E-Infrastructures for Research Collaboration: The Case of the Social Sciences and Humanities

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Abstract

Collaborative research practices are a highly interesting domain for CSCW. So far, CSCW has mainly focused on computation- and/or data-intensive research endeavors. Here, resources are typically pooled via common e-infrastructures for data access and processing, a set-up requiring additional layers of coordination. Such a focus largely foregrounds the sciences and other fields that rely on highly structured (or structure-able) data and the routinized processes of analysis.

In contrast, in this one-day workshop we discuss the conditions and challenges characteristic of research collaboration in the qualitative social sciences and humanities (SSH). In particular, we examine the sociotechnical infrastructures that enable and support research practices that—in comparison with the collaborative paradigm of the natural sciences—tend to be less structured, compartmentalized, and routinized, but more fluid, flexible, and open-ended. The workshop seeks to collect empirical insights and design experiences, preparing the grounds for a comprehensive understanding of the role of e-infrastructures for collaborative research practices in SSH.

Author Keywords

e-research; e-infrastructure; cyberinfrastructure; social sciences; qualitative research; humanities; infrastructuring.

ACM Classification Keywords

H.5.3. Group and Organization Interfaces: Computer-supported cooperative work.

Introduction

Research in CSCW has fruitfully concentrated on collaborative practices within large, long-term, and distributed research projects in the sciences (e.g., [2, 6, 7, 10, 13]). In such projects, collaboration becomes a necessity often due to, and by virtue of, computation- and data-intensive research endeavors. CSCW research has studied the kinds of sociotechnical infrastructures needed to pool resources among distributed groups of researchers and provide them with access to shared datasets and special tools for data storage and processing.

However, an emerging focus in CSCW and STS rests on large swaths of collaborative research in the qualitative social sciences and humanities (SSH)—research that often works with less structured data, follows less routinized processes, and engages in more fluid, flexible, and open-ended research practices (e.g., [1, 3, 14]). While some accounts state that, measured by co-authorship, collaboration in the SSH traditionally is barely happening ([8, 16, 17]), it stands to reason that SSH researchers, too, are faced with the invisible labor to 'make work work', i.e., largely unacknowledged collaborative efforts beyond co-authorship and collaborative knowledge production. These efforts have, so far, been rarely studied by CSCW research.

Moreover, SSH has witnessed a push for more collaborative research projects during recent years, a development fostered by structural changes of the research landscape and the growing importance of interdisciplinary cooperation and external funding. Furthermore, SSH researchers make more and more use of a large range of software products. Since the early 1990s, all phases of qualitative and iterative research processes have been increasingly 'digitalized' ([5, 9]), an emblematic example being software products for qualitative data analysis (QDA) such as MAXQDA, atlas.ti, NVivo or EXMERaLDA. These software tools have been developed in interdisciplinary settings by information scientists, sociologists, linguists, etc. and are rooted in a diversity of epistemological backgrounds and interests (grounded theory, content analysis, etc.). To which extent these tools bring about new collaborative practices of qualitative data analysis or project management, is a question hardly studied so far.

The goal of this one-day workshop is to discuss the conditions and challenges characteristic of research collaboration in the qualitative social sciences and humanities (SSH). By way of a working hypothesis, we suggest the following provisional list of features that may distinguish (collaborative) research practices in the SSH (see, e.g., [1, 4, 11, 15]):

- Weakly structured data that often does not facilitate straightforward computerized collection, storage, and analyses.
- Heterogeneous understandings of 'data'; different approaches to process and analyze data.

- Plurality of research standards, traditions, and approaches.
- Special role of language, text, and context; heterogeneous weighting of concepts, arguments, and evidence.
- Large national and cultural differences; disparate communities due to language, tradition, and cultural contexts.
- Diverse collaboration structures and characteristics; distinct phases of individual scholarship.
- Increased mobility; not tethered to special equipment in a physical lab (as exemplified, e.g., by distributed research teams or methods such as multi-site ethnography)
- Limited funding for IT infrastructures or less awareness of the necessity of funding for IT support.

The workshop seeks to collect empirical insights and design experiences, preparing the grounds for a comprehensive understanding of the role of e-infrastructures for collaborative research practices in SSH.

Themes and Participation
We invite 2-4 page contributions in ACM Extended Abstracts format. Submissions should be e-mailed to the organizers by December 19, 2016.

We are particularly interested in contributions that draw out the core characteristics, challenges and trends faced by groups of researchers in the SSH. Key topics of interest include, but are not limited to:

- Reflections and meta-perspectives on collaboration in the SSH.
- Empirical studies of collaborative research practices in the SSH, possibly taking on one or more of the following questions:
  - What are the infrastructures/resources that social scientists and humanists draw on? How do they do so? And, where do resources come from?
  - What has been the trajectory of change relative to digitization of resources, tools, and infrastructures?
- Empirical studies of the invisible work to make collaborative research in the SSH work.
- Studies of the (participatory) design, use, education, and appropriation of new digital tools, platforms, infrastructures for collaboration in the SSH.
- Implications of digital methodologies for training and interdisciplinarity in the SSH.

Workshop participants will be recruited through the distribution of calls for participation to relevant mailing lists in CSCW, STS, HCI, and adjacent communities; via the workshop organizers themselves; and via a dedicated workshop website. Submissions will be reviewed by the workshop organizers. We expect to accept a maximum of about 20 participants based on the submissions' relevance to the workshop themes.

Activities and Goals
A provisional plan for the day, depending on number of participants accepted to the workshop, runs as follows:

Welcome and Round of Introductions (30 min)
Participants and organizers introduce themselves.

Morning Presentations I (1 hr)
8 min presentation of position or experience papers.

— Coffee —

Morning Presentations II (1 hr)
8 min presentation of position or experience papers.

— Lunch —

World Café (1.5 hrs)
Rotating breakout groups to discuss around the workshop themes and other emergent topics.

— Coffee —

Plenary Discussion (45 min)
Summarizing, synthesizing, and extrapolating from World Café discussions.

Future Steps (45 min)
Synthesizing emergent themes for future work, as well as discussing future joint activities.

The workshop seeks to bring together existing expertise and experience, and set the stage for future research in emergent e-infrastructures for the SSH. Workshop materials, position papers, and outcomes will be disseminated via the workshop website. Organizers and participants may decide to propose a special issue for a journal or provide a similar outlet to assemble contributions around the topic.

Organizers

Matthias Korn is a Postdoctoral Researcher at the University of Siegen, Germany. His research interests include the collaborative research practices of qualitatively working social science and humanities scholars. He has a background in Information Systems, Human-Computer Interaction, and Participatory Design.

Marén Schorch is a Research Associate at the University of Siegen, Germany. She is a sociologist, specializing in qualitative research methods, mainly ethnography. Her research interests and publications focus on identity and self-positioning, healthcare, dealing with extreme events and CSCW.

Volkmar Pipek is Professor of Computer Supported Cooperative Work and Social Media at the University of Siegen, Germany. He co-leads a project on research infrastructures for the Collaborative Research Center 1187: Media of Cooperation.

Matthew Bietz is an Assistant Research Professor in Informatics at the University of California, Irvine. His research focuses on data-centric research practices, including distributed collaboration, ethical issues, and the development of research infrastructures.

Carsten Østerlund is an Associate Professor at the iSchool at Syracuse University. His research explores the organization, creation, and use of documents in distributed environments such as crowdsourced or virtual organizations. He is particularly interested in the interplay between social and material structures and how they together facilitate distributed work, play and learning. Empirically he studies these issues through in-

depth qualitative and quantitative studies of everyday work practices in a range of settings including citizen science, distributed science teams, healthcare and game design.

Rob Procter is Professor of Social Informatics at the University of Warwick. His current research includes social media analytics, methodological challenges in social data science and ethical issues for data science. He is a faculty fellow at the UK Alan Turing Institute for Data Science.

David Ribes is Associate Professor in the Department of Human Centered Design and Engineering (HCDE) at the University of Washington. He is a sociologist of science and technology who focuses on the development and sustainability of research infrastructures (i.e., networked information technologies for the support of interdisciplinary science); their relation to long-term changes in the conduct of science; and, epistemic transformations in objects of research. See davidribes.com for more.

Robin Williams is Professor of Social Research at the University of Edinburgh and Director of its interdisciplinary Institute for the Study of Science, Technology and Innovation. His research has focused upon the emergence and implications of electronic information infrastructures in a number of settings (enterprise systems, e-health and e-research).

Acknowledgements

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