

Datafication in Figured Worlds: Narrating COVID-19 Data

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Abstract: The COVID19 pandemic offers an opportunity to inspect how people make sense of the world with data in their everyday lives. Using a theoretical framework based on the construct of *figured worlds*, we conducted think-aloud interviews to study the ways people narrate their routines with data during the pandemic. The analysis enabled us to characterize people's constructions of their agency as interpreters of data; the ways they manage the uncertainties of data; their data-mediated judgements and decisions during the pandemic. These constructions of agency and identity in a data-infused world help us understand both how we learn about the pandemic with data, and more generally, how data mediates our learning about the social world.

Data and data representations permeate many facets of our lives (Couldry, 2018): how we make decisions, and define social structures and positions, such as race, justice, health or pathology (Dourish & Gómez Cruz, 2018). Data interpretations and reasoning with data “play an ever more important role in decision-making and knowledge about the world” (Kennedy, Hill, Aiello, & Allen, 2016, p. 715). Understanding the ways people reason with data in everyday life is key for better preparing learners for civic participation in a datafied world (Feinstein, Allen, & Jenkins, 2013; Rubin, 2020). The information ecosystems (Bhargava, Deahl, Letouzé, Noonan, Sangokoya & Shoup, 2015) around COVID19 present a valuable context in which to examine everyday data literacy. The kinds of information-seeking, sensemaking, and critical judgments that people engage in as they try to understand the pandemic provide a rare window into how people engage with data in a way that is personally meaningful and consequential. We present an analysis of diverse people's interpretations of COVID-19 data representations.

Theoretical framing

We draw on Holland, Lachiotte, Skinner and Cain's (1998) framework of *figured worlds*, which are “socially and culturally constructed realm[s] of interpretation in which particular characters and actors are recognized, significance is assigned to certain acts, and particular outcomes are valued over others” (p. 52). For Holland et al, people are constantly constructing the figured worlds in which they live and narrate themselves and others into relationships in which their agency and identity are positioned in particular, culturally-embedded ways. The narratives that people tell about their use of data (Radinsky, 2020) enable us to see the meanings that they attribute to the resources that they regularly use.

Methods

We conducted semi-structured, task-based interviews in which we asked people to re-enact (using think-aloud) their routine practices with online data and other sources of COVID information. We analyzed the interview transcripts using content analysis and an immersion approach (Crabtree & Miller, 1999) based on the figured worlds framework. We present a set of illustrative examples drawn from 6 interviews, based on initial analysis of a subset of data from a study that is still under way.

Findings

We identified diverse data routines across participants, each of whom was easily able to describe routine information-seeking practices they had developed since the onset of the pandemic. In their descriptions of these routines, we found that people narrated figured worlds in which they were positioned in notably different ways with respect to the data, and to the represented-world phenomena that those data described. Here we present brief, illustrative examples of some of these findings.

Degree and forms of agency as interpreters of data

Interviewees positioned themselves differently in terms of their own agency as consumers and interpreters of COVID19 data. Some described situations in which they would regularly seek out particular information, but were not sure why those data were important, and offloaded the decision-making agency to others:

I would just check this as an update to know, like, what's the situation in [my country], mostly to see if it's good, bad, or it's or if it's getting better. ... I don't remember how they said it, you

have to do like people per million cases or something, that's also another calculation that they do. ... I don't remember 100%, I could be wrong. [P4]

In contrast, others positioned themselves as critical consumers of data with specific expectations, based on how they intended to interpret and use the data:

And also trying to find sources that show numbers per population, because just the numbers by themselves aren't as helpful if they're not referenced to, you know, the same, per 100,000 people or something like that. ... Like just the other day I was trying to compare [my country] and the US. And I was like, That's not very helpful because their populations are different. So unless I can find a source that just shows percentage, or unless I calculate percentage myself, which I've done, it's not – the population is so different, where it's not worth comparing. [P5]

Judgments and decisions mediated by data

Participants positioned themselves as critics of various public policy decisions, narrating scenarios to illustrate why their judgments made sense, and to applaud or critique others' judgments:

Some of the decisions made didn't make sense, were not rational. ... people could have weddings and other religious events [where] we have 250 people participating, when everyone knows that the chances of physical distancing at an event like that are zero. Whereas other events [were prohibited] -- such as cinema, theatre, where it's relatively easy to make sure that there's physical distancing, simply because these are events where people have a ticket assigned to a particular seat. [P3]

Judgments of reasonableness and safety colored many of the characterizations of data, which were often recruited as evidence to support or refute a particular policy argument:

In the beginning, ... you would think maybe wearing a mask is not – at first there was not a lot of data to support [the idea that] it's going to help, [we] mostly thought that it helps people who are sick [not] to spread. But now, since you don't know who's sick, then everybody should wear a mask. Those kinds of arguments changed over time. [P6]

These policy judgments were interwoven with descriptions of data and characterizations of societal phenomena, such that interpretation of data and evaluation of policy decisions were often inseparable.

Discussion and conclusion

Data interpretation involves more than cognitive skills and statistical algorithms. When people interpret data as part of their everyday lives, and in ways that have high personal stakes, it is part of a discursive process through which identities are constructed and relationships are negotiated. During this period of the COVID19 pandemic, data constitute an important resource with which people are constructing complex social realities. Our interviewees constructed different narratives mediated by differences in their information-seeking and data-consumption routines. These differences were not determined simply by the sources they used; rather, they were manifested in different narratives that positioned themselves, the data, and the people, places and policies of the represented world in markedly different ways. A robust understanding of data literacy will be informed by an understanding of the ways in which data function within people's narrations as participants in figured worlds.

References

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