In Class Activity!

Take 5 minutes to write out:

Your friend just came up with an idea for an app for helping new freshmen feel comfortable on campus, and she asks your advice on what to do with the idea. What steps do you suggest for her to follow?

In Class Activity! (2)

Take 5 minutes to talk out:

What did you write about? Why? Does your discussion lead to further thoughts?

What did you come up with?

What is human-computer interaction?





What is human-computer interaction?

What is human-computer interaction?

- Groups of people?

What is human-computer interaction?

- Groups of people?
- Societies?

What is human-computer interaction?

- Groups of people?
- Societies?

On Making Data Actionable: How Activists Use Imperfect Data to Foster Social Change for Human Rights Violations in Mexico

ADRIANA ALVARADO GARCIA, Human – Centered Computing, Indiana University, IUPUI
ALYSON L. YOUNG, Human – Centered Computing, Indiana University, IUPUI
LYNN DOMBROWSKI, Human – Centered Computing, Indiana University, IUPUI

In this paper, we examine how activist organizations, focused on human rights violations (HRVs) in Mexico, obtain and translate data to produce actionable insight for social change. Through interviews with 15 participants working in think tanks, human rights centers, non-governmental organizations, and nonprofit organizations, we identified two key data challenges that impact their work: *absent* and *conflicting data*. We then describe how these nonprofits try to understand these issues by *building alliances* to address specific, detrimental knowledge and data gaps. Next, we articulate how these activists use data to work towards social change by *informing citizens, requesting action,* and *building capacity*. Lastly, we propose recommendations on how to *design for HRVs-focused data practices,* focusing on issues related to *addressing technology and infrastructure constraints, designing for safety,* and *supporting community data collection and dissemination*.

CCS Concepts: • **Information systems → Collaborative and social computing systems and tools**; • **Human - centered computing →** Empirical studies in collaborative and social computing

KEYWORDS: Nonprofit organizations; nongovernmental organizations; activists; activism; data practices; work practices; Mexico; social change; civics

You Can't Stay Here: The Efficacy of Reddit's 2015 Ban Examined Through Hate Speech

ESHWAR CHANDRASEKHARAN, Georgia Institute of Technology
UMASHANTHI PAVALANATHAN, Georgia Institute of Technology
ANIRUDH SRINIVASAN, Georgia Institute of Technology
ADAM GLYNN, Emory University
JACOB EISENSTEIN, Georgia Institute of Technology
ERIC GILBERT, University of Michigan

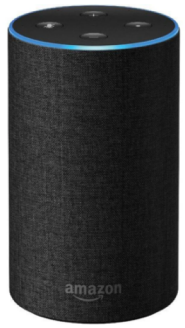
In 2015, Reddit closed several subreddits—foremost among them r/fatpeoplehate and r/CoonTown—due to violations of Reddit's anti-harassment policy. However, the effectiveness of banning as a moderation approach remains unclear: banning might diminish hateful behavior, or it may relocate such behavior to different parts of the site. We study the ban of r/fatpeoplehate and r/CoonTown in terms of its effect on both participating users and affected subreddits. Working from over 100M Reddit posts and comments, we generate hate speech lexicons to examine variations in hate speech usage via causal inference methods. We find that the *ban worked for Reddit*. More accounts than expected discontinued using the site; those that stayed drastically decreased their hate speech usage—by at least 80%. Though many subreddits saw an influx of r/fatpeoplehate and r/CoonTown "migrants," those subreddits saw no significant changes in hate speech usage. In other words,

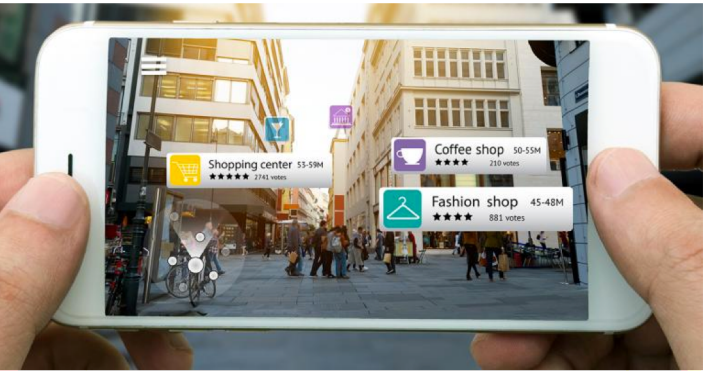
What is human-computer interaction?

- Groups of people?
- Societies?
- Animals?

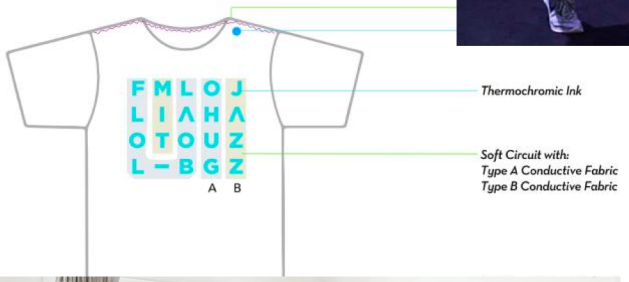
What is human-computer interaction?

What is human-computer interaction?





Social Textiles Technical Diagram



What is human-computer interaction?

What is human-computer interaction?

- What about indirect “users”?

What kind of things do we do in HCI?

Design

“[Design is] a plan for arranging elements in such a way as to best accomplish a particular purpose.”

Charles Eames

What kind of things do we do in HCI?

Design

Build

Code and Contribution in Interactive Systems Research

James Fogarty
Computer Science & Engineering
DUB Group | University of Washington
jfogarty@cs.washington.edu

ABSTRACT
The scale and complexity of interactive systems research often require care in distinguishing: (1) the code that implements a system, versus (2) the research contribution demonstrated or embodied in a system. This position paper for the CHI 2017 workshop on #HCI.Tools reflects on this contrast and some common forms of contribution in interactive systems research. We explore several forms of interactive systems contribution based in differentiating: (1) *what* a system accomplishes, versus (2) *how* it accomplishes that. We argue some interactive systems should be considered sketches that use code as a medium to explore their research contributions, while others embody their contributions more directly in their code. Finally, we argue the progress and impact of our field requires diverse forms of contribution across interactive systems.

INTRODUCTION
The scale and complexity of modern interactive systems is daunting along several dimensions. Weiser characterized important aspects of this in a trend from many-to-1 (i.e., many people sharing a single device), to 1-to-1 (i.e., each person with a dedicated device), to 1-to-many (i.e., each person having many devices), to many-to-many (i.e., many people connected through many devices) [14]. As technology enters later stages of this trend, researchers now explore interactive systems that span multiple devices, require massive volumes of data to enable seemingly simple interactions, or require entire social networks before key aspects of their design can surface. Such barriers to real-world deployment of interactive systems create important challenges for interactive systems research.

This position paper first considers the case where code is closely linked to contribution. It then explores cases where the link is less direct. Consistent with the workshop's proposal to explore conceptual roles for toolkits in HCI research, we examine several forms of interactive systems contribution based in a differentiation of: (1) *what* a system accomplishes, versus (2) *how* it accomplishes that. We conclude with brief comments on our prior interactive systems research as a background for participation in the #HCI.Tools workshop.

WHEN CODE IS THE CONTRIBUTION
Some interactive systems research contributions are directly manifested in code. Although these are a minority, they are important for both: (1) their own research value and impact, and (2) the contrast they can provide for other styles of research. A well-known example is the $1 Recognizer, a template-based unistroke gesture recognizer implemented in approximately 100 lines of code [15]. The paper has been widely cited, both in applications that use the recognizer and in later extensions of the underlying recognition technique. A project website also hosts community implementations of the recognizer in multiple programming languages. The contribution and impact of this research thus directly results from solving a technical challenge in code that people can easily adopt and adapt in their applications and contexts.

Replication, Validation, and Extension
Discussions of replication within the CHI community often focus on experimental replication, which remains relevant in our current context. For example, the $1 Recognizer's project website includes data to replicate its performance experiments.

What kind of things do we do in HCI?

Design

Build

Study

Study

https://www.engadget.com/2010/02/11/south-korean-iphone-users-turn-to-sausages-as-a-cold-weather-me/

Academic Conferences

…and many more!

CHI 2018

- Monday-Thursday (with workshops on Sat-Sun)
- >12 parallel technical paper sessions + courses, case studies, alt.chi, etc…
- Across all tracks, CHI received 3955 submissions and accepted 1208
- 3,372 attendees in 2018

Technical Paper Subcommittees

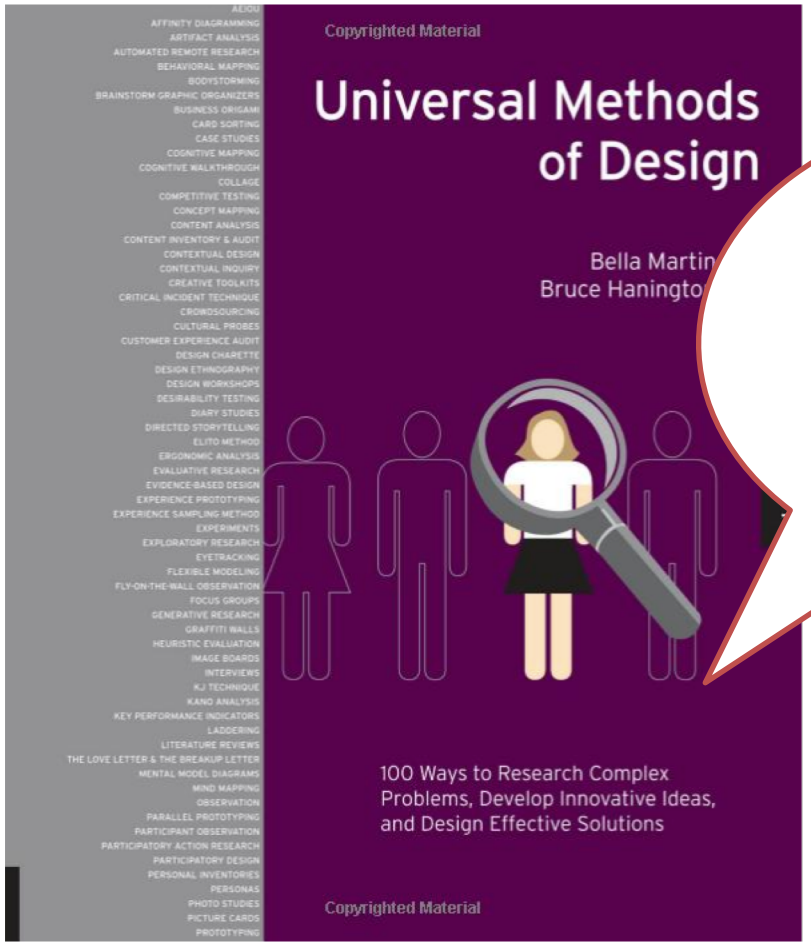
The CHI 2018 subcommittees are:

- User Experience and Usability
- Specific Application Areas
- Health, Accessibility, and Aging
- Privacy, Security, and Visualization
- Interaction Beyond the Individual
- Games and Play
- Design
- Interaction Techniques, Devices and Modalities
- Understanding People: Theory, Concepts, Methods
- Engineering Interactive Systems and Technologies

This Course…

- Has a large focus on **research**, but includes some practical skills as well

- Even with practical skills, it isn't as much about teaching a set of rules to follow (**what**) so much as teaching you about **how**. How to figure out:
  - What your users want
  - How users use technology
  - Where people have problems with the technology
  - …



Online access, chapter PDFs, Adobe Digital Editions checkout, etc. available from the University of Utah **library**

Contents

& design phases ❶ ❷ ❸ ❹ ❺

1. A/B Testing
2. AEIOU
3. Affinity Diagramming
4. Artifact Analysis
5. Automated Remote Research
6. Behavioral Mapping
7. Bodystorming
8. Brainstorm Graphic Organizers
9. Business Origami
10. Card Sorting
11. Case Studies
12. Cognitive Mapping
13. Cognitive Walkthrough
14. Collage
15. Competitive Testing
16. Concept Mapping
17. Content Analysis
18. Content Inventory & Audit
19. Contextual Design
20. Contextual Inquiry
21. Creative Toolkits
22. Critical Incident Technique
23. Crowdsourcing
24. Cultural Probes
25. Customer Experience Audit
26. Design Charette
27. Design Ethnography
28. Design Workshops
29. Desirability Testing
30. Diary Studies
31. Directed Storytelling
32. Elito Method
33. Ergonomic Analysis
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35. Evidence-based Design
36. Experience Prototyping
37. Experience Sampling Method
38. Experiments
39. Exploratory Research
40. Eyetracking
41. Flexible Modeling
42. Fly-on-the-Wall Observation
43. Focus Groups
44. Generative Research
45. Graffiti Walls
46. Heuristic Evaluation
47. Image Boards
48. Interviews
49. KJ Technique
50. Kano Analysis
51. Key Performance Indicators
52. Laddering
53. Literature Reviews

"Supposing is good.
Finding out is better."
—Mark Twain

54. The Love Letter & The Breakup Letter
55. Mental Model Diagrams
56. Mind Mapping
57. Observation
58. Parallel Prototyping
59. Participant Observation
60. Participatory Action Research (PAR)
61. Participatory Design
62. Personal Inventories
63. Personas
64. Photo Studies
65. Picture Cards
66. Prototyping
67. Questionnaires
68. Rapid Iterative Testing & Evaluation (RITE)
69. Remote Moderated Research
70. Research Through Design
71. Role-playing
72. Scenario Description Swimlanes
73. Scenarios
74. Secondary Research
75. Semantic Differential
76. Shadowing
77. Simulation Exercises
78. Site Search Analytics
79. Speed Dating
80. Stakeholder Maps
81. Stakeholder Walkthrough
82. Storyboards
83. Surveys
84. Task Analysis
85. Territory Maps
86. Thematic Networks
87. Think-aloud Protocol
88. Time-aware Research
89. Touchstone Tours
90. Triading
91. Triangulation
92. Unobtrusive Measures
93. Usability Report
94. Usability Testing
95. User Journey Maps
96. Value Opportunity Analytics
97. Web Analytics
98. Weighted Matrix
99. Wizard of Oz
100. Word Clouds

Universal Methods of Design's Design Phases

1) **Planning, Scoping, and Definition**, where project parameters are explored and defined.
2) **Exploration, Synthesis, and Design Implications**, is characterized by immersive research and design ethnography, leading to implications for design.
3) **Concept Generation and Early Prototype Iteration**, involving participatory and generative design activities.
4) **Evaluation, Refinement, and Production**, based on iterative testing and feedback.
5) **Launch and Monitor**, the quality assurance testing of design to ensure readiness for market and public use, and ongoing review and analysis to course-correct when necessary.

Think-Aloud

Behavioral	Quantitative	Innovative	Exploratory	Participatory
Attitudinal	Qualitative	Adapted	Generative	Observational
		Traditional	Evaluative	Self reporting
				Expert review
				Design process

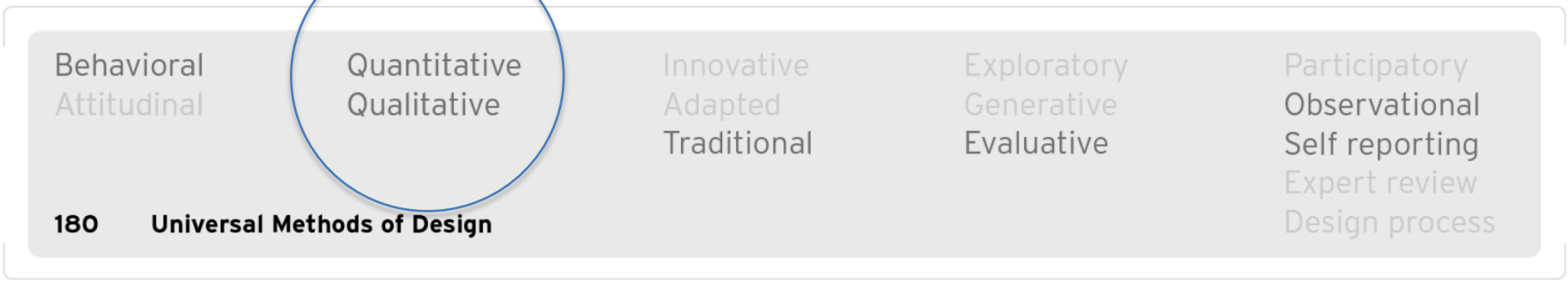
Behavioral = Actual Behaviors

- Observation
- Web Logs
- “Think of a specific time in the past when X happened, and tell me the details of how it happened.”

Attitudinal = Attitudes

- “What do you think of new technology X?”
- “How do you feel about the privacy settings on this platform?”
- “Would you be willing to pay for this product?”

Think-Aloud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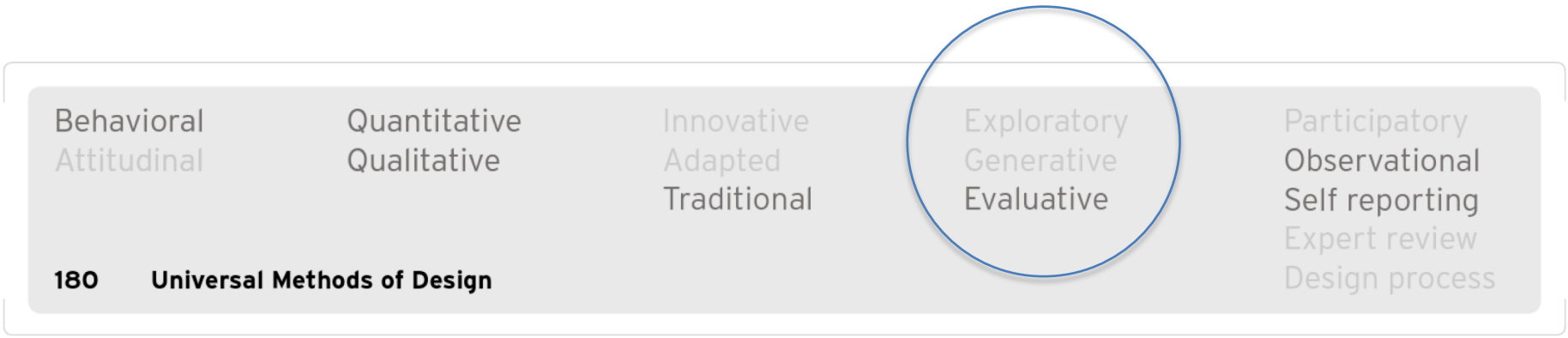
Participatory
Observational
Self reporting
Expert review
Design process
180 Universal Methods of Design

We'll get into this more later, but…

- **Quantitative**: is based on numbers. Can you count it?
  - Good at what
  - Good at how much

- **Qualitative**: is based on other qualities.
  - Good at why

Think-Aloud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Design process
180 Universal Methods of Design

- **Exploratory**: What is the problem? Who are the users? What do they want?
- **Generative**: What are different ways to tackle problem P?
- **Evaluative**: How well does X work? Can we improve X?

Speaking of which...

Formative Evaluation

Summative Evaluation

Speaking of which...

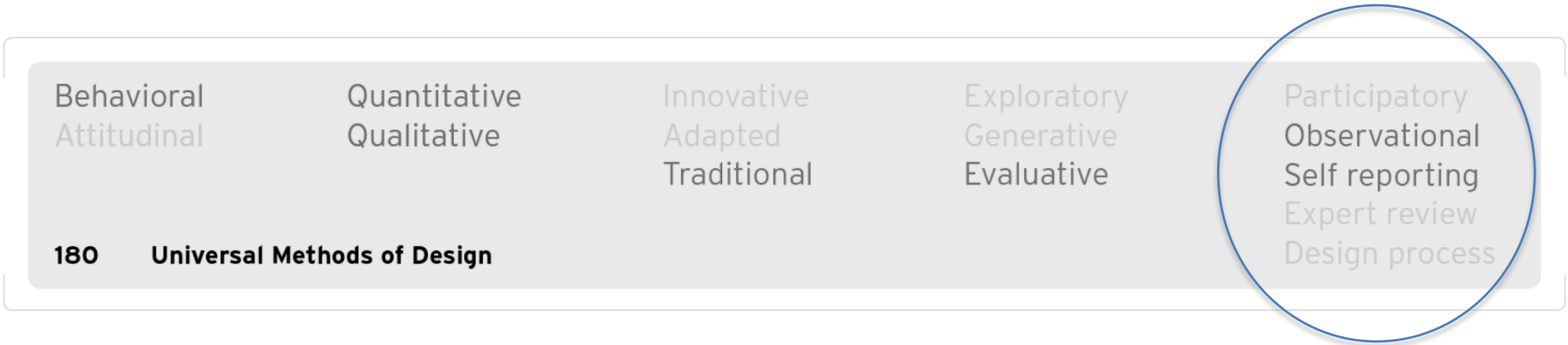
Formative Evaluation

- Earlier in the process
- “How can I make it better?”

Summative Evaluation

- Later in the process
- “How well does it work?”

Think-Aloud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180 Universal Methods of Design

- **Participatory**: The participants actively participate in the design activity (e.g., create and present a collage)

- **Observational**: The methods involves observing the participant in the environment and/or performing a task (e.g., think-aloud)

- **Self reporting**: The method involves the participant reporting something – what they do, how often they do something, why they do something, etc. (e.g., interview, photo diary)

- **Expert review**: Instead of a representative user, an expert performs the method (e.g., heuristic evaluation)

- **Design Process**: A method used by the design/research team to organize or process information (e.g., literature review, bodystorming)


NOPE

“How much coding is there in this course?”

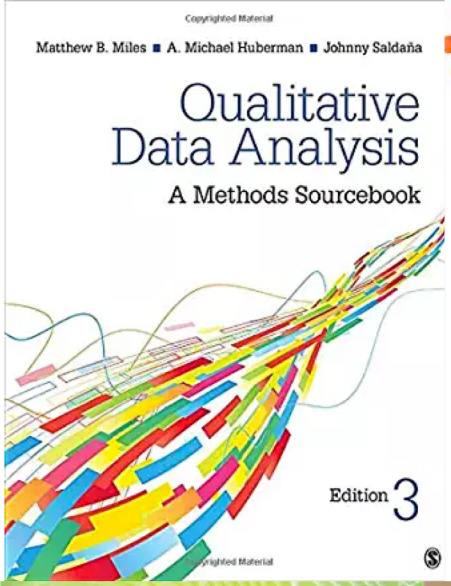
- If you are using this as a way to estimate how much work/time it will take, **DO NOT**
  - You will be expected to spend serious **time** on **reading**, **writing**, **talking to people**, and **thinking**. You should spend the same mental effort and exert the same **attention to detail** as if you were coding.

"You said that work in HCI is Design, Build, Study. Why isn't there a big *Build* Project?"

- Because there are other CS courses available to you that spend time on the skills important to building systems. This course is meant to give you some exposure to methods you're not as likely to encounter in other courses.

“So I’ll be an expert in think-alouds/interviews/questionnaires/ qualitative analysis?”

- **No**.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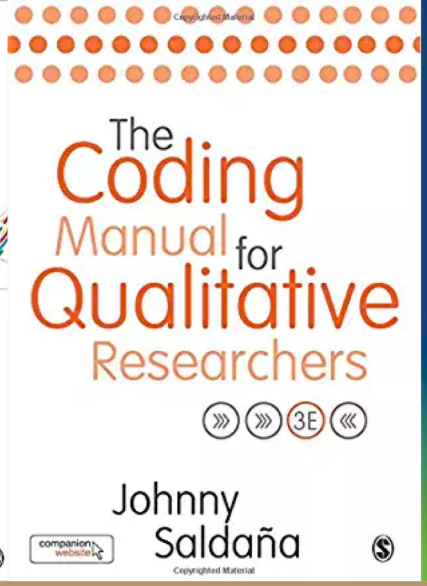
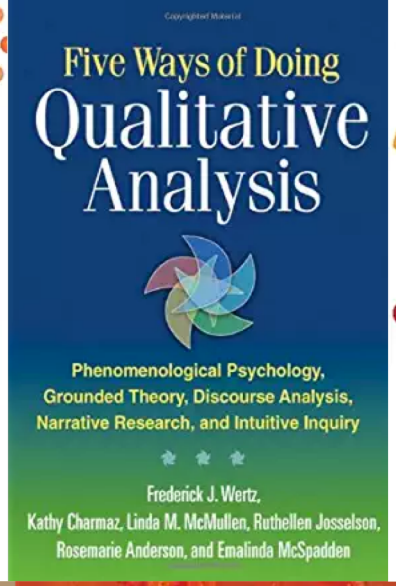
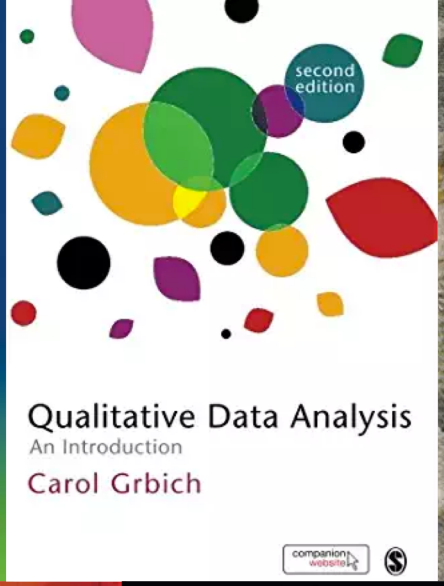
Qualitative Data Analysis
A Methods Sourcebook
Edition 3


The Coding Manual for Qualitative Researchers
3E
Johnny Saldaña


Five Ways of Doing Qualitative Analysis
Phenomenological Psychology, Grounded Theory, Discourse Analysis, Narrative Research, and Intuitive Inquiry
Frederick J. Wertz, Kathy Charmaz, Linda M. McMullen, Ruthellen Josselson, Rosemarie Anderson, and Emalinda McSpadden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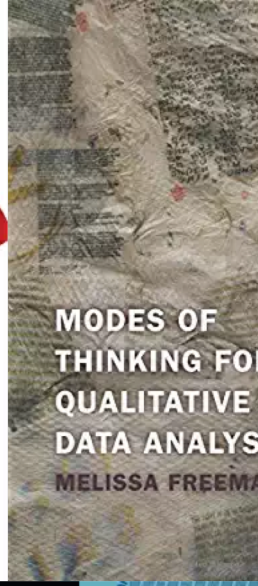
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QUALITATIVE
DATA ANALYS
MELISSA FREEMA


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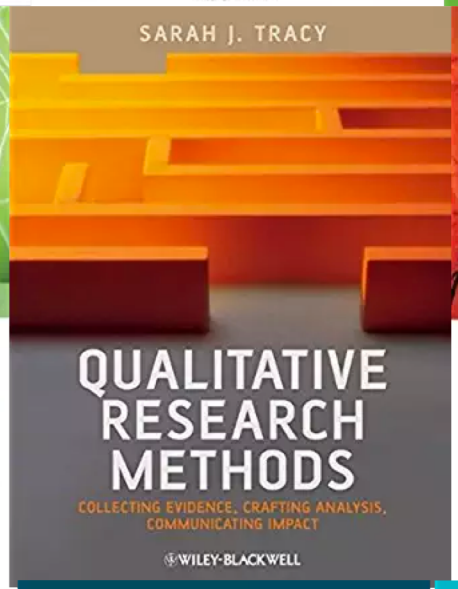
QUALITATIVE DATA ANALYSIS WITH NVIVO
PAT BAZELEY & KRISTI JACKSON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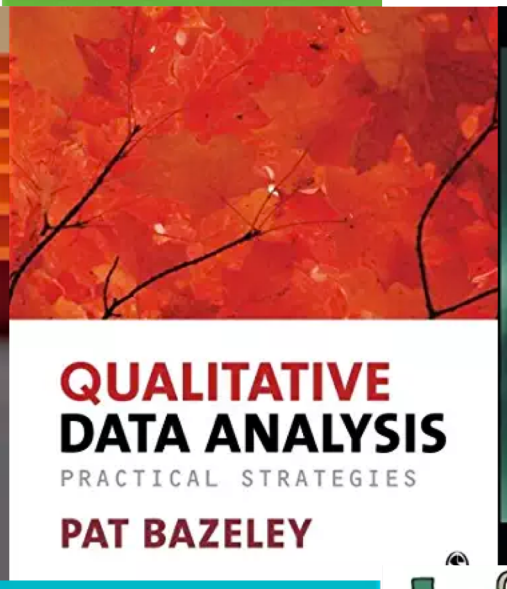
QUALITATIVE RESEARCH METHODS
COLLECTING EVIDENCE, CRAFTING ANALYSIS, COMMUNICATING IMPACT
WILEY-BLACKWELL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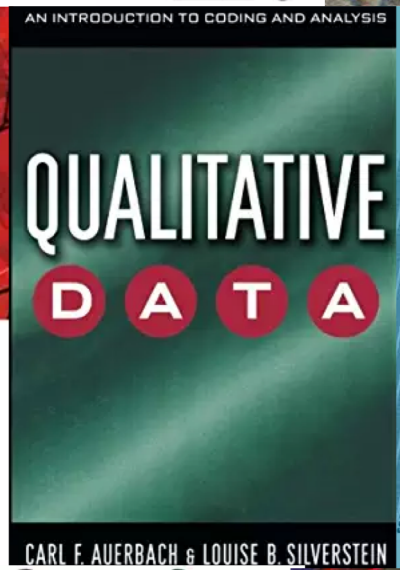
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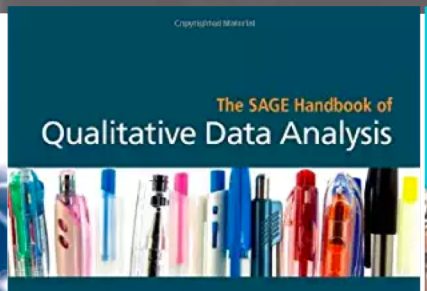
Qualitative Research in Practice
EXAMPLES FOR DISCUSSION AND ANALYSIS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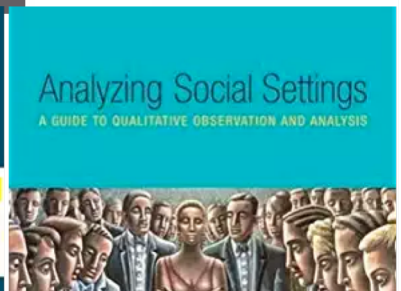
Analyzing Social Settings
A GUIDE TO QUALITATIVE OBSERVATION AND ANALYSIS


Qualitative Content Analysis in Practice
Margrit Schreier

“So I’ll be an expert in think-alouds/interviews/questionnaires/ qualitative analysis?”

- **No**.

- We’ll only scratch the surface. While we’ll get into some pertinent issues (e.g., different sampling types) and terminology, a lot of it is about getting actual experience and learning through doing, so you’ll get out of the course what you put into it.

“I can talk. I’m an expert at interviewing people.”

- Yeah, no

Last but not least…

- We are dedicated to helping those who want to put serious effort into learning ☺

- But, if the coursework isn't a good fit for you

Last date to drop: Friday, August 30