

## Preliminary program of the workshop

(Abstracts section starts on page 3)  
(Final version)

# The Integrative Potential of Epistemic Virtues for the Digital Humanities

at the German Institute for Japanese Studies (DIJ) in Tokyo

January 26-28 2023

## January 26 (Thursday)

*Welcome lunch*

### Session 1 (from 14:00)

Welcome address

Franz Waldenberger (German Institute of Japanese Studies, Director)

Introductory talks

Andreas Fickers (C<sup>2</sup>DH Luxembourg Centre for Contemporary and Digital History)

Harald Kümmerle (German Institute for Japanese Studies)

Introductions

*Short coffee break*

Kenji Ito (Kyoto University)

Extrapolating Objectivity: Epistemic Virtues and Contact Zones

Group work

*Dinner*

## January 27 (Friday)

### Session 2 (from 10:00)

Monica Berger (New York City College of Technology, CUNY)

The Politics of Open Access and the Decolonization of Knowledge

Anita Lucchesi (C<sup>2</sup>DH Luxembourg Centre for Contemporary and Digital History)

The Hermeneutics of Practice

*Short coffee break*

Harald Kümmerle (German Institute for Japanese Studies)  
Enabling Epistemic Justice through Infrastructure: A Case Study From the History of Mathematics in Japan

*Lunch*

### **Session 3 (from 14:00)**

Anat Ben-David (Open University of Israel)  
Conflating Evidence with Simulation: a Critique of Web Archives as Media of Verification

Alan Liu (University of California, Santa Barbara)  
Infrastructure as Epistemic Value

*Short coffee break*

Antonia von Schöning (Humboldt University Berlin)  
Exactitude and Accountability: Ideals, Tools, Practices

Group work

*Dinner*

## **January 28 (Saturday)**

### **Session 4 (from 10:00)**

Emmanuel Ngué Um (University of Yaounde I)  
Epistemic Values of a Digital Epistemic Space in African Linguistics

Asanobu Kitamoto (ROIS-DS Center for Open Data in the Humanities / National Institute of Informatics)  
Epistemic Virtues in the Age of AI, Open Science, and Digital Humanities

*Short coffee break*

Group discussion

*Lunch*

*Optional excursion*

## Abstracts

### Ben-David, Anat: Simulation as Evidence: Web Archives as Media of Verification

The World Wide Web is a vast and dynamic mnemonic medium: a digital container and organizer of human knowledge, activity, and memory. At the same time, the Web is an ephemeral medium that continuously resides in the present (Chun, 2008): as new contents are added, old links are broken, content migrates to other servers, and static websites are pushed backward to search engines' graveyards (Zittrain et al., 2014). At the turn of the millennium, web archiving emerged as a solution to the web's ephemerality (Brügger, 2011). Through an ongoing process of negotiation between heritage institutions such as the Internet Archive and national libraries, web archives consolidated around standardized technologies for capture (web crawlers and harvesters), storage (the WARC file format), and replay (the Wayback Machine) (Schafer et al., 2016; Hegarty, 2022). In the past 20 years, web archives have grown in quantity, scale, and importance. In many cases, they provide the only evidence of the web's lost pasts (Ben-David, 2016). In particular, there is a growing acknowledgment among internet and social historians that the archived web is a valuable primary source for historical research (Milligan, 2019).

Despite the importance of web archiving for preserving digital cultural heritage, the archived web is a peculiar ontological and epistemic object. As Brügger (2012; 2018) pointed out, web archives are 'webraries,' a construct that is neither an archive nor a library, and the materials comprising it are neither 'natively digital' nor 'digitized.' Instead, they are 'reborn digital objects,' freezing a dynamic website in one moment but never a one-to-one copy of the live website it is supposed to represent. Rogers (2013) also noted that some of the temporal organization of the archived web is in disarray: different websites are archived at different rhythms and intensities, and when following hyperlinks, Wayback Machine lets the user jump cut through time.

Building on this complication and drawing on Wolfgang Ernst's work on the micropolitics of archival action (1999) and disorder (2015), this talk offers a source critique of the epistemic virtues of the archived web by referring to it as a medium of verification. Ernst (2012) and Chun (2018) have famously argued that digital archives conflate storage with memory. In this talk, I argue that the archived web also conflates evidence with simulation. Like the historical role of material media of verification such as the archival stamp (Ernst, 2015) or library cards (Kirkwood, 1961), the harvesters' logs both indicate that a website existed at a given moment and validate the archived snapshot with a time-stamp of its moment of inception. Unlike other verification media, however, when an archived snapshot is replayed, stamps and seals are neither broken nor validated. Instead, they are enacted, repurposed, and simulated. The archived website is reconstructed from bits and pieces of code stored in the WARC files – the various elements of the harvesters' logs and preserved code, each bearing separate time stamps, come together to simulate a coherent website's past.

The presentation, therefore, traces how web archives afford, on the one hand, a (distributed) socio-technical construction of historical evidence (Ben-David & Amram, 2018), while mediating such evidence through simulation, skewed temporalities, and approximation. It further asks what meaningful pasts (Fickers, 2012) historians can reconstruct from simulation-as-evidence.

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### Berger, Monica: The Politics of Open Access and the Decolonization of Knowledge

Bibliodiversity is a critical concept in mitigating epistemic injustice and coloniality. Scholarly communities must determine their own agendas in order to create diverse pathways for varied knowledge circuits across local, regional, and international boundaries. Virtue epistemology, epistemic injustice, epistemic coloniality, and scholarly communications share some common ground, albeit utilizing very different rhetoric and discourse. Epistemic injustice and coloniality, in particular, align with concerns related to scholarly communications. Subsequently, I will provide an overview of

open access, addressing its history and how current conditions that have resulted in the domination of the author pays model and marginalization of Southern authors. The neocolonial, perpetuated by its counterpart, neoliberalism, is manifested in linguistic exclusion, policy copying, and predatory publishing which in turn create epistemic harm. We can respond to epistemic injustice via the ethos of bibliodiversity which resists corporate cooption of open access and scholarly publishing in the form of self-determined, non-profit, community-based free-to-authors publishing as modeled in Latin America. I will also highlight new cooperatives and initiatives that support diamond open access and bibliodiversity. Integral to these efforts are initiatives seeking the reform of scholarly assessment. Without changes in evaluation, our efforts face greater obstacles and are less likely to be understood and accepted.

### Ito Kenji: Extrapolating Objectivity: Epistemic Virtues and Contact Zones

This talk raises the question of possible counterparts to objectivity in digital humanities. Objectivity can be considered as an epistemic virtue that serves as a dominant criterion to evaluate knowledge production. Based on Daston and Galison (2010), it will briefly outline the historical development of the notion of objectivity in visual practices in natural science and discuss what its natural extension to digital humanities would be and what were boundary conditions for this kind of epistemic virtue. In particular, I will discuss some of the issues concerning transcultural or translinguistic interactions in digital humanities.

### Kitamoto Asanobu: Epistemic Virtues in the Age of AI, Open Science, and Digital Humanities

How may epistemic virtues change in the age of AI (artificial intelligence) and open science, and how does it affect digital humanities research? Following empirical, theoretical, and computational science, we are now seeing the development of the fourth paradigm of science, data-driven science, where open science accelerates the development and usage of AI models in many applications. How can we rethink epistemology in the age where machines become assistants, partners, or co-pilots for humans to co-produce knowledge? As a case study, I will introduce our activities in the ROIS-DS Center for Open Data in the Humanities (CODH) to illustrate how data-driven approaches play an essential role in knowledge production in digital humanities research.

### Liu, Alan: Infrastructure as Epistemic Value in the Digital Humanities

In seeking legitimacy as a field of study, the digital humanities have cultivated epistemic values that combine some from the sciences (such as evidence, precision, and reproducibility) and some from the contemporary humanities (such as being “interpretative” and “critical”). These values sum up at a higher level in the more general epistemic values that the digital humanities have made it a priority to attain: being “meaningful” and “cultural critical.” (Some in the humanities have been skeptical that quantitative and other DH methods can be interpretatively meaningful or engage in sociopolitical and cultural critique.)

But there is one other general epistemic value in the digital humanities that makes the field distinctive among the humanities: valuing the “infrastructural” (i.e., thinking about and developing infrastructure as an interpretative and critical object). This talk surveys some of the intellectual approaches that converge in current “critical infrastructure studies,” inquires into the constitutive epistemic values underlying such studies, and concludes with a suggestion about how textual analysis of the “verbs” as opposed to “nouns” of infrastructure can unlock the “black box” of these values.

### Lucchesi, Anita: Hermeneutics of Practice in DH

I will discuss how hands-on and experimentation work in DH urge us to rethink epistemic values. The plea for this specific hermeneutics exercise is niched under a broader discussion on Digital Hermeneutics. This specific hermeneutical approach may function as a black-box broker, supporting DH scholars in the process of documenting their research process in a sort of lingua franca (going beyond DH experts) that helps to unveil the implicit aspects of their digital scholarship. On the one hand, hermeneutics of practice can work to guarantee the digital scholarship recognition by reinforcing the quality of peer reviewing and replicability (major principles underpinning the scientific method). This could also bring more authority to DH arguments, and increase their circulation and understanding more thoroughly beyond the DH bubble. On the other hand, such self-reflexive posture could also facilitate the identification and problematization of the digital interference in research process, and – here goes my current bet – aid to improve the collective researchers’ readiness to face the new research conditions placed by the digital component. While a new style of reasoning of/about/in/within digital is becoming the *new normal*, could such form of hermeneutics of practice become a fundamental epistemic virtue for 21st Century’s research?

#### Ngué Um, Emmanuel: Epistemic Values of a Digital Epistemic Space in African Linguistics

Most research in African linguistics aims to explain the functioning of geographically articulated objects called languages. These objects are generally conceptualized within the framework of epistemic spaces created by the making of the territories of current nation-states inherited from colonization. Whether the epistemic virtues and values of colonial agents and their perspectives can contribute to understanding the reality of language in Africa is debatable. As a new epistemic space with a potential for heuristics agency (for example, in Artificial Intelligence), the digital can impersonate the epistemic values of understanding beyond scientific truths, and of open-mindedness/endedness, that restores the fluidity of the language reality of pre-colonial societies.

#### Schöning, Antonia von: Exactitude in Humanities Computing: Promises and Challenges

In the 1960s, the introduction of electronic data processing in historical research was accompanied by a debate about practices, methods, and epistemic virtues in humanist scholarship. Opponents to a quantitative, computer-based approach feared that history was being reduced to statistical series of measurable events and that intellectual work was being delegated to a machine. Historians interested in quantitative methods, on the other hand, considered the computer the paradigmatic innovation that would compensate for human deficiencies and help minimize idiosyncrasies in historical study. The computer was able to analyze voluminous datasets with much more speed and accuracy than the human researcher. However, the new medium also reemphasized the importance of epistemic virtues for historical scholarship. In his practical guide “The Historian and the Computer” (1971), social historian Edward Shorter appeals to historians to preserve the ethos of exactitude. Despite the availability of machines and notwithstanding the opportunities held out by automation, computer users should be scrupulous with their data and perform regular checks of both the input material and the computer’s output for errors, omissions, and distortions.

Exemplarily, the paper examines the scholarly practices of German social historian Jürgen Schlumbohm, who, over the course of 20 years between the early 1970s until 1994, pursued a meticulous study of the social and economic structures in the small town of Belm from 1650 to 1860, based on the analysis of demographic data. Schlumbohm used the database system CLIO, that at the same time Manfred Thaller was developing specifically for historical research, for extensive nominative record linkage. Thoroughly revising and manually correcting every data sheet, Schlumbohm aimed at a maximally exact micro-analysis of his object of study. This would allow, he argued, to present the historical inhabitants of Belm not as anonymous masses, but as agents of history

whose biographies and actions could be precisely retraced. At a macro-level, the historian would thus be rendering historical justice to the otherwise mute and overseen people.

Examining Schlumbohm's working practices and his ethos of exactitude raises the question of accountability in databased research. But it also points to blind spots of an exact and all-encompassing historical data-analysis operating at too close a distance from its material: the data's own specific genesis and the contexts of their production. The paper therefore stresses the necessity of data-critical historical research in order to defy a data-positivism and asks what lessons can be learned for the challenges digital history faces today.