Infrastructure as the Origin of Inequities

A Case of Global Digital Humanities

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Outline:

1. Methodological introduction
2. Call for infrastructural intervention
3. Connection – the social side of infrastructure
4. Infrastructuring Digital Humanities
The COVID-19 pandemic provides a good context for the discussion about the global distribution of infrastructure. The coronavirus lockdown – that has forced society to shift everyday life to online spaces - has reminded us that we are all connected and that different time zones could be the only barriers between us.
The coronavirus pandemic has revealed that the current obstacles to global connectivity are much more complex than just coordinating events across multiple time zones. It has become a question of social justice, privilege, and inequality.
1. Methodological introduction

- Science and technology studies
- Digital humanities theory
Science and technology studies

• **Infrastructure** is not a fixed and neutral construction but rather a complex socio-material thing that is made up of tensions and agreements between actors.

• The infrastructural approach provides a useful analytical tool to trace the epistemic, technological and social connections and interrogate power dynamics at a global and local scale.

• Exploring technical details of infrastructure requires, however, to disclose and understand the broad conceptual social implications of infrastructure that can heighten a sensitivity toward ‘how we classify the contents of the world, the ontological politics implicated in such ordering work, the epistemic and material infrastructures built to establish new social orders’ (Felt et al., 2017; 23).
Digital humanities

- DH have discussed infrastructure in many respects informed by the Atkins report on cyberinfrastructure for e-science (Atkins et al., 2003) and the Cultural Commonwealth report of the American Council of Learned Societies (ACLS, 2006). These reports have introduced infrastructure as a technical thing that engages tools, services and resources for digital research engagement.

- Infrastructure is however a relational concept that can unpack the broad range of social complexity (Liu, 2018).

- Bringing conceptual STS and anthropological perspectives of infrastructure to the DH debate to show that the ‘promise of infrastructure’ (Anand et al., 2018) to reimagine and rebuild the world differently lies in the critical act of interrogating the components of infrastructure and reconstructing their configurations.
2. Call for infrastructural intervention

Kathleen Fitzpatrick stressed the role of the *social* dimensions that include participation in collaborative and collective projects. At the same time, these difficulties concern *technical* aspects pointed out by Alan Liu, such as the fact that technology, platforms, and methods can contribute to the understanding of diversity.

Digital humanities are happening at the level of *socio-technical* infrastructure.
The study of infrastructure in DH:

1. *Toward Critical Infrastructure Studies* (2018) by Alan Liu – It presents an agenda for examining infrastructure through the lens of digital humanities. It is an important contribution to the field because it grounds the investigation of infrastructure in the experience of culture.

2. *Towards a Systems Analysis of the Humanities* (2017) by James Smithies – It shows how important is to understand the global system of cyberinfrastructure because it determines the computationally intensive methods, and thereby affects the nature of digital knowledge.

The Critical Infrastructures Studies collective: [https://cistudies.org](https://cistudies.org)
3. *Enacting Open Scholarship in Transnational Contexts* (2019) by David Wrisley – It provides insight into the regional development of digital humanities practices in Arab countries in the context of the globalized academic environment. Wrisley addressed the question of how to more widely implement digital and open scholarly practices in the Arab region, and by doing so, revealed technical and sociocultural divergences resulting from this incorporation.

4. *Digital Humanities on the Ground: Post-Access Politics and the Second Wave of Digital Humanities* (2019) by Nishant Shah – It critically examines the role of the digital humanities in the face of political agitation in the city of Ahmedabad that led to an unprecedented Internet shutdown in the entire state of Gujarat in 2015. Shah introduced the idea of a ‘disconnected subject’, defining it as a ‘subject who has all the rights of access and visibility but will be controlled, contained, and censored through digital disconnectedness and interruption’ (2019).
3. Connection

The development of the inclusive and diverse global digital humanities requires a deep understanding of infrastructural affordances and constraints on ‘being connected’. To become included in the global system of knowledge, one must have access to solid technical infrastructures that are entangled with political, economic, and social influences. The expansion of infrastructure raises a question of connectivity: Which aspect of infrastructure needs to be expanded to enable communities to be connected and included?
Open Infrastructure Map (https://openinframap.org)
   [https://dhcenternet.org](https://dhcenternet.org)


The level of connectedness and cooperation in DH is highly relational and depends upon the frame of reference of an observer.
How can the DH community shift the global dynamics of knowledge production and build an inclusive and diverse field?

Connection is a prerequisite for forming diverse and inclusive network of digital humanities communities. The short-term challenges for equitable connection – the insufficiency of software for supporting non-English languages, the dependence on standardized commercial platforms, and the lack of funding support for digitization of cultural data – lead to long-term consequences, inc. the hegemony of the North/West centre in the academic system, the homogenization of scholarly methods and outcomes, and the underrepresentation of cultural heritage data of ethnic minorities in digital collections. These disturbing problems on the dangerously global level should become a focal point for wider discussions about infrastructural challenges in DH.
4. Infrastructuring Digital Humanities

- The STS concept of infrastructuring that refers to an ongoing process of creating, implementing, and using infrastructures, as well as to the collective practices that manage a series of tensions between local and global, individual and community.

- Infrastructuring is an analytical concept that shifts attention from structure to process and has been applied in a few different research communities, including design fields. Using this concept, we can gain insight into how to design, build, and implement the infrastructure required to support the formation of inclusive digital humanities.

- Infrastructuring digital humanities is thus the process of making strong connections between communities so that they can evenly access digital knowledge resources, use these resources to work with local materials, equally participate in the formation of knowledge, and share it with the global community.
Global digital humanities as interconnected local nodes that can help build an inclusive network on top of the geopolitical system of infrastructure

- Strengthening **open scholarship** practices by opening resources (e.g., data, codes, publications, syllabus, video lectures) on Creative Commons licenses in open repositories and platforms accessible to communities (e.g., Humanities Commons’ CORE repository).

- Developing **open-source software tools** (e.g., Voyant).

- Building **open-source publishing platforms** (e.g., Manifold).

- Facilitating the development of **local digital infrastructure interoperable** with both a larger international digital network and the digitization of cultural heritage materials with a focus on ethical and legal concerns (e.g., King’s Digital Lab’s collaborative project with Hashemite University to build Jordan’s digital cultural heritage infrastructure).
• Supporting the **sustainability** of digital projects and infrastructural efforts to ensure the maintenance of cultural and linguistic diversity in the long-term development of digital knowledge infrastructures (e.g., 28% of the resources nominated for Digital Humanities Awards in 2012 are no longer accessible).

• Supporting the development of digital tools and software for working with materials in **various languages** (e.g., Multilingual DH, an international network of scholars facilitating the use of digital humanities tools and methods in languages other than English).

• Enhancing **dialogues** between divergent communities (e.g., Global Outlook::Digital Humanities group).

• Initiating more discussions about **various epistemologies** and creating a shared set of vocabularies to improve mutual understanding (e.g., the concepts of openness might be perceived differently from one country to another).

• Promoting **collaborations across borders** that can contribute to mutual discovery, diversity of knowledges, and epistemic justice.
• I propose to see **globality as a constant state of becoming global** rather than as a fixed and monolithic entity.

• Infrastructural nodes make up the global network as a set of local links that are in a permanent state of **interconnections and disconnections**.

• It is important to pay attention to different infrastructural realizations that contribute not only to *being connected* to but also to *being disconnected* from the larger ecosystem of knowledge.

• The attempt to create an inclusive global network of digital humanities communities is an **unfinished project** that requires an in-depth reflections and discussions of current **global infrastructural divisions** and discussions what else we can do to **reconfigure the global landscape of the field**.
Thank you!

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Bibliography


