"Scholarly Labour and Digital Collaboration in Literary Studies": An Invited Reply.

Julianne Nyhan, UCL (http://www.ucl.ac.uk/dis/people/juliannenyhan)

Article under discussion in Nyhan's response:

- Kaltenbrunner, Wolfgang. "Scholarly Labour and Digital Collaboration in Literary Studies." *Social Epistemology* 29, no. 2 (2015): 207–33. doi:10.1080/02691728.2014.907834.

Wolfgang Kaltenbrunner (2015) examines a COST-funded collaborative project entitled Women Writers in History, which aimed to, among other things, deliver an online prototype 'through the collaborative use and further development of an existing digital database' (214). His main aim is to investigate how "specific ways of organizing scholarly labour make possible certain forms of knowledge" (207). In doing so, he uncovers a pronounced disparity between the benefits that the digital was expected to confer and the difficulties that were encountered in the course of such work. He notes: 'Digital technology can facilitate collaboration and data sharing among humanities scholars, and therefore is sometimes seen as a catalyst for attempts to revise problematic canonical traditions in literary history' (207). However, once the project was underway the work connected with the digital database was considered by scholars to essentially be 'non-scholarly' or, using a rather unfortunate phrase, akin to 'slave labour' (219). In order to avoid engaging with it scholars delegated the work to those whose time was considered 'not as valuable' (Ibid), that is graduate students and research assistants. He explains the motivations behind this as follows:

> The collaborative use of a database, however, requires an integration of individual research practices, and it blurs the division of labour between scholars and information professionals. In the present case, the inertia of established infrastructural arrangements manifested itself as a conflict between what was required to generate the specific type of knowledge the project aimed for, and the need for participants to engage in a more traditional form of knowledge production to advance their individual careers" (207).

Notwithstanding the practical necessity of maintaining and advancing individual careers, Kaltenbrunner observed that the consequences of this relegation of the digital were manifold. Looking beyond the immediate context of the project it is clear that such actions have the effect of sustaining the status quo: as long as digital work is both considered to be, and treated as being, non-scholarly, there is little room to explore how more traditional forms of knowledge production might be complemented and expanded by digital forms of knowledge production. It is perhaps more regrettable to see that this decision seems to have effectively shut down a number of the possibilities that scholars might otherwise have had to create new knowledge. Indeed, those to whom the technical work was relegated developed took a different view of the value of their work:

Take for example Astrid, a Dutch M.Phil student who was hired for data input as part of her research internship. Next to entering data, Astrid also used the database for her own research on the reception of the British writer Ouida in the Netherlands. Her comments make clear that her research practice literally has emerged in conjunction with entering data (220; see page 220 for her further elucidation of this).

Furthermore, by delegating this work a number of scholars failed to develop even a basic understanding of the project's database, which in turn, presumably prevented them from using it in a more sophisticated and critical (or scholarly) way:

Despite having attended one or more training school events, [for] some of the more advanced project participants … It was for example relatively common for them to confuse the user interface of the database with the underlying data model … Many of the more established scholars seemed to think about the database more in terms of flat excel sheets, a format they were familiar with from individual data-sets they had created for their PhD theses. While the more advanced project members thus have tended to apply a distinction of 'technical' data work vs. 'actual' scholarly activities so as to justify delegating the former, it was exactly by getting their hands dirty in data work that student assistants— for whom the project temporarily became the central reference point of their work lives—have managed to combine database skills with substantive research skills (221).

Kaltenbrunner's fine paper presents a fascinating insight into the 'forms of labour' that developed during the course of this project and how they, in turn, influenced the kinds of knowledge that were created. An equally relevant question, yet one that lies outside of the scope of his paper, is how and whether such forms of labour were acknowledged when knowledge that was created as a result of using the database was published and disseminated? Or, to put it more directly, was the work of "technical staff" acknowledged in subsequent publications that arose directly from their input to the database? Indeed, should it be? The issue of when, how and whether such acknowledgement is appropriate has proved to be a complex question both within the Digital Humanities community and beyond it. Research that my colleagues and I have either recently completed, or are in the midst of carrying out, is germane to this issue.

Both collaboration and the process-orientated nature of digital research, especially as it pertains to evaluation, is a topic of great interest to the present-day Digital Humanities community (see below). Yet, it seems reasonable to conjecture that this issue has become more central to Digital Humanities only as it has become more institutionalised. Oral history research that I have been carrying out (together with my colleague Melissa Terras) certainly indicates that at the earliest stages of the field little concern with the acknowledgement of some kinds of collaboration can be detected.

The origins of Digital Humanities are often said to be c.1949, when Fr Roberto Busa, with funding from IBM, began work on an index variorum of some 11 million words of medieval Latin in the works of St Thomas Aquinas. In order to have the text of Aquinas and related authors encoded on punch cards (which were used in the earliest stage of the project, magnetic tapes were used from c.1957 on (see Busa 1980, 84)) Busa set up, in 1956, a keypunch school. The school ran until c.1967 and it was the mostly female keypunch

operators who completed the Trojan work of transcribing the text into a machine actionable format. Nevertheless, they did not, to the best of our knowledge, receive acknowledgement for their work; indeed, for the most part they were not even made aware of the nature of the task they were undertaking. Their names and the details of their contributions essentially disappeared from the historical record until we completed numerous oral history interviews with them earlier this year (see Nyhan 2014; Terras and I are in the process of writing up a longer article on this research).

Turing back to the present, over the past years a number of publications have appeared that discuss approaches to the evaluation of Digital Scholarship (see, among others, MLA Task Force for Evaluating Scholarship for Tenure and Promotion 2007; Presner 2012; Rockwell 2011; Nowviskie 2011; American Historical Association 2015). Recently, a report by the European Science Foundation stated "… there is a vital need, especially regarding the rights of young researchers, to rethink acknowledgement and reward for digital scholarship … [We call for] the change towards a culture of recognition that accepts the process-oriented character of digital publications"(Moulin et al. 2011, 40). However, looking to documents like project charters it seems likely that this shift has not yet necessarily been made. For example, in addition to specifying co-Authorship of presentations, the INKE project grants all members of the INKE research team:

> [R]eceive named co-authorship credit on presentations and publications that make direct use of research in which they took an active, as opposed to passive, role (i.e. research to which the individual made a unique and discernable contribution with a substantial effect on the knowledge generated); otherwise, receive indirect credit via the INKE corporate authorship convention (Siemens et al. 2009).

So too the project charter written by Ruecker and Radzikowska states:

> For presentations or papers where this work is the main topic, all team members who worked directly on this subproject should be co-authors. Any member can elect at any time not to be listed, but may not veto publication. … For presentations or papers that spin off from this work, only those members directly involved need to be listed as co-authors. The others should be mentioned if possible in the acknowledgments, credits, or article citations (2008).

Presumably if such practices were a matter of course in Digital Humanities as a whole they would not need to be articulated?

Indeed, Digital Humanities may characterize itself as a fundamentally collaborative discipline that is prompting the wider Academy to revise its approaches to the evaluation of digital work, and the recognition of collaboration. Yet, the extent to which this is borne out in practice remains unclear. The initial results of research that my colleague Oliver Duke-Williams and I are in the process of carrying seem to underscore this observation.

Information science literature points out that it is unwise to attempt to establish a one to one connection between authorship and collaboration (see, for example, Laudel 2002; Subramanyam 1983; Bošnjak and Marušić 2012). Depending on issues like the conventions of a given discipline, a given paper may have multiple authors, but this does not necessarily

indicate that they made equal contributions or indeed that all those who made contributions to the research have been appropriately acknowledged. Nevertheless, given the DH communities' concern with issues about acknowledgement and collaboration we thought it would be interesting to investigate levels of co-authorship in its more established journals, with the above caveats in mind.

We proceeded by extracting and analysing the bibliographical metadata of *Computers and the Humanities* (CHum) (1966-2004); and *Literary and Linguistic Computing* (LLC) (1986-2011). Our control was the *Annals of the Association of American Geographers* (AAAG) (1966-2013), we chose this journal because it is a respected Geography journal that attracts a range of research, including research with technical applications or methodologies, for example GIS. Our findings were that two of the core journals we looked at, CHum and LLC, published predominately single-authored papers during the indicated timeframes. In CHum we found a significant increase in dual and triple authored papers but not in four and five authored papers. In LLC we found a significant increase in triple authored papers but not in joint-authored, or four or five-authored papers.

Looking to establish a wider comparative context, we found that in AAAG single authored papers also predominate. Interestingly, multi-authored papers showed increases in all forms and thus are more wide-ranging than in either LLC or CHum. The author connectivity scores show that in CHum, LLC and AAAG there is a relatively small cohort of authors who co-publish with a wide set of other authors, and a longer tail of authors for whom co-publishing is less common. (Nyhan and Duke-Williams 2014)

We are now in the process of extending our dataset and analysis further, by including other Digital Humanities journals and conference proceedings and extending the scope of our control. However, it is clear that at least with reference to this moderately-sized study that multi-authorship rates are not any more pronounced in DH; in fact, as regards multi-authorship, the trends in the Geography journal we examined were more significant.

At this stage our results can be interpreted in various ways: perhaps they show that the pressures to publish single-authored papers are as significant for DH researchers as they are for others. Indeed, DH scholars are often based in 'home department' that are not dedicated Digital Humanities departments (the Department of Digital Humanities, King's College London, UK is reasonably unusual in this regard). If we are accept this interpretation we might speculate about whether authorship and acknowledgement practices have yet caught up with what are otherwise described as collaborative research practices? (see, in particular, Nowviskie 2011). Another interpretation is that our results indicate that there is a much stronger tradition of the lone scholar in DH than has heretofore been recognised. Were this to be the case it raises the question of why DH has emphasised its collaborative nature to the extent that it has?

However such interpretations might be modified when more of our research on this topic is completed one thing is clear. Over the past years a great deal has been written about the seemingly inherent benefits of digital research and its collaborative nature. However, both Kaltenbrunner (2014) and the research discussed above (Nyhan 2014; Nyhan and Terras forthcoming; Nyhan and Duke-Williams 2014) make clear that much more empirical research is needed on digital collaboration, not only in terms of its history, performance and acknowledgement but also its implications. Without question, this research points to the fact that digitally-mediated scholarly collaboration is much more complicated than has been

heretofore been recognised. On the side of some scholars it has been all too easy to dismiss digital and collaborative work as non-scholarly—without, as Kaltenbrunner has shown, any meaningful engagement with it— because in some countries its role in hiring and promotion decisions has not been straightforward. On the other hand, people who work in the area of Digital Humanities, for example, have extolled the field's collaborative nature yet they have undertaken relatively little empirical, social or historical research on collaboration and their evidence base for some claims about collaboration requires more attention.

Indeed, much interesting research awaits us.

References

American Historical Association. *Draft Guidelines for Professional Evaluation of Digital Scholarship in History*. 2015. http://bit.ly/1PC1tDL.

Bošnjak, Lana, and Ana Marušić. "Prescribed Practices of Authorship: Review of Codes of Ethics from Professional Bodies and Journal Guidelines across Disciplines." *Scientometrics* 93, no. 3 (2012): 751–63. doi:10.1007/s11192-012-0773-y.

Busa, Roberto. "The Annals of Humanities Computing: The Index Thomisticus." *Computers and the Humanities* 14, no. 2 (1980): 83–90. doi:10.1007/BF02403798.

Kaltenbrunner, Wolfgang. "Scholarly Labour and Digital Collaboration in Literary Studies." *Social Epistemology* 29, no. 2 (2015): 207–33. doi:10.1080/02691728.2014.907834.

Laudel, Grit. "What Do We Measure by Co-Authorships?" *Research Evaluation* 11, no. 1 (2002): 3–15.

MLA Task Force for Evaluating Scholarship for Tenure and Promotion. *Report on Evaluating Scholarship for Tenure and Promotion*. New York: MLA: Profession 2007. http://www.mla.org/pdf/taskforcereport0608.pdf.

Moulin, Claudine, Julianne Nyhan, Arianna Ciula, and et al. *Research Infrastructures in the Humanities*. Science Policy Briefing 42. Strasbourg: European Science Foundation. 2011. http://www.esf.org/research-areas/humanities/strategic-activities/research-infrastructures-in-the-humanities.html.

Nowviskie, Bethany. "Where Credit Is Due: Preconditions for the Evaluation of Collaborative Digital Scholarship." *Profession* 2011, no. 1 (2011): 69–81. doi:10.1632/prof.2011.2011.1.169.

Nyhan, Julianne. "Gender, Knowledge and Hierarchy: On Busa's Female Punch Card Operators." Billet. *Arche Logos: Notes on the Digital Humanities and Oral History* (2014). http://archelogos.hypotheses.org/135.

Nyhan, Julianne, and Oliver Duke-Williams. "Joint and Multi-Authored Publication Patterns in the Digital Humanities." *Literary and Linguistic Computing* 29, no. 3 (2014): 387–99. doi:10.1093/llc/fqu018.

Presner, Todd. "How to Evaluate Digital Scholarship." *Journal of Digital Humanities* 1, no. 4 (2012). http://journalofdigitalhumanities.org/1-4/how-to-evaluate-digital-scholarship-by-todd-presner/.

Rockwell, Geoffrey. "On the Evaluation of Digital Media as Scholarship." *Profession* 2011, no 1 (2011): 152–68. doi:10.1632/prof.2011.2011.1.152.

Ruecker, Stan, and Milena Radzikowska. "The Iterative Design of a Project Charter for Interdisciplinary Research." In *DIS '08 Proceedings of the 7th ACM Conference on Designing Interactive Systems*. 288–94. New York, NY: 2008. doi:10.1145/1394445.1394476.

Siemens, Lynne, Ray Siemens, Richard Cunningham, Teresa Dobson, Alan Galey, Stan Ruecker, and Claire Warwick. "INKE Administrative Structure, Omnibus Document." *New Knowledge Environments* 1, no. 1 (2009). http://journals.uvic.ca/index.php/INKE/article/view/546.

Subramanyam, K. "Bibliometric Studies of Research Collaboration: A Review." *Journal of Information Science* 6, no. 1 (1983): 33–38. doi:10.1177/016555158300600105.