Framing the experience: a study of the history of interfaces to digital humanities projects

The following paper is a slightly expanded version of the abstract that will appear in the conference book of abstracts. A longer version of the paper has been published before print by Digital Scholarship in the Humanities at https://academic.oup.com/dsh/article-abstract/doi/10.1093/llc/fqz081/5670586. I am therefore not able to upload that paper to this repository, for copyright reasons. But please do read the full paper if you have access to it.

Introduction:

Drucker (2013) argues that, although the goals of Human Computer Interface research are to render the interface invisible and facilitate access to digital content, interfaces themselves should be legitimate objects of study. Yet little attention has been paid to this aspect of digital humanities resource design. The following paper therefore reports on a study of interfaces to long-lived DH resources to determine what information we may gain from them about the history of DH project development.

Research questions:

The study addresses the following questions:

- What can we learn from a study of interfaces to digital humanities material?
- How have interfaces to digital humanities materials changed over the course of their existence?
- Do these changes affect the way the resource is used, and the way it conveys meaning?
- Should we preserve interfaces for future scholarship?

Experimental design

The following research therefore adopts a case-study approach to a study of the interfaces to digital humanities resources, analysing a sample of projects and their progress over time, in detail. The sample is as follows:

- The Women Writers Project- Brown university and subsequently Northeastern University
- The Valley of the Shadow Project–University of Virginia
- The William Blake Archive- University of Virginia, University of North Carolina
- Proceedings of the Old Bailey Online- Sheffield University and Hertfordshire University
- Digital Images of Mediaeval Music- Kings College London and Oxford University
- The Oxford Text Archive- Oxford University
- Virtual Seminars for Teaching Literature- Oxford University

The reasons for choosing these projects are largely pragmatic: to reach a detailed understanding of interface development over an extended period it was important that

resources had as long a lifespan as possible, but remained accessible and usable. The above projects were established in the 1990s or early 2000s and are still accessible, even if in a somewhat different form; relatively few DH projects with such a long history are still easily available. Nevertheless, this is a proof of concept study, to investigate whether the proposed method produces useful results. It is not intended to represent a comprehensive audit of all such surviving projects. Undertaking a larger study of this type could represent the next development of this research, were funding to be granted to do so.

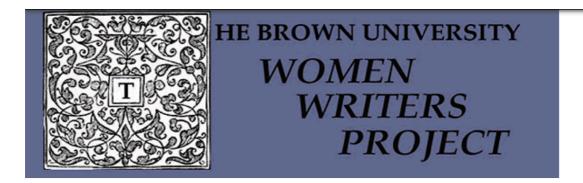
Although digital humanities is now a global field, its antecedents in literary and linguistic computing were largely Anglo-American, based in a small number of universities, some of which are represented in the sample above. Thus the sample is skewed towards English language resources. It was also important to have fluency in the language of the resources, to gain the most complex possible understanding of them, and their accompanying documentation. However, important work was being done in humanities computing in countries such as Finland, Germany and Italy during the same time. Thus future work could be carried out on a sample of projects in collaboration with researcher fluent in such languages.

The method of analysis is influenced by the work of Vela et al. (2014) who used the Internet Archive's Wayback Machine to investigate the design history of the Perseus Project. The Wayback Machine was therefore used to identify the original presentation of, then track every significant design change to, the websites in the sample. It is impossible to be certain when each change was made to the resources because, especially in its early days, Wayback Machine captures were relatively infrequent. Nevertheless, this method does provide the most comprehensive insight currently possible into interface change over time. Each website, and all significant design changes, were examined in detail, in terms not only of their visual design but also of their technical functionality, encoding and markup.

Findings:

A great deal of valuable information may be derived from studying the interfaces of long-lived projects. The visual design can communicate subtle messages about the way the resource may have been conceived by its creators and the assumptions made, and perhaps subsequently altered, about user behaviour. It can also provide information about the changing place of digital humanities projects in local and national infrastructures, and the way that projects have sought to survive in challenging funding environments.

A study of how interfaces have developed reminds us about how changing access conditions (modems to fibre broadband) and technical standards (hand-coded pages with blue hyperlinks to CSS, XHTML and PostGres) have affected web design. When founded, these projects were pioneering users of an experimental medium, thus it was important to establish their intellectual credibility in the scholarly community. It is perhaps not surprising, therefore, that the interface designs of many early websites, such as that for Brown Women writers, refer to traditions of printed book design, and offered detailed information about the intellectual, and technical credibility of the project team.



The Brown University Women Writers Project

The mission of the Brown University Women Writers Project is to create, develop, and I WWP textbase is intended to support a wide range of activities, including new research nnovative approaches to teaching. The WWP exercises a leadership role in the commur extbases; it enables scholars in the earlier periods of English-speaking literatures and current corrundergraduate and graduate students to learn - through textbase development, moder echnologies for scholarship.

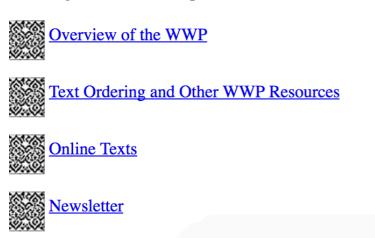


Figure 1. Original interface to the Brown Women Writers Project

Early interfaces were often visually experimental. Project teams could assume no knowledge of digital resources, and so were creative in the use of visual navigation devices such as colour, the arrangement of resources in tables, or even an image of a floor plan of a physical archive building.

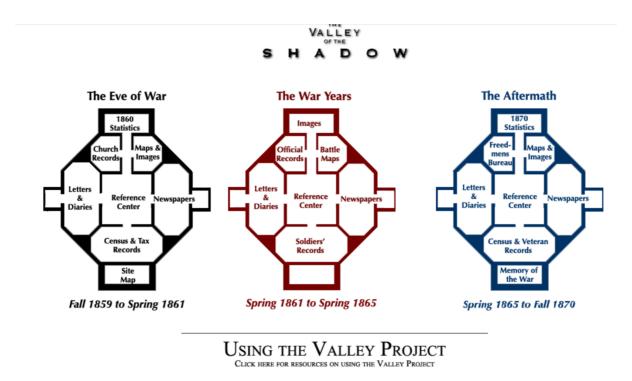


Figure 2. The floorplan navigational device for Valley of the Shadow

Growing awareness of user interface design conventions led to many interfaces being redesigned. However, the sample projects have preserved visual links to their original identity, for example by using an original colour scheme, fonts or the arrangements of images into a table-like frame.

This project has received additional funding via the JISC's Digitisation Programme to greatly expand the archive. The new project will run from 2007-2009. To find out more information please visit: https://www.ww1lit.com/

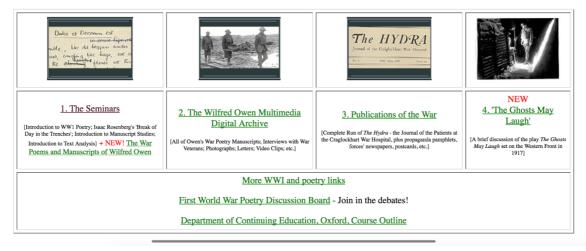


Figure 3. Detail of the original interface of Virtual Seminars for Teaching Literature

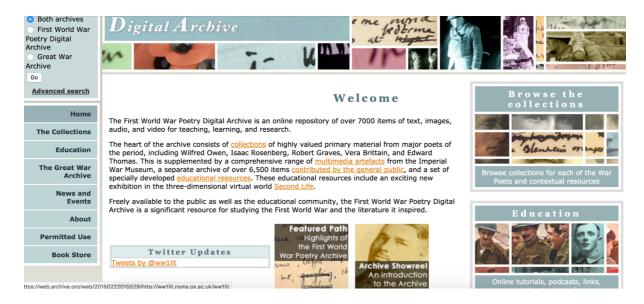


Figure 4. Interface to the WW1 Digital Archive, successor project to Virtual Seminars

Some redesigns, such as that of the Blake Archive, changed the user experience, and the visual identity radically, emphasising high-resolution images over the original dominance of text. If current users cannot access earlier versions of the site, then valuable information about the assumptions made in designing the original resource is lost.



Figure 5. William Blake Archive- original interface

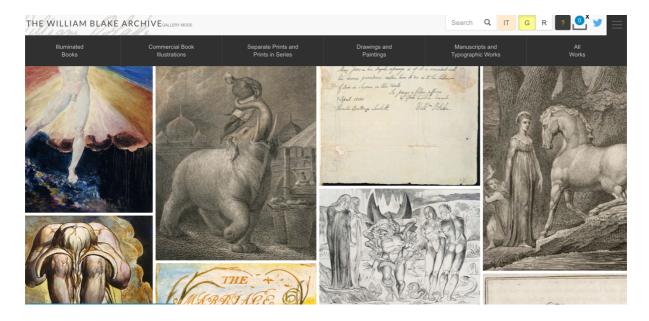


Figure 6. William Blake Archive- current interface

Conclusion:

Interfaces to DH projects provide valuable information about how their creators strove visually to communicate the meaning and importance of the material. Subsequent changes provide evidence of how DH led, or responded to, advances in web technologies and interface design conventions. Yet, while a great deal of attention is paid to digital preservation and curation, both in DH and Information Studies, the question of how, or whether, interfaces should be preserved remains unjustly neglected.

It is still possible to find early versions of many digital resources using applications such as the Wayback Machine. However, this is not a perfect solution. Once-experimental functionality, such as imagemaps, frames or animations may be incompatible with the Wayback Machine's harvesting technology. This means that resources are already either wholly or partially inaccessible in their original form, and this may become even more of a challenge in future.

This paper will therefore argue that the DH community should work with libraries to preserve original interfaces and their subsequent iterations. It is better to make conscious decisions to archive all versions of sites that are still accessible, as part of an agreed preservation strategy. Not to do so means that we risk losing a wealth of information about the development of the early web and the status of digital humanities resources.

References:

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Vela, S., Cerrato, L. Ilovan, M., Li, T., Rockwell, G., Ruecker. S., 2014. "The Biography of an Interface: Perseus Digital Library." In *Canadian Society for Digital Humanities/Société Canadienne Des Humanités Numériques (CSDH/SCHN) Conference*. St Catherine's, Ontario.