

It Is All about the Infrastructure

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Kaltenbrunner, Wolfgang (2015). *Reflexive Inertia: Reinventing Scholarship through Digital Practices*. Doctoral dissertation, Centre for Science & Technology Studies (CWTS), Faculty of Social and Behavioural Sciences, Leiden University. ISBN: 978-90-9029014-0

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The use of computational methods within the humanities has a long history dating back at least to the 1940s and the work of the Jesuit scholar, Roberto Busa, but it is only in recent years that ‘Digital humanities’ has emerged as a research field in its own right. Digital scholarship is, in fact, one of the few areas where funding for research in the humanities is increasing, and ‘digital humanities’ has become a central concept in an ongoing debate regarding the purpose and future of the humanities in general. The introduction of digital methods is, however, not a straightforward process of applying computational techniques to traditional humanities scholarship. Rather, as shown in Wolfgang Kaltenbrunner’s dissertation, *Reflexive Inertia: Reinventing scholarship through digital practices* (2015), the meeting of technology, research policy, and scholarly practices creates frictions within research fields. For Kaltenbrunner these

conflicts provide an opportunity to study the emergence of digital humanities with a specific focus on infrastructures, or more specifically the co-evolution of infrastructures and scholarly practices.

Starting from an infrastructural perspective, Kaltenbrunner takes on literature on disciplinary conventions and adds research on disciplinary differences in order to study how the use of digital research tools relates to changes in scholarly practice. He does so through case studies of digital scholarship in Dutch literature; a digitalization project within women's literary studies and the use of computational methods in a network of Indonesianists (Indonesian studies). A comparative study of tool development and the funding of digital humanities in Europe and the United States (US) supplements these ethnographical studies. His findings are wide-ranging and relevant for research in many fields. Here I emphasize a few of Kaltenbrunner's more noteworthy conclusions. A first, perhaps trivial but often forgotten, insight is that "big data needs big data work" (183). This is obvious for most researchers with any experience of digging into larger datasets, yet the amount of work needed for cleaning and ordering data is often underestimated when projects are designed and funded. Interestingly, Kaltenbrunner also shows how preparing data – cleaning, ordering, and labeling – is sometimes described as a scholarly effort, and at other times as mere technical work. This relabeling is used tactically by both scholars and funding agencies. Yet, the separation of preparing and analyzing data hides many important choices that are made early in the process of gathering and sorting data. The dissertation describes how computational methods and digital projects come into conflict with already established disciplinary conventions regarding methods, theoretical frames, and publication formats. For example, the building of databases or the development of software might not always be valued as a scholarly achievement in par with writing an article or a book. According to Kaltenbrunner, these tensions are easier to resolve within smaller disciplinary projects than in larger interdisciplinary efforts.

The development of digital humanities is also discussed in relation to funding structures in Europe and the United States. In Europe, the financing of large digital infrastructures is centralized in order to prevent the fragmentation of research efforts. National projects have to be translated in order to fit in with the agenda of the European Commission, and the development of infrastructures (databases, tools, and so forth) is mainly detached from the research process. The situation in the United States is rather different where resources are transferred to leading researchers and centers, which results in more localized and embedded efforts. Overall, Kaltenbrunner finds that the European approach tends to create a 'gap of implementation' but it also prevents small groups of researchers gaining exclusive control over essential infrastructure. In contrast, US policy allows for a tight connection between local practices and the development of infrastructures, while also privileging a few leading scholars and centers over others. In general, this chapter provides important insights on current discussions concerning the effects of funding schemes across research fields.

One of my few hesitations regarding this first-rate work lies in its central description of scholarly fields as 'machines'. Understandably this metaphor is convenient in describing the theoretical use of infrastructures as it permits descriptions of parts jamming or creating friction within the machine. However, it is also restrictive: a machine is clearly separated from its surroundings, it has one specific purpose, all parts are designed to work for the same goal, it is designed to be productive rather than imaginative, and ideally it should produce the same result all the time. None of these characteristics coincide with my understanding of research fields as integrated, multi-purpose entities where 'parts' are rarely replaced altogether. My hesitation is also grounded in a, perhaps naïve, belief that research is more than just infrastructure where human agency plays an important role in combination with techniques, funding opportunities, and research policy.

Reflexive Inertia is an impressive achievement; it is theoretically advanced using three sets of delicately balanced theories extensively throughout the thesis. Moreover, it is written in an enjoyable, confident, personal, and humanistic style (note the lack of tables or figures). The reflexive character of the thesis is also a distinct quality with postscripts adjoining each article. The section on the composite dissertation as a genre (23–33) should be consulted by every PhD-student considering this route. Here Kaltenbrunner ponders over the article-based thesis and the difficulties of doing ethnographical research using a case-study approach. He also highlights the benefits of the composite thesis, both scholarly and career wise. In all, *Reflexive Inertia* is well worth the read for scholars engaged in the broad spectrum of research labeled ‘digital humanities’. It is also a significant contribution to our general understanding of digital infrastructures and their role in shaping research.

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