Digital Qualitative Methods

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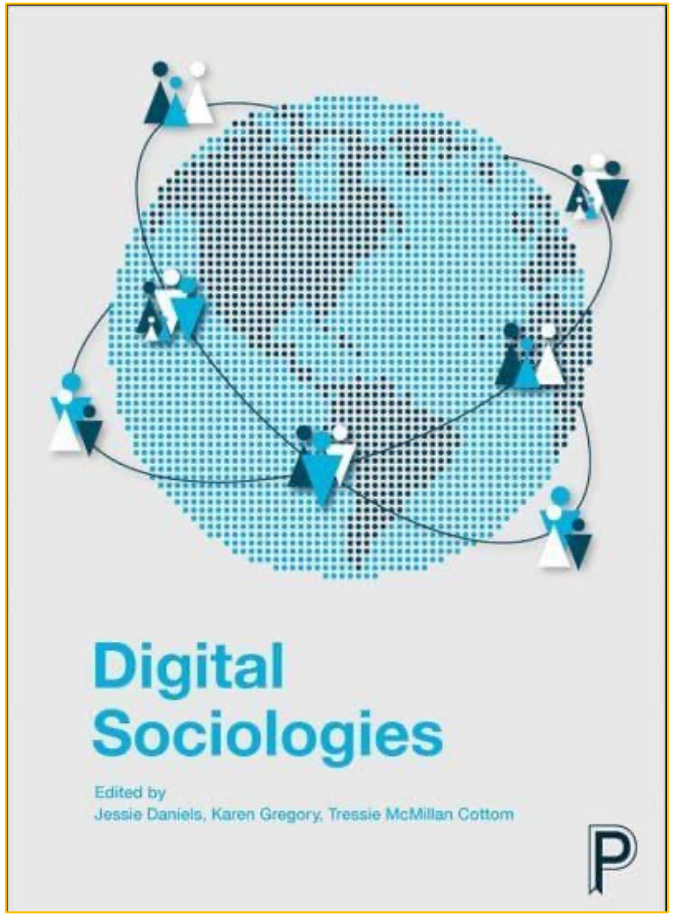
Agenda

2:00-3:00pm

- Introduction
- Brief history and introduction to qualitative approach
  - Getting it right
  - Beyond traces to ethics and meaning
- Five qualitative approaches
  - Data Theory: Existing and new social theory
  - Involving Participants
  - Participant Observation & Digital Ethnography
  - Human/Computer Collaboration
  - STS + Design
- Break

3:10-4:00pm

- App Walk-Through Exercise: User perspective + Data Ethnography



I'm an ethnographer of work and technology, with an interest in platform labour and "digital labour" more broadly. I'm a former CUNY ITF.

My current research explores risk in the platform economy, examining how workers conceptualise and negotiate risks, including how they access and use data to manage work-related risks:

- Digital Worker Inquiry:
https://digitalworkerinquiry.com

- Worker Data Science:
https://www.wired.com/story/labor-organizing-unions-worker-algorithms/

- Reimagining Platforms (October 31, 2022)
https://blogs.ed.ac.uk/reimagining/

A very brief history!

- Sociology as “queen” of social sciences and gatekeeper of empirical sociology with long history of “mixed methods” (Fetters 2016). The “coming crisis” of empirical sociology (Savage and Burrows 2007) has come (and gone) in some regards.

- A few years ago, this crisis was met with a flurry of interdisciplinary collaborations. These still exist and much work is collaborative.

- Rise of Computational & Digital Sociologies, but more broadly sociology curriculums have not been fully updated. Furthermore, digital scholars run risk of becoming support systems to broader research agendas, rather than setting agendas, despite the prevalence of “the digital” and “data” in social life.

- There are long-standing hierarchies between quantitative & qualitative. Numbers have an ‘aura of truth, objectivity, and accuracy’(boyd and Crawford, 2012, p. 663).

- Sociology’s goal, however? Not just technicians of the social (C. Wright Mills). Interpretive sociology looks to understand social constructions and meanings. Critical sociology looks to understand power and relationships. We build theory through empirical work.

Computational Troubles Easy Quant/Qual Divide

And raises several key questions:

- What curriculum(s) do sociologists/social scientists need to engage in meaningful, replicable, trustworthy social inquiry?
- How do we sociologically understand the data we work with? How do/can we understand how data is constructed across digital spaces, through tools, through our own code? Raw data is an oxymoron (Gitelman 2013), and yet…
- How do we approach complexity of digital media/digital life without reduction to operationalizing concepts?
- What of theory here? How does it inform computational practice, but also: where is the computational feeding back to social theory?
- How do new and necessary methods evolve along with best ethical practice?
- How do we “get it right”? And for whom?
- Can we move slowly in this space? If not, why?

Qualitative + Computational

Broadly, qualitative methods:

- Work with non-numerical data
- Attempts to see world through participant's view (human/non-human here!)
- Provide rich and detailed descriptions of social phenomena
- Can account for the meanings actors themselves give to their behaviours and attitudes.
- Can compliment computational work across stages of research
- For example: Interviews, focus groups, oral histories, participant observation, ethnography, visual analysis, creative methods.

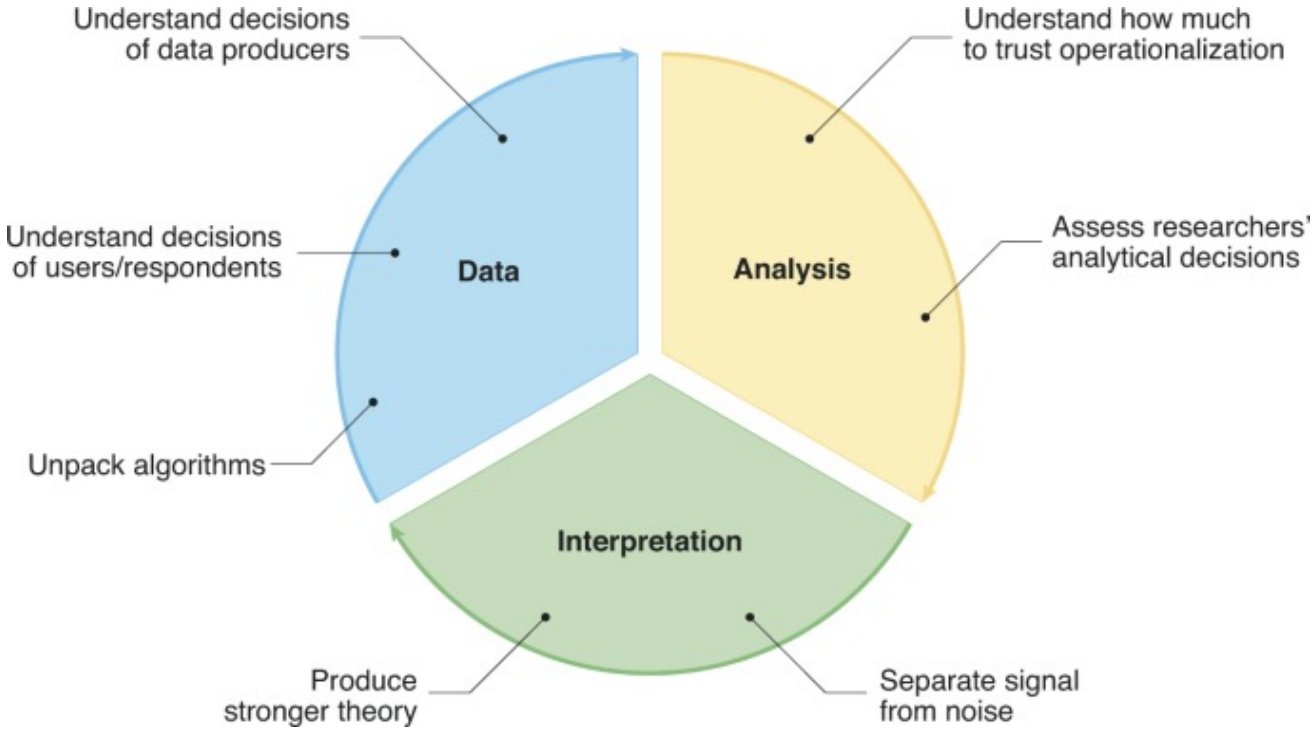


Figure: Grigoropoulou, N., Small, M.L. The data revolution in social science needs qualitative research. *Nat Hum Behav* (2022). https://www.nature.com/articles/s41562-022-01333-7

Digital Traces?

- “We live life in the network. We check our e-mails regularly, make mobile phone calls from almost any location, swipe transit cards to use public transportation, and make purchases with credit cards. Our movements in public places may be captured by video cameras, and our medical records stored as digital files. We may post blog entries accessible to anyone or maintain friendships through online social networks. Each of these transactions leaves digital traces that can be compiled into comprehensive pictures of both individual and group behavior, with the potential to transform our understanding of our lives, organizations, and societies. (Lazer et al., 2009, p. 721)”

- Chris Bail, SICSS “What is Digital Trace Data?” https://sicss.io/overview/what-is-digital-trace-data
  - Scale here appears to grapple with complexity, but what are we missing?
  - Where is the researcher positioned?
  - What is this data? How was it generated? Industry data here?
  - Do people think they are making traces when they use digital media?
  - Social theory & qualitative work might trouble the universal transactional framing, looking to understand how power dynamics, gender/race/class, digital divides and inequality, etc. inform this sense of data.

Stronger Ethical Approaches?

- Qualitative approaches can also strengthen your computational ethics, as ethics is contextual, complex, and by no means box ticked by data being “public.”

- Qualitative methods recognize the variance of: perceptions of public/private/ types of communication / visibility of participation / durability of content / sensitivity of topic/ expectations of use.

- Work with the heterogeneous nature of online spaces /platforms/ interactions. Qual can generate flexible, responsive ethics that recognize instability

- Qualitative approaches encourage reflexivity, reflect on what we are we doing and why. Also: a simple plea for researcher humility here. There are going to be ethical challenges. The point is to meet these challenges ethically.

- There are also going to be limits to your data and to knowledge produced by any study. Qual can help you see limits and be transparent.

Some Qualitative Approaches:

- Theory + Data = Theory
- Involving Participants: Interviews & Focus Groups
- Observing: Digital Ethnography
- Human/Computer Collaboration: Text and Agent-Based Models
- STS + Design: Interface Methods, Affordances

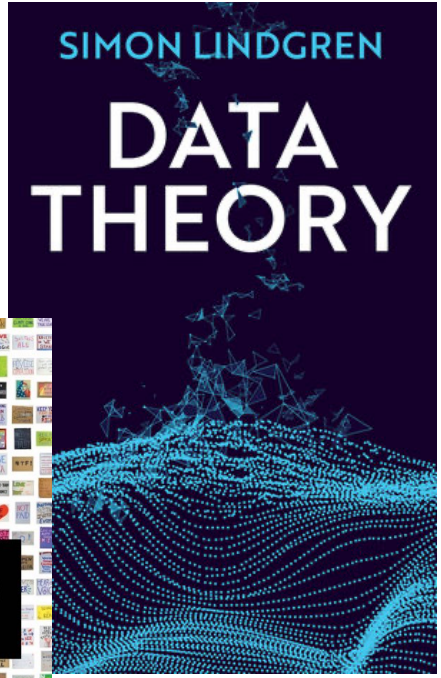
What theory informs your own work/research questions?

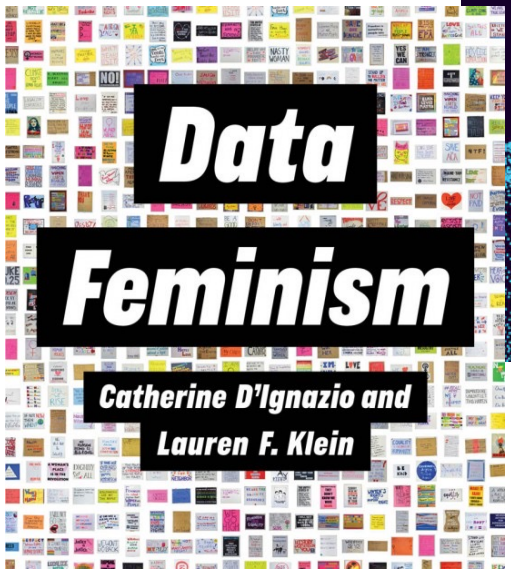
Theory as an epistemological lens, a framing device to inform how you see/understand how data is constructed.

Theory as a guide to what data you collect, ethically.

Theory to guide how you approach and analyse data.

Where does your work feed back to theory, if at all?



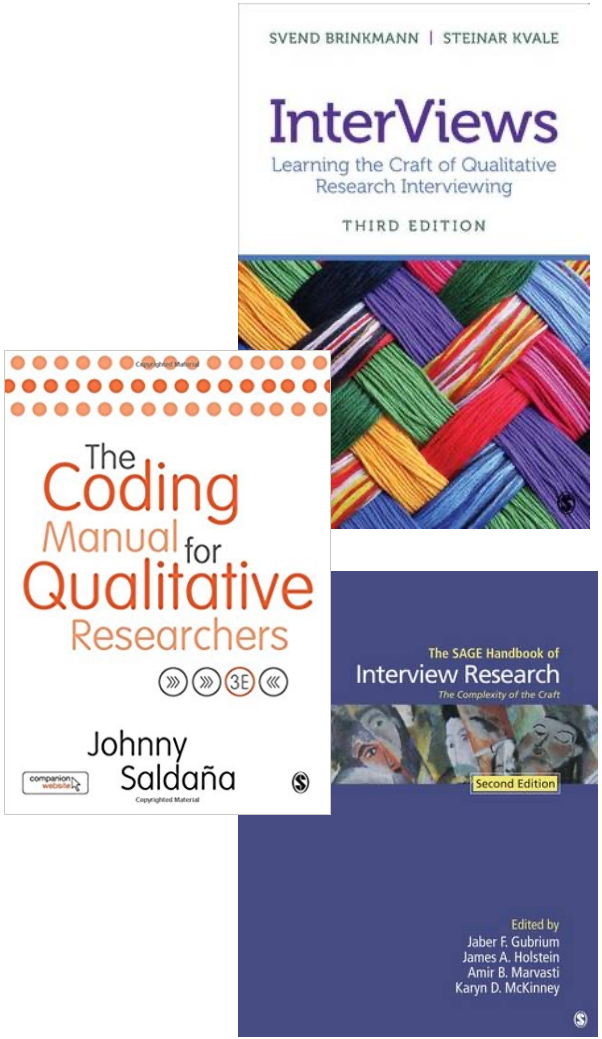


Interviews

- Interviews are designed to unravel how people make decisions, experience complexity, negotiate and making meaning of the social world.

- Qualitative interviews with those decision-makers can be indispensable to understanding your data. Not only as participants, but interviews to understand:
  - The labour and design behind digital spaces
  - Algorithmic processes (as a series of obscured industry practices and choices)

- Interviews to inform your research design. A few initial interviews can save you a lot of headache!



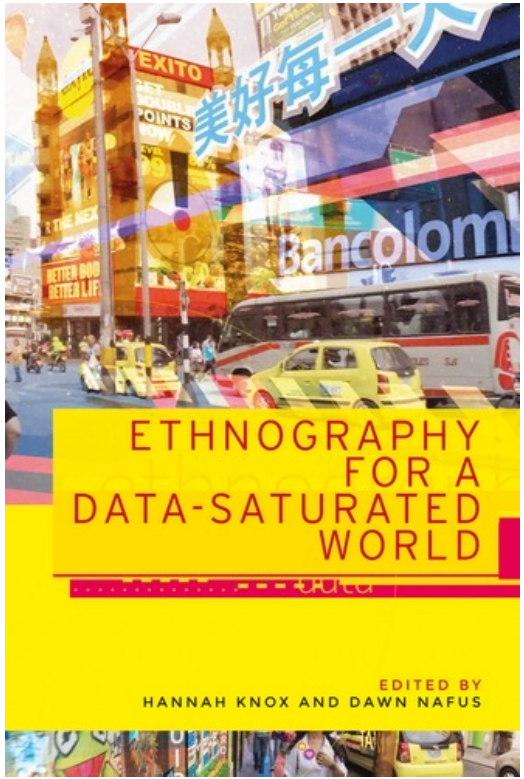
Focus Groups

- Digital spaces to speak with multiple participants who interact. Interactions become data.
- Exploring experience through group dialogue.
- A way of reaching participants where they are/explore digital life worlds & data creation.

FIGURE 2. *Screenshot of VR platform used by Williams*

Stewart K, Williams M. Researching online populations: the use of online focus groups for social research. *Qualitative Research*. 2005;5(4):395-416

Digital Ethnography



- Internet-*related* ethnography & multi-sited ethnography
- Embedded: in every day life practices. Context(s) is all.
- Embodied: While participants may be “faceless” they are none the less embodied... and so are you, the researcher. No hiding here behind data collecting practices.
- Everyday: Digital spaces and data pervades everyday social life (not necessarily transactions, but ongoing relationality, power, intimacy, etc)
- Lurking online may be part of the process: Getting comfortable with the research setting, participants, and social norms or “traffic rules” of a digital space. But, lurking should lead to a more systematic approach.
- Data beyond the web!
- Relies on field notes, multi-media collection, continual writing & reflection.

Human/Computer: Agent-Based Modeling

"ABM uses computational techniques to simulate dynamic interactions between individual entities in a given social context. Emphasis is not on variables as in statistical models, but on ''agents'' (Smith and Conrey, 2007) that are endowed with attributes and behavioral rules, and act on the basis of some decision-making criterion or heuristic…

Geller and Moss (2008) used ABM to gain insight into the emergence of *qawm* – solidarity networks in Afghanistan with major repercussions on power structures, fragmentation of society, and ultimately conflict. In their model, agents' structural arrangements, behavior and cognition were informed by evidence and declarative data derived from case studies and interviews conducted in Afghanistan. The simulation results suggest that solidarity emerges systematically and leads to social segregation and substantial loss of wealth.

- Agent-based model is neither a tool to perform the ethnographic work, nor to represent it.
- Testing ''a critical piece of the structure/agency puzzle'' after qualitative data is collected."

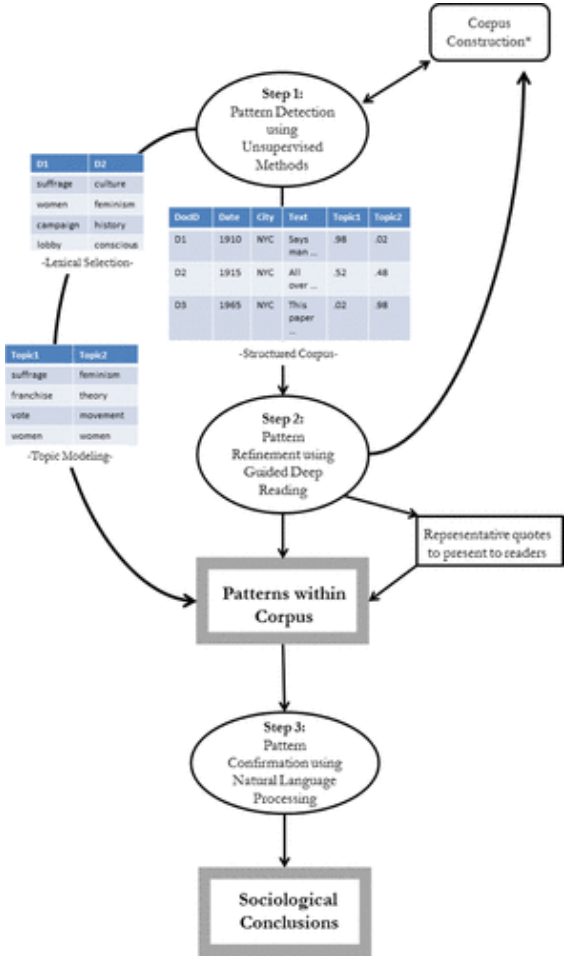
Tubaro P, Casilli AA. '"An Ethnographic Seduction"': How Qualitative Research and Agent-based Models can Benefit Each Other. *Bulletin of Sociological Methodology/Bulletin de Méthodologie Sociologique*. 2010;106(1):59-74.

Human/Computer: Computational Grounded Theory

"To bring together and structure the many tools available into a best practices framework that can be used by sociologists, this article proposes a three-step computational grounded theory approach to measuring meaning through text. The first two steps are the pattern detection and pattern refinement steps. The first step uses computational methods to reduce messy and complicated text to interpretable groups of words, helping researchers cut through the noise inherent to text-based data. The second step returns to a deep reading of the text and incorporates holistic interpretation. These two steps help researchers inductively explore text to uncover data-driven and meaningful patterns. The third step involves using computational methods to more reliably test the validity of the inductively identified patterns in the text."

"This approach can be used on a variety of data, including primary sources such as newspapers, diaries, or transcribed speeches as well as interviews, open-ended survey responses, and even ethnographic field notes, making it applicable to many sociological fields."

Nelson, Laura K. 2020. 'Computational Grounded Theory: A Methodological Framework'. *Sociological Methods & Research* 49(1): 3–42.



STS: social analysis at the interface between medium and methods

- Sciences Po Paris: Bruno Latour's https://medialab.sciencespo.fr
- University of Amsterdam: Richard Rogers' Digital Method Initiative: https://wiki.digitalmethods.net/Dmi/DmiAbout

Here, attention is drawn to specificities of media, to the liveliness of method, and to any data collection tool itself. Tools *enable or afford* interfacing with digital media and data. Tools are also developed for specific research questions.

"Instead of asking what the capacities of social digital methods are, and deciding with which agendas they are and are not in alignment, we advocate experimental inquiry into what makes their deployment productive for social inquiry….
We are dealing, then, not with 'naked' measures: data tools format analytic practice and in doing so contribute to what we have called methodological uncanny." (Marres and Gerlitz 2016)

Marres, N. and C. Gerlitz. 2016. "Interface Methods: Renegotiating relations between digital social research, STS and sociology." Sociological Review, 64(1): 21-46.

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"In conducting Twitter analysis, then, the 'ontology' that emerges from the platform data, its specific format and associated use practices cannot just be ignored by our method, and indeed, seems to have contaminated it to an extent…

While initially we were captured by the resemblances between digital analytics and social research methods, in the second instance their mutual strangeness was more apparent. To adopt an 'interface methods' approach, however, means that we do not seek to decide which of these two states is more true – affinity or alienation – on general grounds. Rather we must determine what is the most productive relation between media and method.

On the one hand, we explicitly recognize that social media data come in specific forms and formats and are informed by distinct use practices – which may steer social inquiry into specific directions... On the other hand, adopting an interface methods approach means that we do not necessarily need to go along with these media effects: we can deploy our methodology to work against this type of bias, for example by privileging the formation of new relations in our analysis."

STS: Affordances of Design

- “Affordances are the dynamic link between subjects and objects within sociotechnical systems.” (Davis and Chouinard, 2016)
- Therefore, design of system must be understood so that affordances can be mapped. User experience, social interactions, data traces, and data made visible.
- Attention to labour here. Attention to social context of design and development: who made this and why?
- Data is product of afforded social arrangements. Foundational to data ethnography.
- App Walk-Through Method, as good example.

Davis JL, Chouinard JB. Theorizing Affordances: From Request to Refuse. Bulletin of Science, Technology & Society. 2016;36(4):241-248.

Continued Reading List Forthcoming!

- I will create a continued reading list in addition to references in this presentation.
- Also, I'm happy to answer any questions on qualitative methods over the next two weeks.
- I hope some of these perspectives and possible methodological approaches help you think about your own research, RQs, ethics, and future work.

QUESTIONS? BREAK TIME