Ethnography of Laboratory in Digital Humanities:
Methodological Reflections

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Outline:
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1. Where is the study of knowledge production in the humanities?

*How can it be that humanists care about the history of everything except about their own?*  
(Rens Bod, 2017).

- The reasons for the deficiencies in the studies of the history of humanities and scholarly knowledge production lie in a sustained belief that the humanities have no systematic way of reasoning that leads to discovery.

- However, as Bod shows, humanities knowledge is based on *patterns* – seeking regularities in the system – and *principles* – determining rules underpinning a chain of reasoning.

- If scholarly knowledge is, in fact, a *system of patterns and principles*, then not only is there no opposition between the humanities and the sciences but it should also be feasible to indicate and follow the components in the chain of scholarly knowledge production.

How can we investigate knowledge creation in the humanities?
2. Turn to technology in the humanities.

• Technologies in the humanities have opened a new set of questions about the role of digital infrastructure, instruments, and tools in the process of humanities inquiry, the epistemology of experiment and building, the ontology and materialisation of digital outputs, and the nature of collaboration.

• Digital practices and new forms of knowledge representation (modelling, visualisations, simulations) have also opened a discussion about the concept of evidence in the humanities.

• Tools, software, and technologies reveal themselves as the relational and dynamic aspects of humanities knowledge production. “Similar approaches have been used to great effect in scientific discovery where the process of reaching a result can be as important as the result itself” (Nicolas Gold, 2009).
The focus is shifted in the humanities from *things* (fixed, textual, multimodal) to *processes* (social practices, operations, production) embodied in technologies.

Questions:
• How do humanists *interact* with technologies and data?
• How do they combine critical and methodological approaches in *making* digital objects?
• How do they *collaborate* with research software engineers, computer scientists, librarians, archivists?
• How do they produce knowledge resulting from the *integration* of tacit *knowledge* embedded in technologies and tools and explicit knowledge articulated in the function of artifacts?

Towards the empirical studies for the social unfolding of the digital humanities practices.
3. Call for social studies in Digital Humanities.


- Borgman asked “Where are the social studies of digital humanities?”, calling the humanists to learn more about their own data, methods and infrastructure.

- “Why is no one following digital humanities scholars around to understand their practices, in the way that scientists have been studied for the last several decades?” (2009).

- Borgman argued that **digital humanists** should become **objects of study** and through the practice of following them around, one can get insight into the social dimension of their work, including interactions with technologies and data, the role of infrastructure, and the nature of collaboration.

- Although she didn’t delve into details about methodological approach to conduct the social studies of digital humanities, the question about “the humanities laboratory of the 21st century” might imply that a **laboratory** could be the place for observing scholars at work.

- Liu observed that the field of digital humanities is “vigorously forming an identity” but in order to cement its position and character, the field needs to get a better understanding of how knowledge is produced in the digital humanities and how to “get from numbers to humanistic meaning” (2013).

- In the discussion of the meaning in digital humanities, Liu identified two deficiencies in the field:

  1. **The reformulation of “design theory and practice”**: While in the digital humanities design is typically used to render data in visualisations and network graphs, the design should become a “principle of knowledge discovery and generation”: “Interactive, multimodal, dynamic, and participatory design in the digital age is a method not just of pattern recognition but of pattern understanding. Seeing design in data is a method for knowing meaning in the digital humanities” (2013).

  2. **The lack of Science and Technologies Studies (STS) framework** in the digital humanities theory. Liu referred to the STS and philosophers of science (Feyerabend, Latour and Pickering) who investigated how knowledge is produced by human beings in relation with others (instruments, technologies). STS, according to Liu, can offer a new method for knowing *meaning* in the digital humanities.

- Three-year-long fieldwork among digital humanists and their changing scholarly environment.
- Although the study was held in the vein of STS-based ethnography, it did not represent the application of the method of laboratory ethnography.
- Antonijevic explored *projects* of digital humanities, rather than a *place* for digital humanities work. This is a significant difference that determines the objects of study.
- The immersive study of a *place* in a similar manner to an ethnography of laboratory entails the exploration of social interactions, discourse, situatedness, and the entanglement of space with external factors (institution, policy, funding).
- The study of *projects* foregrounds a focus on their development and management.
4. Laboratory in the humanities.

• Laboratories have become the object of study that can help to disclose social practices of digital knowledge production.

• “Lab stories” – an interesting genre with a focus on the establishment, development and management of digital humanities labs from the perspective of those who built them (see the “Lab and Slack. Situated Research Practices in Digital Humanities” special issue of Digital Humanities Quarterly 2020, 14.3).

• So far, the laboratory studies in DH have been conducted based on personal experience, interviews, and textual analysis of lab’s documents.

• The lack of the STS-style laboratory ethnography where researchers come to a lab from outside and are physically immersed in day-to-day activities to observe social interactions, the structural forms of work, and the movements of knowledge and skills.

"You doubt what I wrote? Let me show you.' The very rare and obstinate dissenter who has not been convinced by the scientific text, and who has not found other ways to get rid of the author, is led from the text into the place where the text is said to come from. I will call this place the laboratory, which for now simply means, as the name indicates, the place where scientists work" (B. Latour, *Science in Action*, 1987).

Is it possible to understand how humanities knowledge is produced by stepping inside a digital humanities laboratory and observing research, technical, and administrative teams at work?
5. Laboratory ethnography in Science and Technology Studies.

• In the 1970s, sociologist Bruno Latour stepped inside a neuroendocrinology research laboratory at the Salk Institute in California to seek answers to the questions: *What happens inside laboratory walls? How are scientific facts produced in a laboratory?*

• The **co-location approach** – being with research participants in the same place – has been identified as the main feature of laboratory ethnography.

• **Laboratory ethnography** was a seminal movement, which conceived of science as the social practice of constructing scientific knowledge.

• It gave rise to **Laboratory Studies**: the study of science and technology through direct observation and discourse analysis at the root of where knowledge is produced: in the laboratory.
6. Laboratory ethnography in Digital Humanities.

Since the concept of laboratory is highly charged in all ways - epistemologically, culturally and tactically – it becomes a significant lens through which we can register contemporary changes in the scholarly field.

The study of laboratories can provide an interesting insight into the transformation of digital humanities, including:

1) the shift from an output to a **process of production** (social and cultural practices),

2) the attention towards a place and **infrastructure** (materiality, technologies and tools),

3) the **engagement** in contemporary challenges through experiment-based research outputs transferred outside the laboratory (knowledge transfer, impact, reusability).

**Laboratory studies** can challenge the long-lasting belief of the humanities as an impractical branch of knowledge and stimulate further debate about the future of the digital/humanities in society.
7. Methodological approaches and challenges.

The empirical studies of humanities practices have remained largely unexplored. It is important to consider the challenges for conducting the STS-style ethnography of digital humanities laboratory.

Methodological difficulties:

1. **Dispersion of digitality** - *What is the subject of the study and how is it defined?*

2. **Demarcation of fieldwork** - *How is the fieldwork identified?*

3. **Contextual specificity** - *To what extent are the results applicable to other places?*
Dispersion of digitality

• It reflects the phenomenon of ubiquitous influence of digital on any humanities areas.

• It refers to the question of “What is Digital Humanities?” that constitutes a specific genre in the digital humanities discourse.

• “Digital humanities is about doing the humanities through digital methods and using digital sources, but not every humanist who uses digital sources, tools and methods would call themselves a digital humanist” (Deegan 2014).

• How can we investigate something that is not clearly specified? How can we define the object of investigation so that it can truly unpack the complex view of digital humanities work?

• The ongoing conversations about the definition of digital humanities, however, comes in fact from the lack of studying how the field generates knowledge. If we could understand the processes happening behind the text published in scholarly journals, we would be able to not only specify the substance of the field but also identify what is needed to its better understanding and further development.
Demarcation of fieldwork

• The previous question of what we study entails the methodological issue of how to set a boundary of ethnographic fieldwork.

• Digital humanities work is conducted as a result of the collaborative work taking place in the physical and digital realm, and in a particular space and time.

• The distribution of digital practices requires us to first identify the network of actors taking part in the formation of knowledge and then follow their intersections and actions.

• The rhizomatic approach to digital knowledge creation entails building multi-sited fieldwork – introduced by George E. Marcus for the purpose of ethnographic practices – to interrogate more complex objects that cross-cut dichotomies, such as the “local” and the “global” (Marcus, 1995).

• Therefore, although we study the practices of knowledge production in a single-site location, it is necessary to look at the place and products coming from that place as objects that are a part of the construction of a larger system of knowledge.
Contextual specificity

• Digital humanities are a heterogeneous and large system comprising unique locally-situated settings and practices.

• If the field is a body of diverse practices varied due to locality, this would imply that there is no one set of principles and practices of digital knowledge creation but many different models that vary across places.

• While we should be aware that there are many histories and practices of digital humanities, and therefore the chain of reasoning might differ, “the search for patterns and principles is less context-dependent” (Bod, 2020). Any knowledge production occurring in a particular part of the world is built upon the system of “patterns and principles” embedded in a local context.

• Therefore, while studying a particular local setting and seeking to reveal the systematic way of creating digital knowledge, it is necessary to keep in mind that in fact, we research localities – “the affordances of the study of the local, which invite us to think about local knowledge and the relationship between the local and global” (Pink et al., 2016: 123).
8. Integrative methodologies.

Research objects:

**SPACE**
(place, design, conditions)

**SITUATEDNESS**
(socio-cultural, economic, and geo-political situatedness)

**APPARATUS**
(technologies, equipment)

**INFRASTRUCTURE**
(university infrastructures, digital infra, national & global infra)

**PEOPLE**
(expertise, communication, collaboration, lab culture)

**ORGANIZATION & MANAGEMENT**
(policy, data management, project life cycle, lab notebooks)
Integrating ethnographic methods:

1. **The STS-based laboratory ethnography** – observing researchers at work, analysing lab’s documents and social discourse;

2. **Digital ethnography** practiced in the anthropology – following researchers in a digital environment through the study of platforms (e.g., Slack, ActiveCollab platform)

3. **The ethnography of infrastructure** developed in sociology and information studies – studying the built environment (technical infrastructure, data storage, used technologies and tools) and its impact on making meanings.
Conclusion:

- The effort to open a Pandora’s box of humanities enquiry and discovery means to recognize humanities research as the **process of systematic actions** and seeking to reveal the components, operations, and rules of that process.

- It means to detect the **process of reasoning** that leads to making a claim *translated into the text* – the final product of humanities works – and to go **behind the text** and reveal the mechanism and factors that leads to its formation.

- Approaching a laboratory can provide an interesting insight into **situated knowledge practices** and **socio-technical conditions** of digital research outputs.
Thank you!

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Bibliography


