Turning students into scholars
Embedding digital collections in the history curriculum at Cardiff University

Summary
Working directly with primary sources in an online digital archive, primarily the UK Medical History Library, has been embedded into the curriculum of a second year social history of medicine module at Cardiff University. The aim is to take advantage of the accessibility of digital archives so as to:

• Introduce students to working with primary sources much earlier, and to a much greater extent, than was hitherto possible

• Give students a grounding in the methods of historical research

• Introduce students to the techniques associated with the digital humanities

• Make more and faster progress towards the goal of turning students into scholars capable of independent research

Reception of the initiative has been enthusiastic, with high levels of engagement, though more time is needed before it becomes apparent whether the longer-term pedagogic aim is being achieved.

Digital collections: the pedagogic opportunity
The growth of large-scale digital archives provides new opportunities for research in history and historically-informed disciplines. It also presents the chance to introduce undergraduates to the skills and possibilities of working with primary sources, both textual and visual, in ways which would not have previously been possible with difficult-to-access, and / or precious, print archives. The challenge, however, is to help students learn how to become proficient in the skills of using primary sources, whilst at the same time learning the techniques of using digital archives.

At Cardiff University, Professor Keir Waddington has been leading the way in incorporating digital history techniques into his second year social history of medicine module. In Cardiff’s history degree, historiographical techniques are introduced in a systematic way in the second year, paving the way for more advanced and independent study in the third year. Students have already had some exposure to digital resources and the digital humanities through a core first year skills module, but in the second year module they are required to engage with them more fully.

The purpose is twofold: firstly, to test out the extent to which students at this level can successfully engage with digital archives. A worry might be that combining learning digital techniques with the disciplines of historical study might be too great a cognitive burden. So, the question is whether the learning outcomes for the module, and for year two of the degree programme generally, are enhanced through students’ use of digital archives.

“One of the key goals of teaching undergraduate students is to turn them from learners in need of a good reading list into scholars capable of researching independently.”
Secondly, the aim is to discover how far working with digital activities can help achieve the ambition to turn students into scholars who are able to carry out independent research, and perhaps do so more effectively. Integrating digital archives in the module curriculum holds out the promise of enabling students to work with primary sources earlier and in much greater depth than was previously possible. Can this potential be realised to the benefit of student learning?

Learning activities with the UK Medical Heritage Library

The approach taken at Cardiff has been to embed the digital history teaching into an existing module rather than generating a new module. One benefit of this approach is to signal to students that these methods are becoming increasingly part of the mainstream of the discipline and are not an added extra. Spreading the activity across the two semesters of the module helps embed it as part of the curriculum and also allows time for familiarity with digital resources and deeper learning to mature.

The focus of the activity is around the UK Medical Heritage Library (UKMHL), a recently launched digital resource containing over 151,000 European medical publications. Other relevant resources are available online, particularly from the Wellcome Collection (who with Jisc joint-funded the UKMHL), but five teaching sessions are dedicated to the UKMHL. It offers a huge resource and provides the opportunity to learn the skills of working in depth with a large corpus of nineteenth-century printed medical texts. It has the benefit of being free and students can access it from anywhere at any time. Students can develop their own research questions and find answers that are not pre-packaged but have to be constructed by the researcher themselves from a diffuse body of resources. Given the size and scope of the resource available through the UKMHL, there is also ample opportunity for students to follow their own paths in selecting the resources they want to work with, building their confidence as independent learners.

Activities students are asked to undertake include:

- Searching the archive, learning how to construct searches, how to avoid being overwhelmed by large numbers of results, how to work with similar-looking titles in the results list
- Constructing their own bibliographies for the ideas / areas they choose to investigate in more detail
- Experimenting with timeline tools, both in UKMHL itself and using external tools, to construct timelines tracing the evolution of ideas and concepts over time
Case study
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- Linking their findings to other online resources, such as the British Library’s digital newspaper collection, learning how a richer picture of historical context can be built up

- Asking sound historical questions of primary sources: why they were created, by whom, what do they reveal implicitly as well as explicitly - and what do they conceal

- Reflecting on the differences between digitised and print resources, what is gained and what is missed through digitisation

- Building their knowledge through learning how to integrate new information into what they have already discovered

- Curating image collections, which means they build their own resource, as well as thinking about the relationship between the visual and the textual

- Using online mapping to link the evolution of ideas about medicine with place-based developments, again building a richer historical picture

- Learning how to present findings of change over time both in assignments and in group presentations

Student engagement
The act of working with primary sources in the UKMHL helps develop students’ abilities as active researchers rather than consumers of information. Students are offered a range of resources, so they can work at the level at which they are comfortable while still being able to achieve worthwhile results. The digital skills required are taught without any assumption of prior knowledge, acknowledging that not all students are digitally fluent and that many who are fluent in social media and web browsing need help in transferring digital proficiency to the academic context. The use of “sandboxes” allows them to test out the resources in a playful manner before a more in-depth engagement. An added benefit of activities such as these is that, alongside learning specific academic skills, students become generally more digitally capable and confident.

The level of student engagement in the activities is immediately apparent with animated seminar discussions and students staying longer in classes than is required in order to continue discussing their ideas. In the spirit of embedding digital aspects in the module as a whole students are not asked to evaluate the digital resources separately. However, students do make comments in their module evaluations indicating a positive attitude towards the digital activities, such as “I liked how it wasn’t just taught through lectures and seminars” and “I have thoroughly enjoyed every single aspect of this module”.

Staff and institutional support
For staff, of course, the skills of working with primary sources and historical archives is the bread and butter of their professional lives. What may need to be learnt is how to interrogate and marshal resources presented digitally beyond simple searching. Staff need to be comfortable themselves in working with digital methods and resources. In this case Professor

“Digital archival resources transform learning because they allow students to engage with primary sources much earlier, and in greater depth, than was previously possible.”
Waddington had been closely involved in the development of the UKMHL so knew it well. The initiative has also been supported through the university's digital humanities network and the GW4 grouping of local research-intensive universities and has been flagged in the school's annual review of teaching as an example of best practice. The technology infrastructure at Cardiff has been recently upgraded and the initiative has benefited from this.

Lessons learnt and wider impact
The innovation has run for one year so far and, although the level of student engagement and enthusiasm has been evident and pleasing, lessons have been learnt. Some activities worked better than others, with the geo-mapping activities in particular needing further development.

The real test of the success of the initiative will be in how it is reflected in student outcomes, not just in performance in second year assessment, but in whether improvement can be discerned in the third year dissertation where students undertake their own independent research project. This will start to become apparent from 2019 onwards. However, what has already been shown is that second year undergraduates can successfully learn and apply the skills of working in digital archives. As yet this digital activity has not been directly built into summative assessment but that is a task for the future. Meanwhile the initiative is being disseminated locally, while the teaching opportunities provided by the UKHML are being highlighted in articles and presentations promoting the resource.

Find out more
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Education consultancy Sero HE was commissioned by Jisc to interview Keir Waddington about developments in learning and teaching in a digital age at Cardiff University. The studies focus in particular on the impact of such developments on the student experience.