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The Impact of Digitisation Projects on the Work of Local Historians

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Abstract

Background: *the methodology of historical research depends on a commitment to reporting and record keeping based on investigation of primary and secondary sources. This dependence on finding and assessing the reliability of information sources presents particular challenges to designers of information retrieval software intended to support historical research.*

Aim: *this paper reports the results of a questionnaire distributed as the first phase of a research project intended to assess the information needs of historians working with original and/or digitised primary resources. We have been particularly interested in the work of “local” historians working with archives of local newspapers and with image collections that are in the process of being digitised. The primary aim at this stage was to discover whether these historians have a preference between original or digitised resources and to understand the reasons behind any preferences. In the longer term we aim to apply what we have learned to the development of a model of information seeking behaviour that can be used to guide the design of information retrieval applications supporting local historical research.*

Method: *an online survey was distributed to historians in 43 universities in the UK.*

Results: *The results show that historians make an interesting distinction between their preference for working with original documents and the greater “usefulness” of digitised resources.*

Conclusions: *Historical research presents a number of unique challenges. Further research is needed into the unique aspects of the local historian’s information seeking*

behaviour. An important focus for this research will be the design of archival information retrieval systems that address these unique requirements.

Keywords: Historical Research, Information needs, Digitisation

1. Introduction

In recent years there has been a great deal of investment in developing systems to enrich the quality, quantity and accessibility of online information. The British Library, for example, has identified the expansion and integration of their digitised repositories as a very high-priority strategic goal (British Library, 2008). They have also given a high priority to developing “resource discovery services” that are more easily accessible to researchers. In recent years the cost of digitisation and the increased availability of tools for building websites have led to a proliferation of small sites focussed on the needs of local historians. There are many examples of small sites created by local Historical Societies that are a boon to the local historian. An example of such a small site would be the Kirklees Image Library (www.kirkleesimages.org.uk) which provides access to a database of historic images of Huddersfield and the surrounding area. Prior to 2006 these images could only be viewed by visiting one of the local museums. Increasingly collections like this are offered with Web 2.0 functionality so that visitors can post comments on selected images or tag them. This additional information is not quality controlled but provides a great deal of anecdotal information related to the locations depicted in the historic images. An example of a well-developed site offering this sort of functionality would be Leodis (www.leodis.org) a photographic archive of Leeds. The huge increase in the amount of fully-catalogued digitised information items that are being made available in this way will have an impact on the way historical research is carried out.

Historical research is different from other research fields because it relies on the availability of various types of resources (primary, secondary, oral) and the ability to track these down and show relationships between them. This is reflected in the number of studies investigating historians’ information sources, needs and behaviour

(Stieg, 1981; Duff et al, 2004b; Duff & Johnson, 2002). These investigations are particularly interesting in light of the digitisation projects mentioned above. The design of future resource discovery services should be influenced by what we know of the information seeking behaviour of historians.

Historians have shown a preference for working with original rather than digitised information items. Duff *et al* (2004a) reported that 99% of historians prefer not to use digitised documents. Interestingly this contradicted earlier findings that suggested historians favoured digitised document collections (Duff & Cherry, 2000). It is clear that there are many contingencies influencing the historian's judgement about where the most reliable and useful information can be found. For example there are some cases where historians need to see the original documents because they are seeking information about the physical features of documents.

This article will report the results of a survey conducted as a first phase of a PhD project to assess the information needs and model the behaviour of historians working with digitised primary sources in the UK. In the next section we provide some evidence from the literature in order to establish the significance of this study and define its scope.

2. Understanding the context

For a long time, historians have been a subject of interest by to researchers who have investigated their attitudes and their use of information technology (Andersen, 1998; Graham, 2000, 2001, 2002), and archival materials (Beattie, 1989; Orbach, 1991; Duff, et al 2004a, 2004b). Their way of doing research, organising information (Case, 1991a, 1991b) and their information-seeking behaviour (Cole, 1998; Dilgadillo & Lynch, 1999; Duff & Johnson, 2002; Dalton & Charnigo, 2004; Cole, 2000). Earlier research into information needs (Stieg, 1981; Herson, 1984) of historians showed the great value placed on working with original materials (Stieg,1981). Dalton and Charnigo (2004) revisited Stieg's survey in an attempt to discover whether any changes had occurred to the historians' attitudes as technology had moved on. They found that printed materials were still the dominant resources for historians, but that

historians had a generally positive attitude towards information technology (Graham, 2002; Dalton and Charnigo, 2004)

Tibbo (2003a) and Anderson (2004) explored the impact of IT on historians' information-seeking behaviour by conducting the same study on how historians find their sources, one in the USA and the other in the UK. Both studies found that historians are greatly reliant on printed finding aids, yet historians in the UK expressed more usage of electronic and informal finding tools revealing a desire for more developed digital finding aids.

A clear contrast can be seen in the results of two separate studies conducted by Duff in 2000 and 2004. Duff and Cherry (2000) compared the use of an early Canadian online collection that is available in three formats: paper, digital, and microfiche. Collection users were satisfied with the digital format and considered it to be the most useful. In the second study where Duff et al (2004b) surveyed the historians' use of archival materials, historians preferred using original sources most and believed that originals are most useful. Moreover, historians prefer using the informal finding ways (archivists and colleagues) more than bibliographies, indexes, or online finding tools. This contrast may be due to the participants' disciplines and rank. For example; in the former study students (high school, undergraduate, postgraduate) were the largest group of respondents and the majority were internet users, whereas in the latter study they were all academics.

In these reviews the historian's robust attitude towards using and searching for resources using traditional techniques is noticeable. This attitude was considered by Anderson (2009) as a resistance to digitised resources. Apparently, historians' desire to experience the real sense of the past plays a key role in leading their needs and search strategies. This desire is legitimate because of the nature of historical research. Nevertheless digitisation will play a vital role in saving historical sources for the next generations and making them available worldwide.

Yakel et al (2007) have considered the future role that Web 2.0 technologies will have on historical research. These technologies are changing the way in which people collaborate, interact and document their lives. A huge resource is building for future

historians and it will be interesting to see what tools and techniques will be developed to help them engage with it.

Most of the literature cited above originates from the USA. Some of these studies such as Stieg (1981) and Delgadillo and Lynch (1999) were conducted in a time when the impact of technology on historical research was not yet clear. None of the studies express interest in digitised documents; apart from Duff (2004b) who mentioned this as a kind of recommendation. She did not elaborate her research in terms of electronic reproductions of historical documents; rather she mentioned the promise of digitisation as a supportive research tool not as an alternative for originals. This study will specifically focus on original and digitised primary sources to explore whether historians need more information when searching virtually and working with digitised primary sources. One intention is to shed light on historians' behaviour in the UK and whether this is different from that reported in the USA.

3. Survey Method

An online survey was conducted in an attempt to be consistent with previous studies that used the same method. Some aspects of Duff's questionnaire (2004a) were reflected in designing this survey for comparison purposes. The survey was undertaken to primarily assess the information needs of historians who worked or are working with digitised and/or original historical primary resources to find out whether their information needs could be different according to the time and context.

Local historians range from interested individuals and members of local societies to the professionals in the field such as archivists and university lecturers. In our survey we focussed on academic historians working in UK universities.

Three key areas are addressed in the survey:

Firstly, it was necessary to consider the historians' research interest, professions, and age categories to establish a complete picture of the respondents. Secondly we wanted to consider whether historians had a preference between using digitised or original primary sources and the reasons for any particular preference. Thirdly we wanted to

identify any problems faced by historians when searching and using primary resources. Realising the problematic situation related to each format of primary resources would help in finding better ways of overcoming these difficulties and enhancing the new opportunities.

The original questionnaire was tested with five historical scholars. This revealed the need to cut down the open questions in order to cultivate the chance of having more responses. “Why” questions were kept to give the opportunity to justify some answers. A convenience sampling was applied, based on convenience and volunteering elements in choosing participants, especially that probability techniques require many preparations which make it difficult to achieve when time is limited and results are quickly needed (Bryman, 2008).

A list of 88 university ranked first in the UK in the subject of history was chosen from The Complete University Guide (2010) as an attempt to achieve both the quality and diversity of staff. Meanwhile the National Archive in London, and the British History Online (Institution of Historical Research) were selected as well in the belief that most (if not all) historians have accounts in one of these institutions. Permission to distribute the questionnaire was requested via emails from all universities listed in the history subject table. A self-selected sample was achieved by with 43 universities approving distribution to around 1930 of their staff and post-graduate students. The online survey was distributed in April 2010. Reminders were emailed in May to be closed in Jun 2010 with a total of 258 responses.

4. Data analysis

Since open and closed questions were used in the survey, both qualitative and quantitative analyses were obtained. Data collected from closed questions were analysed by PASW Statistic 18 (SPSS) software. Whereas content analysis strategy was adopted to analyse the qualitative data obtained from open questions. The approached strategy was based on three main processes (Graneheim & Lundman, 2004):

- Preparing data and grouping responses into meaning units;

- Producing codes;
- Categorising codes and creating themes.

Responses were relatively short varied between one word and few sentences as noticed in table (1):

Meaning unit	Code
I would rather stay at home than go to National Archive	Convenience
Convenience	Convenience
Usually most easily accessed at any time of day and from office or home, do not require special handling or require travel to distant archive which usually has restrict opening hours	Convenience
Less traveling	Convenience
Convenience and accessibility	Convenience Accessibility

Table 1: example of qualitative analysis

These are a meaning group of respondents' answers to q8 asking them to provide reason(s) for preferring digitised documents. Producing codes were depending sometimes on word meaning especially when the answer was very short, while other case the relay was on the sentence meaning especially when the answer contents incomplete sentence. Respondents' language and words used in creating codes for consistency purpose.

5. Respondents

Considering respondents' profile (table 2); distribution has been achieved in terms of age, experience, and history periods, although heavy on the modem.

Respondents' profile		
Age (n=258)	Under 25	7.8%
	25-35	27.1%
	36-45	21.7%
	46-55	22.9%
	Over 56	20.5%
Research interest (n=257)	Medieval	18.6%
	Early Modern	25.2%
	Modern	55.6%
Experience length (n=258)	Less than 1 year	4.7%
	1-5 years	26.7%
	6-10 years	22.9%
	More than 10 years	45.7%
Profession status (n=255)	Pre-doctoral student	5.8%
	Doctoral student	30.6%
	Post-doctoral student	5%
	Academics	46.9%
	Senior academics	10.5%

Table 2: Respondents' profile

Clearly, doctoral students and academics were the most frequent groups of historians (77.5%). The importance of these two groups comes from the diversity of their age and experience which will be significant to the results, especially to know the influence of age and level of experience on the historians' preference and attitude towards searching and using digitised primary resources. For example, academic historians are aged between 25 and over 56 and their experiences as well start from 1 year to over 10 years regarding that 84 out of 121 academic and all the senior academics have an experience of 10 years and over.

6. Key findings and discussion

The survey questions were placed in order of good questionnaire design practice to maximise responses (quality and quantity). Following analysis of the data, however, the significance of our findings means that we present the following discussion in order of relevance to our research questions.

As such it was the results (figure 1) to q 8 and q 9 that reveal the most important thing where respondents were asked to select the format they preferred to use and the format they found most useful. They had to choose between original or digitised primary resources. This revealed that historians still prefer using original resources in line with a study of Duff et al (2004) although that the percentage is falling down to

70.5% with a decline rate of 19.5%. On the other hand, more than the half of respondents found that digitised resources are the most useful format in terms of access and availability; corresponding with Duff and Cherry (2000).

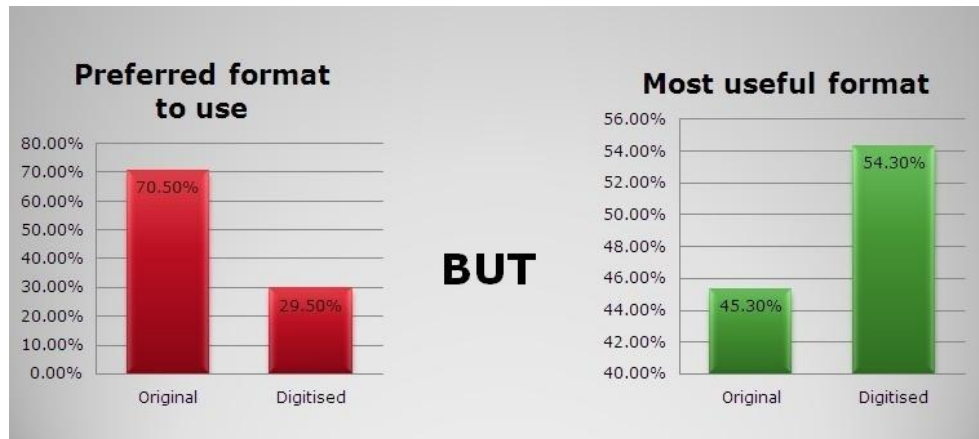


Figure 1: historians' preference between original and digitised sources

For historians original sources mean the direct link with history and enabling them to feel the sense of the past which can provide the excitement of discovery. One respondent expressed his passion showing his/her endeavour to use the original source:

“I want as few people as possible coming between me and the person who created the document I am studying”

It is the enjoyment of dealing with the real source that had been created many years ago. Apart from this, there were many reasons behind historians' attitudes preferring original and considering it as the most useful in order of priority:

- Legibility: original sources are easier to read some respondents do not like reading on a screen;
- Complete information: historians would like to touch, feel, smell, and leafing the source. They are interested in the physical features (size, ink, colour, hand writing, faint, or marks), annotations, notes on back, and marginalia.
- Context: searching and using original sources would allow historians to see the pamphlets or manuscripts as a whole source unlike the digitised sources which are usually selected and images would be filed separately. Also, browsing in an archive could allow the serendipity of discovering related materials.

- Authenticity and reliability: original sources are accurate and trustworthy.
- Availability: some respondents revealed that they have to use original source because it is the only one available, and their research sources are not yet digitised.
- Habit: few respondents mentioned they only used to look at original sources.
- Computer literacy: two respondents revealed their faith in traditional sources was encouraged by a lack of experience with IT.

Turning back to the physical features as a strong reason for historians to like the original most, respondents were asked in q12 whether they do concern the physical features of original primary sources, and in which situation they do. 58.10% of respondents were interested in the physical features when studying drawing, painting, coins, seals, posters, cuneiform tables, comments and notes in margin, handwriting, erased annotation. Accessing original sources in their physical status is not just helpful for descriptive purpose, but also in evaluating and analysing the source. This helps in interpreting the complete story that historians want to tell. In many cases the type of paper, ink and colour are very important aspects in determining the source's purpose, audience, and period.

“...this can provide valuable clues as to who a document was produced for. If the paper is poor quality then it suggests that the tract was produced for a wider audience, whereas if the paper quality is fine then it suggests a more exclusive market”

Furthermore, checking authenticity and determining provenance are subject to the physical features of sources. Hence understanding the physical background of originals is so important for many historians and stimulates their imagination, there should be a way of satisfying these need virtually for instance by including a full description of the source edited by professional historians who can understand what is interested and useful for them.

Comparatively, online access and convenience are the key reasons that drive them to prefer using digitised source and considering it as the most useful. One respondent expressed his joy of using digital sources:

“I can access sources at home [and] read Tudor handwriting slowly, enlarge difficult words”

Historians do not need to travel to remote archives spending their time and money especially for students who have restricted time. Moreover, digital sources are helpful for teaching and presenting purposes in order to sharing them with students. Searching the text itself, enlarging text, saving a copy to revisit later, and the ease of using and reading digital sources were stated by respondents to justify their attitudes. Four respondents highlight the digitisation role in saving the original sources from overuse. Many respondents were unable to state a preference acknowledging the advantages of both formats.

The interesting point here is increasing the acceptance of historians’ to use digitised sources much more than before (Duff et al, 2004; Anderson, 2009). However, admitting the digitised sources as the most useful brings out the importance of digitisation in overcoming problems faced by historians.

Clearly, remote locations, being unable to place sources and source condition have always been problems encountered by historians (Duff et al, 2004a); they continue to be so especially for historians seeking original resources as proved in this study (table 3).

Difficulty	Most problematic	Problematic	Least problematic
Geographical location	56.60%	38%	5.40%
Source condition	11.20%	42.20%	46.5%
Locating original sources	15.10%	38%	46.90%
Legislation	11.20%	24.40%	64.30%
Permission	4.70%	20.20%	75.20%

Table 3: difficulties faced by historians searching original resources

The results reveal a change in historians’ searching behaviour. Online searching as evidenced in this survey as the most frequently used finding tool. This contrasts with

previous findings (Stieg, 1981; Tibbo 2002, 2003b; Anderson, 2004) where traditional finding tools were approached.

Online research is the most used finding tools with a percent of 58.1% followed by visiting archives and libraries (figure 2). It is encouraging to note that historians did desire to have and use good online finding aids (Anderson, 2004; Duff, 2004a) acknowledging the future role of online searching facilities.

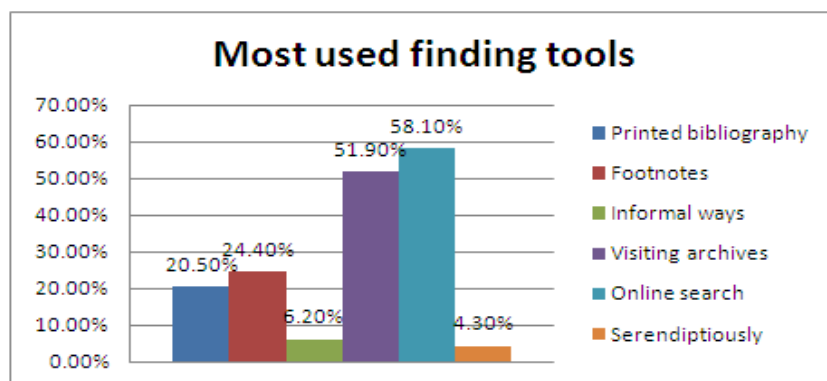


Figure 2: the most used finding tools

Some respondents suggested that electronic finding aids would be of a greater help if they were more detailed (Anderson, 2004) and contained some physical descriptions especially in terms of fragility and accessibility. Other respondents said that Web 2.0 application and interactive tools such as blogs, writing comments and reviews, forward and backward search facilities could help historians in sharing experience and locating relevant materials. Opportunities for future use of Web 2.0 tools have been discussed by Kiara King (2008) and Kate Theimer (2010).

With respect to the issue of authenticity of digitised resources, it is clear from the results that historians do trust digitised resources. Respondents were asked in q11 whether they had ever questioned the authenticity of digitised primary sources, and if yes which situation caused them to. However, only 13.60% of respondents did not trust completely the digital sources, the issue was more related to source accuracy than authenticity.

Some historians struggled to choose between original or digitised because they considered both formats to be essential. In the light of findings from previous studies, it is not surprising to find that originals are still the most used with a figure of 60%; however, the interesting point is the positive attitudes of historians towards digitised documents and the gradual increase in using digitised sources and considering them as the most useful.

What was completely surprising is to find that 107 respondents used original document because it is the only available format and not digitised yet, while 23 respondents revealed their needs to see the original document because it is more informative, authentic and reliable. A number of respondents said they wanted to see more originals digitised so they could benefit from the convenience of online access.

7. Concluding comments

The results of this questionnaire make it clear that historians recognise the potential of digitised information repositories to support their research. In particular the predicted growth in the amount of digitised information is recognised as crucial to future research projects. A number of those questioned identified access issues as crucial to historical research especially that research projects could be abandoned because important primary sources could not be accessed.

It is important to note that the respondents also identified certain important aspects of historical research that are not supported by most information retrieval applications. For example some historians said that they placed some trust in serendipity when browsing bookshelves or routing around in the stacks. The importance of contextual knowledge was emphasised here. Historical research relies heavily on the historian's ability to perceive new ways of interpret existing information. This type of creativity can be stimulated whilst browsing with a prepared mind.

Historians also emphasise the importance of human relationships in facilitating research. The importance of networking with other historians and archivists was specifically mentioned as an important means of developing and fleshing out ideas for

research projects. Again this is connected with ways in which the historian's creativity can be stimulated through discussion.

8. Further work

The work described here has suggested ideas for further research. We will continue to focus on a thorough investigation of the information needs of historians particular those working with original documents that will shortly be available in digital forms. It is anticipated that the investigation will contribute to the design of an interactive information retrieval system to support historical research. More specifically we are interested in considering the important role of creativity in historical research and how this might be stimulated by information retrieval software.

The results obtained from this survey will assist in sampling for a further qualitative phase of research based on grounded theory techniques.

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