 | Published: 6 September 2023

Abstract

In this thematic issue, we present research from authors who seek to contest, challenge, and reimagine what digital inclusion is and what it might be. Authors present work from understudied vantage points and “hard to reach” terrains, such as communities that remain geographically, technically, socially, economically, and metaphorically “disconnected”—sometimes by choice. Through their attention to the role of intangible factors like relationality, social capital, emotion, sovereignty, and liminality, the articles collectively push against and expand the boundaries of digital inclusion research and practice.

Keywords

broadband access; digital divides; digital equity; digital inclusion; digital inequalities; network society; technology adoption

Issue

This editorial is part of the issue “Expanding the Boundaries of Digital Inclusion: Perspectives From Network Peripheries and Non-Adopters” edited by Rob McMahon (University of Alberta), Nadezda Nazarova (Nord University Business School), and Laura Robinson (Santa Clara University).

© 2023 by the author(s); licensee Cogitatio Press (Lisbon, Portugal). This editorial is licensed under a Creative Commons Attribution 4.0 International License (CC BY).

1. Introduction

Research in the growing field of digital inclusion has evolved from questions of access, adoption, skills, and use to consider broad issues of social inclusion/exclusion (e.g., Asmar et al., 2022; Carmi & Yates, 2020; Gallardo et al., 2021; Park, 2017; van Dijk, 2020). Researchers have examined how the design, deployment, and adoption of digital technologies threaten to perpetuate existing hierarchies and introduce new forms of marginalization in areas such as class, race, gender, age, and (dis)ability, among others (e.g., Dutta, 2020; Robinson et al., 2020; van Deursen & van Dijk, 2013). Scholars are also identifying how intersectional analysis lends itself to a more fulsome consideration of these issues beyond the limitations of a “one-size fits all” model of digital inclusion (Goggin & Soldatić, 2022; Moran & Bui, 2019; Tsatsou, 2021). As Reisdorf and Rheinsmith (2020) point out, dig-

ital inclusion is also shifting from a focus on deficits—that is, on digital divides and inequalities—to strengths-based initiatives working to ameliorate those challenges through the active efforts of individuals, groups, and communities (see also Gurstein, 2012; Reina-Rozo, 2019). Concepts such as digital capital (Ragnedda et al., 2020), network sovereignty (Duarte, 2017), digital disengagement (Kuntsman & Miyake, 2022), digital colonialism (Couldry & Mejias, 2019), and adverse digital incorporation (Heeks, 2022) tease out how actors resist and challenge inequalities that emerge alongside the widespread adoption and use of digital services and infrastructures. Recent work also encompasses a geographic and institutional shift from traditional foci of formal organizations based in the Global North to an orientation that pays close attention to culturally and locally specific interventions taking place around the world (David, 2003; Elers et al., 2022).

Collectively, these developments point to tensions in ontological understandings of a singular, globalizing network society. Logics embedded in infrastructural design have tended to presume a development process that extends out from centers of power to more peripheral areas that are drawn into the dominant system. Critical scholars surface the ways these logics are reflected in discourses, practices, and policies of digital inclusion that seek to integrate marginalized individuals, groups, and territories without attending to their autonomy—or to the unequal social relations too often encoded in technical form and function. For example, Starosielski (2015, pp. 10–11) argues in her study of the undersea cable network that “centralizing forces continue to permeate and underpin the extension of [global] networks,” while at the same time surfacing the “conflicts, contestations, and negotiations that shape [these] systems on the ground” (p. 82). Emerging research and practice is also countering the tendency to focus on those individuals and groups who *want* to be included—a position that might assume that everyone desires ubiquitous connectivity. Yet around the world, non-adopters resist when presented with opportunities to connect. These observations draw attention to the ways that people and communities located at the nodes of globalizing networks push back against the totalizing forces of certain forms of digital inclusion.

2. Reflections on the Contributions

In this thematic issue, we present research from authors who seek to contest, challenge, and reimagine what digital inclusion is and what it might be. Authors present work from understudied vantage points and “hard to reach” terrains, such as communities that remain geographically, technically, socially, economically, and metaphorically “disconnected”—sometimes by choice. Through their attention to the role of intangible factors like relationality, social capital, emotion, sovereignty, and liminality, the articles collectively push against and expand the boundaries of digital inclusion research and practice.

Geographically, the issue draws on perspectives from the Global South—as reflected in articles from Uganda (Gallagher et al., 2023), India (Bhatia-Kalluri & Caraway, 2023), and Chile (Pavez et al., 2023)—as well as from Indigenous nations in the “Fourth World” (Manuel & Posluns, 2018) contending with the ongoing impacts of settler colonialism in territories now known as Canada (Toso & Forward, 2023) and the US (McMahon et al., 2023). These contributions include an international comparison of digital inclusion in global digital peripheries. A second set of articles focuses on perspectives from socially marginalized groups located in the Global North, contributing to intersectional analyses of factors such as (dis)ability (Mogendorff, 2023) and age (Schuster & Cotten, 2023; van Leeuwen et al., 2023). The issue closes with a provocative piece focusing on how conspiracy theories associated with 5G mobile networks

shape popular perceptions of the limits of digital inclusion (Sharp, 2023).

3. Overview of the Articles

The issue begins with a comparative study of 76 countries conducted by Füzér et al. (2023) that examines how macro-level patterns of digitalization and social capital articulate in clusters of digitized, digitalizing, and low-adopter societies. After building composite indicators for the social embeddedness of digitalization, the authors examine digitally-mediated aspects of social interaction as reflected in differences among trust, norms, ties, and connections. They conclude that digital inclusion initiatives must consider the intertwined goals of universal access and strengthening social capital, which are shaped through context-specific social and institutional conditions.

An analysis of social capital’s impacts on digital inclusion is also presented by van Leeuwen et al. (2023), who adopt a Bourdieusian analytical framework to examine how diverse older adults in Belgium negotiate their aging experiences in digital contexts. Through qualitative interviews with 76 participants who range from 65 to 91 years old, the authors discuss the characteristics of avid users, users, and non-users of digital technologies. Their findings highlight the importance of personal context, the complexity of “age” as an explanatory indicator, and the role of digital support networks. Alongside evidence of heterogeneous use of digital technologies among this population, their conceptual framework helps explain the nuances of how older adults engage with digital inclusion.

Applying life course and aging theoretical perspectives, Schuster and Cotten (2023) similarly investigates how older adults interact with digital ICTs. Drawing on three national US datasets from 2017 to 2021, this quantitative study examines aspects of digital inclusion across different life course stages (e.g., 65–74 years; 75–84 years; 85+ years). While a constant connection may be normative for younger age groups, this is not necessarily the case for older adults. Older adults may reflect similar broad trends of ownership and use, but their frequency and purposes of use are nuanced across life course stages. As individuals age, they may retreat from constant connection and their reasons for using ICTs may change; however, they still desire support for digital inclusion such as affordable access to devices and Internet connectivity, training, and technical support. The article concludes with a discussion of how the social construction of digital inclusion shifts according to differing life course stages.

A life course analytical framework is also employed by Mogendorff (2023) in a commentary on the digital inclusion of disabled people in the Netherlands. Based on the author’s personal and professional experiences with disability research and user-led empowerment projects (e.g., Aging With a Disability), Mogendorff

argues that digital inclusion initiatives should consider a life course intersectional approach, together with the early involvement of disabled people in technology and product development.

Alongside social capital and life course perspectives, Pavez et al. (2023) propose that researchers consider adopting the “ethics of care” to examine the role of emotions like frustration, powerlessness, and empathy in digital inclusion initiatives. Based on findings from 71 interviews with members of vulnerable communities located in 16 rural and urban communities across Chile, they suggest that emotions play an important role in driving the dynamics and interactions shaping technological appropriation. Marginalized groups located in tightly knit communities with differing levels of online access and digital literacy express strong examples of formal and informal leadership in organizing, helping, and teaching others. These activities contribute to forms of digital inclusion that decrease feelings of powerlessness and strengthen trusting relationships.

This observation is reflected in McMahon et al. (2023), who discuss how a Kānaka Maoli (Native Hawai’ian) political organization presents digital inclusion as a means to generate a “sovereignty mindset” for Indigenous peoples on Oahu. Members of the Nation of Hawai’i describe how the collective deployment of a local community network connecting their land base in Pu’uhonua o Waimānalo provides a means to practice values of independence, control, and autonomy that are tied to restoring *ea*, “the breath and sovereignty of the *lāhui* [assembly], *‘āina* [land], and its people” (Aikau & Gonzalez, 2019, p. 2). Data drawn from surveys, interviews, and a focus group held in the community illustrate how the goals of practicing *ea* and *kuleana* (responsibility) intersect with broadband development work, despite ongoing challenges to the technical and economic sustainability of network infrastructure.

Another example of intersections between infrastructure, sovereignty, and settler colonialism is expressed by Toso and Foward’s (2023) documentation of analogue and digital communications networks in the region of Eeyou Istchee in Canada. Presenting a series of dispatches about the James Bay Cree Communications Society and the Eeyou Communication Network, the authors “seek to represent the many complex layers of infrastructure, policy, social and political histories, and relationships, as well as the culture and ecologies in which these networks were conceived and developed” (p. 298). Anchoring their argument in the concept of spectrum sovereignty, they argue that Cree control of radio spectrum is both a resource for the “continuation of traditional lifeways” and a means to resist the “challenges posed by settler-colonial policies, extractive colonialism, climate change, and a threatened language and culture” (p. 306).

Digital inclusion is also actively shaped and managed by individuals and groups based in unsettled and temporarily constructed environments. In their discus-

sion of “Bidi Bidi creativity” among refugee students in Ugandan universities, Gallagher et al. (2023) advance the concept of liminality as a means to examine how practices of digital inclusion are intertwined with systems of control and marginalization. They suggest that “particularly for refugees, inclusion is further characterized by a persistent liminality with its attendant experiences of transition and tentativeness” (p. 309). More nuanced conceptualisations of digital inclusion rooted in liminal experiences are needed to anchor the adoption and use of digital technologies in refugee communities.

Social and economic inequities are also present in the rapidly expanding fintech industry in India, as discussed in Bhatia-Kalluri and Caraway’s (2023) case study of the mobile e-commerce platform Paytm. On one hand, the platform enables reduced transaction costs and more accessible digital payment options for marginalized populations. Yet these benefits of inclusion must be weighed against the coercive effects of demonetization that benefit platform owners rather than everyday people. As India transitions to a digital payments ecosystem, the authors argue for stricter state policies to ensure that consumers’ interests are served.

The issue concludes with Sharp’s (2023) exploration of resistance to 5G mobile infrastructure. Applying an interpretative framework inspired by Cervantes’ comic masterwork *Don Quixote*, Sharp draws on studies of mis- and disinformation, literary criticism, and media theory to demonstrate how hostility toward 5G is a transnational phenomenon with deep historical roots. Following social media rumours linking 5G to Covid-19, news media in Europe and North America reported multiple attempts by actors to damage infrastructure. By “tilting at 5G towers,” these actions illustrate the symbolic role of infrastructure as a site of social confrontation. While stopping far short of legitimizing the mis- and disinformation that drove this interference with infrastructure, Sharp uses these examples to argue that corporate narratives of 5G as a means to expand the horizons of mobile connectivity can obscure the conflicting imperatives of exclusion and inclusion underscoring the privatized deployment of mobile infrastructure. He cautions that, when left unexamined, infrastructural transition may serve to exclude public participation and treat the novelty of a technical standard as a commodity unto itself.

4. Conclusion

Taken together, the 10 articles presented in this thematic issue provide insight into how experiences, values, and perspectives from network peripheries and non-adopters may guide digital initiatives in more socially-inclusive directions. As digital inclusion research and practice continues to evolve, these contributions offer ways to conceptualize the active, context-specific, and intangible factors and processes shaping emergent digital networks as mediating forces in relations of social inclusion.

Acknowledgments

We thank the authors who shared their important research in this thematic issue, the many peer-reviewers who provided valuable feedback during the editorial process, and the editors of *Social Inclusion* for their support for this project.

Conflict of Interests

The authors declare no conflict of interests.

References

- Aikau, H. K., & Gonzalez, V. V. (2019). *Detours: A decolonial guide to Hawai'i*. Duke University Press.
- Asmar, A., Mariën, I., & Van Audenhove, L. (2022). No one-size-fits-all! Eight profiles of digital inequalities for customized inclusion strategies. *New Media & Society*, 24(2), 279–310. <https://doi.org/10.1177/14614448211063182>
- Bhatia-Kalluri, A., & Caraway, B. R. (2023). Transformation of the digital payment ecosystem in India: A case study of Paytm. *Social Inclusion*, 11(3), 320–331.
- Carmi, E., & Yates, S. J. (2020). What do digital inclusion and data literacy mean today? *Internet Policy Review*, 9(2). <https://doi.org/10.14763/2020.2.1474>
- Couldry, N., & Mejias, U. A. (2019). *The costs of connection: How data is colonizing human life and appropriating it for capitalism*. Stanford University Press.
- David, M. (2003). The politics of communication: Information technology, local knowledge and social exclusion. *Telematics Informatics*, 20(3), 235–253. [https://doi.org/10.1016/S0736-5853\(03\)00016-9](https://doi.org/10.1016/S0736-5853(03)00016-9)
- Duarte, M. E. (2017). *Network sovereignty: Building the internet across Indian country*. University of Washington Press.
- Dutta, M. (2020). *Communication, culture and social change: Meaning, co-option and resistance*. Palgrave Macmillan.
- Elers, P., Dutta, M. J., & Elers, S. (2022). Culturally centering digital inclusion and marginality: A case study in Aotearoa New Zealand. *New Media & Society*, 24(2), 311–327. <https://doi.org/10.1177/14614448211063180>
- Füzér, K., Völgyi, B., Erát, D., & Szerb, L. (2023). Global digital peripheries: The social capital profile of low-adopter countries. *Social Inclusion*, 11(3), 225–238.
- Gallagher, M., Najjuma, R., & Nambi, R. (2023). Bidi Bidi creativity: The liminality of digital inclusion for refugees in Ugandan higher education. *Social Inclusion*, 11(3), 309–319.
- Gallardo, R., Beaulieu, L. B., & Geideman, C. (2021). Digital inclusion and parity: Implications for community development. *Community Development*, 52(1), 4–21. <https://doi.org/10.1080/15575330.2020.1830815>
- Goggin, G., & Soldatić, K. (2022). Automated decision-making, digital inclusion and intersectional disabilities. *New Media & Society*, 24(2), 384–400. <https://doi.org/10.1177/14614448211063173>
- Gurstein, M. (2012). Toward a conceptual framework for community informatics. In M. G. A. Clement, G. Longford, M. Moll, & L. R. Shade (Eds.), *Connecting Canadians: Investigations in community informatics* (pp. 35–61). Athabasca University Press.
- Heeks, R. (2022). Digital inequality beyond the digital divide: Conceptualizing adverse digital incorporation in the global South. *Information Technology for Development*, 28(4), 688–704. <https://doi.org/10.1080/02681102.2022.2068492>
- Kuntsman, A., & Miyake, E. (2022). *Paradoxes of digital disengagement: In search of the opt-out button*. University of Westminster Press.
- Manuel, G., & Posluns, M. (2018). *The fourth world: An Indian reality*. University of Minnesota Press.
- McMahon, R., Buente, W., Hudson, H. E., Maka'awa'awa, B., Garcia, J. K., & Kanahale, D. B. (2023). Indigenous community networking in Hawai'i: A case study. *Social Inclusion*, 11(3), 286–297.
- Mogendorff, K. (2023). Managing accessibility conflicts: Importance of an intersectional approach and involvement of experiential experts. *Social Inclusion*, 11(3), 271–274.
- Moran, R. E., & Bui, M. N. (2019). Race, ethnicity, and telecommunications policy issues of access and representation: Centering communities of color and their concerns. *Telecommunications Policy*, 43(5), 461–473. <https://doi.org/10.1016/j.telpol.2018.12.005>
- Park, S. (2017). Digital inequalities in rural Australia: A double jeopardy of remoteness and social exclusion. *Journal of Rural Studies*, 54, 399–407. <https://doi.org/10.1016/j.jrurstud.2015.12.018>
- Pavez, I., Correa, T., & Fariás, C. (2023). The power of emotions: The ethics of care in the digital inclusion processes of marginalized communities. *Social Inclusion*, 11(3), 275–285.
- Ragnedda, M., Ruiu, M. L., & Addeo, F. (2020). Measuring digital capital: An empirical investigation. *New Media & Society*, 22(5), 793–816. <https://doi.org/10.1177/1461444819869604>
- Reina-Rozo, J. (2019). *Communal innovation: Collective creation towards wellbeing* (Working Paper 02). MIT D-Lab.
- Reisdorf, B., & Rhinesmith, C. (2020). Digital inclusion as a core component of social inclusion. *Social Inclusion*, 8(2), 132–137. <https://doi.org/10.17645/si.v8i2.3184>
- Robinson, L., Schulz, J., Ragnedda, M., McClain, N., Hale, T. M., Pait, H., Ragnedda, M., Straubhaar, J. D., Khilnani, A., & Tolentino, N. (2020). Global perspectives on digital inequalities and solutions to them. *First Monday*, 25(7), Article 10840. <https://doi.org/10.5210/fm.v25i7.10840>
- Schuster, A. M., & Cotten, S. R. (2023). Examining aspects

of digital inclusion among national samples of US older adults. *Social Inclusion*, 11(3), 251–270.

Sharp, R. (2023). Tilting at 5G towers: Rethinking infrastructural transition in 2020. *Social Inclusion*, 11(3), 332–341.

Starosielski, N. (2015). *The undersea network*. Duke University Press.

Toso, T., & Forward, S. (2023). Dispatches from Eeyou Istchee: Cree networks, digital, and social inclusion. *Social Inclusion*, 11(3), 298–308.

Tsatsou, P. (2021). Vulnerable people’s digital inclusion:

Intersectionality patterns and associated lessons. *Information, Communication & Society*, 25(10), 1475–1494.

van Deursen, A. J. A. M., & van Dijk, J. A. G. M. (2013). The digital divide shifts to differences in usage. *New Media & Society*, 16(3), 507–526.

van Dijk, J. A. (2020). *The digital divide*. John Wiley & Sons.

van Leeuwen, C., Jacobs, A., & Mariën, I. (2023). Catching the digital train on time: Older adults, continuity, and digital inclusion. *Social Inclusion*, 11(3), 239–250.

About the Authors



Rob McMahon is an associate professor in media and technology studies and political science at the University of Alberta, Canada. His research focuses on the development, adoption, and use of broadband and internet technologies by rural, Northern, and Indigenous communities. He and his partners are also involved in efforts to contribute to digital policy and regulation, and he co-founded the First Mile Connectivity Consortium (<http://firstmile.ca>), a national nonprofit association of Indigenous technology organizations.



Nadezda Nazarova holds a PhD in Business and works as associate professor at the Nord University Business School in Bodø, Norway. With a background in accounting and management control, her research interests have covered the role of human and non-human actors in organizations in the context of logistics, supply chain management, risk management, and smart societies in the High North.



Laura Robinson is professor in the Department of Sociology at Santa Clara University (PhD UCLA). Other affiliations include the UC Berkeley Institute for the Study of Societal Issues, Harvard Berkman Klein Center for Internet & Society, the Cornell University Department of Sociology, Department of Sociology at Trinity College Dublin, USC Annenberg Center, and the École Normale Supérieure. Her research has earned awards from CITASA, AOIR, and NCA IICD.