

Editorial

## Digital Inclusion as a Core Component of Social Inclusion

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### Abstract

There is a large body of research that has examined digital inequities, inequalities, and divides—i.e., those countries, communities, and individuals digitally left behind or disadvantaged. Whereas we know quite a lot about what is lacking and for whom, there is less focus on what works to alleviate these inequalities and divides in a variety of cultural contexts. This thematic issue brings together scholarship on digital inclusion initiatives and research from over 20 countries and in the context of numerous aspects, including different types of initiatives as well as different types of target audiences for these initiatives. Each article provides unique insights into what does and does not work in various communities, making recommendations on what could be done to improve the examined initiatives. We hope that the breadth and depth of articles presented here will be useful not just for academic audiences seeking to broaden their understanding of digital inclusion and ‘what can be done’ rather than focusing on ‘what is amiss,’ but also for policymakers and digital inclusion initiatives who are eager to expand and advance their digital inclusion work within their communities.

### Keywords

digital inclusion; international; mixed methods; policy; practitioners; social inclusion

### Issue

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### 1. Introduction

There is a large body of research that has examined digital inequities, inequalities, and divides—i.e., those countries, communities, and individuals digitally left behind or disadvantaged. This research has shown that first-level divides (material access), second-level divides (skills and uses), and third-level divides (outcomes of differentiated access and use) persist, even in well-connected countries where the majority of the population is online (e.g., van Deursen, Helsper, Eynon, & van Dijk, 2017). Other studies have shown that mobile Internet access can help many people access the Internet in countries that lack wireline infrastructure—so-called mobile leapfrogging—albeit allowing a narrower range of activities and skills

in comparison to access from a variety of devices (e.g., Reisdorf, Fernandez, Hampton, Shin, & Dutton, 2020; Tsetsi & Rains, 2017). Whereas we know quite a lot about what is lacking and for whom—which has become especially apparent during the current COVID-19 pandemic—there is less focus on what works to alleviate these inequalities and divides in a variety of cultural contexts. The aim of this thematic issue is to bring together scholarship on digital inclusion initiatives and research from various countries and in the context of numerous aspects, including different types of initiatives as well as different types of target audiences for these initiatives.

Digital divide and inequality research has a long history of focusing on who is using the internet and who is not (Norris, 2001; Rogers, 2001), differences in how

people use the internet (DiMaggio & Hargittai, 2001; DiMaggio, Hargittai, Celeste, & Shafer, 2004; Hargittai & Hinnant, 2008; van Deursen & van Dijk, 2014), who displays what kinds of internet skills (Hargittai, 2001; Hargittai & Dobransky, 2017; van Deursen & van Dijk, 2011), and how these differences in access, usage, and skills affect people from various different backgrounds (Gonzales, 2016; Gui & Büchi, 2019; Kvasny, 2006; Ono & Zavodny, 2007; van Deursen & Helsper, 2018; van Deursen et al., 2017). Yet other research has focused on what is preventing people from making any or full use of the internet, as well as the social and community supports that individuals and families rely on to be successful in their digital adoption and use (Helsper & Reisdorf, 2013, 2017; Katz & Gonzales, 2016; Rhinesmith, Reisdorf, & Bishop, 2019). While all of these studies are illuminating the issue of digital divides and inequalities, most publications in this area do not move beyond providing relatively broad policy recommendations.

In comparison to the plethora of publications that are available on digital inequalities and the issues they create, there is relatively little work on what kinds of initiatives are trying to address these digital inequalities and inequities, who they work with, and whether they have the intended impact. While there are some notable exceptions to this rule (Rhinesmith, 2012, 2016), most available studies focused on Western backgrounds and cannot be generalized to other populations. This thematic issue is trying to bridge this gap in the literature by collating studies that are focusing on digital inclusion initiatives across various different countries from five continents: Asia, Africa, Europe, North America, and South America. The articles cover a variety of different initiatives, some of which are broad in their aims and clientele, and some are narrower in focus and in the clientele that they focus on. Bringing together these diverse studies from all around the world allows us to learn from some of the best practices in digital inclusion initiatives, providing a toolkit for policymakers and practitioners who are working to reduce digital inequities in their communities.

## 2. Digital Inclusion

Digital inclusion can be defined as “the activities necessary to ensure that all individuals and communities, including the most disadvantaged, have access to and use of Information and Communication Technologies” (National Digital Inclusion Alliance, 2017). This includes reliable access to internet at adequate speeds, access to digital devices that meet the users’ needs, access to digital skills training, technical support, and content, apps, and software that are “designed to enable and encourage self-sufficiency, participation and collaboration” (National Digital Inclusion Alliance, 2017). In other words, while the “digital divide” pertains to the gap between those with and without access to the internet, and “digital literacy” focuses on the skills and abilities needed once access is available, digital inclusion more of-

ten focuses on the actual policies implemented to “close the digital divide and promote digital literacy” (Jaeger, Bertot, Thompson, Katz, & DeCoster, 2012, p. 3).

Digital inclusion has become a core topic for policymakers across the globe. The issue of digital inclusion as a core component of social inclusion has come to the forefront at time of writing this article, as the fast-spreading respiratory virus COVID-19 has confined millions of people across the world to staying at home, working, schooling, and living remotely, by means of utilizing the internet. This need for social isolation has led to renewed discussions about the now starkly visible digital inequalities and inequities (Samms, 2020; Woolley, Sattiraju, & Moritz, 2020) that have existed all along. In addition to numerous media outlets discussing this issue and internet service providers scrambling to provide free or affordable internet for school children, students, and low-income populations (Internet Essentials, n.d.) the US Congressional Research Service has released a briefing on the digital divide during this pandemic to Congress and its committees (Rachfal, 2020).

As dependence on digital devices and reliable internet increases, it is also becoming more and more obvious that being digitally excluded also means that this person is socially excluded. However, digital inclusion does not necessarily directly translate into social inclusion. Gradations in what internet users can do with their access vary with regards to their socio-demographic background and offline resources (Helsper, 2012; Livingstone & Helsper, 2007), what kinds of devices they can afford and maintain (Gonzales, 2016), where they can access the internet, e.g., whether they are depending on mobile data plans or access through an internet service provider (Reisdorf et al., 2020), and other factors, such as digital skills (van Deursen & van Dijk, 2011) or attitudes toward technologies in general (Dutton & Reisdorf, 2019). Accordingly, digital inclusion activities cannot follow a one-size-fits-all approach—especially when we move the focus beyond the US or European context.

### 2.1. Shifting Focus from Deficits to Initiatives

In an academic context, the term digital inclusion has most often been equated with digital inequalities, albeit providing more solution-based, i.e., inclusion-focused, perspectives. However, many publications in this area are, nonetheless, concerned with what is missing (Helsper, 2008; Livingstone & Helsper, 2007), rather than with the activities that could enable digital inclusion and thereby alleviate digital inequities. In the early years of digital inequality research as well as in more recent years, there have been calls to move digital inclusion scholarship away from deficit-based approaches and toward more asset-based approaches that focus on the assets that are available within a community, that can help alleviate digital inequities (Pinkett, 2000; Reisdorf & Rhinesmith, 2018; Turner & Pinkett, 2000). As is evident in the articles that are part of this thematic issue,

focusing on what is possible, rather than what is missing, can provide a unique and refreshing perspective that enables researchers to move beyond what the problem is and toward identifying potential solutions in regard to increasing digital inclusion.

### 3. Overview of Articles

The articles presented in this thematic issue cover a wide range of countries, population groups, and initiatives. The first few articles are concerned with specific factors that can contribute to digital inclusion, namely social support (Asmar, van Aduenhove, & Mariën, 2020), digital literacy (Radovanović et al., 2020), and devices (in this case mobile phones; Shema & Garcia-Murillo, 2020). We then move toward specific digital inclusion initiatives, such as the maker movement (Unterfrauner, Hofer, Pelka, & Zirngiebl, 2020), and toward programs and initiatives that are concerned with specific groups of the population, including women (Arroyo, 2020), people with intellectual disabilities and their care takers (Heitplatz, 2020), school children (Huang, Ball, Cotton, & O'Neal, 2020) and young people (Calderón Gómez, 2020), and finally older internet non-users (Gallistl, Rohner, Seifert, & Wanka, 2020). The thematic issue closes out with an overview of various digital inclusion initiatives across the Americas and the Caribbean (Robinson et al., 2020).

Based on qualitative data collected in Belgium, Asmar et al. (2020) examine patterns of social support in relation to digital inequalities. Their work reveals the diversity of support networks and support seeking patterns. The rich qualitative results also show that the availability of potential or actual support as well as the quality of support is influenced by socio-economic factors as well as the strength of the relationship and the level of intimacy between individuals. Focusing on digital literacy, Radovanović et al. (2020) demonstrate the importance of key performance indicators for digital literacy programs and sustainable development. Drawing from digital literacy initiatives for low-income and low-literacy populations in India, Kenya, Senegal, Mali, Burkina Faso, and Tanzania, they show that audio and icon-based interfaces, and the Internet lite standard could help low-literacy populations overcome limitations and acquire digital skills to foster digital inclusion. Shema and Garcia-Murillo (2020) focus on the role of mobile phones in expanding social capital in a quantitative case study of mobile phone use and call data in Rwanda. Their large-scale data analysis of call records shows that calls are primarily made within specific income level groups, contributing to maintaining the status quo. However, they also find that the middle-level poverty group can serve as a link between groups facing extreme poverty and those who are financially better off. Focusing on gender as a factor affecting digital inclusion, Arroyo's (2020) qualitative study of a lifelong learning program for women in Spain explores how digital inclusion promotes the re-configuration of time in women's everyday lives. The

results show that although digital inclusion does not automatically lead to a more egalitarian allocation of time use for women, it places greater value on women's free time.

The thematic issue then moves on to specific digital inclusion initiatives. Looking at various maker spaces across Europe, Unterfrauner et al.'s (2020) qualitative study examines the potential of maker movements tackling social inequalities. They identify various domains in which makers address social inclusion by mediating skills and competences in the field of digital technologies, and in the broader sense of empowering people to 'make' solutions; by providing democratized access to digital fabrication and the knowledge on how to use them; and by ambitions articulated by makers to change society and social practices towards a society providing better opportunities for individuals. In contrast to this positive digital inclusion outcome, Heitplatz's (2020) article shows that despite the desires of people with intellectual disabilities to improve their digital skills, caregivers in Germany experience multiple barriers that prevent them from supporting their clients in achieving digital literacy. Building on the results of this qualitative study, this article develops a guideline with ten main points for designing education programs for people with disabilities, caregivers, and social institutions.

In their article on ICT development of elementary school children in the Southeastern US, Huang et al. (2020) demonstrate what does work for the development of computer skills as well as computer self-efficacy. Direct experiences with using computers have strong impacts on students' technology efficacy and STEM attitudes, emphasizing the importance of students' enactive learning experiences. Calderón Gómez (2020), on the other hand, shows that additional factors are at play in young people's technological socialization experiences. His qualitative study with youth in Spain demonstrates that self-motivation towards using digital technologies is mandatory to achieve digital inclusion, but social practices, academic and professional literacy might work as a secondary socialization process.

Next, Gallistl et al. (2020) examine policies that address older adults' Internet (non-)use in Austria and characteristics of older Austrian non-users. Their quantitative analysis shows that technology adoption is a domestication process that takes place in the everyday lives of older adults. Accordingly, policymakers and initiatives seeking to increase digital inclusion need to base their strategies on more refined understandings of Internet use and non-use in later life. We close out this thematic issue with a multi-national study by Robinson et al. (2020) that examines digital inclusion initiatives across nine countries in the Americas and the Caribbean: Uruguay, Chile, Peru, Brazil, Mexico, Cuba, Jamaica, the US, and Canada. Building on experiences across these various countries, the authors find that addressing the trifecta of digital inclusion—network, device, and skills provision—can be highly effective if implemented early on, such as in an ed-

educational context. The authors then provide additional and timely context and suggestions on the importance of digital inclusion during the COVID-19 pandemic.

#### 4. Conclusion

Overall, this thematic issue aims to provide a broad and international account of factors that affect digital inclusion and initiatives that seek to increase digital inclusion across various different countries and regions. Each article provides unique insights into what does and does not work in various communities, making recommendations on what could be done to improve the examined initiatives. We hope that the breadth and depth of articles presented here will be useful not just for academic audiences seeking to broaden their understanding of digital inclusion and ‘what can be done’ rather than focusing on ‘what is amiss,’ but also for policymakers and digital inclusion initiatives who are eager to expand and advance their digital inclusion work within their communities—be it at local, state, or country level. As the COVID-19 pandemic has made issues of digital inequities especially apparent, we hope that the work presented here can aid in determining what can be done to increase digital inclusion both in the short term and in the long term.

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#### Conflict of Interests

The authors declare no conflict of interests.

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