

Toward a more device-focused digital inequality research agenda

Internet access divides are decreasing globally, with smart devices playing an important role in connecting people (Pew Research Center, 2021). Smartphones have been identified as both advantageous in connecting people and disadvantageous in creating smartphone-dependent populations (Tsetsi & Rains, 2017). Similarly, mobile media have made online participation more accessible, but they do not necessarily offer the same opportunities as multimodal device access (Marler, 2018; Tsetsi & Rains, 2017). There are calls for researchers to focus on “questions about the conditions under which groups are included” (Ticona, 2022, p. 110). I call for a closer research focus on the role of device access as both facilitators and inhibitors of Internet use, especially online participation.

I define online participation broadly as “any type of online engagement whereby the user contributes content that others can access” (Hargittai & Jennrich, 2016, p. 201). Yet, not every form of online participation is likely affected equally by potential device divides. This is something I plan to explore more in-depth in future work. What digital inequality scholarship has shown, is how differences remain between Internet users once access has been bridged (Hargittai & Jennrich, 2016; van Deursen & van Dijk, 2014). The use of multiple devices options can make a difference in usage, with more access options often being better (Hargittai, 2022; Hassani, 2006). My ongoing research shows that even in highly connected nations such as the United States and Switzerland, multimodal device access remains a significant predictor of different types of online participation. In one paper, I explore factors related to the adoption and contribution to the social media site Pinterest, using a survey collected in 2016, representative for the United States. The analyses show that device access, among other factors, continuously matters in relation to Pinterest use.

Similarly, in another paper, my co-authors and I explore content sharing in the early days of the COVID-19 pandemic across three countries – Italy, the United States and Switzerland – using national surveys collected in Spring, 2020. Bivariate analyses

demonstrate that participants with access to the most devices were more likely to share any type of content across all three countries. These findings show that (multimodal) device access continues to be relevant and open up questions about where and when it matters. In a subsequent paper we explore this more in-depth for the U.S., in it we focus on the social media platforms, Facebook, Instagram, and Twitter, individually. We find that multimodal device access matters for the adoption of each site and for content sharing on Facebook.

The above results prompted my work on a new project, which investigates the role device access plays in people's online participation. In summer 2022, I interviewed 23 adults in Switzerland, ranging from 20 to 32 years old. Most respondents actively used two or more devices to access the Internet, with smartphones usually being the device they used the most. These findings were expected, as the age group has been described as the next-generation of Internet users, defined as having access to multiple Internet capable devices (Dutton & Blank, 2014), and smartphones tend to be their gateway to the Internet (Bröhl et al., 2018).

The device combinations varied, but a common combination was a smartphone and a computer, often a laptop. Some had access to several computers, including one participant who had access to three laptops – one for work, one for his military work and one for school – and a desktop computer, in addition to his smartphone. Yet, other interviewees did not have access to a computer, except at work, and instead used a smartphone and tablet in their private lives.

Preliminary findings indicate that access to different device types affects online participation in keyways. Interviewees with access to computer devices tended to use the Internet for a broader set of purposes, particularly the use of non-social media sites. Further, contribution to forum pages was only mentioned by participants with computer access. Mobile device reliant interviewees tended to participate more superficially, e.g., only liking but not sharing posts or not participating in any written discussions outside of corresponding with friends and family in different messengers.

One interviewee indicated to have access to several devices, including two laptops, yet entirely relies on her mobile devices, her smartphone and tablet. She uses her mobile devices for more purposes than other participants ranging from online banking to shopping, vacation planning and booking and any contribution to social media sites - activities many of the other interviewees specifically did on computers. These preliminary findings show the importance of considering device type as both facilitators as well as inhibitors in Internet use.

The discussed research projects show that device access, particularly multimodal and more specifically device type, need to be considered in digital inequality research. Marler (2018) argues that existing digital inequality theories and frameworks should be applied to mobile-only users. Similarly, my ongoing research emphasizes the importance of continuously investigating the link between device access and digital inequalities in the ever-changing digital landscape.

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