Applied Digital Humanities: Calling for a more engaged Digital Humanities

Glawion, Anastasia

anastasia.glawion@fau.de
Friedrich Alexander Universität (FAU) Erlangen-Nürnberg, Deutschland
ORCID: 0000-0001-6140-1826

Kremer, Dominik

dominik.kremer@fau.de
Friedrich Alexander Universität (FAU) Erlangen-Nürnberg, Deutschland

Lang, Sabine

sab.lang@fau.de
Friedrich Alexander Universität (FAU) Erlangen-Nürnberg, Deutschland

Mahlberg, Michaela

michaela.mahlberg@fau.de
Friedrich Alexander Universität (FAU) Erlangen-Nürnberg, Deutschland

Wagner, Andreas

andreas.w.wagner@fau.de
Friedrich Alexander Universität (FAU) Erlangen-Nürnberg, Deutschland

The need for new types of application

When the Russian Federation attacked Ukraine on February 22nd, 2022, a handful of Digital Humanities scholars were quick to react. Anna Kijas, Quinn Dombrowski, and Sebastian Majstorovic launched the Saving Ukrainian Cultural Heritage Online volunteer initiative (SUCHO). Soon SUCHO would connect over 1,500 volunteers and save over 51 TB of data constituting contemporary Ukrainian online cultural heritage (Dombrowski et al., 2022). Phase two of the project included an even more practical component to preserve online cultural heritage: sending equipment to various institutions in Ukraine, including archives and museums. While the humanitarian impact of this initiative is hard to overstate, it also makes us think about the purpose of Digital Humanities beyond academia.

The range of skills developed by digital humanists is extensive. In practice, the contexts in which these skills are used can be relatively confined. Digital Humanities ranges from the conservation and curation of objects and artifacts to the creation of digital products. However, the infrastructures needed for this work tend to be situated within academic or cultural institutions, guided and guarded by specific funding frameworks. Additionally, limits to the reach of Digital Humanities work may be linked to the objects under analysis themselves. Digitized artifacts tend to be subject to ex-post analyses, where considerations of copyright and access rights increase the distance between the analysis and the present-day real world.

Our proposal for an Applied Digital Humanities calls for greater emphasis on the societal impact of Digital Humanities research. We are not suggesting to re-invent the wheel though. Research landscapes as in the UK, for instance, have demonstrated a variety of approaches to the societal impact of (Digital) Humanities research. What we are arguing for is a new understanding of applied research that shifts the focus in Digital Humanities from methods and approaches to the societal purposes of our humanities research. This understanding is in line with various initiatives within the humanities which urge for the establishment of "institutions for applied humanities in order to develop perspectives that help society to cope with important societal challenges." (Brom, 2019, 1). The creation of SUCHO is a response to such a challenge. The urgency for Digital Humanities to evolve becomes even clearer in the current age of polycrisis. The war in Ukraine does not just affect Ukraine: it is an example of a polycrisis where democracies around the globe are under threat.

Terminology of change

In Digital Humanities, we have a tradition of reflecting on what it means to be part of the field. Equally, it can be useful to consider what it means to push the field's boundaries. Thinking about types of research more generally, the following terms provide a useful starting-point. To characterise academic work that is limited to a mere description of societal change there is the concept of **transformation research** (Kollmorgen et al., 2015, 24). In Digital Humanities, this is the kind of work that seeks to understand the changes brought about by digital innovation in humanities and the impact they have: in art history, for example, works discuss how AI technologies change our understanding and production of art (Paul, 2023). Then there is **transformative research**; which is characterized by community involvement. Transformative research shares its findings with the public and so provides opportunities for adjustment and change (Mertens, 2008) . Finally, **activist research** is conducted by academic institutions in close collaboration with activist groups and NGOs and typically is committed "to long-haul struggles for change" (Choudry, 2013, 146). Our initial example of the SUCHO initiative might not have the hallmark of long-haul struggles at this point in time, but certainly

illustrates activism. What we propose as **Applied Digital Humanities** is Digital Humanities research that emphasizes its applied humanities perspective. It is research with a humanities purpose. It aims to tackle real-world challenges by drawing on innovative digital methods and approaches. In the following, we will look at examples of data and representation that already indicate close relationships between societal issues and Digital Humanities research, then we will move on to propose concrete steps for a more Applied Digital Humanities.

Representation, digitization and democracy

There are many routes to tackling real-world challenges. Within the space of this paper, we focus on just one of them – a critical perspective on the data we use in Digital Humanities and what we represent through it. Data collection (whether text, images, objects) always needs decisions on what is 'in' and what is 'out' - some perspectives will be included while others are neglected. Such decisions depend on a variety of factors, including political, economic and societal ones. Such decisions can also severely affect the visibility of specific social groups in Digital Humanities data. Current research practices need to consciously address such issues.

In Critical Data Studies (Dalton and Thatcher, 2014; Kitchin and Lauriault, 2018) it has become an established practice to question big data, digital representations or infrastructures as non-political spaces, as well as critically discuss their role in relation to power or surveillance and, if necessary, use counter data (Dalton and Thatcher, 2014) to help underrepresented perspectives and groups gain more visibility (Iliadis and Russo, 2016). Intersectional Digital Humanities also acknowledges the need for alternate histories and intellectual diversity. Intersectionality as an approach thus "[…] offers a way of examining the history of digital humanities to identify strategies for greater intellectual diversity in the field" (Risam, 2015, 5). Similarly, Data Feminism (D'Ignazio and Klein, 2023) questions the narratives and structures in Data Science and big data which are dominantly white and male and ingrained in data analysis, data models or data visualizations.

Inequality is also addressed in literary and cultural studies, where big data, quantitative and qualitative approaches are used to examine racial inequality in publishing (So, 2021). Overall, in computational literary studies digital methods have shifted focus to questions of the inclusiveness of literary history and the canon (Jockers, 2013; Weitin, 2021; Underwood et al., 2022). Similarly, projects in Digital Provenance Research, especially within colonial contexts, focus on including the perspectives of societies of origin and therefore alternate narratives when presenting data online; an example is the database Digital Benin (Digital Benin). In the context of research data, the interests of societies of origins, especially those of indigenous communities, aim to

be protected by the so-called CARE-principles (collective benefit, authority to control, responsibility, ethics) (Carroll et al., 2020).

A slightly different take on representation is becoming visible in some of the work in Digital Environmental Humanities. Digital methods are used to help conserve parts of the natural environment which are in the process of being lost or digital approaches are used to visualize aspects of climate change to help communicate them effectively to the public. Here, digitization is less a matter of historical research, or social science, but is a response to urgent societal challenges, which in the case of climate change are part of a polycrisis. As indicated above, another polycrisis of the present time is the crisis of democracy. Challenges around representation in data are directly relevant to tackling this crisis. From the point of individual projects, representation – and representativeness – is what needs to be addressed in the collection of a specific data set. Cumulatively, however, questions of how data is taken to represent the real world – in terms of equality, diversity, political power relations, etc. – can be made directly relevant to a much bigger picture. If we think about the 'crisis of democracy' (Przeworski 2019) relevant questions are, for instance,

- Which imaginaries of democracy are communicated in which registers and domains? How are they diffused through different social groups?
- How are narratives of democracy told? How is the role of specific groups depicted?
- Which Digital Humanities practices guide or counter-act democratic adaptation processes in general?

The road towards Applied Digital Humanities

This year's "Under Construction" conference theme flags the need for transformative processes within the Digital Humanities. As the Call for Papers highlights, we find ourselves amidst societal and cultural transformations like never before. To arrive at the transformation that our discipline needs, we propose the following tentative steps.

1. The creation of **researcher profiles** to describe key 'applied' skills. To ensure Digital Humanities can become more applied, we need Digital Humanities researchers with the skills to make this happen. These skills need to be clearly described, and training provided to develop them. A key skill will be the ability to communicate with wider audiences beyond our discipline. This is more than research communication. What is needed is also the ability to produce and understand interoperable data, e.g. represented as Linked-Open-Data. Such data makes it possible to present information that creates links across disciplines and highlights practices of data labeling. Skills training is further required on how to deal with discriminatory and potential harmful lan-

guage (Lang, 2023b) or how to visualize gaps in data, for example in provenance records (Lang, 2023a) – both are challenges that are relevant across the humanities, but also link to practical work in public services, business contexts or cultural institutions.

2. More wide-ranging use of **public engagement labs**. Digital Humanities has seen enormous development in the creation of digital infrastructures. Public engagement labs would parallel this development with societal infrastructures to enable and support co-creation activities. Such labs would be central spaces for the running of the kind of case studies outlined under point three below. An example is the Change Making Media Lab at the University of Southern California which seeks collaborations with non-academic groups to develop impactful products (Pawlicka-Deger, 2020). Successful public engagement labs need methods and tools designed for co-creation activities. An example of such a tool is the geo-content management platform Geoexplorer (Kremer and Wagner, 2023). Data collection is handed over to participants in the experiment to construct geo-social storylines that highlight individual perspectives on climate change for instance. Fundamentally, we envisage public engagement labs as places for community participation to address both local challenges but also function as hubs for tackling grand challenges like the climate crisis, social inequalities, or threats to democracies by innovative approaches like liquid democracies (Paulin, 2020) or flat-pack-democracies (Burnett and Nunes, 2021). All these challenges require a humanities perspective, and in today's digital world, Digital Humanities has much to offer to bring humanities knowledge, skills and methods to the table in new formats. Public engagement labs will be the place to do exactly this.

3. The increased use of applied **case studies**. In line with the definition of a case study as "an in-depth, multi-faceted investigation, using qualitative research methods, of a single social phenomenon" (Feagin et al., 2016, 2), a dedicated Digital Humanities forum for case studies would be a space to host such examples. Case studies can be used to explore questions of 'how' and 'why' especially when we investigate a current real-life phenomenon (Yin, 2009). Such studies enable researchers to take account of many perspectives and test and trial engagement with participants. They make it possible to better understand the nature of data and its connection with real world contexts. Looking at the example of democracy, this engagement would help to provide a corpus of imaginaries and narratives on democracy that could be searched for differences and even be traced over time. Or in the case of Digital Provenance Research, case studies, closely run with museum professionals, could be used to determine how gaps are currently visualized in databases in the context of Nazi-looted art (Lang, 2023a) and how such gaps can be modelled. Case studies can also be a way to explore co-creation in the collection of new data sets, for

instance through story writing competitions (e.g. National Literacy Trust, 2021).

4. Continuous exchange and discussions on topics such as the meaning of democracy for and within Digital Humanities: This could be achieved by establishing dedicated Applied Digital Humanities panels at **Digital Humanities' conferences**. Here we are looking for more than a themed session. Ideally, such panels will be designed to create dialogues with non-academic partners as well as with colleagues from disciplines beyond Digital Humanities. Such panels can be run in a challenge-driven way, e.g. with the focus on the environment, social inequalities, etc. In addition, the establishment of a new **working group "Applied Digital Humanities"** enables a continuous engagement and dialogue in between conferences.

These steps will make it possible to transform Digital Humanities into an Applied Digital Humanities where the humanities perspective provides the purpose to address real-world challenges.

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