The Impact and Embedding of an Established Resource: British History Online as a Case Study

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Background and context

British History Online (BHO) is a digital library of core sources for the medieval and modern history of Great Britain. BHO was launched in 2003 and is a well-used resource: in the 12-month period to 30 September 2010 there were just over 17 million page views and almost four million visits; it has a comprehensive set of usage data going back over a number of years.

JISC's funding of an impact analysis of the site provided for a further stage to (and expansion of) an ongoing longitudinal analysis by the BHO team of the impact of digital resources in the historical profession. These analyses, which were mostly interview-based, took place in 2002, 2005, and 2009-10. The team were always aware that these benchmarking studies focused on research alone and that teaching and learning had not been investigated. The present project has enabled the team to fill this gap in our knowledge of the use of digital resources, and of BHO in particular, in teaching and learning, as well as to extend our benchmarking of the impact of digital resources in research.

Our study sought to answer the following questions:

(i) how is BHO currently used in university-sector teaching in the UK? Is it used for teaching to a greater or lesser extent than it is for research?

(ii) which new functions, or improvements to existing ones, would be most welcomed by teachers and learners, and thus aid the greater embedding of BHO in teaching practice?

(iii) which new functions would be most welcomed by university librarians?

(iv) can the impact of BHO in research, about which the project team already knows a great deal, be demonstrated in a clearer and more statistically grounded way?

Methodology

We followed the methodology of the Toolkit for the Impact of Digitised Scholarly Resources (TIDSR).

The qualitative analysis involved: two focus groups, one with university teachers, and one with graduate research students; two online surveys, one of general BHO users, and another of UK History subject librarians; stakeholder interviews carried out with seven academics with teaching experience, reiterating the format of previous years' interviews but with an added teaching component; an analysis of over 2,000 feedback messages received via the site's feedback form; and an analysis of inbound referrers.

The quantitative analysis involved: webometrics, using LexiURL to compare BHO's performance against other sites with similar content; analytics, using Google Analytics; log

file analysis, in which a standard deviation was calculated on a per-volume basis, to identify underused resources; bibliometrics, using Scopus and Google Scholar to search for journal citations to BHO; content analysis, which used Nielsen BlogPulse to track references to BHO, alongside similar sites, in blog posts between June and November 2010.

Key findings, qualitative

The user survey generated 969 responses. Of those respondents who were university-based, just short of half were from the UK, with 20% from north America and 10% from Europe. A third were academic staff, 40% graduate students and 12% undergraduates. The survey of history subject librarians garnered 38 responses, which is a good proportional response for the UK.
Both focus groups expressed strong preferences in favour of enhanced tagging facilities on the site; the graduate group also expressed interest in screencasts.
Some 26% of respondents to the general survey said that BHO was 'very important' to their research, and 27% 'quite important'. If undergraduate students and users outside the professional academic context are excluded, nearly two-thirds describe the service as very or quite important, with only 2% thinking it not at all important.

There were also some indications of the particular uses to which BHO is being put. Amongst the academic users, the spread of tasks was wide: from resource discovery activity at the beginning of a research project ('finding new works') to the consultation of known works and tasks associated with writing ('checking references'). Over a third used the site most often for general searching: a trend towards theme- rather than source-driven and search-enabled research practice that will be drawn out further in the later study.

Part of the user survey asked respondents to describe whether and how BHO had changed their research. Exactly half considered that BHO had indeed changed the way they did their research, and the responses as to why matched very closely the findings of the previous longitudinal study. They concerned not only gains in speed and efficiency, but also shifts in the manner in which research is carried out.

Most predictably, many users welcomed the fact that sources were available on their desktop, yielding an obvious gain in travel time and expense. Several users also reported that they now had access to sources, the printed versions of which their home libraries did not possess; this was particularly the case for users located overseas.

The search function also led many users to approach sources in a different way. Users reported being able to save considerable time in searching resources that previously necessitated a more lengthy reading, often looking for a limited number of scattered references. This was particularly the case in sources which were originally printed without adequate indexes.

It was also the case that searches across the whole site now produced 'unexpected treasures'; whole sources not previously known to the user, or unanticipated results in known sources. The findings for standard deviations within groups did indicate that some resources may be relatively underutilised.

There were also some indications that online access with search was beginning to change the order in which research was carried out, and the relative weight given to sources. One

user thought that s/he was probably now prioritising the digitised source over the printed one. Another thought that it was now possible, at or near the writing stage, quickly to check sources for supplementary references; sources that would not have been consulted at all previously. Another, preparing an edition of correspondence, was more likely to make the attempt to fill in more of the detail surrounding that edition, given that speculative enquiries could now be carried out without such a great investment of time.

Impact in teaching

It had been the impression of the team for some time that whilst BHO has made a very considerable impact on research practice, the service has not been comparably widely used in teaching. By and large, the results of this survey would confirm that impression.

Amongst the respondents to the user survey, only 27% did any teaching in any case. This is in part to be expected: of the 969 respondents, only 196 (less than 20%) classed themselves as academic staff, contract lecturers or tutors or research postgraduates: the groups most likely to do any teaching.

More surprising was the fact that, of those who did teach (the majority of whom presumably taught courses on British history), only 36% used BHO in that teaching in any way. Only 13% thought that BHO was central to their teaching (some 11 respondents), whilst 51% thought it supplementary to their work rather than core.

Also surprising was the level at which that teaching was done. Whilst teachers at undergraduate level formed the majority (55%), more than a quarter (27%) were teaching at foundation or further education level. BHO has hitherto tended to assume an academic audience of at least undergraduate level.

Respondents were also asked about how they used BHO in teaching. 93% set BHO resources as independent reading for classes and assignments, whilst a considerably smaller proportion (35%) used BHO material ‘live in class’.

Quite what this class teaching involves was further illuminated by both the teachers group and the interviews. Overwhelmingly, this ‘live’ use of BHO materials was in fact from printed copies, and in some cases with a screenshot projected using PowerPoint. Very few interviewees gave live demonstrations of online sources in the classroom, and none at all when asked had ever set a class working collaboratively using multiple devices; neither did they think that the infrastructure was in place to allow such use should they have wanted it.

One of the interesting points to arise from our interviews with teachers of history was the observation that the availability of resources online makes a different to what is recommended as, for example, a dissertation topic. The point was also made that online resources can shape and direct research, in what is known as an “EEBO thesis”.

Use by librarians

The survey of librarians served to interpret the referrer analysis, where almost 40% of academic links came from library pages. Some 82% of the librarians surveyed had been aware of BHO before receiving the survey, and over two-thirds recommend the site to students in general terms. Just over one quarter were from libraries subscribing to the premium content.

The state of affairs regarding more systematic integration of systems was more mixed. Whilst a small minority of library catalogues provided integration at an individual title level, the majority either listed BHO as a single electronic resource in their catalogue or in other general guides to resources. This corroborates the lack of title-level referrers from library catalogues in the quantitative data.

Key findings, quantitative

In the webometrics BHO performed very well in comparison with selected sites with similar content, across all measures, as the following table illustrates:

Site	URLs	Domains	Sites	STLDs	TLDs
British History Online	998	841	805	47	35
Old Bailey Online	988	843	788	47	32
Parliamentary Papers	395	276	234	31	21
Clergy Database	315	248	230	29	20
England's Past for Everyone	297	238	238	20	15
TNA Documents Online	621	512	512	42	32
Tanner Ritchie (MEMSO)	92	79	74	15	13
Colonial Papers	39	28	28	8	7

However there did prove to be a methodological problem with the webometric analysis recommended by the TIDSR. This will be discussed in the 'Challenges' section.

We investigated the use of log files to identify content which is underused on the site. Given that information it might then be possible to address the reasons for underuse: by profile raising, training materials, annotation, and so on.

A sample log file analysis for the thematic group 'Monastic and cathedral records' (http://www.british-history.ac.uk/subject.aspx?subject=2&gid=87) shows that the title *Registrum Statutorum et Consuetudinum Ecclesiae Cathedralis Sancti Pauli Londiniensis* receives a relatively low amount of use.

Publication title	URLs	Total views	Average by URL
Additional material for the history of the Grey Friars, London	10	2983	98
Annales Cestrienses	12	4648	125
The Grey Friars of London	32	9458	96
London and Middlesex Chantry Certificate 1548	8	3739	151
Register & Records of Holm Cultram	82	31480	123

Registrum Statutorum et Consuetudinum Ecclesiae Cathedralis Sancti Pauli Londiniensis	82	9070	36
Staffordshire Historical Collections, vol. 4	37	19725	173
Staffordshire Historical Collections, vol. 5 part 1	22	8490	126
Staffordshire Historical Collections, vol. 6 part 1	32	9616	97
Staffordshire Historical Collections, vol. 11	50	12874	84
The Cartulary of Holy Trinity, Aldgate	99	7723	25
The Ledger Book of Vale Royal Abbey	17	6415	123
Westminster Abbey Charters, 1066 - c.1214	28	5128	59

This is to be expected, since this source (see http://www.british-history.ac.uk/source.aspx?pubid=331) is a collection of statutes and charters concerning St Paul's Cathedral, and is mostly in Latin. But the general approach appears to be sound: using this method we should be able to generate a list of underperforming titles and then address the problem qualitatively – this point will be returned to in the 'Outcomes' section of the report.

The analytics found that referrals from search constituted over 80% of referrals in each of the three 12-month periods investigated. The implications of this, and the site improvements which can flow from it, will be discussed in the 'Outcomes' section.

Keyword analysis was carried out on the top 500 referring search terms for each of three 12-month periods. From these three lists a subset containing each term that appeared in all three lists was generated. Then search terms which were clearly a means of searching for the website itself rather than content (for example "british history online" or "british-history.ac.uk") were excluded. The remaining list contains 133 items, which can be said to have been of consistent interest to users who came to the site (see Appendix 1).

The list contains many items which reflect the known popularity of sections of the site: for example, the 19th century Ordnance Survey maps are very popular, and it is not surprising to see search terms such as "historic os maps", "historical maps online" or ""ordnance survey maps online" scoring highly year after year.

However it is also possible to connect this list to the performance of individual publications on the site according to the log files to produce a list of 'neglected resources'. For example, local history is clearly a very strong performer in the keyword analysis, with a search term such as "newcastle upon tyne history" appearing in the top 500 referring search terms each year; yet one of the poorest performing publications, in terms of the log files, is the *Historical Account of Newcastle-upon-Tyne* which comes at position 995 out of 1011 publications in terms of views.

The bibliometrics results for 2010 given in the Rapid Analysis Report (http://www.jisc.ac.uk/whatwedo/programmes/digitisation/impactembedding/bho.aspx) were subsequently extended to cover the years 2008-9. Scopus and Google Scholar were searched for the string "British History Online". The aggregate results for the three years were that Scopus delivered 37 articles that matched the string, and Google Scholar 43 matches (book results from Google Scholar were excluded). However there were only nine results returned by both searches.

These results show up the difference in scope of the two search resources. Scopus results consisted entirely of journal articles, whereas Google Scholar results contained 18 journal articles, but also e-theses, articles placed in institutional repositories and articles placed for download on department or faculty websites. In one case an article was found by Scopus for 2008, published in a journal, and by Google Scholar in 2009 when the same article was placed in an institutional repository.

The clear conclusion from these results must be that for bibliometric analysis one search mechanism should not be relied upon to give complete results. It is worth mentioning that Scopus is a subscription service, but that the advantages are that more journal content is discoverable (and the results are easily exportable to csv). Google Scholar is free and covers a wider range of material, but may not penetrate journal running text as effectively, and the data returned was not as easily manipulable as that of Scopus.

Enhancements

The BHO team had formulated a list of areas of possible enhancement to the site, prior to the rapid analysis, and the focus groups, interviewees, and survey participants were polled specifically on these specific areas. Once the results from all three sets of responses were collated, the following preferences emerged:

Potential Development	Users	Librarians
Extra citation formats and download options	65%	95%
Stable and simple URIs	64%	89%
Screencasts covering content, searching and browsing	39%	75%
Personalisation facilities, such as personal workspace	36%	68%
A feed of URIs recently bookmarked or mentioned (by others)	35%	20%
Curriculum-based learning modules	31%	40%
Alternative ‘tag cloud’ views on taxonomy pages based on relevance	28%	45%
Add and share your own tags	26%	40%

Although the response to the tagging question was not indicative of an enthusiastic response, there are good reasons to believe that these figures underplay the eventual use of, and enthusiasm for, this type of facility.

From this data the team decided to introduce tools based on the top four preferences:

- Screencasts
- Cool URIs
- Citation formats
- Shared tagging

Screencasts

As was mentioned in the discussion of the analytics findings, over 80% of BHO referrals come from search. This suggests that many users arriving at the site will not be familiar with its content, structure and features. These users might well benefit from short screencasts introducing some of the content of the site – content which is quite difficult for users of undergraduate level and below to use without help – and the navigation and search features.

Allied to that, the librarians' survey and the postgraduates' focus group both showed enthusiasm for the idea of screencasts – especially the librarians, perhaps indicating their role in introducing resources to library users.

Compared with the 75% of librarians who approved the idea of screencasts, and in comparison with the focus groups, the 39% of general users who approved the idea seems anomalously low. General users were less enthusiastic than librarians, which we attribute to some slight ambiguity in the wording.

At the time of writing we have made and published two screencasts using the Camtasia software and a Marantz PMD660 audio recorder, with the resultant MP4 files uploaded to Vimeo (chosen in preference to YouTube: see the Challenges section for details of the choice). These two screencasts concern search strategies on BHO and the browse function. Both were kept short, under two minutes. The screencasts have been embedded into the site, the search into the advanced search page and the browse tutorial into the browse page of the site, and as such plays in the screen which it describes:

http://www.british-history.ac.uk/browse.aspx

In addition, the audio tracks have been recorded for two further screencasts, which are slightly longer and introduce specific content: the Victoria County History and the Calendars of State Papers.

Cool URIs

These have been trialled for certain volumes. For the format we have tried to follow as closely as possible the house style of *Historical Research*, a leading mainstream British historical journal produced by our colleagues at the IHR:

The format for the Calendars of State Papers will be:
www.british-history.ac.uk/cspshortnamedaterange

For example: www.british-history.ac.uk/cspforeign1578-9 or, when months are involved, www.british-history.ac.uk/cspforeignmay-december1582).

The Journal of the House of Lords will follow the format:
www.british-history.ac.uk/lordsjrnl*n*

For example: www.british-history.ac.uk/lordsjrnl34

And Victoria County History volumes can follow this format:
www.history.ac.uk/vchfullcountyname*n*

For example www.history.ac.uk/vchmiddlesex7

There are many other groups and titles on British History Online and these will need to have Cool URIs assigned on a case-by-case basis. Further liaison will be required with the editorial staff of *Historical Research* in order to choose formats that are recognised as widely as possible within the history profession.

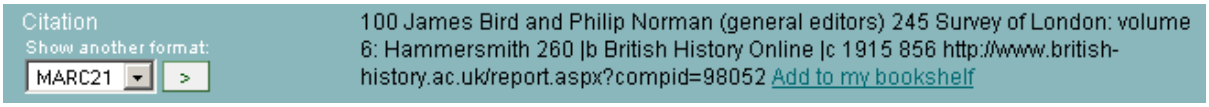
One of the history teachers we interviewed commented that he insisted upon his students citing print versions of text rather than the online version. His reasoning was that a string of arbitrary numbers is a very unhelpful form of citation because it tells the reader nothing about the source being cited. The teams hopes that, among their other virtues, the Cool URIs will address this very objection to the citing of digital resources in academic publications.

Citation formats

A drop-down box has been added to the citation section at the top of every text page on the site, offering the following formats:

- Modern Language Association
- Turabian
- Chicago Manual of Style
- Marc21
- Wikipedia

The default option is BHO's own citation standard. When selecting another option the page then generates the requested citation form, such as Marc21:



Or Wikipedia citation syntax:

This latter is designed to make it easier for Wikipedia editors to add BHO pages to articles. Some are already systematically adding links to BHO, such as has been done with London places that are covered in the Survey of London (see for example http://en.wikipedia.org/wiki/Golden_Square).

Shared tagging

This met with enthusiasm more from the focus groups than the surveys. This may have been because in the focus groups the principle could be explained and the possibilities expounded. Again, once the number who replied that they did not know what was meant by this survey question (16%) are excluded, more than half of users said that this would be useful to some extent. The teachers focus group were more enthusiastic about this option than any other, saying that it would enable them to use BHO more effectively for certain classes or courses. Since this seems a particularly good avenue to follow in terms of embedding BHO in teaching practice, enhanced tagging facilities are a priority for BHO.

However this is the most time-consuming piece of functionality to have been selected as part of the process and so it has not been possible to implement it at this stage of the project.

Usability survey

Additionally, and after discussions with JISC, the team added a usability survey to the site[1], in the form of the System Usability Scale[2], with permission from its creator John Brooke. This ten-question scale, extended to allow result analysis by type of researcher, has been regularly proven to match the results made possible by more complicated testing.

Initial results are given below and the disparity of scores between types of researcher, even for people who rate the site as 'Good' makes should form the basis for business change. Additionally, the wording of the questions makes it possible to run the scale on two completely separate sites and achieve some level of qualitative comparison of service provision, something JISC may consider desirable within the assessment work plan of projects in future funding calls

Table 1: average scores for System Usability Scale for BHO (March 1-29, 2011)

		Worst imaginable	Awful	Poor	OK	Good	Excellent	Best imaginable
a	Academic staff					60		
b	Contract lecturer or tutor							
c	Independent scholar					21		

[1] http://www.british-history.ac.uk/questions/sus.aspx

[2] http://en.wikipedia.org/wiki/System_Usability_Scale

		Worst imaginable	Awful	Poor	OK	Good	Excellent	Best imaginable
d	Research postgraduate							
e	Taught postgraduate							
f	Undergraduate						33	
g	Other				25	21	39	

A further question ("Overall I would rate the user-friendliness of this website as…") is designed to calibrate the individual user's strength of opinion generally. Given that some users may be more inclined than others to strongly agree or disagree with a statement, the penultimate question acts as a gauge of their overall mode of expressing their opinion.

A twelfth question about the user's status was added by the BHO team in order to allow a breakdown of the survey results by the categories of user that are of particular interest to us. These categories are those used in the second column above.

Challenges

Although the toolkit provided many useful methodological guidelines, it did not always scale well to a resource as heavily used as BHO. As mentioned in the Webometrics section, there was a problem in using LexiURL to collect these quantitative figures, in that there is a maximum upper limit of 1,000. Therefore the figures given in the webometrics table, of 998 URLs for BHO and 988 for Old Bailey Online are not true measures at all, but merely indicative of the fact that both resources have scores at or above the limit (see http://lexiurl.wlv.ac.uk/searcher/FAQ.html).

It is possible, given the limitation of LexiURL, that BHO far exceeds Old Bailey Online, or that Old Bailey Online far exceeds BHO in these measures; it is not possible to tell using this tool.

Another difficulty, given the timescale of the project has been the sheer volume of data generated. It has not been possible to interrogate the data in the depth which it merits. However this rich legacy of data will be addressed in the Outcomes section of the report.

The usefulness of Cool URIs is limited by the lack of a citation standard across historical publications (as distinct from archival references). Different journals and monographs have their own house style, so all that could be done was to choose the style of one journal, albeit a high-profile one.

Test uploads of BHO screencasts to YouTube showed an unacceptable degradation of image quality. This was because BHO is a site which is full of running text, which is especially sensitive to aliasing at lower resolutions and the result looks markedly poorer than other subjects on YouTube – to the extent that some text is pixelated to the point of illegibility. For this reason Vimeo was chosen because a high-enough resolution was offered to all users (YouTube offers a high-definition version but users have to actively select it).

Vimeo requires either HTML5 or a recent version of Flash. Many users with older browsers and older versions of Flash will see a screen like this one when they try to play the screencasts, which will be particularly jarring when embedded on the site:

At the time of writing a current stable release of Firefox which supports HTML5 has only just been released, and any version of Internet Explorer before IE9. More of our users will upgrade over time, but there will still be many receiving this error message for years into the future.

The experience of devising the surveys has also been a most instructive one for the team. Our suspicion is that the wording of the survey at certain points, such as using the term 'screencasts' without qualification rather than, for example, 'video tutorials' may have confused people who did not recognise the terminology. (Indeed 35% of users said they did not know what screencasts were, so over half of those who responded and knew of screencasts were in favour of them.) It is easy when working in a particular environment to assume that such terminology is in common use, but in fact all such terms need to be appropriately glossed. It is also possible that users had difficulty envisaging what a new function would actually contribute to their experience of the site; a common problem with any new functionality. Ideally the best approach might have been to show such a function in use in a demo version or on another site, but this would not have been possible within the survey format. It was also realised only after the surveys had gone live that one question about *taking* a class was ambiguous, as it could refer to either a teacher or a student. Such

ambiguity is difficult to control for absolutely but can only be checked for by trialling a survey before it goes live.

Outcomes

All of the new functions will have measurable outcomes:

Development	Effect measurable via
Cool URIs	Bibliometrics
Extra citation and download formats	Bibliometrics, content analysis
Folksonomies and shared tagging facilities	Log files, user feedback
Screencasts introducing content and individual sources	Referrer analysis, analytics
Usability survey	Survey results; log files

Since these various features have been in place for less than a month, it is too early at the time of writing to measure the outcomes of these. However very early figures for the two screencasts are that the browsing screencast has had 76 views in the last 11 days, and the search screen cast has had 50 views in eight days. But the day-by-day breakdown of views shows a spike in views of both screencasts after their publication was individually tweeted on the IHR's Twitter feed (@ihr_history). These tweets are the only publicity that has been done for specific functions to date, but further channels will be the BHO journals and the IHR Digital blog.

The feedback function on BHO is reasonably well used (averaging about 50 per month) so this may also provide qualitative data on what users think of the new functions.

A recent study[3] from University College London discusses the unpopularity of tagging facilities with researchers as an abstract idea, and reasons why this might be the case. The report suggests: 'The least popular (microblogging, social tagging and bookmarking) tools are the newest, so we might hypothesise that they have yet to reach their full take up' (p. 6) and that the most important barrier in terms of use is 'a lack of clarity over the precise benefits that might accrue to the researcher' (p. 25). This behaviour would explain the difference between the survey results and the focus group findings.

The shared tagging facility will be a substantial piece of work to implement, but when that is done it will be possible to look again at the other suggested functions which were not prioritised at this stage, or to extend the prioritised functions. For example, although four screencasts form part of the site enhancements for this project, now that the team has learned some principles of making them it should certainly be feasible to add many more, covering other content and functions.

On the other hand the learning modules, which have been discussed as a possible enhancement for BHO over a long period, have now been decisively rejected as inappropriate for the site, since they were rated lowly by survey respondents and met with a

[3] http://www.ucl.ac.uk/infostudies/research/ciber/social-media-report.pdf

marked lack of enthusiasm, not to say opposition, by the teachers focus group; the group most likely to use such modules

More generally the great mass of data generated by the impact analysis has yet to be fully explored and is likely to provide answers to questions that arise about the site for many months, if not, indeed, years.

An important institutional impact from this process has been how we can refine and focus our marketing strategy. By attaching specific URLs ("collectors") to each different way in which the survey was publicised, we were able to get important quantitative data on which channels were most effective, which is likely to feed into decisions about publicity activity and web design. For example, we were surprised that a text-only news item about the survey on the IHR's homepage (www.history.ac.uk) generated many more responses than a banner image on the same page.

A subsequent survey for a different project within the IHR has followed the best practice model generated by the rapid impact analysis, further showing the broader institutional impact of JISC's support of this particular project.

Externally applicable outcomes

BHO has kept all of its site data, such as log files and feedback, since its inception. It appears that not all web resources have done this: see this report, which describes log data as 'often undervalued or not maintained': http://www.ucl.ac.uk/infostudies/claire-warwick/publications/LAIRAHreport.pdf. We recommend that resources plan to keep all such data on a long-term basis. Since the task of classifying the feedback was time-consuming, it would also be good practice for others to introduce a simple classification scheme to their site feedback function: this might be no more than multiple-choice checkboxes which can be clicked when the feedback is actioned, but would make it far easier to use the feedback as a tool for improving the site. Further, a broad application of the System Usability Scale across multiple sites would enable an overview of the field to be taken at any time. Analysis of the scale scores over time would also given an indication of how well each organisation is managing to deliver the services its users actually want.

One or two practical lessons can be drawn from our experience of making screencasts. At first we tried to use free software (CaptureFox and Cam Studio) but these proved inadequate. We found that the superior results obtained using Camtasia more than justified the expense. We also found that the best method of synching audio and video was to produce a good clean audio file first and then to make the video while playing the audio externally; this makes synching straightforward.

The results of our survey of librarians are indicative of a general problem within library resource centres, which is that free resources, produced within universities, do not have the same level of profile as subscription content produced by major publishers. It is possible that JISC may be able to play a role in addressing this issue.

The reluctance to use digital resources in a class environment, which was expressed by nearly all of the teachers we interviewed, suggests that institutions need not only to invest in skills training but also in infrastructure, if they wish to encourage the use of digital resources in teaching and learning. Taken in conjunction with the longitudinal benchmarking studies

mentioned earlier, our analysis clearly suggests that the use of digital resources in teaching has not developed over recent years to the extent which may have been expected.

It seems fair to extrapolate from our findings to the humanities generally, and an important lesson for the sector is that the conservatism of many users should not be forgotten. The makers of digital resources, along with those likely to sit on advisory boards for such projects, and some of the most engaged and vocal users are all likely to be enthusiasts for digital technology and its capabilities. This should not mislead us into assuming that the majority of users are comfortable with tools such as Zotero – our research shows that many are not.

A final lesson is that the project itself has shown the importance of making space in the midst of the ongoing work of maintaining a vibrant educational resource to carry out a full examination of the way it is being used, and to engage systematically with users about what they value and what they would like to see improved. The evaluation methods for this will need to be scalable for best results. If projects can share best practice and openly discuss their usage and their experience of what is effective and what is not, all can benefit. Funding bodies have a clear role here and it is worth emphasising that a small amount of money to facilitate this can have a huge impact on a digital online resource.

Conclusions

The great value of this project was that it allowed the team to step back from day-to-day work on BHO and look at the project more broadly, and spend time finding out the views of users within the history subject area and more broadly. The TIDSR toolkit proved a useful framework for the rapid analysis, but would be would be more useful if it were also subject to AGILE change and revision, just like the resources it is aimed at supporting, because its current form struggles to take account of high-traffic resources.

The enhancements identified in the rapid analysis will be welcome additions to the functionality of British History Online, and the data obtained will remain a rich source of information on the usage of the resource for the future. It also forms part of our longitudinal data, something the team will want to repeat and add to in coming years.

Appendix 1

Referring Search Terms Appearing in the Top 500 Over Three Consecutive Years

16th century london
albert memorial
battersea history
beaker people
blackwall tunnel
blackwall tunnel history
bockleton
bourdon house
brick lane history
british history
british mansions
british musical instruments
british place names
british street names
calendar of state papers
calendar of state papers domestic
camberwell history
chelsea pottery
chilvers coton
church officials
clerkenwell history
commons journal
compton bassett house
covent garden theatre
croydon history
de beauvoir town
deptford history
devonshire house piccadilly
edgeworth manor
edward lister
edwardian interiors
elizabethan london
flaxen cloth
fleet ditch
fleet prison
fleet river
ford airfield
fulham pottery
georgian staircases
gloucester castle
godstow abbey
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