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Increasing the Scope of Digital Inequality Research and Addressing Methodological Challenges: A Response to Book Forum Contributions

ESZTER HARGITTAI
University of Zurich, Switzerland
Smith College, USA

I am deeply grateful to the contributors of this book forum for their generous, constructive, and forward-looking reactions to my book *Connected in Isolation: Digital Privilege in Unsettled Times* (Hargittai, 2022). I also want to express my deep thanks to the *International Journal of Communication*'s Founding Editor Larry Gross for making such intellectual exchange possible. I will take this opportunity to thank him for his many years of dedication to and considerable work on *IJoC* more generally speaking.

The contributors raise important points to consider as scholars of digital inequality and beyond (!) continue their work to understand larger societal challenges and opportunities brought on by digital media in times of crisis, but also during less unusual times. I start by addressing the comments about the scope of the book, which inspired me to give some additional background about why the book focuses on what it does, and then highlight some of the methodological points made in the responses that I agree need to be front of mind for future work in the field.

Several responses point out that the book is especially focused on information-seeking that happened during the pandemic *about* the pandemic while doing much less to address interpersonal communication either about the virus and crisis situation or beyond. While chapter 3, "Connecting on Social Media About the Pandemic," addresses social interactions to some extent, it is still focused on communication *about* COVID-19. Of course, people did much more than interact about the virus and the difficult circumstances of lockdowns, job loss, childcare, and the great uncertainty of those first few weeks of the global health crisis. DiMaggio mentions that measures of interpersonal transmission of information would have been helpful to study; Kreiss points to the significance of online social bonds for mental health; and Humphreys homes in on the importance of connecting on Zoom, especially for those who had the needed connection speeds to do so (very much a digital inequality story itself!). These are indeed all very important lines of inquiry.

The first survey that my team administered, which constitutes the bulk of the book's data analysis, went into the field within a month of lockdowns, which means that we had finalized it within about two weeks of when the world shut down, and at that time, understanding the virus was top of mind for most. We fielded a subsequent survey in the United States a month later, which included more questions about interpersonal communication and has led to various journal publications. *Connected in Isolation* presents analyses that are unique to the book and do not replicate journal articles I coauthored with members of my team and other collaborators. The book thus has a more limited scope than what the data allowed to explore, and certainly the many questions that we can and should be asking about the pandemic. There are a few reasons for this, which I explain here in the same spirit as the book's transparency about the circumstances of the study (something several commenters seemed to appreciate and what Correa in particular highlighted as an important contribution calling on quantitative scholars more generally to embrace in their work beyond crisis situations). I do not do this as a defensive maneuver. I appreciate the significance of the missing areas in the manuscript. I do this to shed light on the process of how the book came about and to highlight some of the work the project inspired that does address pieces missing from the volume.

First, as I detail in the Introduction of the book, the project would not have been possible without the collaboration of some research group members. To that end, it was imperative that we publish coauthored pieces relatively quickly (especially since all of these team members were junior scholars soon looking for jobs). Journal articles are the right avenue for this, and we have indeed published numerous such pieces with, at the time of this writing, a couple more still in the pipeline. Some of these articles cover interpersonal communication such as the one led by Will Marler (Marler, Hargittai, & Nguyen, 2021), examining the connection between video chat sessions and social connectedness, or the one first-authored by Jonathan Gruber (Gruber, Hargittai, & Nguyen, 2022) exploring what people missed about face-to-face interactions during lockdowns. Additional articles consider yet other aspects of the pandemic such as those spearheaded by Minh Hao Nguyen about digital inequality in disconnection practices during heightened connectivity (Nguyen & Hargittai, 2023) and digital inequality in changes in communication during physical distancing (Nguyen, Hargittai, & Marler, 2021), and one led by Floor Fiers exploring changes in participation in the gig economy during lockdowns (Fiers & Hargittai, 2023). By publishing these independently of the book, the authors receive more credit than a coauthored chapter in a book would allow for. They also would have made the book's scope less focused, which brings me to my second point.

When I first contacted my editor at the MIT Press, Gita Manaktala, in June 2020, I listed a total of 18 potential research questions that the book could answer. Gita immediately showed interest in the project, but she suggested that I needed to get that lengthy list of questions down to something more manageable and focused. That was helpful input to clarify the book's focus and main contributions. Since digital inequality is what I have studied for over two decades, it made sense for me to concentrate on the variables that I have found to be most important in that work: differences in usage by socioeconomic status, differentiated access to devices, varied skills, and ultimately whether these differences translate into outcomes. This inquiry was driven by the model that I have published about for quite some time, first represented graphically in a volume edited by David Grusky on *Social Stratification* (Hargittai, 2008), and now again in *Connected in Isolation* (Hargittai, 2022, p. 10).

Some of the papers I coauthored with collaborators could have fit within this scope of the book (e.g., Gerosa, Gui, Hargittai, & Nguyen, 2021), but they were in different stages of preparation and, as noted above, it was paramount that my collaborators get first-author journal credit for their work on them, so folding them into the book as coauthored chapters would have been suboptimal. This way there was a clear separation of work. I did all of the analyses and write-up for what went into the book (and all of the data preparation and cleaning as well for the project as a whole) whereas we collaborated on what went into joint articles. A book can, of course, always cover more, but I wanted it to be published sooner than later given the timeliness of the topic, which brings me to my third point concerning timeline.

I noted above that I had submitted an inquiry to the press in June 2020 followed by a book proposal in late July 2020. I then submitted the full draft of the manuscript in May 2021, in other words, within 14 months of initial COVID-19 lockdowns. After receiving reviews, I had the revisions back to the press by early October 2021. This is what resulted in the book's publication in November 2022. So while I could have continued adding to the material, it would have continued delaying its publication. I will also note that this lag between manuscript delivery and its publication also explains why lots of relevant work that was published in the meantime is not cited on the pages of the book. Kreiss rightly points to some other helpful research about COVID-19 that exists by others in article form. An October 2021 manuscript delivery date made their citation difficult.

Another set of responses in this book forum use the book as a springboard to advocate for why some of the factors the book examines need to be more front and center in scholarship about digital media more generally. Goggin and Zhuang are among the few other scholars who have contributed significantly to understanding how disability intersects with digital media uses. To this end, they understand that this tends to be rare in digital inequality scholarship and are supporting its wider inclusion in such studies. Indeed, the idea in *Connected in Isolation* was that disability status is an important marker of social inequality and thus investigations that look at questions of social stratification should include it even when it is not a study's central focus. Goggin and Zhuang seem to agree with this idea, and I join them in calling on more scholars to collect data that make such analyses possible.

Correa emphasizes findings from the book that show how the U.S. case is not necessarily representative of all cases (in the context of this book, findings about the United States are not always in line with findings about Italy and Switzerland, a U.S. exceptionalism that DiMaggio also highlights in his comments). To this end, it is important to (a) be extra careful when making generalizations from U.S. cases; and thus (b) collect data from varied countries across the globe, ideally more than one in a single study to allow for comparative analyses. Of course, this requires considerable resources. Significantly, it also requires a shift in the attitude of members of our academic community.

Journal reviewers, i.e., the gatekeepers of what gets published, should stop taking the United States for granted as the default country against which all scholarship should be evaluated. Rare is it that articles discussing the United States highlight that their case is the United States (not to mention very specific corners of the United States) whereas many journal articles will mention their particular country case already in the title and often in the abstract *if* it is not the United States. The social sciences need to do better. Either all articles should specify their country case in titles and abstracts or it should not be required (whether self-imposed or due to reviewers) from studies analyzing data about countries other than the United States.

Another way reviewers need to do better is either to ask all authors to justify their country selections or ask none. Again, it is not okay to ask people to justify why they are studying a country only when it is not the United States that they are studying. A scholar analyzing data from Chile, India, Kosovo, or Zimbabwe should be no more required to defend her choice of country selection than a scholar analyzing data about Americans. (For those who have not read my book, I explain in the Introduction the country selection of Italy, Switzerland, and the United States [pp. 11–13] and contextualize COVID-19 for all three independently as well as comparatively in chapter 1 [pp. 21–23]).

Epstein focuses his comments on the important relationship between digital inequality and privacy. Indeed, while an immense amount of scholarship exists on the latter, only a small portion of that work recognizes how privacy is unequally distributed. Epstein does a nice job referencing relevant pieces; my *Handbook of Digital Inequality* (Hargittai, 2021) also has an entire section devoted to the topic given that I agree about its growing importance and thanks to the helpful work some others have started to do in this domain (Büchi, Festic, Just, & Latzer, 2021; Lutz & Hoffman, 2021; Park, 2021; Redmiles & Buntain, 2021; Reisdorf & Blank, 2021; Walker & Hargittai, 2021).

Seo focuses some of her comments on the importance of linking digital media uses to life outcomes. I could not agree more. For a long time I have been making the case (Hargittai, 2008) that one of the most important consequences of digital inequality is how it translates into people's life chances in various domains. The book explores the important outcome of knowledge about the virus, which then links to keeping safe. Other relevant outcomes in this case would be the ability to translate digital skills to more robust job opportunities in case of layoffs or the ability to seek out social support and assistance to improve one's mental health and well-being at such a trying time. Gonzales in her reaction includes a list of relevant questions as well (p. 2). Having such life outcomes in mind is paramount for digital inequality research moving forward. Measuring them can be difficult, however, as simply asking people whether they think their digital media use resulted in a particular benefit may not reflect the reality of that connection, posing challenges for that measure's validity (Helsper & Van Deursen, 2015, p. 38).

This now brings us to the methodological points raised by several commentators. Gonzales elaborates on my inclusion of autonomy of use as an important digital inequality indicator. She rightly suggests that there are different ways that this concept could be operationalized offering helpful alternatives such as device-sharing needs (p. 3). I agree. Traditionally, I have measured autonomy of use by the number of locations where people have access to the Internet, however, during lockdowns, this would not have been a meaningful measure, so I had to pivot. I settled on having access to the Internet at home on a mobile phone, a tablet, *and* a computer as a measure of especially robust access. Munger legitimately takes issue with this particular operationalization, pointing out that he has three laptops but no tablet, and so he would not be classified as a high autonomy user in my data set even though his three laptops certainly suggest otherwise. This is a fair critique. As technologies and our access to them evolve, we must keep revisiting how we measure concepts that at the theoretical level remain relevant (the importance of autonomy of use to skills, uses, and life outcomes), but whose measurement may require constant refinement.

On the necessity of ongoing evolution of measurement, DiMaggio emphasizes the need for a more centralized approach to revisiting and developing digital skill measures as technologies evolve. Gathering data on actual skills coupled with potential survey proxies is a lot of work and requires considerable resources for individual scholars to take on (I [Hargittai, 2003] and Alexander Van Deursen [2010] both did related dissertations and can certainly attest to this). It is often not rewarded well despite the efforts involved, which means that the right incentives do not exist for that kind of innovation. This may then result in scholars taking shortcuts and using inappropriate methods such as psychometric scale development for something that is ultimately not a psychometric construct.

On a related note, Correa points out the need to focus on what she calls the "cognitive dimension of skill" in contrast to work that claims to be about skill but in fact relies on measures of experience. I very much agree that the two are not the same either conceptually or operationally. Yes, often a certain type of behavior (e.g., having changed the privacy settings of a service) is dependent on and reflects skill, but the two are not the same. One can possess the ability of knowing that something is possible to do and knowing how to do it without necessarily having engaged in that action in a particular social or technical context or a specific time frame, the kind of particulars that many measures of behavior include. So while behavioral measures may well be correlated with skills, they are not a good proxy for skills, and researchers should resist that proxy and/or shortcut as it is both theoretically and empirically problematic (e.g., Eurostat, 2011).

Contextualizing his comment about my particular choice for measuring user autonomy, Munger elaborates on the importance of the time dimension in any study that concerns digital media uses, something he has also written about in more detail elsewhere (Munger, 2023). Indeed, studying Facebook use in 2009 is not the same as doing so in 2014 or 2019. This is the case both because the platforms and technologies in question continue to evolve and also because the types of people who use them changes over time. For this reason, it is imperative that writing about digital media always includes year of data collection. It also behooves scholars to be transparent about the timing of the evidence they cite when referencing others' publications and at times when publication year is considerably later than when data were collected, this should also be made clear.

In addition to the book and over a dozen journal articles that have resulted from the project, considerably more material is available in the survey data sets to explore, including ones that address some of the questions mentioned in the book forum reactions. For example, there are details about family composition, support giving, and help with technology. I plan to make these data available so that others—including students in classes—can explore what life was like during initial COVID-19 lockdowns.

The insightful reflections in this book forum on the whole demonstrate the many varied aspects of digital inequality that should be of interest to scholars, certainly to those who focus on stratification in particular, but also those concentrating on digital media uses from other perspectives. As I have argued elsewhere (Hargittai, 2011), digital inequality is relevant to many domains of scholarship that explore digital media uses even when inequality is not of central interest. Given that people select into the adoption of various services (e.g., social media) and their uses (e.g., political, health-related, community-focused) at different rates and vary in their skills to use them by socioeconomic status (Hargittai, 2020), researchers focusing on other aspects of digital media uses ignore digital inequality at their peril. In sum, the collection of pieces in this book forum underscores the need to continue (or in some cases significantly ramp up) efforts to examine and explore how people from varied socioeconomic backgrounds incorporate digital media into their lives, whether in crises or other circumstances.

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