Peer Review:

Sharing Tales of the Dutch Revolt in a Virtual Research Environment

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Isaac Newton famously postulated that scientific progress is made when researchers are able to "stand on the shoulder of giants." For modern scientists, the possibilities to stand on the shoulders of others, and to benefit from what colleagues have accomplished, have been extended immensely in recent decades as a result of continuous technological advances. Olson et al. (2008) note that the increasingly collaborative nature of modern science can be demonstrated by tracing co-authorship patterns and by pointing at the steady rise in the number of multi-investigator grant proposals (p. 1). In the natural sciences, the impetus to collaborate largely emerged from the dramatic growth in the volume of digital data. Measuring devices and other instruments increasingly produce computer-readable data, and when scientists process and analyse these data, they mostly use digital research tools, thus producing additional datasets. Various initiatives have been developed to ensure that research data can be archived digitally so that they do not get lost and that they can be reused. At the moment, researchers who initiate new research projects have access to enormous quantities of existing academic resources, and, as a consequence, larger and more complex forms of enquiry become possible. Such ambitious research projects are often beyond the reach of individual scientists, and can only be carried out successfully if researchers join forces.

In the natural sciences, scientific collaboration traditionally took place in laboratories in which research instruments and other facilities were housed centrally and in which co-located researchers could meet and interact directly. Various authors have recognised that information and communication technologies have evolved to such an extent that they can effectively replicate the advantages of such physical settings in an on-line environment. Wulf (1993) asserted that the Internet enables sci-
entists to work together in “centre[s] without walls, in which [they] can perform their research without regard to geographic location” (p. 854). Software systems which can offer support for web-based scientific collaboration are often referred to as “col-laboratories” or as “virtual research environments” (VREs).² Importantly, a VRE provides facilities for a community of users who collectively focus on a set of related research questions. Through a VRE, such a community can obtain central access to the various resources and tools which are needed to answer these questions. A VRE comprises “a set of online tools and other network resources and technologies interoperating with each other to support or enhance the processes of a wide range of research practitioners within and across disciplinary and institutional boundaries.”³

The VRE concept was largely developed in response to challenges that emerged from modern e-research projects, predominantly in fields such as the physical sciences, biological and health sciences, earth and environmental sciences and engineering studies. Disciplines such as these have often been documented to be highly interdisciplinary and data-intensive (Hey and Treffenden, 2003; Findholt, 2003; Borgman, 2007). Arguably, the needs to ensure distributed access to instrumentation and to organise vast quantities of research data are not as common in fields such as the humanities and the social sciences. When compared to the level of on-line support for research teams in the natural sciences, the number of VREs in the humanities lags behind dramatically.⁴ The observation that academic collaboration appears to have a lesser urgency in the humanities may be explained in part by cultural differences. Humanistic research tends to focus on the development of ideas and on the interpretation of texts or other human artefacts, rather than on the discovery of facts. Consequently, scholars rarely use sophisticated digital instruments, and relatively simple applications, such as word processors or database programs, are usually sufficient. Borgman (2007) notes that, compared to other fields, the humanities “have the lowest rate of co-authorship and collaboration” (p. 219-220). Brockman (2001) found that “[c]irculation of drafts, presentation of papers at conferences, and sharing of citations and ideas” can add “a social and collegial dimension to the solitary activity of writing” (p. 11), but, as a result of the interpretative and relatively subjective nature of the research, results tend to remain centred around individual scholars. Davidson (1999) even contends that “the humanistic ethos of individuality helps to breed disputation and disrespect as the preferred model of intellectual interchange” (p. 1).

Nevertheless, the notion of on-line collaboration is clearly gaining prominence within humanistic research. In the United Kingdom, the Building a VRE for the Humanities project was carried out with the explicit aim to “investigate and identify the potential benefits of a VRE for the Humanities research community in general.”⁵ Similarly, De Moor et al. (2008) observe that research in the field of global and world history is only possible on the basis of large databases that cover information on the entire globe. To arrive at such large hubs of data, “new methods of data sharing and scholarly communication need to be designed” (p. 68). Primary and secondary sources in the humanities mostly consist of physical objects produced by human beings or of academic writings which interpret these objects or which place these in a certain context. Relevant resources are often held by cultural heritage institutions such as libraries, archives and museums, and these institutions increasingly recognise that the large-scale digitisation of their collections is vital in order to stimulate the further development of e-scholarship. Due to on-line resources such as those created by Europeana,⁶ Project Gutenberg⁷ and the Dutch Metamorfoze programme,⁸ the vision of data-rich science enabling researchers to perform larger and more comprehensive studies appears to be materialising more and more in the humanities disciplines as well.

This article presents the results of a project which was carried out in 2009 at Leiden University Library in the Netherlands, in close co-operation with the Dutch National Library in The Hague. The project was funded by SURF Foundation, an organisation which, through its SURFshare programme, supports new developments in the field of academic communication. The objective in this project was to set up a VRE for a group of historians, based at Leiden University, who collaborate in a research programme that is called Tales of the