

MEDIEVALISTS' USE OF ELECTRONIC RESOURCES: THE RESULTS OF A
NATIONAL SURVEY OF FACULTY MEMBERS IN MEDIEVAL STUDIES

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This paper discusses the use of and attitudes towards electronic resources by a select group of medieval scholars. A survey was sent to ninety-two medievalists selected from eight institutions of higher education with graduate offerings in medieval studies. The medievalists represent many different departments including English, History, Foreign Languages, Art and Art History, Religion and Philosophy, and Music. Forty-three of the survey recipients returned their surveys. This study was conducted to determine the respondents' current use of and attitudes towards five types of electronic resources: journals, dictionaries, translations, editions, and facsimiles.

The respondents show a mixed response to electronic resources. Although for the most part they are open to the idea of some types of electronic resources, it remains the responsibility of resource creators to take full advantage of transformative technologies and in turn make these resources available to medieval scholars. Further study needs to be done on this unique group of scholars.

Headings:

Medievalists--United States

Scholarly electronic publishing

Academic web sites

Humanities--Electronic information resources

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Introduction

The aged overseer paused. “Well, I doubt if you’d even understand it. I don’t. He seems to have found a method for restoring missing words and phrases to some of the old fragments of original text in the Memorabilia. Perhaps the left-hand side of a half-burned book is legible, but the right-hand page is burned, with a few words missing at the end of each line. He’s worked out a mathematical method for finding the missing words. It’s not foolproof, but it works to some degree.

W. M. Miller, Jr., *A Cantic for Leibowitz* (1959)

When W. M. Miller wrote the above words nearly forty-five years ago, he had no way of knowing that this one small piece of his vision of the future would one day come to pass.

In the *Electronic Beowulf*, academics and students alike can view parts of the text that haven’t been seen since the Cotton Library fire in 1731. Through the aid of ultraviolet light, laser scanners, and digital technology, medieval scholars and computer scientists from the University of Kentucky and the British Library have created the most complete and accessible edition of *Beowulf* ever. In addition to ultraviolet facsimile images the CD-ROM, released in 1997, includes historical transcriptions, a glossary, and editorial essays from some of the most respected scholars in the field.

Given the early adoption of technology by medievalists, it is not surprising that such projects as the *Electronic Beowulf* are in production today. In fact, one of the earliest projects in humanities computing was developed by a medievalist. In the 1940s, Roberto Busa wrote his dissertation on the use of the word *praesens* in the works of Thomas Aquinas. For the most part, Busa was able to make use of existing print concordances of

Aquinas' works. However, he found that some words necessary for his continuing research were not included in the existing concordances (specifically the preposition *in*, which he discovered was often used in connection with *praesens*, modifying the meaning). He saw the need for a complete index of words in Aquinas, and in the 1960s and 1970s, using an eventual total of six million machine-readable punch cards, the *Index Thomisticus* was completed.¹

Medieval scholars have come along way from the punch cards of the *Index Thomisticus* to the *Electronic Beowulf*. Indeed, despite the fact that they are both scholarly projects created to be used through computer intermediaries, they serve different purposes: one is an index of words used by a particular author, the other is an edition in the broadest sense of the word. There are several other types of scholarly resources available for use on computers. Journals, dictionaries and glossaries, English translations of historical texts, scholarly editions, and facsimiles are all research materials supported in both print and electronic formats.

Tibbo classifies computer applications into three areas: "1) Those that all scholars use, such as word processing or electronic mail; (2) general purpose technologies that humanists tailor to their materials, such as CAI (computer-assisted instruction) programs; and (3) technologies that have unique significance for humanistic research, such as concordance programs for literary studies."² This is a useful framework for introducing the types of resources available for medievalists. It may be taken for granted

¹ Roberto Busa, "Concluding a Life's Safari from Punched Cards to the World Wide Web," *The Digital Demotic: selected papers from DRH86, Digital Resources for the Humanities conference, St. Anne's College, Oxford, September 1997*. Edited by Lou Burnard. London: Office for Humanities Communication, 1998, pp. 3-12. See also the web site at <http://tactweb.humanities.mcmaster.ca/tactweb/doc/catahist.htm>.

² Helen R. Tibbo, "Information Systems, Services, and Technology for the Humanities," *Annual Review of Information Science and Technology*, 26, 288.

that all practicing medieval scholars are currently using computers to write their papers (at least the final drafts), keep in touch with their colleagues through electronic mail – and possibly through listservs as well – and for searching electronic databases and catalogues. Materials in the second group might include electronic journals (e-journals) and databases of secondary sources. They could easily be modified to suit the needs and wants of an audience of medieval scholars. Those in the third group would include concordances (such as the *Index Thomisticus*) and projects taking advantage of technology for enhancing primary resources (such as the *Electronic Beowulf*). Although resources from these groups are different from one another, together they serve the needs of their medievalist audience.

Although humanities computing has become a rather “hot topic” in recent years, and there are a number of studies on the use of computers and electronic resources by humanities scholars in general, there is no study (that I have found, at least) focusing solely on the use of and attitudes towards electronic resources by medievalists.

Medievalists, especially those living and working in the United States, have needs that are quite different from those of scholars working in other time periods. Because the Middle Ages “happened” mainly in Western Europe, most primary source material is found in Western Europe. In order to do primary source research, the U. S. medievalist must either travel to Europe (an expensive and time-intensive activity) or find a suitable alternative. Traditionally, scholars have had to rely on microfilm or print facsimiles for manuscript images; sometimes, a scholarly edition is the scholar’s only access point to the text. Now there are many electronic facsimiles and editions that should add to the

accessibility of previously inaccessible materials. However, there has been no study to determine either their use or their perceived usefulness.

The study described in this paper serves to fill this niche. A survey was sent to a random sample of medievalists from throughout the United States asking about their current use of and attitudes towards electronic and paper resources. A thorough analysis of this survey shows that most medievalists are interested in electronic resources, although those existing are not always useful to or suitable for the intended audience.

I. Literature Review

The survey asks about scholars' use of five types of resources that fit into areas two and three of Tibbo's framework. The five types of resources are journals; glossaries, dictionaries, or grammars; modern English translations; scholarly editions; and facsimiles. These five resources represent a spectrum of materials often used by scholars (though not all scholars) in their research. Each resource serves a different purpose, and they may be used separately or together depending on the research needs of the user.

A. Journals

Journals belong in the second area of Tibbo's framework and represent secondary research, the work of other scholars. E-journals were chosen rather than e-books because although e-journals are not yet as numerous as print journals, they are still more likely to be used than e-books.³ In addition, the most recent scholarship is usually available in article form before it is available in monographs.

³ A recent study shows that only 18% of those higher education students and faculty members surveyed regularly use e-books. The disciplines of the respondents was not given. "Academia still ignoring ebooks," *Information World Review*; (183) Sep 2002, p.2.

Electronic journals fall into three main types.⁴ There are those that are created specifically for dispersal on the World Wide Web or through other computer accesses and are not intended to be viewed in print. These are the most likely to take full advantage of transformative technologies such as linking among e-journal articles. There are those that are also created for computer dispersal but are formatted for printing (usually in PDF file format). Many of these are available through subscriptions services such as ProjectMUSE or Elsevier and are also available as print journals. Then there are those that are “reborn digital,” or print journals scanned and made available as images, text, or both. The major source for these journals is JSTOR, which is discussed in more detail below.

The availability and subsequent use of electronic journals for humanities in general has been small, but studies suggest that interest is growing. A very recent market research study indicates that 75% of the surveyed scholars have used electronic periodicals (compared to 97% use of print journals), although this use is not necessarily regular.⁵ Part of the reason given for this relatively low amount of use is a preference for print journals, the traditional means for accessing such resources. However, other reasons include the low number of e-journals available and the lack of awareness of those resources that are available. A 2001 study from the United Kingdom suggests similarly that although there is a high level of interest in e-journals within the academic community, use of them is limited.⁶ Another study from the United Kingdom in 1999

⁴ These divisions are my own. The typical division is in two parts, with “born digital” vs. “reborn digital,” however I find that there is an important distinction in the born digital e-journals between those that are intended to be viewed through the computer and those that are intended to be printed out.

⁵ “Academia still ignoring ebooks,” p. 2.

⁶ D. Nelson, “The uptake of electronic journals by academics in the UK, their attitudes towards them and their potential impact on scholarly communication,” *Information Services and Use*; 21 (3/4) 2001, p.205-14.

found that the advantages of e-journals for scholars include currency, full-text capabilities, and accessibility; disadvantages include a current lack of standardization, perceived low quality, problems involved with reading directly on the monitor, and incomplete volumes. The biggest disadvantage of e-journals? The question of long-term access.⁷

In the Fall of 2000, JSTOR executed a survey of 32,000 humanities and social science faculty in US.⁸ Thirty-four hundred (10%) of the surveys were returned. More than 60% of respondents indicated that they were comfortable using electronic resources, although e-journals were not included in the list of most valuable resources. The most popular electronic resources were online catalogs, full-text electronic journal databases, and abstracting and indexing databases. The survey also asked respondents whether they “will be able to trust an electronic repository in place of having paper volumes stored locally.” Forty-eight percent of respondents (63% of those in the humanities) strongly agreed with the following statement: “Regardless of what happens with electronic archives of journals, it will always be crucial for libraries to maintain hard-copy archives.” Further, most academics did not condone discarding paper back runs. More than half of the respondents (56%) indicated that they did not want to see “hard-copy archives discarded and replaced by electronic archives.”

⁷ Rusch-Feja, Diann and Siebeky, Uta. “Evaluation of Usage and Acceptance of Electronic Journals: Results of an Electronic Survey of Max Planck Society Researchers including Usage Statistics from Elsevier, Springer and Academic Press,” *D-Lib* October 1999. URL: <http://www.dlib.org/dlib/october99/rusch-feja/10rusch-feja-summary.html> (Full Report: <http://www.dlib.org/dlib/october99/rusch-feja/10rusch-feja-full-report.html>). The study surveyed 1042 people altogether, including 126 from the humanities.

⁸ “Faculty Response and Attitudes Toward Electronic Resources,” *JStor News Notes* No. 6, Issue 1, March 2002. URL: <http://www.jstor.org/news/2002.03/SurveyMarch2002.html>

Finally, faculty were asked to indicate how important it is that electronic journals be preserved for the future. Seventy-six percent strongly agreed with the following statement: “With more and more journals becoming available electronically, it is crucial that libraries, publishers, or electronic databases archive, catalog, and protect these electronic journals.”

The issue of permanence is a continuing problem for all digital information, but is of special importance for e-journals. The nature of scholarly communication necessitates that articles published electronically remain viable in order to allow for continued commentary and reference. If e-journals are to be providing links to the referenced sources, it must be trusted that the reference will be there as long as the link.⁹ At least one initiative has been undertaken to study possibilities for permanently archiving e-journals,¹⁰ and the emerging Open Archival Information System (OAIS) holds promise for the creation and preservation of e-journals.¹¹

⁹“Linking to the Appropriate Copy: Report of a DOI-Based Prototype,” *D-Lib* September 2001. URL: <http://www.dlib.org/dlib/september01/caplan/09caplan.html>. Discusses the possibility of assigning individual electronic articles with a DOI, or Digital Object Identifier, as opposed to a URL. The DOI would be permanently associated with the article and, unlike a URL which is subject to change, one could always find an object through the Internet by using its DOI. See also S. Hitchcock, F. Quek, L. Carr, W. Hall, A. Witbrock, I. Tarr. “Towards universal linking for electronic journals,” *Serials Review*; 24 (1) 1998, p.21-33. “Linking Electronic Journals: Lessons from the Open Journal Project,” *D-Lib* December 1998. URL: <http://www.dlib.org/dlib/december98/12hitchcock.html>. Atkins, Helen. “The ISI Web of Science – Links and Electronic Journals. How Links Work Today in the Web of Science, and the Challenges Posed by Electronic Journals.” *D-Lib* September 1999. URL: <http://www.dlib.org/dlib/september99/atkins/09atkins.html>.

¹⁰ Flecker, Dale. “Preserving Scholarly E-Journals,” *D-Lib* September 2001. URL: <http://www.dlib.org/dlib/september01/flecker/09flecker.html>

¹¹ Consultative Committee for Space Data Systems, “Reference Model for an Open Archival Information System,” *Blue Book*, January 2002. URL: <http://www.ccsds.org/documents/pdf/CCSDS-650.0-B-1.pdf>. “Preservation Metadata and the OAIS Information Model: A Metadata Framework to Support the Preservation of Digital Objects,” a report by the OCLC/RLG Working Group on Preservation Metadata, June 2002. URL: <http://www.oclc.org/research/pmwg/>. For more on digital preservation see Paul Conway, “The Relevance of Preservation in a Digital World,” Northeast Document Conservation Center, Technical Leaflet, Reformatting, Section 5, Leaflet 5. URL: <http://www.nedcc.org/plam3/leaf55.htm> and “Preservation in the Digital World,” <http://www.clir.org/pubs/reports/conway2.index.html>.

Another concern that scholars have for electronic journals is that they have content sufficiently scholarly to trust for research. In order to do this, they must have systems of peer review comparable to those of print journals, and they must also receive submissions of the same caliber. "Even the strongest proponents of electronic journals agree that technological design alone is not sufficient to insure a good quality journal. There is a strong consensus that the quality of a journal's scholarly content is important in making it viable, but there is substantial disagreement about the means of attracting high quality materials."¹² Cost of electronic journals verses paper journals is also a concern, both to librarians and those faculty they serve.¹³ Despite problems of permanence and quality, e-journals offer much that is not possible in print journals.¹⁴

There are presently not very many e-journals available for medieval studies. Those that are available fall mainly into the "reborn digital" group, or in the formatted for printing group. The most popular electronic journal service is JSTOR (Journal STORage), which

¹² Rob Kling, "What is Social Informatics and Why does it Matter?" *D-Lib* January 1999. URL: <http://www.dlib.org/dlib/january99/kling/01kling.html>. See also E. Lally, "researcher's perspective on electronic scholarly communication," *Online Information Review*; 25 (2) 2001, p.80-7. M K. Rao, "Scholarly communication and electronic journals: issues and prospects for academic and research libraries," *Library Review*; 50 (3and4) 2001, p.169-75. C. Speier, J. Palmer, D. Wren, S. Hahn, "Faculty perceptions of electronic journals as scholarly communication: a question of prestige and legitimacy," *Journal of the American Society for Information Science*; 50 (6) 1 May 1999, p.537-43. Tomlins, C. L. "Just one more 'zine? Maintaining and improving the scholarly journal in the electronic present: a view from the humanities," *Learned Publishing*; 14 (1) Jan 2001, p.33-40.

¹³ Carol Hansen Montgomery, "Measuring the Impact of an Electronic Journal Collection on Library Costs: A Framework and Preliminary Observation," *D-Lib* October 2000. URL: <http://www.dlib.org/dlib/october00/montgomery/10montgomery.html>. Carol Hansen Montgomery and Donald W. King, "Comparing Library and User Related Costs of Print and Electronic Journal Collections: A First Step Towards a Comprehensive Analysis," *D-Lib* October 2002. URL: <http://www.dlib.org/dlib/october02/montgomery/10montgomery.html>

¹⁴ See also M. M. Aman, "Electronic journals: a substitute for the real thing?" *Journal of Information, Communication, and Library Science*; 3 (1) Fall 1996, p.3-14F J. . Friend, "Alternatives to commercial publishing for scholarly communication," *Serials*; 11 (2) Jul 1998, p.163-6. A. Odlyzko, "The rapid evolution of scholarly communication," *Learned Publishing*; 15 (1) Jan 2002, p.7-19. K. J. Snyder, "Electronic journals and the future of scholarly communication," *Notes*; 58 (1) Sep 2001, p.34-8. L. Waaijers, "Opinion paper: towards a new system of scholarly communication," *Interlending and Document Supply*; 25 (2) 1997, p.77-8. G K. Youngen, "The impact of electronic publishing on scholarly communication: a forum on the future - a conference report," *Library Collections, Acquisitions, and Technical Services*; 25 (2) Summer 2001, p.211-22.

began as a Mellon-funded project at the University of Michigan but is now a not-for-profit foundation.¹⁵ JSTOR provides digital images of journal pages, backed with “dirty” OCR, allows for full text searching capability. It provides full runs from the first issues up to five to three years ago, depending on the journal.¹⁶ Agreements with journal publishers prevent the most recent issues from being included, in order that it not compete with new issues. Titles relevant to medievalists in JSTOR include: *French Historical Studies* (1958-1999), *Speculum* (1926-1996), *Journal of Military History* (1989-1998), *Renaissance News* (1948-1966), *Renaissance Quarterly* (1967-1998), *Sixteenth Century Journal* (1972-1996), *Shakespeare Quarterly* (1950-2000), *Yale French Studies* (1948-1999).

There are a few online journals available only in electronic form. *Mirator* is a multilingual electronic journal dealing with medieval issues. The articles are saved in PDF format, intended for download and printing. *Mirator* does not take advantage of technology, however it does have a strong scholarly review “according to the same principles as the traditional scholarly journals.” Unfortunately for most medievalists in the U.S., most of the articles published in *Mirator* are in Finnish.

<http://www.cc.jyu.fi/~mirator/ukmira.html>. *The Heroic Age* has been published online since 1998. The articles are encoded using HTML, but there are no paragraph or section numbers, making the articles difficult to cite. <http://www.mun.ca/mst/heroicage>.

¹⁵ B. Hetrick, “JSTOR’s Growth in the International Library Community,” *Library Times International*; 18 (4) Apr 2002, p.37-9.

¹⁶ The stated goals of JSTOR include: To build a reliable and comprehensive archive of important scholarly journal literature; To improve dramatically access to these journals; To help fill gaps in existing library collections of journal backfiles; To address preservation issues such as mutilated pages and long-term deterioration of paper copy; To reduce long-term capital and operating costs of libraries associated with the storage and care of journal collections; To assist scholarly associations and publishers in making the transition to electronic modes of publication; To study the impact of providing electronic access on the use of these scholarly materials. URL: <http://www.jstor.org/about/mission.html>

Renaissance Forum: An Electronic Journal of Early-Modern Literary and Historical Studies, has been published online since 1996. The articles are encoded using HTML, and the paragraphs are numbered to aid in citation. <http://www.hull.ac.uk/renforum>. *The Medieval Review*, a review journal of publications in medieval studies, operates as a subscription listserv. All reviews are then encoded using SGML tags to enhance searching and are made available online. <http://www.hti.umich.edu/t/tmr/>.

Two journal subscriptions services offer journals through library OPACs. The journals are also available in print. They are offered electronically as PDF documents intended to be printed out, and tend not to take advantage of linking technologies. Project MUSE offers electronic versions of the *Journal of Medieval and Early Modern Studies*, *Chaucer Review*, *Essays in Medieval Studies*, and the *Journal of the History of Ideas*. *Journal of Medieval History* and *History of European Ideas* have recent issues available through Elsevier.

Two journals are available in print only, but offer some online content through their websites. *Envoi: A Review Journal of Medieval Literature* provides PDF preprints and PDF versions of two issues from 1997. <http://members.aol.com/ENVOIjrnl/index.html>.

Exemplaria: A Journal of Theory in Medieval and Renaissance Studies also provides a few PDF webprints. <http://www.english.ufl.edu/exemplaria/>.

Early Modern Literary Studies (EMLS) is an electronically published online journal that is notable because the articles published in its web pages frequently deal with scholarship being done using electronic resources. Since beginning publication in 1997, EMLS has had three special issues focusing on scholarship using electronic resources. It makes

sense that an electronic journal would be promoting the use of electronic resources, as it is itself an electronic scholarly resource.

The first special issue (Vol. 1, April 1997) is entitled “New Scholarship from Old Renaissance Dictionaries: Editorial Preface.” According to the issue preface, most of the articles had their beginnings in a course on Shakespeare’s language, taught by Ian Lancashire at the University of Toronto. One of the resources used in the course was the *Early Modern English Dictionaries Database* (EMEDD), “a computer corpus of English lexicons printed between 1530 to 1657.”

The authors of the articles use the EMEDD in a variety of different ways. The author of “‘That purpose which is plain and easy to be understood’[sic]: Using the Computer Database of Early Modern English Dictionaries to Resolve Problems in a Critical Edition of The Second Tome of Homilies (1563)” takes a selection of words from one work and compares their meanings in context to entries in the EMEDD.¹⁷ In “Renaissance Dictionaries and Shakespeare’s Language: A Study of Word-meaning in Troilus and Cressida,” the author selects words and passages from Troilus and Cressida and compares definitions and usages of them as they are found in the Oxford English Dictionary (OED), the EMEDD, and other Shakespeare texts.¹⁸ To facilitate his searching, the author used the OED online and a freely available electronic Shakespeare.¹⁹

¹⁷ Stephen Buick, EMLS, Vol. 1 (April 1997: 2.1-16).

¹⁸ Mark Catt, EMLS, Vol. 1 (April 1997: 3.1-46).

¹⁹ Other articles from this special issue include Mary Catherine Davidson, “Did Shakespeare Consciously Use Archaic English?” (April 1997: 4.1-14); Tanya Hagen, “An English Renaissance Understanding of the Word ‘Tragedy’,” (April 1997: 5.1-30); Ian Lancashire, “Understanding Shakespeare’s Titus Andronicus and the EMEDD,” (April 1997: 6.1-20); Jonathan Warren, “Reflections of an Electronic Scribe: Two Renaissance Dictionaries and Their Implicit Philosophies of Language,” (April 1997: 7.1-8); Patricia Winson, “‘A Double Spirit of Teaching’: What Shakespeare’s Teachers Teach Us,” (April 1997: 8.1-31).

The two other special issues of EMLS are “The Internet Shakespeare: Opportunities in a New Medium Foreword,” (January 1998) and “Renaissance Literary Studies and Humanities Computing: Introduction,” (January 2000).

B. Glossaries, dictionaries, and grammars

Glossaries, dictionaries and grammars (hereafter referred to collectively as dictionaries) belong in the third area of Tibbo’s framework and represent reference resources specifically to the study of language. Like with e-journals, there are e-dictionaries that are versions of those in print, and there are those available only through computers. However, because dictionaries are designed as reference works to be searched rather than to be read through, nearly all electronic dictionaries will include at least a simple tool for searching. I have not found any dictionaries online that are simply scanned images from a print dictionary. The advantages of electronic reference tools over print include searchability and parsing tools (tools that give variant forms of a word according to tense, number, or case).

Most of the literature available concerning electronic dictionaries discusses the *Oxford English Dictionary* (OED; available through license; <http://www.oed.com>), arguably the most important tool for the study of the history of the English language. The OED is an etymological dictionary, tracing all known words in English back to their earliest usages. The searching tool works quite well and the user can search using any variant spelling of a word. It includes entries for over a half a million words with 2.5 million illustrative quotations. For scholars interested in the history of the English language from its beginnings, the OED is unsurpassed. Some issues with the OED that may be applicable to other e-dictionaries as well include problems with search tools (i.e., the inability to

correctly find phonetically or incorrectly spelled words), a lack of useful guidance on pronunciation,²⁰ and issues of subscription pricing.²¹ However, in general the OED represents a good example of an electronic reference work of the future.²²

In the descriptive article “Constructing a Glossary for the *Electronic Beowulf*,” instead of discussing issues of use the author focuses on the method of creating an electronic glossary.²³ On the scholarly side the glossary faced the same challenges as earlier print glossaries. “The extensive vocabulary of the poem requires entries for more than 3200 different words, including many which occur nowhere else in Old English literature. Moreover, the condition of the *Beowulf* manuscript, particularly around its damaged outer margins, often necessitates reconstruction of words or parts of words which are now lost.”²⁴ However, the electronic nature of the finished product created additional challenges for the creators. The glossary “was designed to run alongside the digital images of the manuscript, or any of several ancillary texts included in the edition. Therefore, in addition to the usual textual, linguistic, and lexicographic challenges, making a glossary for the *Electronic Beowulf* involved the special problem of adapting HTML hyperlinks so that the glossary can accomplish what would be difficult or impossible in a printed version.”²⁵

In general, the main advantage that e-dictionaries have over those in print is searchability. In addition, as illustrated through the glossary for the *Electronic Beowulf*, e-

²⁰ P. Cliff, “The Oxford English Dictionary Online,” *Ariadne*; (23) Mar 2000, No page numbers. URL: <http://www.ariadne.ac.uk/issue23/oed-review/>

²¹ D. Tyckoson, “What Were They Thinking? The Oxford English Dictionary on the Web,” *Against the Grain*; 12 (4) Sep 2000 p.38, 40, 42. The issue of pricing is also important in the realm of e-journals.

²² P. Schlicke, “New publishing: no easy solution,” *Information Management Report*; Jun 2002, p.1-4

²³ Michael Ellis, *Revue: Informatique et Statistique dans les Sciences humaines* 33 (1997), 113-123.

²⁴ Ellis, p. 113.

²⁵ Ellis, p. 113-114.

dictionaries have the possibility of being integrated into larger projects, transforming them in ways nearly impossible in print. Although there are several e-dictionaries available for medievalists, and most of them are excellent for searching, very few are so transformative.

The web page *Modern English to Old English Vocabulary* offers a simple word list (<http://www.mun.ca/Ansaxdat/vocab/wordlist.html>). It is part of the ANSAXDAT website (the database to ANSAXNET listserv, the listserv for Anglo-Saxon studies), however it includes no date of creation or information about the author or publisher. The page's trustworthiness is thus called into question.

For scholars of Old English there is the *Dictionary of Old English Corpus* (available through individual site license). The Old English machine-readable corpus is a complete record of surviving Old English except for some variant manuscripts of individual texts. The Corpus comprises over 3000 different texts from ca. 450-1100 A.D. The texts have been divided into meaningful units, usually editorial sentences. Non-Old English words and roman numerals are marked using the FOREIGN tag; no attempt is made to distinguish Greek and Latin. The *Dictionary of Old English* is useful for finding all the uses of a particular word, and allows for examination in context. Also of interest to Old English scholars is the *Historical Grammar of the Old English Language* by Cyril Babaev (<http://indoeuro.bizland.com/tree/germ/oenglish.html>). This site includes appendices on the Old English lexicon and the Old English Runic Alphabet. The author, however, is an unknown. He is the administrator of *The IndoEuropean Database* (TIED), a web site of information on Indo European languages open to anyone who is interested in

participating. The site does not include information on his credentials, and a search for his name in the *Modern Language Association* database turns up nothing. He may be very knowledgeable, but it may be best to use this resource carefully. One more resource for the study of early English, the *Penn-Helsinki Parsed Corpus of Middle English* (CD-ROM; information at <http://www.ling.upenn.edu/mideng/>) is a “corpus of prose text samples of Middle English, annotated for syntactic structure to allow searching, not only for words and word sequences, but also for syntactic structure.”²⁶

Many more resources are available for the study of medieval Latin; not surprising, as Latin was the international language of the Middle Ages. These resources include concordances and indexes, dictionaries, word lists, and grammatical analyzations of full-text sources. One example of the latter, the *Thesaurus Diplomaticus* (CD-ROM), “contains the analysis of about 12,800 charters, the full texts of 6,000 documents analysed as parts of charters and an iconographic documentation of about 2,400 originals.”²⁷ The most popular e-dictionary for Latin is a version of the most popular print dictionary, the simply titled *Latin Dictionary* (commonly referred to as Lewis & Short; <http://www.perseus.tufts.edu/cgi-bin/resolveform?lang=Latin>). It is available through the Perseus Project at Tufts, and can be searched in Latin or English. This is especially helpful for those who compose in Latin. For those scholars interested in the forms of words as well as their meanings, there is the *Thesaurus Formarum: Cetedoc Index of Latin Forms* (CD-ROM, Brepols Publishers, 1999). This resource lists Latin word-forms from the earliest known uses through the Twentieth Century.

²⁶ <http://www.ling.upenn.edu/mideng/>

²⁷ *Thesaurus Diplomaticus* User's guide, p. 148

A well-studied sub-group of medieval Latin is Celtic Latin, the language as it developed in Scotland, Wales, and especially Ireland. Because of the travel of Irish monks in the seventh and eighth centuries, Celtic Latin forms and uses are also found in continental manuscripts. The *Celtic-Latin Word List* (<http://journals.eecs.qub.ac.uk/dmlcs/wordlist/wordlist.html>) is “a working checklist of distinctive vocabulary found in the texts being treated by the Royal Irish Academy's Dictionary of Medieval Latin from Celtic Sources (DMLCS) project.” The List “takes the form of a browsable, lemmatized, alphabetical list consisting mostly of two kinds of words: vocabulary that is foreign to Classical Latin and would not be found in a standard Latin dictionary, and Classical vocabulary that appears in unusual forms in our texts.”²⁸

Another, more singular resource for Celtic Latin is the *Celtic Inscribed Stones Project (CISP) on-line database* (<http://www.ucl.ac.uk/archaeology/cisp/database/>). In the early Middle Ages (AD 400-1000), it was common for stones to be inscribed using an alphabet based on a series of lines called *ogam*. This database includes transcriptions of every ogam inscription raised on a stone monument within Celtic-speaking areas (Ireland, Scotland, Wales, Dumnonia, Brittany and the Isle of Man) in this period. There are over 1,200 such inscriptions included.

C. English Translations

Modern English translations belong in the second area of Tibbo's framework, and represent what I call a “pseudo-primary” source. Although translations can represent the meaning of a text (or at least an individual's interpretation of the meaning), they are linguistically removed from the original text. Few words have a one-to-one correlation

²⁸ <http://journals.eecs.qub.ac.uk/dmlcs/wordlist/wordlist.html>

with those in another language, and it is unlikely that two people would translate a text exactly the same way (or even that one person would translate one text the same way twice). In practice, a translation will usually be made from a scholarly edition, or from a manuscript transcription. Because using a translation requires a great deal of trust on the part of the user, many scholars prefer to use their own translations and use published translation for teaching or preliminary research.

There is no literature dealing specifically with the issues surrounding electronic translations, however in examining some examples (many translations are available on the World Wide Web) issues become apparent immediately. The most notable problem with online translations has to do with age. To avoid the violation of copyright laws, online translations must either be posted by permission with the copyright holder, or be in the public domain. Most texts in the public domain are over seventy-five years old, and thus do not reflect recent practices in language interpretation. Another problem has not to do with the translations themselves, but with the sites that provide them.

Although some sites have all the translations locally, most provide links to other sites. If these other sites move or otherwise modify their contents, the links may not work. It can be frustrating and time-consuming for the user if the site administrators do not constantly check and update their links to outside sources.

Several web sites provide access to translations of medieval literature and historical texts. The *Online Medieval and Classical Library* (<http://sunsite.berkeley.edu/OMACL/>), through Berkeley Digital Library SunSITE, provides translations in the public domain, and some editions. All the translations are local. The *Internet Medieval Sourcebook* (<http://www.fordham.edu/halsall/sbook.html>) is part of a larger site called the Online

Reference Book for Medieval Studies. This site contains mainly translations from the public domain. Some of them are portions of text, although many of the entries are complete works. However, not all the documents are on-site and some links to off-site pages no longer work. The *Christian Classics Ethereal Library* (<http://www.ccel.org/>), out of Calvin College, provides English translations of writings of the Church fathers and the early Church. Most of the translations (public domain) are available on their local server, and a search tool is available. The texts are encoded using a Theological Markup Language, an enhanced version of HTML that allows for searching scriptural references and other types of quotation. The *ORB Text Library* (<http://orb.rhodes.edu/libindex.html>), another part of the Online Reference Book for Medieval Studies, is one site that tackles copyright problems and offers new translations (and manuscript transcriptions). However, currently the site only has a few works available.

D. Scholarly Editions

Scholarly editions belong in the third area of Tibbo's framework. Like translations, editions are a pseudo-primary source. Although editions represent the original text, interpretation is still a part in the editorial process. A scholarly edition would usually be made from several manuscript sources (assuming several versions of a text exist), and would usually include notes concerning the differences between manuscripts, contextual notes, and sometimes a glossary.

There are several electronic editions for medieval studies, and many of them are of a high quality. For scholars of medieval English there are many to choose from. The *Middle English Compendium* out of the University of Michigan (<http://ets.umdl.umich.edu/m/mec/>) is designed to offer easy access to and interconnectivity between three major Middle

English electronic resources: an electronic version of the Middle English Dictionary, a HyperBibliography of Middle English prose and verse, based on the MED bibliographies, and a Corpus of Middle English Prose and Verse. It also offers links to an associated network of electronic resources. Another part of the *Middle English Compendium* is the *Corpus of Middle English Prose and Verse* (<http://www.hti.umich.edu/c/cme/>). The texts in this collection were either contributed by University of Michigan faculty, provided by the Oxford Text Archive at Oxford University, or were created for the Corpus by the Humanities Text Initiative. The texts are fully searchable.

The *Anglo-Saxon Poetic Records* (<ftp://ftp.std.com/WWW/obi/Anglo-Saxon/aspr/>) are a series of HTML files, available for download through an FTP site. According to the “readme” file that downloads with the poetic records (also available at <http://ftp.std.com/obi.Anglo-Saxon/aspr/readme.html>), the files are revised from an earlier project, “a collation of an early form of the electronic text of the Old English corpus held by the Dictionary of Old English with the printed text of the Anglo-Saxon Poetic Records.” In some cases the editions have been checked against the original manuscripts, and notes about the manuscripts are included. The *Labyrinth Library: Old English Literature* (<http://www.georgetown.edu/labyrinth/library/oe/oe.html>) includes editions of most Old English texts, both poetry and prose. These editions were created using the *Anglo-Saxon Poetic Records* (which were deposited as text files in the Oxford Text Archive, text U-1936-C). They have been converted to HTML and an alphabetic index, titles, and information about the dialect and approximate period of composition have been added to them. This resource, then, is actually a modified version of the *Anglo-Saxon Poetic Records* described above. This points to another potential problem with using

electronic editions (or, really, any electronic source): because electronic files are so easy to copy, the same text (or slightly modified versions of the text) may be found in several different places on the World Wide Web. Hopefully the web authors will include a section that describes where they found their material and how they have changed it, but that may not always be the case. Unfortunately, it lies in the hands of the user to make sure web sites consulted are scholarly and worthy of trust.

English is not the only language represented by electronic editions. The *Archivo Digital de Manuscritos y Textos Espanoles* (ADMYTE; CD-ROM) is a collection of texts, manuscripts and images from medieval Spain covering a wide variety of subjects and in several languages including Catalan, English, German and Arabic. *Ut per litteras apostolicas ... Papal Letters 1* (Brepols Publishers, 2001; CD-ROM) contains editions of letters of the Popes from the Thirteenth and Fourteenth Centuries (in Latin). *The Sala Family Archives: A Hand List of Medieval and Early Modern Catalonian Charters* (Joseph J. Gwara, Jr. Georgetown University Press: <http://www.georgetown.edu/labyrinth/professional/pubs/sala/>), includes 289 charters belonging to the Sala family archives and images of some of the manuscripts. Finally there is *Project Wulfila* (<http://www.wulfila.be/>), an electronic edition of the Gothic Bible (financed by the University of Antwerp, Belgium). This edition, every word tagged, is based on the authoritative print edition. “The goal is an edition that combines text, lexicon and grammar and allows the reader to obtain extensive information by clicking on any word in the text (e.g. a morphological analysis

of the selected form, the corresponding headword, a translation, the Greek original, and an overview of word frequency).”²⁹

As with dictionaries, there are several editions of Latin texts available. Most of these are electronic versions of print originals, available by purchase or through subscription. The *Acta Sanctorum*, available through Chadwyk-Healey, is an electronic version of the printed *Acta Sanctorum* (68 volumes). This collection includes the full text of medieval hagiographical literature (Saints’ lives), fully searchable. The searchability of this resource is a lifesaver – the print *Acta Sanctorum* is organized in a logical way, though it is not user-friendly. The texts are arranged not alphabetically but by the date a saint’s life is celebrated. In order to find a text, the user must know the day on which the saint died. Another added bonus with this resource, if a library subscribes to the *Patrologia Latina* as well (full-text editions of works of the Latin Fathers, also based on a print version), the search tool allows for both to be searched together.

Brepols Publishers offers three editorial collections in Latin (all CD-ROM). The *Cetedoc Library of Christian Latin Texts 4* (2000) provides Patristic and medieval Latin literature from the second to fifteenth centuries. *In Principio: Incipit Index of Latin Texts 7* (1999) gives over 800,000 *incipits* (the first sentences in a manuscript) covering Latin literature from the Pre-classical Age to the Renaissance. Finally, *Archive of Celtic-Latin Literature 1* (1994) is the corpus of Latin literature produced in Celtic-speaking Europe.

²⁹ <http://www.wulfila.be/project/Project.html>

E. Facsimiles

Facsimiles belong in the third area of Tibbo's framework and are the closest a researcher can get to the original manuscript without actually having it. The word facsimile is from the Latin *fac simile*, meaning to make similar. An electronic facsimile will have digital images of all or part of a manuscript. An edition may but need not include facsimiles. Traditionally, print editions will include one or two pages of facsimile in order to give the reader an idea of the "look" of the original manuscript, but the images are not intended to be used by the reader. In the past few years, there has been a growing interest in the development of electronic "image-based editions," such as the *Electronic Beowulf* and the *Canterbury Tales Project*. These resources offer traditional editorial content such as transcriptions and notation on manuscript variations, but they also offer high-quality manuscript images. The *Canterbury Tales Project*, which is actually several small projects (one for each of the tales), offers the user additional editorial control. Each tale appears in several different manuscripts, and the user may choose which manuscripts she wishes to view and compare. In effect, the user becomes the editor.

Electronic facsimiles need not be simply digital pictures of manuscript pages. There are digital applications that can improve the visibility of manuscripts. One of the earliest articles, "Digital Image Processing and the Beowulf Manuscript," discusses possible uses of digital imaging as regards the Beowulf Manuscript.³⁰ Even in 1991 this was not a completely new idea; Kiernan cites a 1978 article in which the authors, using "an electronic camera and the image-processing techniques developed for space photography," deciphered "most of an erased ex-libris from a fourteenth-century

³⁰ Kevin S. Kiernan, *Literary and Linguistic Computing 6 (1991): Special Issue on Computers and Medieval Studies* (Edited by Marilyn Deegan with Andrew Armour and Mark Infusino), 20-27.

manuscript.”³¹ A second article, “The Electronic Beowulf and Digital Restoration,” discusses the development of the Electronic Beowulf, the history of Beowulf scholarship, and the place of Electronic Beowulf in the history of scholarship.³² The Digital Atheneum Project, formed from the British Library and the University of Kentucky during the creation of the Electronic Beowulf, has been working on the next generation of digital imaging for medieval manuscript materials. Their work is “designed to capture 3-D models of old and damaged manuscripts ... show[ing] how these 3-D facsimiles can be analyzed and manipulated in ways that are tedious or even impossible if confined to the physical manuscript.”³³ Specifically, they are concerned with digitally recovering manuscripts that were, like the Beowulf manuscript, damaged in the Cotton Library fire.³⁴ The software and practices coming out of the *Digital Atheneum* are applicable to scholarship, for example in “St. Mary of Egypt in BL MS Cotton Otho B. X: New Textual

³¹ J. F. Benton, A. R. Gillespie, and J. M. Soha, “Digital Image-Processing Applied to the Photography of Manuscripts, with Examples Drawn from the Pincus MS of Arnald of Villanova,” *Scriptorium* 33 (1978), 40-55 and plates 9-13; quoted by Kiernan (1991).

³² Andrew Prescott, “The Electronic Beowulf and Digital Restoration,” *Literary and Linguistic Computing* 12 (1997), 185-195.

³³ Michael S. Brown and W. Brent Seales, “The Digital Atheneum: New Approaches for Preserving, Restoring and Analyzing Damaged Manuscripts,” paper presented at JCDL '01, June 24-28, 2001, Roanoke, Virginia.

³⁴ Two other articles discussing the Digital Atheneum are W. Brent Seales, James Griffioen and Kevin Kiernan, “The Digital Atheneum – Restoring Damaged Manuscripts,” *RLG DigiNews*, Vol. 3, No. 6 (December 15, 1999) and W. Brent Seales, James Griffioen, Kevin Kiernan, Cheng Jiun Yuan, and Linda Cantara, “The Digital Atheneum: New Technologies for Restoring and Preserving Old Documents,” *Computers in Libraries*, Vol. 20, No. 2 (February 2000). Other articles of interest include Andrew Prescott, “‘Their Present Miserable State of Cremation’: The Restoration of the Cotton Library,” Chapter in *Sir Robert Cotton as Collector: Essays on an Early Stuart Courtier and His Legacy*, edited by C. J. Wright. (London: British Library Publications, 1997), 391-454; Michael S. Brown and W. Brent Seales, “Beyond 2D Images: Effective 3D Imaging for Library Materials,” *Digital Libraries* (2000). Prescott, “The Electronic Beowulf and Digital Restoration,” *Literary and Linguistic Computing* 12 (1997), 185-95.

Evidence for an Old English Saint's Life," the author uses digital technology to examine manuscripts, and use the findings to defend a hypothesis.³⁵

There are a few digital facsimiles available for medieval scholars. Some may be accessed through online collections. *Images of Medieval Manuscripts* at the Bodleian Library, Oxford (<http://www.bodley.ox.ac.uk/dept/scwmss/wmss/medieval/browse.htm>), provides relatively low-quality images scanned from existing slides and filmstrips. These give an idea of the original images, but are not of a quality suitable for scholarship. Another project out of the Bodleian, *Early Manuscripts at Oxford University* (<http://image.ox.ac.uk/>), is of a much higher quality. They provide images of manuscripts from many Oxford libraries (college libraries as well as the Bodleian). The images were scanned directly from the original manuscripts at a high resolution (resulting JPEGs are 300-400 Kb). They are slow to download but are sufficient for scholarship. *Le roi Charles V et son temps (1338-1380): 1000 eluminures du Département des Manuscrits* (<http://www.bnf.fr/enluminures/accueil.htm>) includes images from eleven fourteenth-century manuscripts from the reign of Charles V of France. The page images are not of a very high quality, but as the pages are mostly illumination and not text that may not be a problem for the users. They are certainly of a high enough quality to get a good idea of what the original manuscripts look like. Another French site, *Choix de miniatures des manuscrits de l'Université de Liège* (<http://www.ulg.ac.be/libnet/enlumin/enl01.htm>) provides selected images from fourteen manuscript collection at the University of Liège. As with the *Charles V et son temps* site the images are of sufficiently high quality to give

³⁵ Linda Cantara. "St. Mary of Egypt in BL MS Cotton Otho B. x: New Textual Evidence for an Old English Saint's Life." MA Thesis. UK Department of English. 2001. <http://lib.uky.edu/ETD/ukyengl2001t00018/html/lcantara.htm>

some indication of the look of the original illuminations, however the site design is poor and distracts from the images. *DScriptorium* at Brigham Young University (<http://www.byu.edu/~hurlbut/dscriptorium/>) is devoted to collecting, storing and distributing digital images of Medieval manuscripts, although there are not a high number of images available.

There are also individual, free-standing facsimile projects. The *Magna Carta*, at the British Library (<http://www.bl.uk/collections/treasures/magna.html>) provides an image of a quality suitable for reading on the screen. The *Aberdeen Bestiary* (2002 edition; 1st edition 1996; <http://www.abdn.ac.uk/bestiary/bestiary.hti>) provides a complete facsimile of the Bestiary. "The manuscript, written and illuminated in England around 1200, is of added interest since it contains notes, sketches and other evidence of the way it was designed and executed." In addition to these sites (which are all found online), there are also many individual projects available for purchase on CD-ROM.

F. Earlier studies

There are a few studies that examine the use of computers and electronic resources by humanities scholars. Earlier studies focus on the resources from area one of Tibbo's framework, such as word processing and email use. For example, in one ten-year study the authors interviewed a group of 13 (10 by the end of the study) humanities scholars concerning their use of computers and computing resources.³⁶ At the beginning of the study, few of the scholars regularly used electronic resources. By the end, all were using word processing and email and searching online catalogues. Other studies look at the use

³⁶ Stephen E. Wiberley, Jr. and William G. Jones, "Time and Technology: A Decade-Long Look at Humanists' Use of Electronic Information Technology," *College & Research Libraries* (September 2000), 421-431.

of resources from area two of Tibbo's framework, such as indexes, dictionaries and other search tools. One such study was conducted by the Modern Language Association (MLA) in 1995.³⁷ The MLA has its own database in which is indexed all publications in language studies published during the year. To ensure the continuing popularity of its product, it is important for the MLA to know whether the faculty are getting what they need and want out of the resource. To gather the data, a survey was sent to 1000 members of the Modern Language Association. I have not found any such surveys dealing specifically with electronic resources and the medieval scholar.

There is one user study I have found that is similar to the project discussed in this paper, although the time period and focus are slightly different.³⁸ It was conducted by a scholarly advisor to the Internet Shakespeare Editions (ISE) (<http://web.uvic.ca/shakespeare>) during the time she was deciding what aspects of the original texts to include in the online editions. ISE are a "cooperatively-created electronic scholarly resource...being developed entirely in the belief that it will be readily used by the electronic community, both scholarly and non-scholarly, at large." For this reason, the creators of the project found it important to take a more user-centered approach than humanities scholars normally take in their research.³⁹ The survey was sent to 64 English Department faculty, 49 in Canada and 15 in the U.S. Forty-five responses were received.

³⁷ Debora Shaw and Charles H. Davis, "The Modern Language Association: Electronic and Paper Surveys of Computer-Based Tool Use," *Journal of the American Society for Information Science*, 47 (1996), 932-940.

³⁸ Anne Lancashire, "What do the Users Really Want?" *Early Modern Literary Studies* 3.3, Special Issue 2 (January, 1998): 3.2-22 <URL: <http://purl.oclc.org/emls/03-3/alanshak.html>>

³⁹ "Humanities scholars tend normally to view their research (and to apply for funding for it) as something worth doing whether or not large numbers of their colleagues are interested in making use of the finished results." Lancashire.

In the second question the investigator asks respondents:

Would you be likely to make use of an electronic edition of a Shakespeare play in your own research (check all that are applicable):

- a) for basic searching (for words, images, phrases, etc.): 34 (76%)
- b) for attribution study: 7 (16%)
- c) for links to related materials on various Web sites: 26 (58%)
- d) for performance information: 31 (69%)

The most respondents (76%) indicate that they would use the electronic editions for basic searching. A slightly smaller number would use the editions to find information about original performance practices (69%), and yet a smaller number (though still substantial) would use such an edition to find links to materials on web sites. The addition of links here, as in journals, adds an element that it is not possible to get in the print edition. The smallest group (only 16%) would use the electronic editions for attribution study.

In question #4 Lancashire asks: What kinds of additional materials would you like to have linked to the texts themselves?

- a) Source texts: 39 (87%)
- b) Playhouse information: 30 (67%)
- c) Stage history: 35 (78%)
- d) Historical documents (e.g., legal, religious, theatrical): 32 (71%)
- e) Related plays by other dramatists: 27 (60%)
- f) Performance illustrations (historical or contemporary): 28 (62%)
- g) Information on adaptations: 22 (49%)
- h) Critical articles – from a play's history of criticism: 18 (40%)
- i) Critical articles – contemporary: 17 (38%)
- j) Early dictionaries (16th-17th century): 28 (62%)
- k) Explanatory notes specifically for beginning students: 24 (53%)
- l) Maps: 21 (47%)
- m) Sound illustrations (e.g., of songs): 17 (38%)
- n) Film information: 25 (56%)

Most of these materials have percentages above 50%. The most popular linking resources are source texts (87%) followed by stage history with 78%, historical documents with 71%, and playhouse information with 67%. This well-planned study asks very specific questions about a limited project in order to discover what would be most suitable to include in the project.

II. Methodology

This study examines the attitudes of medievalists towards electronic resources, specifically those resources described in the literature review. A survey was sent to a random sample of medievalists from throughout the United States asking about their current use of and attitudes towards electronic and paper resources. The survey asked specifically about their use of resources as regards their own research and scholarship, although some respondents included comments about their teaching practices. A thorough analysis of this survey shows that most medievalists are interested in electronic resources, although those existing are not always useful to or suitable for the intended audience. The survey (see appendix 1) was sent to 92 faculty members selected from eight public universities that offer graduate degrees with an emphasis in medieval studies. These universities were selected from the Medieval Academy of America Committee on Centers and Regional Associations CARA data project. The CARA web site (<http://www.asu.edu/clas/acmrs/cara.html>) states that “The CARA Data Project, which is maintained by the Arizona Center for Medieval and Renaissance Studies (ACMRS) at Arizona State University, is a compilation of information on North American centers, programs, committees, libraries, and regional associations. The

information contained in it is based on that derived from questionnaires circulated to all CARA members and will be continually updated.”

The main CARA database includes entries from throughout North America. I first set apart all the institutions of higher education in the United States, a total of 74. I then divided these 74 schools into four types: private undergraduate, private graduate, public undergraduate, and public graduate. These institutions all offer a conscious focus in medieval studies. The undergraduate institutions offer only bachelor’s degrees or minors, while the graduate institutions offer graduate options, either a certificate, a degree, or graduate funding. They may offer undergraduate options as well. See the table 1 for a complete breakdown of the types of universities listed in the project. See also appendix 2, fig. 1.

Table 1: Breakdown of Universities listed on the CARA Data Project

Type of Institution	# of Institutions in Database	% of Institutions in Database
Private undergrad	20	27%
Private grad	17	23%
Public undergrad	11	15%
Public grad	26	35%
Totals	74	100%

From these 74 institutions, twelve institutions had been included in Helen R. Tibbo’s 2001-2002 study *Primarily History*.⁴⁰ In order to avoid flooding the respondent pool and risking a lower response rate to my study, these twelve institutions were removed from

⁴⁰ Cornell, Princeton, Stanford, University of Minnesota, Yale, Georgetown, University of Missouri, Rice, Notre Dame, University of Oklahoma, Purdue, Fordham.

the list. From the remaining 62 institutions, eight were selected randomly. It is from these eight institutions that the survey respondents were selected. Through the luck of the draw, all eight of the selected institutions were public.⁴¹

Since some of the universities offer Renaissance or Early Modern studies in addition to medieval studies, some of the faculty included in the total may not be strict medievalists. I decided at the onset that due to financial and time constraints I would select a total of 100 faculty to receive the survey. I first created a database including all the medievalists from these eight universities (a total of 186). I then randomly selected 100 of these to receive the survey.

All faculty who actually received this survey are medievalists. For the purposes of this paper, a “medievalist” is any individual whose scholarly study includes a period of time from approximately 300 AD (or the Late Antique period) to approximately 1500 AD (or the early Renaissance period). Medievalists include not only historians, but also literary scholars (in early forms of English as well as in other languages), fine arts scholars, philosophers, and others. Representatives from each of these groups are included with the goal of exploring differing needs or wants when it comes to electronic resources. See the table 2 for a breakdown of survey recipients by discipline.

Introductory emails were sent to 100 respondents. Ten respondents were replaced with other faculty in a similar subject area either because the emails bounced back or because the respondent replied to say that he or she would not complete the survey. Seven emails

⁴¹ Arizona State University, University of California – Los Angeles, University of Connecticut, Indiana University, City University of New York, University of Oregon, Rutgers University, and University of Wisconsin – Madison. It is likely that private institutions have more money to spend on electronic resources than the public institutions, and they may have faculty who use these resources more than the present respondents.

bounced but other (working) emails were found and the initial email resent. One of the 10 replacement faculty also had an initial email bounce, but a working email was found. Three introductory emails (including one of the 10 replacements) bounced twice and these individuals were not sent paper surveys. Three faculty responded to initial email saying they would not complete survey and were not replaced because a sufficient replacement was not available. Two introductory emails bounced back with an automatic answer stating that the faculty members were not checking email (on leave). These two were also not replaced, and surveys were not sent. One respondent who did receive a paper survey wrote to indicate that the survey would not be returned, because the respondent is not a medievalist. The introductory email included an option for the recipient to receive an emailed survey instead of a paper survey. Six faculty chose this option. Altogether 86 paper surveys were sent out by US mail and six were sent out by email, for a total of 92.⁴²

Forty-three surveys (46.7% of all sent) were returned. Of the 6 surveys that were sent out by email 5 were returned, and one of these was returned in a file format that was unreadable by my computer. One paper survey was returned blank. These two surveys are not included in the total. See table 2 for a complete breakdown of who received and returned surveys, by discipline (See also appendix 2, fig. 2, 3, and 4). See appendix 3 for a list of all departments represented in the recipients and how they were combined.

⁴²100 minus 3 that bounced twice minus 3 that would not respond minus 2 with automatic answer.

Table 2: Survey Receivers and Respondents by Discipline

Home Department	Total # of Contacts	Total % of Contacts	Total # of Surveys Sent	Total % of Surveys Sent	Total # of Surveys Received	Total % of Surveys Received
Other	4	4%	4	4%	0	0%
English	26	26%	25	27%	10	23%
Foreign Language	30	30%	26	28%	15	35%
History	20	20%	19	21%	10	23%
Philosophy/Religion	7	7%	6	7%	4	9%
Art/Art History	8	8%	8	9%	2	5%
Music	5	5%	4	4%	2	5%
Totals	100	100%	92	100%	43	100%

The foreign languages had the highest number of respondents with 35%, although as noted above this group is made up of faculty from various departments, including Germanic, Romance, and Central European languages and literatures. The English and History departments tied with the second-highest number of respondents, with 23%. Combined Philosophy/Religion is forth at 9%. The arts are the least numerous, with both Art/Art History and Music having return rates of 5%.

The pool of respondents is not quite representative of the pool of recipients. None of the “other” scholars (4.5% of the recipients) returned the survey. Although 23% of the respondents are in English and the same percentage in History, that percentage is slightly low for English (with 27% of recipients) and slightly high for History (with 21% of recipients). Foreign Languages had by far the widest margin, with 35% of respondents but only 28% of recipients. Philosophy/Religion came in slightly ahead with 9% of respondents (compared with 7% of recipients), and Art/Art History came in slightly behind with 5% (for 8% recipients). Music was just about right, with 5% of respondents for 4.5% of recipients.

Most respondents were men, and most of the men were full professors. Of the 13 women who responded (13% of the total), five were assistant professors (11.5% of the total), five were associate professors, and three were full professors (7%). Of the 30 men who responded, three were assistant professors, three were associate professors, and a total of 23 were full professors (53%; including deans and distinguished professors). More than one-half of all respondents were male full professors. See also appendix 2, fig. 5 and 6.

Table 3: Surveys Returned by Academic Rank and Gender.

Academic Rank	Gender				Total # of Surveys Returned	Total % of Surveys Returned
	F	F%	M	M%		
Assistant	5	12%	3	7%	8	19%
Associate	5	12%	3	7%	8	19%
Full	3	7%	16	37%	19	44%
Dean	0	0%	4	9%	4	9%
Distinguished	0	0%	3	7%	3	7%
Other	0	0%	1	2%	1	2%
Totals	13	31%	30	69%	43	100%

Table 4: Surveys Returned by Home Department and Gender.

Home Department	Gender				Total # of Surveys Returned	Total % of Surveys Returned
	F	F%	M	M%		
English	3	7%	7	16%	10	23%
Foreign Language	5	12%	10	22%	15	35%
History	2	5%	8	19%	10	23%
Philosophy/Religion	1	2%	3	7%	4	9%
Art/Art History	2	5%	0	0%	2	5%
Music	0	0%	2	5%	2	5%
Totals	13	31%	30	69%	43	100%

III. The Questions.

This paper will discuss only those survey questions that had to do with the use of electronic resources. See the complete survey in appendix I.

The first set of questions in the survey (1-5) asked respondents about their use of five types of resources, on the following scale:

Electronic only	Electronic mostly, Print sometimes	Electronic and print the same	Print mostly, Electronic sometimes	Print only
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For each resource, respondents were then asked, when/why they would use an electronic version and when/why they would use a print version. An essay question was included that asked respondents about their preference for a manuscript surrogate. If they had to choose, would they choose a print or electronic facsimile, or a microfilm?

IV. Findings

In general, for all of these types of resources respondents were concerned about six main issues: Quality, Availability, Accessibility, Usability, Suitability, and Trust. Within the context of this paper, a resource of high quality is one that is developed by scholarly individuals and institutions. An available resource exists; an accessible resource not only exists but is on hand for those scholars who need them. A resource that is usable is not only accessible but is also easy to use - it may have a user-friendly interface, or the download times of images may be within reason. A sustainable resource is not only usable now, but will remain useable into the foreseeable future. And, finally, a trusted resource incorporates all of these issues.

A. Journals

The answers to this question support the issues discussed in the journals section of the literature review. Respondents seem open to using electronic journals, although they are not always available in every disciplines. In addition, respondents are concerned with the long-term stability and scholarly content of e-journals. See table 5 for a complete breakdown of journal usage by department. See also appendix 2, fig. 7.⁴³

Table 5: Use of Journals Categorized by Home Department of Respondent

Home Department of Respondent	# of Respondents in Category		Journal Articles						Totals	
			1		2		3			
	#	%	#	%	#	%	#	%	#	%
English	10	23	0	0%	7	16%	3	7%	10	100%
Foreign Languages	15	35	0	0%	8	19%	7	16%	15	100%
History	10	23	1	2%	8	19%	1	2%	10	100%
Philosophy/Religion	4	9	1	2%	3	7%	0	0%	4	100%
Art/Art History	2	5	0	0%	0	0%	2	5%	2	100%
Music	2	5	0	0%	1	2%	1	2%	2	100%
Totals	43	100	2	4%	27	63%	14	32%	43	100%

1 = Electronic and Print the Same

2 = Print Mostly, Electronic Sometimes

3 = Print only

One-hundred percent of respondents use journal articles. This was not a surprise; keeping up with current scholarship is one of the most important things that a scholar can do; it does not matter what discipline one is in. A very small minority, only 4%, report using electronic and print journals the same amount of time. The majority of respondents, 63%, report using print journals most often, but are also using electronic

⁴³ Problems with this question: did not differentiate between electronic journals (available only online – The Heroic Age, for example), journals released simultaneously online (or electronically) and in print, or those available through Jstor, that are several years old. Respondents did not indicate any difference between these; I would have expected them to mention them. Also, as one respondent pointed out, it is possible to get articles electronically through interlibrary loan. In addition, I did not ask about the use of listservs, a form of informal scholarly communication.

journals “sometimes.” About 1/3 of respondents, 33%, report reading journal articles only in print.

Regarding journals, respondents were especially concerned about availability, usability, and accessibility. The most popular reason for using print journals rather than electronic is that in some disciplines electronic journals simply do not exist. This reason was given by 12 respondents (28%), with such comments as, “Much of what I read is older material, not available in electronic form” (2)⁴⁴ and “I am unaware of any electronic journal that is of interest to me” (16). Three respondents said that if electronic journals existed in their disciplines, they would use them: “I would read [a] relevant electronic Journal if there were one” (15); “I like to have hard-copy for my files in the same format as in the print journal. If I could download with the same format, electronic would be OK - but I prefer browsing through print” (1).

Five respondents (12%) had a more physical reaction when asked about e-journals: they simply do not like reading material directly from the screen. Their comments included, “It is extremely awkward and unpleasant to read full articles in electronic form” (4); “I prefer not to look at a computer screen and concentrate better when reading print” (36); “I do not like reading on a screen” (32); and “I prefer to read things on paper” (40). One respondent was quite negative about electronic journals. When asked “When/Why would you select an electronic journal,” the respondent answered, “Almost never - in desperation - have never successively accessed one” (38). Respondents were also asked if, when accessing an electronic journal article, they would read directly from the monitor, or print out a copy. The majority (23, or 53%) indicated that they would print out a copy,

⁴⁴ This is respondent #2; all subsequent quotes from respondents will be indicated thus.

while 12 (28%) indicated that they would read it directly from the screen. Although I did not include an option of “print out after reading,” two respondents (included in the 23 above) indicated that they would read from the monitor first, then print out a copy to use later.

Some respondents would choose an electronic version of an article when it is most convenient (5, or 12%), a few would choose one only if there were a specific reference to it (3, or 7%). A significantly larger number (19, or 44%) would choose an electronic article only if there were no print version of the same article, while a slightly smaller number (18, or 42%) would choose an electronic version over a print version. However, of those respondents who volunteered a preference for one or the other (regardless of actual use), eight (18.5%) stated that they prefer electronic, and 18 (42%) stated that they prefer print.

B. Glossaries, Dictionaries, Grammars

Technology has greatly influenced the usefulness and development of glossaries, dictionaries, and grammars of all languages. Search engines allow for quick searching across entries. While in a print dictionary the should at least have an idea of the preferred form of a word, in an electronic dictionary the user may (depending on the product) be able to find similar word forms from different preferred forms in very little time. Online grammars may define and parse words with little effort on the part of the user. See table 6 for a complete breakdown of glossary, dictionary, and grammar usage by department. See appendix 2, Fig. 7.

Table 6: Use of Glossaries, Dictionaries, Grammars Categorized by Home Department of Respondent

Home Department of Respondent	# of Respondents in Category		Glossaries, Dictionaries, Grammars						Totals	
			1		2		3			
	#	%	#	%	#	%	#	%	#	%
English	10	23	0	0%	9	21%	1	2%	10	100%
Foreign Languages	15	35	3	7%	3	7%	7	16%	15*	100%
History	10	23	2	5%	5	12%	3	7%	10	100%
Philosophy/Religion	4	9	0	0%	3	7%	1	2%	4	100%
Art/Art History	2	5	1	2%	1	2%	0	0%	2	100%
Music	2	5	1	2%	1	2%	0	0%	2	100%
Totals	43	100	7	16%	22	51%	12	27%	43	100%

1 = Electronic and Print the Same, 2 = Print Mostly, Electronic Sometimes, 3 = Print only

*All respondents use glossaries, dictionaries, and grammars, but one foreign language respondent did not specify how often s/he uses print vs. electronic, and another foreign languages respondent (2%) uses electronic mostly.

One hundred percent of respondents use electronic dictionaries, and are concerned with all six issues. Concerning sustainability, several respondents indicated that their use of an electronic dictionary versus a print dictionary would depend on the type of work they were doing. One might use an electronic dictionary “during a word search” (34), or “for the search capabilities it offers” (30). Respondent 34 also has a specific time when s/he would use a print dictionary: “When translating.” Two other respondents had a similar answer for using a print dictionary: “If I need to browse, compare and contrast several entries” (30); “To locate parallel usages in Greek or Latin terminology” (42). Only one respondent used the terminology that I had been expecting to come across much more often: on using an electronic dictionary, “If I did not have the “real” dictionary available” (41).

Concerning accessibility, two respondents (12 and 40) indicated that convenience really made the difference - if at the library (an presumably the print version would be convenient), they would choose the print version; if in their offices, at their computers,

they would choose the electronic version. In a similar vein, two respondents indicated that they use what they own, and what they own is print: “Because I already own almost everything I consult (I’m 60 years old and have been buying books since the early 1960s)” (2) ; “It’s on my shelf and much faster to use than CDROMS, actually” (10). Accessibility was certainly an issue for this respondent: “The best Latin Dictionaries are print only. The Oxford English Dictionary is only just becoming accessible from home this year...I can’t afford the CDROM version. The Dictionary of Old English is still incomplete and comes out in microfiche. The Electronic Concordance requires an expensive annual subscription” (6).

Concerning usability, a few respondents mentioned that familiarity with the materials made a difference to their use. Respondent 15 would use print dictionaries “when working with the languages I ordinarily work with, since I have all these materials and am very familiar with them, and would choose an electronic dictionary “only if working with a less commonly encountered (for me) language, and without access to print materials.”

Several respondents do not use electronic dictionaries because they are not available: “For most of the material with which I work, there are no relevant online glossaries, dictionaries, or grammars” (8) ; “To my knowledge, there is nothing available online for serious research on Old French, just occasional consultation. But I may be wrong” (5).

Of those respondents that indicated a preference, the majority preferred print (13, or 30%). Six respondents, or 14%, indicated that it would depend on which version was

available. Only three respondents, or 7%, indicated that they would choose an electronic dictionary over one in print.

C. English Translations

More than anything, technology (specifically the World Wide Web) has made modern English translations of medieval texts much more accessible. As older published translations go out of print, they are encoded or simply scanned and placed on publicly available web sites. However, since they are out of print they tend to reflect neither modern sensibilities of language or recent scholarship (see the literature review for a more complete discussion of public domain texts). See table 7 for a complete breakdown of English translation usage by department. See also appendix 2, Fig. 8.

Table 7: Use of English Translations Categorized by Home Department of Respondent

Home Department of Respondent	# of Respondents in Category		English Translations						Totals	
			1		2		3			
	#	%	#	%	#	%	#	%	#	%
English	10	23	0	0%	5	12%	4	9%	9	90%
Foreign Languages	15	35	0	0%	4	9%	5	12%	10*	67%
History	10	23	2	5%	5	12%	3	7%	10	100%
Philosophy/Religion	4	9	1	2%	0	0%	2	5%	3	75%
Art/Art History	2	5	0	0%	1	2%	0	0%	1	50%
Music	2	5	0	0%	2	5%	0	0%	2	100%
Totals	43	100	3	7%	17	40%	14	33%	35	81%

1 = Electronic and Print the Same

2 = Print Mostly, Electronic Sometimes

3 = Print only

9 respondents (21%) do not use English translations.

*One foreign languages respondent uses electronic mostly.

Only 81% of respondents use modern English translations of their texts. This was not a surprise to me, as I had expected that many if not most scholars would prefer to make their own translations. Although I asked specifically about using translations for scholarship only, I expect from some of the comments received that some respondents answered as regards teaching. Five respondents mentioned teaching specifically. Four of these said they tend to use electronic translations for teaching; one said s/he uses those in print.

The results here were quite similar to those regarding journals. The main concerns of the respondents included usability, availability, and accessibility.

Concerning usability, the ease of reading in the format was a concern for a few respondents: "I prefer reading longer texts in book format" (24); "It is always easier to read a book than a computer screen" (4). Availability is also a concern: "I haven't found any translations for texts I use available electronically" (29); "There are not very many available in electronic format" (23); "I do not have electronic translations available" (19); "Most of the best translations are not yet online in my field" (6).

Other concerns about translations include accessibility, "Ease in finding on-line texts. I usually print them out to read however" (4), and authority: "Whenever possible, to cite standard editions, and to facilitate use of index and contents pages" (40); "Print is easier to work with; with appropriate and easily accessible footnotes, apparatus, etc.; and easily available from the library of ILL" (9); "There are generally, at this point, more authoritative ; Might check this quickly for background, but couldn't footnote this as a source" (43). Although as discussed in the literature review online translations may be of

questionable authority, the respondents did not comment upon this issue as much as I had thought.

Of those respondents who expressed a preference, none preferred electronic translations. Eleven respondents (26%) prefer print translations, while only one (2%) regards electronic and print translations the same. Of those respondents who use electronic translations, 13 (30%) print out translations before use and eight (19%) read them on the monitor.

D. Scholarly Editions⁴⁵

Technology seems to have had a limited effect where it comes to scholarly editions. Traditional editorial practices (a single text with apparatus, perhaps a glossary, compiled by a single scholar) have the opportunity to be modified greatly by recent developments, most notably by the concept of digital image-based edition, exemplified by the *Electronic Beowulf and Canterbury Tales Project*.⁴⁶ See table 8 for a complete breakdown of scholarly edition usage by department. See also appendix 2, Fig. 9.

⁴⁵ There was one major problem with this question, and a few of the respondents called me on it. I specified “scholarly edition,” but did not define it (i.e., what sort of apparatus these would include). There are also documentary editions (transcriptions) which at least one respondent included in the “facsimiles” section of her answers. I did not include space for transcriptions or documentary editions.

⁴⁶ See also the Model Editions Partnership at the University of South Carolina. ““The purpose of the Model Editions Partnership is to explore ways of creating editions of historical documents which meet the standards scholars traditionally use in preparing printed editions. Equally important is our goal of making these materials more widely available via the Web. Nine of the experimental mini-editions are based on full-text searchable document transcriptions; two are based on document images; and one is based on both images and text.” <http://adh.sc.edu/>

Table 8: Use of Scholarly Editions Categorized by Home Department of Respondent

Home Department of Respondent	# of Respondents in Category		Scholarly Editions						Totals	
			1		2		3			
	#	%	#	%	#	%	#	%	#	%
English	10	23	0	0%	7	16%	3	7%	10	100%
Foreign Languages	15	35	1	2%	4	9%	10	23%	15	100%
History	10	23	1	2%	3	7%	6	14%	10	100%
Philosophy/Religion	4	9	0	0%	3	7%	1	2%	4	100%
Art/Art History	2	5	1	2%	0	0%	1	2%	2	100%
Music	2	5	0	0%	2	5%	0	0%	2	100%
Totals	43	100	3%	7%	19	44%	21	48%	43	100%

1 = Electronic and Print the Same

2 = Print Mostly, Electronic Sometimes

3 = Print only

One-hundred percent of respondents report using scholarly editions. Availability, suitability, quality and trust are the main issues for electronic scholarly editions.

Respondents were particularly concerned that electronic editions be as scholarly as print editions – thus, accessibility was not a major concern.

Availability is an issue for many respondents: “Most available in print; if it is available electronically, then I will use in that format” (23); “There are NO scholarly editions of the major texts relevant to my research. By scholarly I mean critical editions with variant manuscript readings” (4); “I do not have electronic editions available” (19).

As with dictionaries, some respondents indicated that their choice of format would depend on how suitable it would be to their research: “[I would use print if] I need to see the whole text on a page w/apparatus for variants (if relevant) and notes; I don’t like format of screen, especially when it can give only part of a page. I often use photocopied print editions so can lay out several pages for scanning (w/eye). [I would use an electronic edition] if I were doing a word check (trying to find frequency of usage or the

location of a passage when I have words only but no exact reference)” (7); “Sometimes I use the online texts in Middle English, otherwise, for Old and Middle French, I use electronic texts for collection data on grammatical structure, compiling statistics, etc.” (5); “Electronic editions are convenient when searching for parallel passages, individual terms or phrases in context, & similar narrowly defined tasks” (8). One respondent mentioned possible problems with encoding the language of his/her scholarly focus: “There are a few electronic editions, but issues in encoding old alphabets and establishing uniform conventions for this have not been resolved yet in my field” (17).

Quality, and along with it trust, is an important issue for several respondents. One respondent indicated that as long as the edition is scholarly, the format doesn’t matter: “[Use print] when it is best edition for scholarship. [Use electronic] if it provided similarly reliable text & apparatus for citation” (18). Similar to comments on the translations, some respondents indicate that they do not trust that electronic editions are sufficiently scholarly: “I don’t use the electronic editions because a) they don’t come with the critical apparatus; b) they’re impossible to cite (no page nos., line nos., etc.)” (28); “Electronic editions of Chaucer & Anglo Saxon Poetic Records are “text only” and do not include scholarly apparatus (notes & gloss)” (6); “For quick reference I will search for an on line Latin text and will use it for key word searches, but these are not sufficiently scholarly for citation” (4).

E. Facsimiles

Perhaps it is with digital facsimiles that technology offers the most to medieval scholars. Digital images of manuscripts, although potentially large and difficult to download, may be of very high resolution and color quality. In addition, as discussed in the literature

review, facsimile images offer added benefit to the development of electronic editions and other image-based resources.⁴⁷ Electronic facsimiles (even those of less than stellar quality) also offer the great benefit of accessibility. See table 9 for a complete breakdown of facsimile usage by department. See appendix 2, Fig. 10.

Table 9: Use of Facsimiles Categorized by Home Department of Respondent

Home Department of Respondent	# of Respondents in Category		Facsimiles						Totals	
			1		2		3			
	#	%	#	%	#	%	#	%	#	%
English	10	23	0	0%	6	14%	3	7%	9	90%
Foreign Languages	15	35	1	2%	2	5%	7	16%	10	67%
History	10	23	1	2%	4	9%	5	12%	10	100%
Philosophy/Religion	4	9	0	0%	2	5%	1	2%	3	75%
Art/Art History	2	5	0	0%	0	0%	2	5%	2	100%
Music	2	5	0	0%	0	0%	2	5%	2	100%
Totals	43	100	2	5%	14	33%	20	47%	36	84%

1 = Electronic and Print the Same

2 = Print Mostly, Electronic Sometimes

3 = Print only

6 respondents (14%) do not use facsimiles.

One foreign languages respondent (2%) - electronic mostly (not the same respondent who said the same with grammars)

Respondents preferring both electronic and print facsimiles indicate the quality of images as reasons for their choice. Those who prefer electronic say that, in electronic resources, “Text is easy to size & manipulate” (11); “better quality; image manipulation” (35); “In principle this would be preferable to me, in terms of accessibility & reproduction quality” (18). Those who prefer print, on the other hand, say that “[Print has] higher quality of reproduction” (22); “Photographic copies are frequently clearest” (2); “Importance of clear illustrations” (14); “[Print images] are clearer, more exact, better

⁴⁷ Kevin Kiernan, “Digital Facsimiles in Editing: Some Guidelines for Editors of Image-based Scholarly Editions,” URL: <http://www.tei-c.org/Activities/EET/Kiernan/>

color” (32); “an electronic version will not have the detail necessary” (43); The quality of electronic images are “very uneven” (38).

As with previous resources, several respondents pointed to the ease of use in print versus electronic: “The Arabic/Persian script is difficult enough without contending with reading it on a screen!” (37); “I prefer not to look at a computer screen and concentrate better when reading print” (36).

Several respondents indicated that they did not use electronic facsimiles because they are not yet available: “A few reproductions of med. Mss are now on the Web, but it’s a pretty random selection except for one or two major projects” (6); “With the exception of the MS facsimile included in my own database ... there are no full MS facsimiles of music theory manuscripts available online” (8); “Very few electronic facsimiles available,” (38).

Quality is a more important issue when dealing with digital images available on the World Wide Web than it is with digital projects purchased for use by libraries. This is not to say that all freely available images are of poor quality, however individual scholars and the librarians that serve them must be more careful when dealing with free images.

Below is a recent post on the MEDIEV-L Listserv, a listserv specializing in issues of medieval language, literature, and codicology.⁴⁸ See appendix 2, fig. 12 and 13 for full-sized prints of the images referenced below.

To MEDIEV-L@raven.cc.ku.edu
 Reply To MEDIEV-L@raven.cc.ku.edu
 Subject Re: [Le livre des propri étés choses, 1447]
 Sent Thu, 31 Oct 2002 08:30:14 -0700

⁴⁸ The author of the post gave permission to have his words quoted in this paper. The name of the author was removed to protect his/her identity.

<http://www.enluminures.culture.fr/>
 yet another fantastically rich site from the French, demonstrating some of the potentialities of the Web. however, as i've noticed on some of the other Ministre de Culture sites, there seems to be something of a disconnect between the guys doing the site design/execution and the needs of the target scholarly audience. case in point are the .jpgs from the "Cartulaire de l'abbaye Saint-Aubin d'Angers" (Angers, Bm, ms. 0829) of 11 images available, only one is legible :
http://www.culture.fr/Wave/sasimage/enlumine/b/IRHT_042134-p.jpg [fig. 12]
 and it's only part of a page.
 the rest are not, e.g., :
http://www.culture.fr/Wave/sasimage/enlumine/b/IRHT_042127-p.jpg [fig. 13]
 unlike illuminations, these pages are entirely *text* --now, what on earth is the point of putting up an image of a page of text, if that text isn't legible??

The author of the post makes a very good point - what is the point of putting up an illegible image of text? I do not want to deal with that topic in detail here, but his comments exemplify some problems that come up with free web sites - even those from well-known, quality institutions. This also underscores the importance of user studies and web site evaluations for cultural institutions. If you are going to spend the money to scan and make available the pages of your manuscripts, you should make sure that they are suiting some stated purpose - preferably the needs of your users.

For nine respondents (21%), availability is the key reason for choosing one form of facsimile over another. Of those respondents who indicated a preference, only two (5%) said that they prefer electronic facsimiles; eight (18.5%) prefer theirs in print.

V. Conclusions

In the "old days," (for some, perhaps, the "good old days"), the scholarly user had little choice concerning the format of a resource - he would use print (or microfilm) or nothing. Now there are many choices, including electronic versions of journals, dictionaries, editions, translations and facsimiles. From the results of this survey it is

clear that most scholars, although they are not always aware of the transformative technologies available for electronic resources, are open to finding out more about alternatives to print.

The findings of the present study point to much that needs to be done for present and future electronic projects for medievalists. Although there are many electronic resources available of a high quality, they need to be brought to the attention of medieval scholars. Unfortunately, there are also many web sites and electronic projects available that are not of a high quality. There are several ways that this could be done, and many individuals and groups are already disseminating information on electronic resources through the following methods. One possibility is for subject specialist librarians to create up-to-date lists of scholarly web sites and other electronic resources.⁴⁹ Another possibility would be for scholars to create their own lists of approved sites and make them available online.⁵⁰ Existing medieval studies portals (such as Labyrinth: Resources for Medieval Studies, available through Georgetown University at <http://labyrinth.georgetown.edu/>) might introduce a system for rating or reviewing the sites made available through its search engines. Finally, scholarly journals might add sections for reviewing online and other electronic resources.

When creating resources from original manuscripts it may be worthwhile to think that medievalists are used to having resources that last. Individuals and groups developing

⁴⁹ "Electronic Resources for Medievalists in the University Libraries," compiled by Thomas Amos at Western Michigan University, URL: <http://www.wmich.edu/medieval/raw/neh99/ermul.html>; "Electronic Resources Gateway," at the Medieval Institute Library, Notre Dame University, URL: <http://lib.nd.edu/eresources/gateway/subjects/medievalstudies/>

⁵⁰ "Websites Every Medievalist Should Know," URL: <http://panther.bsc.edu/~shagen/WebsitesMed.html>; "UC-Berkeley Medieval Studies: Electronic Resources," URL: <http://ls.berkeley.edu/dept/medieval/online.html>.

electronic resources should respect the condition of any original material used in their creation as well as take steps to make sure that the electronic resources also last. Light damages manuscripts, and the light of a scanner (especially when combined with ultra violet or other special illumination) is as damaging to a manuscript page as several days of display.⁵¹ A manuscript should only have to be scanned once, and it should be done at the highest resolution possible. Sufficient metadata should be included for both preservation and access. Most recent practices indicate a preference for XML compatible metadata, since XML is becoming the standard for encoding and is most likely to be understandable for years to come.⁵² For the actual scanning of the manuscript images, adhere to best practices that are compatible across projects, taking as a guide (for example) *The NINCH Guide to Good Practice in the Digital Representation and Management of Cultural Heritage Materials*.⁵³

Availability, accessibility, usability, and suitability of resources are also main concerns of the survey respondents, and the creators of electronic resources need to make sure that they are not only creating relevant projects, but that these projects are available to scholars and easy enough to use that they are not passed over for the more familiar print

⁵¹ Catherine Nicholson, "What Exhibits Can Do to Your Collection." *Restaurator*. 1992, v.13, p.100.

⁵² "Preservation Metadata and the OAIS Information Model: A Metadata Framework to Support the Preservation of Digital Objects." OCLC/RLG Working Group on Preservation Metadata, June 2002. URL: http://www.oclc.org/research/pmwg/pm_framework.pdf; "Metadata Encoding and Transmission Standard" URL: <http://www.loc.gov/standards/mets/> (overview and tutorial at <http://www.loc.gov/standards/mets/METSOverview.html>); "The State of Digital Preservation: An International Perspective." Conference Proceedings. Documentation Abstracts, Inc. Institutes for Information Science, Washington D.C., April 24-25, 2002. URL: <http://www.clir.org/pubs/reports/pub107/pub107.pdf>; Paul Conway, "The Relevance of Preservation in the Digital World," in *Preservation of Library and Archival Materials*, 3rd ed. Edited by Shereyn Ogden. Andover: Northeast Document Conservation Center, 1999. URL: <http://www.nedcc.org/plam3/leaf55.htm>.

⁵³ "The NINCH Guide to Good Practice in the Digital Representation and Management of Cultural Heritage Materials," Humanities Advanced Technology and Information Institute (HATII), University of Glasgow, and the National Initiative for a Networked Cultural Heritage (NINCH). URL: <http://www.nyu.edu/its/humanities/ninchguide/>

resources. Of course, as time passes and the next generation of scholars (raised on computers and the Internet) comes to prominence, it will be interesting to see how the preference for print resources over electronic may change. Many respondents indicated that they prefer not to use electronic resources because of their dislike for reading from a computer screen. In five or ten years, will the screen still be an impediment to using the computer for scholarly research?

Trust may be defined as assured reliance on every aspect of a resource, and there is certainly a long way to go before electronic resources are as trusted as those in print. Although it is highly unlikely that all medievalists implicitly trust print resources, none of the respondents in the present study questioned the trustworthiness of print resources in general, while several of them indicated an innate distrust of electronic resources. Therefore the creators of electronic resources need to be especially careful to make sure that their projects are scholarly and high-quality, and emphasize this when making the projects known in the academic community.⁵⁴ Electronic resources should be at least as scholarly as their print counterparts: journals need articles submitted by the most respected scholars, and other projects need support and input from them as well.

Although they should be as scholarly as print resources, electronic resources should not simply be print resources transferred to the screen. For example, electronic journals, instead of relying on PDF files that mimic print articles and are designed for printing, should take advantage of linking technologies that allow for immediate connections in scholarly communication (though perhaps still allow a printer-friendly option).

Electronic resources should be transformative and use available and emerging technology

⁵⁴“Trusted Digital Repositories: Attributes and Responsibilities.” An RLG/OCLC Report. May 2002. URL: <http://www.rlg.org/longterm/repositories.pdf>

to their greatest advantage. An electronic resource that does not allow for research not possible with print resources (aside from being more accessible to the scholar at his or her office computer) will not be successful.

The present study did not go far enough in asking about when a scholar might use an electronic resource instead of a print one. A follow-up study might ask more specific questions concerning the scholars' attitudes towards these resources. Another method for discovering how medievalists feel about the growth of electronic resources would be to conduct guided interviews. Since 60% of respondents in the present study were full professors, distinguished professors, or deans, it may be worthwhile to conduct a similar study in a few years to see if behavior and attitudes of the group change as the older professors retire and the younger academics take their positions. Electronic resources may offer a great deal to enhancing research on the Middle Ages, but it remains to be seen whether the use of such resources will grow in the future.

Works Cited

- “Academia Still Ignoring Ebooks.” *Information World Review*, (183) September 2002:2.
- Aman, M. M. “Electronic journals: a substitute for the real thing?” *Journal of Information, Communication, and Library Science*, 3 (1) Fall 1996, p.3-14.
- Atkins, Helen. “The ISI Web of Science – Links and Electronic Journals. How Links Work Today in the Web of Science, and the Challenges Posed by Electronic Journals.” *D-Lib* September 1999. URL: <http://www.dlib.org/dlib/september99/atkins/09atkins.html>.
- Benton, J. F.; Gillespie, A. R. and Soha, J. M. “Digital Image-Processing Applied to the Photography of Manuscripts, with Examples Drawn from the Pincus MS of Arnald of Villanova,” *Scriptorium* 33 (1978)
- Brown, Michael S. and Seales, W. Brent, “Beyond 2D Images: Effective 3D Imaging for Library Materials,” *Digital Libraries* (2000).
- Brown, Michael S. and Seales, W. Brent. “The Digital Atheneum: New Approaches for Preserving, Restoring and Analyzing Damaged Manuscripts,” paper presented at JCDL '01, June 24-28, 2001, Roanoke, Virginia.
- Busa, Roberto. “Concluding a Life’s Safari from Punched Cards to the World Wide Web.” *The Digital Demotic: selected papers from DRH86, Digital Resources for the Humanities conference, St. Anne's College, Oxford, September 1997*. Edited by Lou Burnard. London: Office for Humanities Communication, 1998: 3-12.
- Cantara, Linda. “St. Mary of Egypt in BL MS Cotton Otho B. x: New Textual Evidence for an Old English Saint's Life.” MA Thesis. UK Department of English. 2001. <http://lib.uky.edu/ETD/ukyengl2001t00018/html/lcantara.htm>
- Cliff, P. “The Oxford English Dictionary Online,” *Ariadne*; (23) Mar 2000, No page numbers. URL: <http://www.ariadne.ac.uk/issue23/oed-review/>
- Consultative Committee for Space Data Systems, “Reference Model for an Open Archival Information System,” *Blue Book*, January 2002. URL: <http://www.ccsds.org/documents/pdf/CCSDS-650.0-B-1.pdf>.

Conway, Paul. "Preservation in the Digital World,"
<http://www.clir.org/pubs/reports/conway2.index.html>.

Conway, Paul. "The Relevance of Preservation in a Digital World," Northeast Document Conservation Center, Technical Leaflet, Reformatting, Section 5, Leaflet 5. URL:
<http://www.nedcc.org/plam3/tleaf55.htm>

Ellis, Michael. *Revue: Informatique et Statistique dans les Sciences humaines* 33 (1997), 113-123.

"Faculty Response and Attitudes Toward Electronic Resources," *JStor News Notes* No. 6, Issue 1, March 2002. URL: <http://www.jstor.org/news/2002.03/SurveyMarch2002.html>

Flecker, Dale. "Preserving Scholarly E-Journals," *D-Lib* September 2001. URL:
<http://www.dlib.org/dlib/september01/flecker/09flecker.html>

Friend, F J. "Alternatives to commercial publishing for scholarly communication," *Serials*; 11 (2) Jul 1998, p.163-6. Odlyzko, A. "The rapid evolution of scholarly communication," *Learned Publishing*; 15 (1) Jan 2002, p.7-19.

Hetrick, B. "JSTOR's Growth in the International Library Community," *Library Times International*; 18 (4) Apr 2002, p.37-9.

Hitchcock, S., Quek, F., Carr, L., Hall, W., Witbrock, A., Tarr, I. "Towards universal linking for electronic journals," *Serials Review*; 24 (1) 1998, p.21-33.

Kiernan, Kevin S. *Anglo-Saxon Manuscripts and Their Heritage*, edited by Phillip Pulsiano and Elaine Trehame. Aldershot, Hants, England and Brookfield, Vermont: Ashgate, 1997, 117-136.

Kiernan, Kevin S. "Digital Facsimiles in Editing: Some Guidelines for Editors of Image-based Scholarly Editions," URL: <http://www.tei-c.org/Activities/ETE/Kiernan/>

Kiernan, Kevin S. *Literary and Linguistic Computing* 6 (1991): Special Issue on Computers and Medieval Studies (Edited by Marilyn Deegan with Andrew Armour and Mark Infusino), 20-27.

Kling, Rob. "What is Social Informatics and Why does it Matter?" *D-Lib* January 1999. URL: <http://www.dlib.org/dlib/january99/kling/01kling.html>.

Lally, E. "researcher's perspective on electronic scholarly communication," *Online Information Review*; 25 (2) 2001, p.80-7.

Lancashire, Anne, "What do the Users Really Want?" *Early Modern Literary Studies* 3.3, Special Issue 2 (January, 1998): 3.2-22 <URL: <http://purl.oclc.org/emls/03-3/alanshak.html>>

“Linking Electronic Journals: Lessons from the Open Journal Project,” *D-Lib* December 1998. URL: <http://www.dlib.org/dlib/december98/12hitchcock.html>.

“Linking to the Appropriate Copy: Report of a DOI-Based Prototype,” *D-Lib* September 2001. URL: <http://www.dlib.org/dlib/september01/caplan/09caplan.html>.

Montgomery, Carol Hansen. “Measuring the Impact of an Electronic Journal Collection on Library Costs: A Framework and Preliminary Observation,” *D-Lib* October 2000. URL: <http://www.dlib.org/dlib/october00/montgomery/10montgomery.html>.

Montgomery, Carol Hansen and King, Donald W. “Comparing Library and User Related Costs of Print and Electronic Journal Collections: A First Step Towards a Comprehensive Analysis,” *D-Lib* October 2002. URL: <http://www.dlib.org/dlib/october02/montgomery/10montgomery.html>

Nelson, D. “The uptake of electronic journals by academics in the UK, their attitudes towards them and their potential impact on scholarly communication,” *Information Services and Use*; 21 (3/4) 2001: 205-14.

Nicholson, Catherine. "What Exhibits Can Do to Your Collection." *Restaurator* 1992, v.13, pp.95-113

Prescott, Andrew. “The Electronic Beowulf and Digital Restoration,” *Literary and Linguistic Computing* 12 (1997), 185-195.

Prescott, Andrew, “‘Their Present Miserable State of Cremation’: The Restoration of the Cotton Library,” Chapter in *Sir Robert Cotton as Collector: Essays on an Early Stuart Courtier and His Legacy*, edited by C. J. Wright.) London: British Library Publications, 1997), 391-454

“Preservation Metadata and the OAIS Information Model: A Metadata Framework to Support the Preservation of Digital Objects,” a report by the OCLC/RLG Working Group on Preservation Metadata, June 2002. URL: <http://www.oclc.org/research/pmwg/>.

Rao, M K. “Scholarly communication and electronic journals: issues and prospects for academic and research libraries,” *Library Review*; 50 (3and4) 2001, p.169-75.

Rusch-Feja, Diann and Siebeky, Uta. “Evaluation of Usage and Acceptance of Electronic Journals: Results of an Electronic Survey of Max Planck Society Researchers including Usage Statistics from Elsevier, Springer and Academic Press,” *D-Lib* October 1999. URL: <http://www.dlib.org/dlib/october99/rusch-feja/10rusch-feja-summary.html> (Full Report: <http://www.dlib.org/dlib/october99/rusch-feja/10rusch-feja-full-report.html>)

Schlicke, P. “New publishing: no easy solution,” *Information Management Report*; Jun 2002, p.1-4

Seales, W. Brent; Griffioen, James and Kiernan, Kevin "The Digital Atheneum – Restoring Damaged Manuscripts," *RLG DigiNews*, Vol. 3, No. 6 (December 15, 1999)

Seales, W. Brent; Griffioen, James and Kiernan, Kevin, Yuan, Cheng Jiun and Cantara, Linda. "The Digital Atheneum: New Technologies for Restoring and Preserving Old Documents," *Computers in Libraries*, Vol. 20, No. 2 (February 2000).

Snyder, K. J. "Electronic journals and the future of scholarly communication," *Notes*; 58 (1) Sep 2001, p.34-8.

Solopova, Elizabeth. "Encoding a Transcript of the Beowulf Manuscript in SGML," paper delivered at the Joint ACH-ALLC Conference, University of Virginia, 9-12 June 1999.

Speier, C; Palmer, J; Wren, D; Hahn, S. "Faculty perceptions of electronic journals as scholarly communication: a question of prestige and legitimacy," *Journal of the American Society for Information Science*; 50 (6) 1 May 1999, p.537-43.

Shaw, Debora and Davis, Charles H. "The Modern Language Association: Electronic and Paper Surveys of Computer-Based Tool Use," *Journal of the American Society for Information Science*, 47 (1996), 932-940.

Tibbo, Helen R. "Information Systems, Services, and Technology for the Humanities," *Annual Review of Information Science and Technology*, 26: 288.

Tomlins, C. L. "Just one more 'zine? Maintaining and improving the scholarly journal in the electronic present: a view from the humanities," *Learned Publishing*; 14 (1) Jan 2001, p.33-40.

Tyckoson, D. "What Were They Thinking? The Oxford English Dictionary on the Web," *Against the Grain*; 12 (4) Sep 2000 p.38, 40, 42.

Waaaijers, L. "Opinion paper: towards a new system of scholarly communication," *Interlending and Document Supply*; 25 (2) 1997, p.77-8.

Wiberley, Stephen E., Jr. and Jones, William G. "Time and Technology: A Decade-Long Look at Humanists' Use of Electronic Information Technology," *College & Research Libraries* (September 2000), 421-431.

Youngen, G. K. "The impact of electronic publishing on scholarly communication: a forum on the future - a conference report," *Library Collections, Acquisitions, and Technical Services*; 25 (2) Summer 2001, p.211-22.

Appendix 1

MEDIEVALISTS' USE OF NON-MANUSCRIPT RESOURCES

A. The first set of questions is multiple choice and short answer.

In questions 1-5, place an "X" in the box that describes your current actual use of resources. If you have a definite format preference for any or all of these resources, please indicate.

1. I typically read journal articles

Electronic only	Electronic mostly, Print sometimes	Electronic and print the same	Print mostly, Electronic sometimes	Print only
-----------------	---------------------------------------	----------------------------------	--	------------

a. When/why might you select a print journal?

b. When/why might you select an electronic journal?

c. If you do read electronic journals, are you more likely to read articles on your monitor or print out paper copies? ___ read on the monitor ___ print paper copies

d. ___ I do not read journal articles

2. I typically refer to glossaries, dictionaries, or grammars

Electronic only	Electronic mostly, Print sometimes	Electronic and print the same	Print mostly, Electronic sometimes	Print only
-----------------	---------------------------------------	----------------------------------	--	------------

a. When/why might you select a print glossary, dictionary, or grammar?

b. When/why might you select an electronic glossary, dictionary, or grammar?

c. ___ I do not refer to glossaries, dictionaries, or grammars

3. I typically refer to modern English translations of the major texts relevant to my research

Electronic only	Electronic mostly, Print sometimes	Electronic and print the same	Print mostly, Electronic sometimes	Print only
-----------------	---------------------------------------	----------------------------------	--	------------

a. When/why might you select a print translation?

b. When/why might you select an electronic translation?

c. If you refer to electronic translations, are you more likely to consult them on the monitor or

print out paper copies? ___ read on the monitor ___ print paper copies

d. ___ I do not refer to modern English translations.

4. I typically use scholarly editions of the major texts relevant to my research

Electronic only	Electronic mostly, Print sometimes	Electronic and print the same	Print mostly, Electronic sometimes	Print only
-----------------	---------------------------------------	----------------------------------	--	------------

a. When/why might you select a print edition?

b. When/why might you select an electronic edition?

c. ___ I do not use scholarly editions.

5. I typically use facsimiles of the main manuscripts relevant to my research

Electronic only	Electronic mostly, Print sometimes	Electronic and print the same	Print mostly, Electronic sometimes	Print only
-----------------	---------------------------------------	----------------------------------	--	------------

a. When/why might you select a print facsimile?

b. When/why might you select an electronic facsimile?

c. ___ I do not use facsimiles.

6. Please check all that apply. I use microfilmed copies of manuscript materials relevant to my research

- a. ___ Whenever possible
- b. ___ When a print facsimile is not available
- c. ___ When an electronic facsimile is not available
- d. ___ When I am unable to view the original manuscript material
- e. ___ Only if the microfilm images have been printed onto paper
- f. ___ I refuse to use microfilm under any circumstances

7. Please number 1-4 (1 = most important) according to the **importance** of these resources to your research

- a. ___ Original manuscript materials
- b. ___ Facsimile
- c. ___ Microfilm
- d. ___ Scholarly editions

8. Please number 1-4 (1 = most important) according to the **actual order of use** in your research (i.e., which you would go to first, etc.)

- a. ___ Original manuscript materials
- b. ___ Facsimile
- c. ___ Microfilm
- d. ___ Scholarly editions

9. When I look for an electronic resource I want (please check the **three** that are **most necessary** for the purposes of **your research**):

- a. ___ Trusted source (well-known publisher, respected scholarship)
- b. ___ High-quality images
- c. ___ Built-in glossaries
- d. ___ Scholarly essays and/or commentary
- e. ___ Transcriptions

- f. ___ Historical context
- g. ___ Modern English Translation
- h. ___ History of scholarship relating to the work

B. *Essay question. Please answer as completely as possible. Thank you.*

You have limited access to a manuscript that is essential to your research. You may supplement the manuscript either with a microfilm, print facsimile, or electronic facsimile / image based edition. Which will you choose? Why?

C. *Your turn to sound off.*

1. Approximately how many of each resource within your field are you familiar with, even if you do not use them regularly?

Type of Resource:	Electronic:	Print:
Journals		
Glossaries, Dictionaries, Grammars		
Translations		
Editions		
Facsimiles		

2. What print resources do you use most frequently, either for teaching or research?

3. What electronic resources (both online and CD-ROM) do you use most frequently, either for teaching or research?

4. Do you have any more comments concerning your work with print and/or electronic resources, or on answers given above?

This page will be removed and filed separately from the survey in order to protect your privacy.

1. Please check the title(s) that best represents your current rank:
 - Dean, Chair, or Head of Department
 - Distinguished or Chaired Professor
 - Professor
 - Associate Professor
 - Assistant Professor
 - Professor Emeritus
 - Instructor (non-tenure track)
 - Lecturer (non-tenure track)
 - Other (please specify): _____
2. Gender:
 - male female
3. Number of years teaching at a college or university: _____
4. Number of years teaching at your current institution: _____
5. Home department at your current institution: _____
6. Primary area(s) of research and/or research project(s):

Thank you so much for your time and effort!

I would like to contact a few of you for more open-ended conversation regarding your thoughts on resources in your fields. I anticipate that this would take twenty minutes or so on the phone; an email transaction could also be arranged. I may not be able to contact everyone who is interested, but if you would like to be considered please include your contact information below.

NAME: _____

EMAIL: _____

PHONE: _____

Appendix 2: Graphs

Fig. 1: Breakdown of Institutions in CARA Database

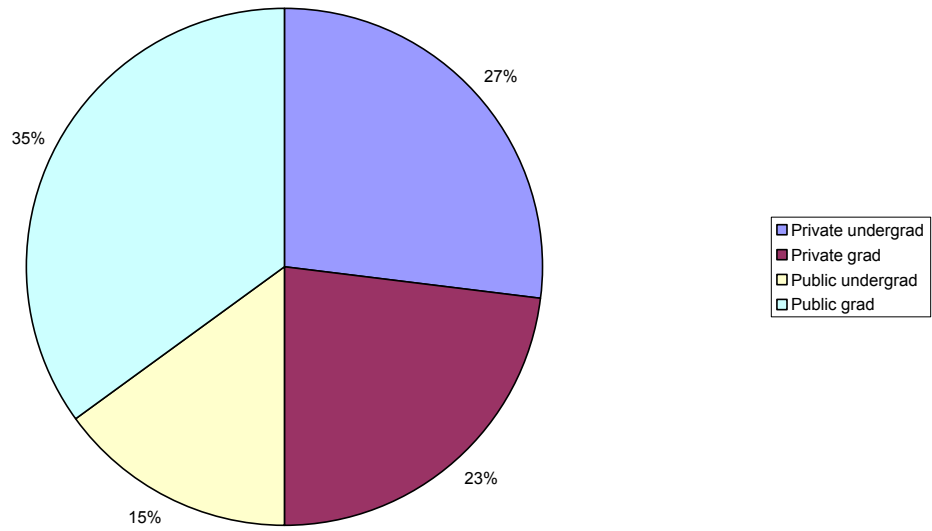


Fig. 2: Total Number of Contacts

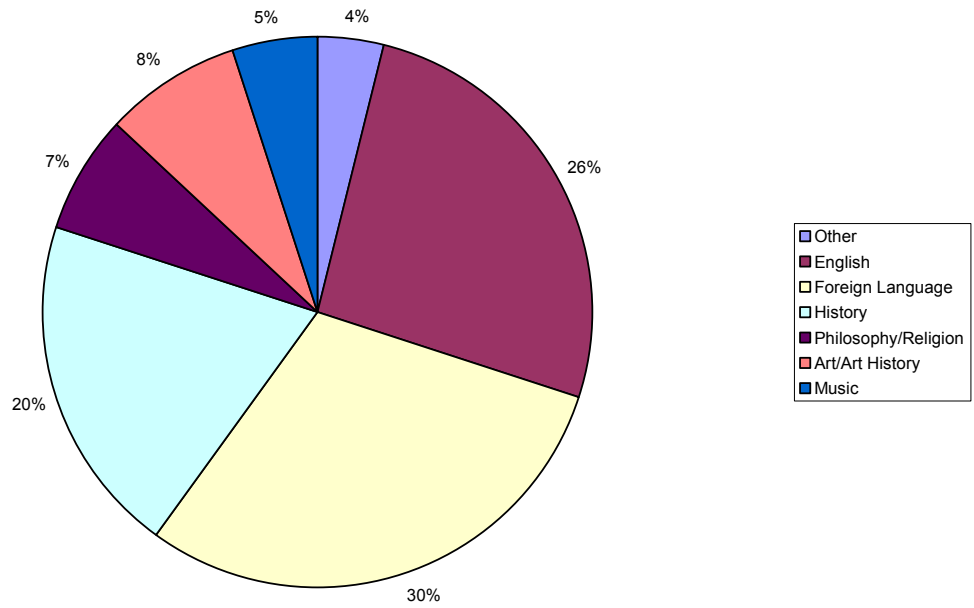


Fig. 3: Survey Receivers and Respondents: Surveys Sent

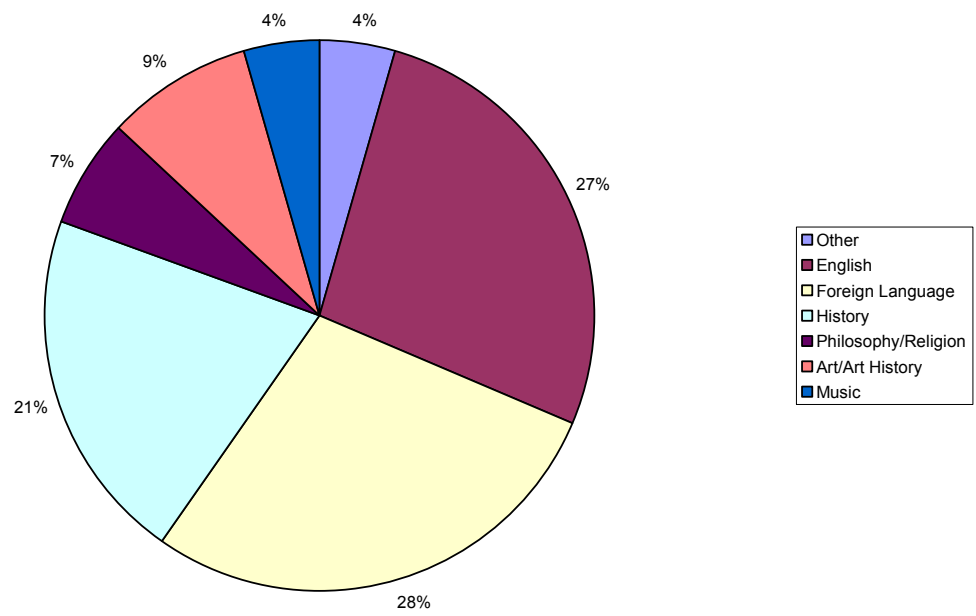


Fig. 4: Survey Receivers and Respondents: Surveys Returned

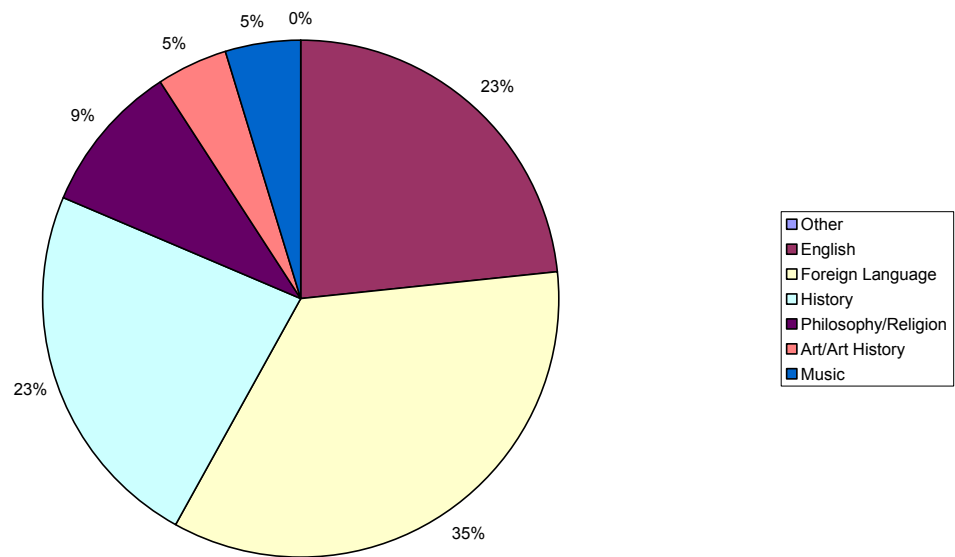


Fig. 5: Surveys Returned by Academic Rank and Gender

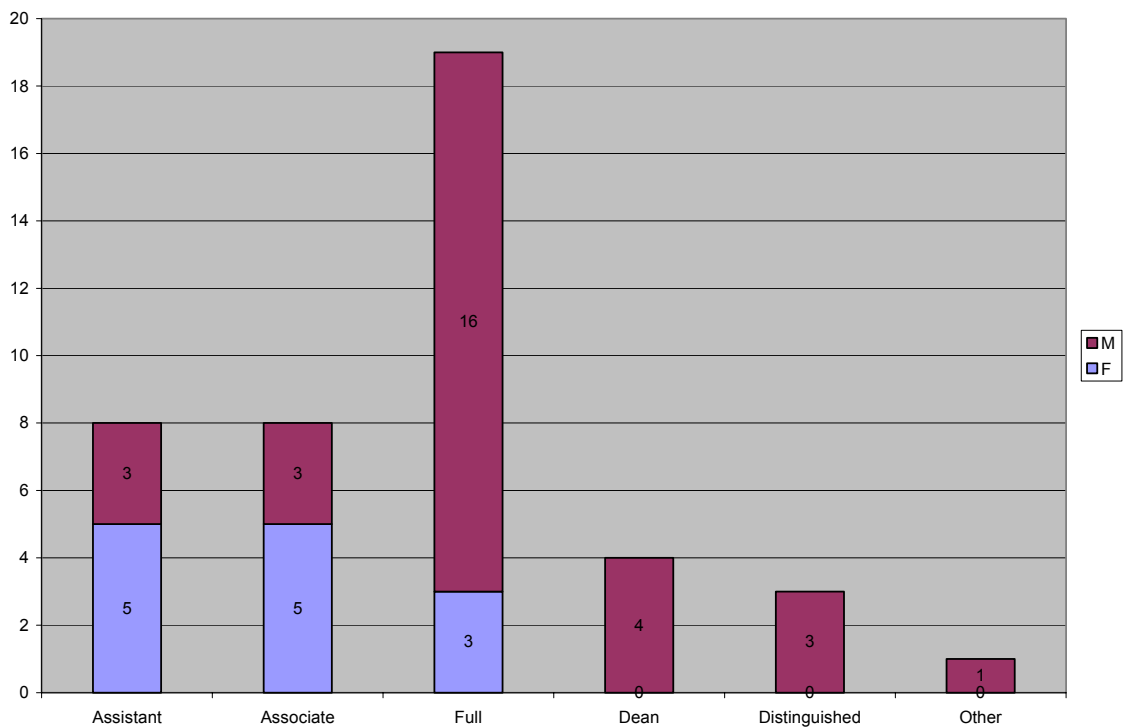


Fig. 6: Surveys Returned by Home Department and Gender

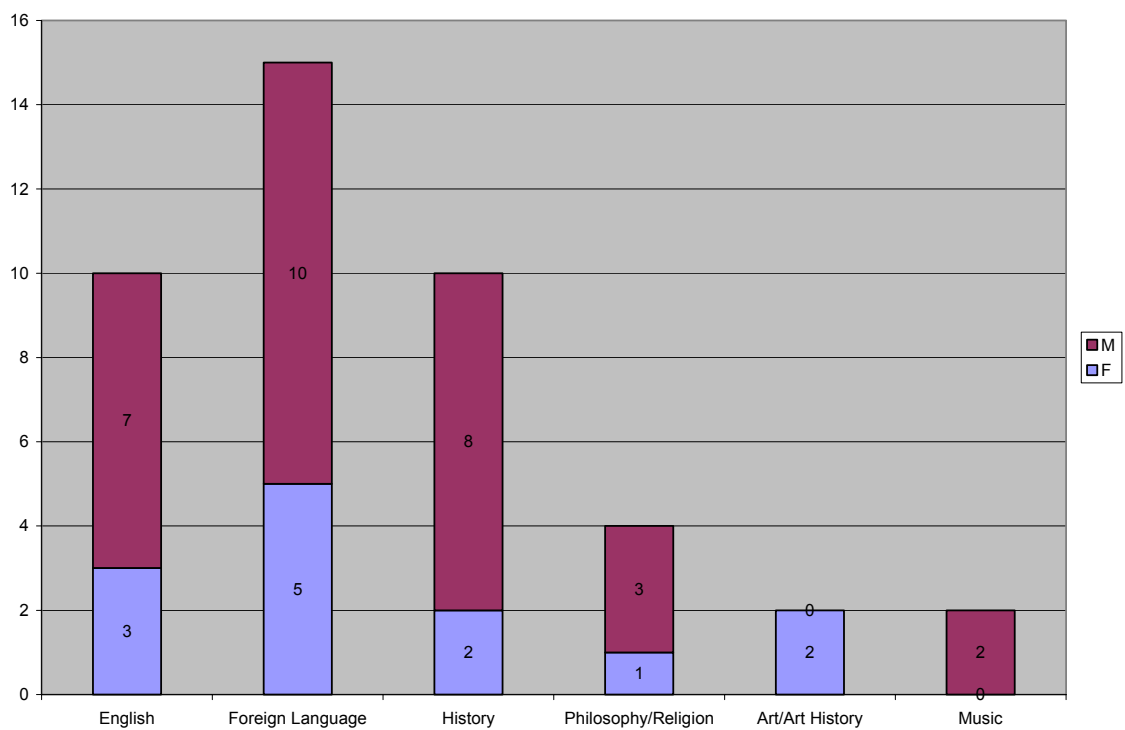


Fig. 7: Use of Journals Categorized by Home Department

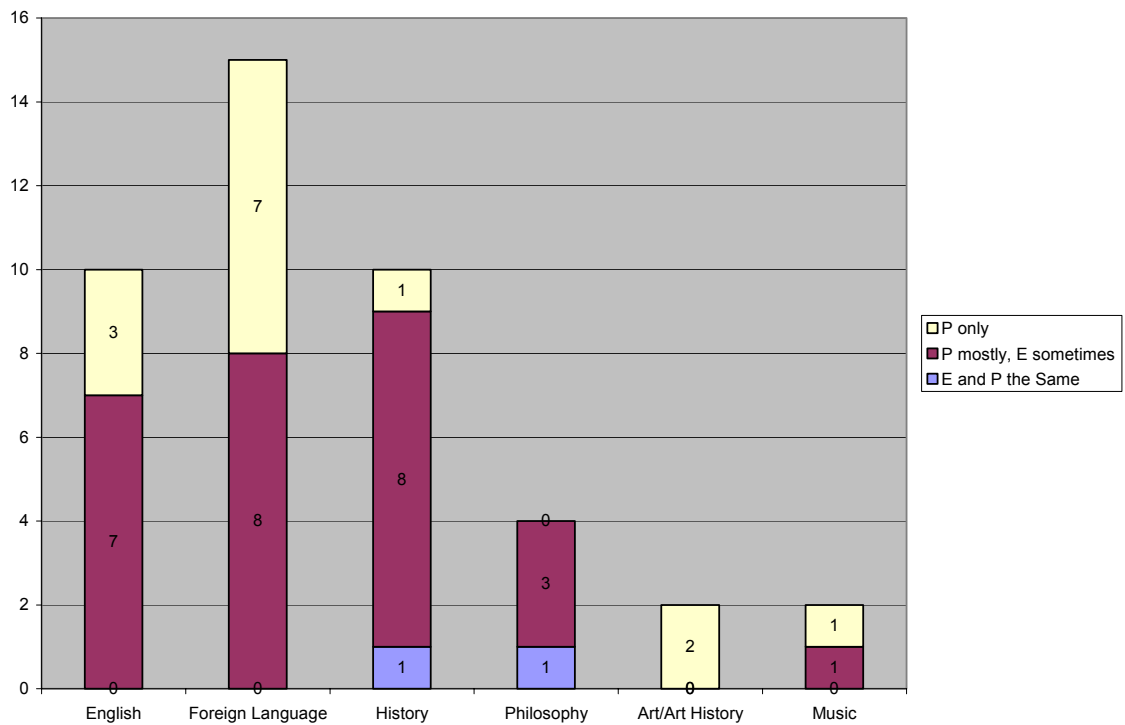


Table 8: Use of Dictionaries Categorized by Home Department

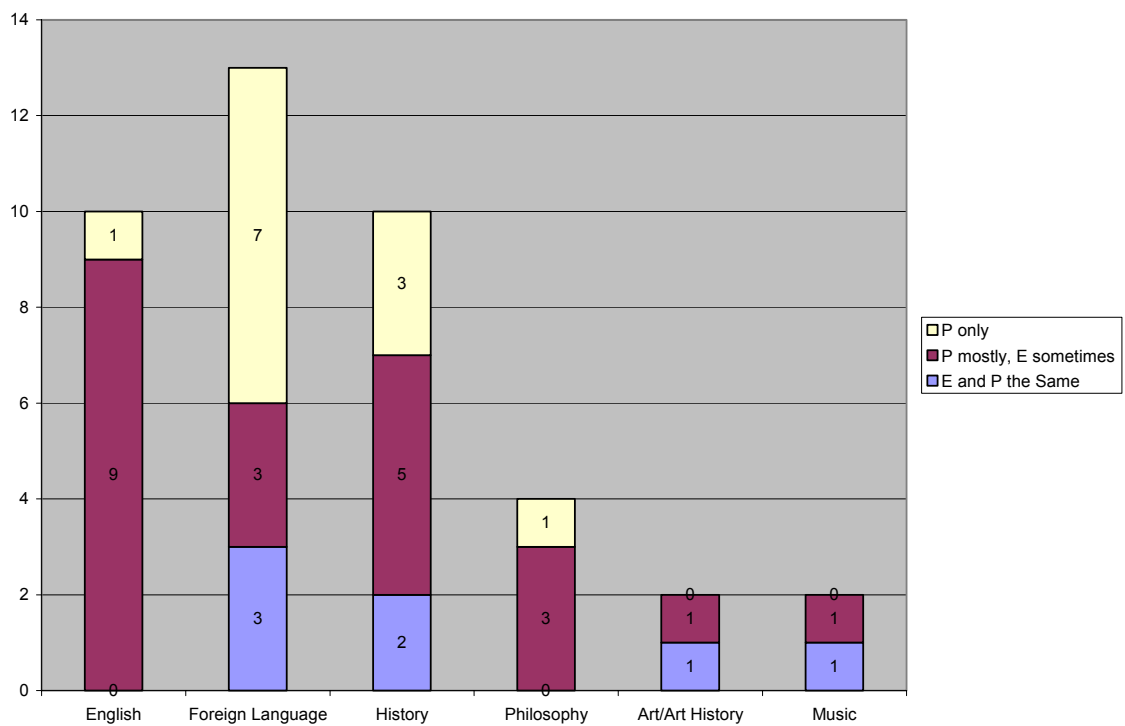


Fig. 9: Use of English Translations by Home Department

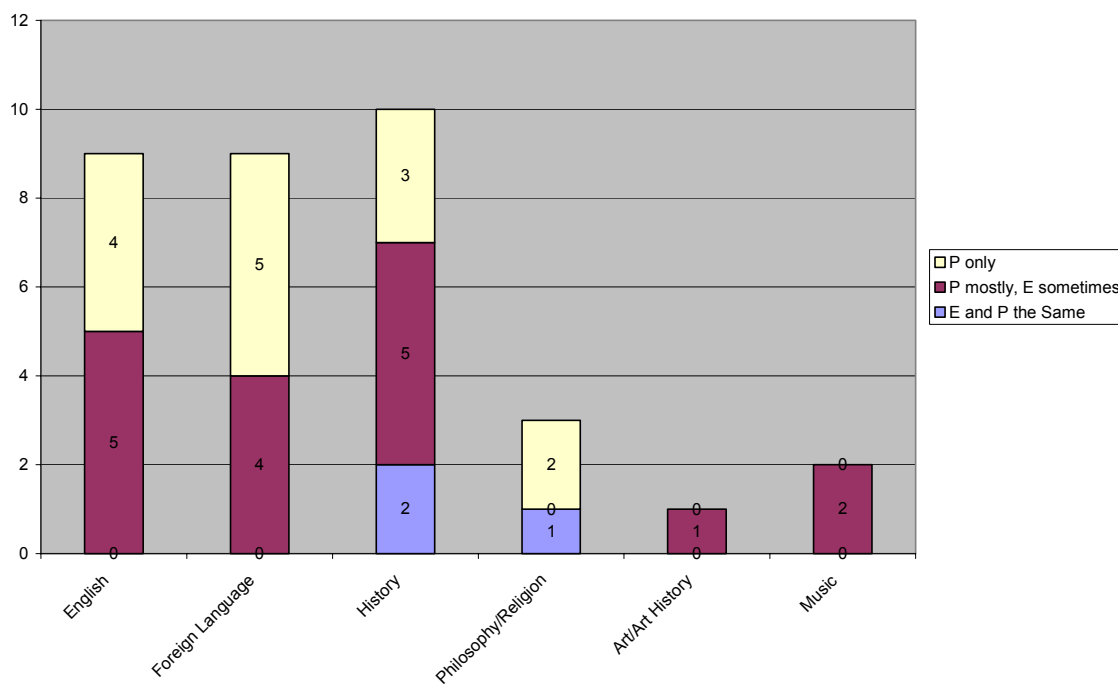


Fig. 10: Editions

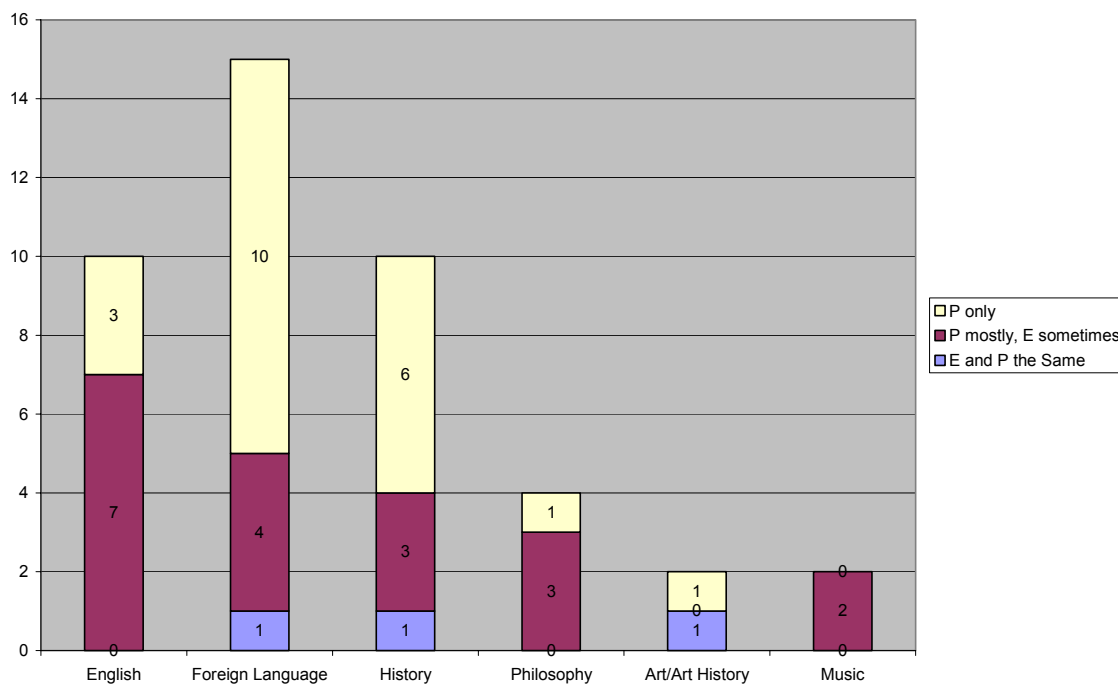


Fig. 11: Use of Facsimiles Categorized by Home Department

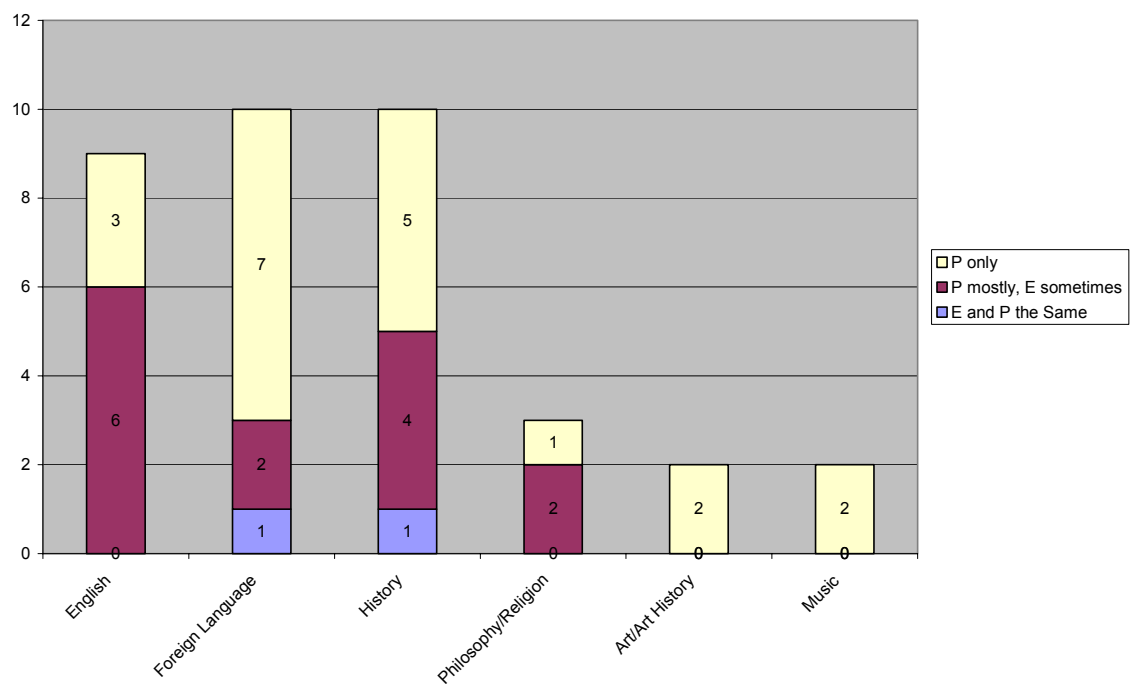


Fig. 12: http://www.culture.fr/Wave/sasimage/enlumine/b/IRHT_042134-p.jpg

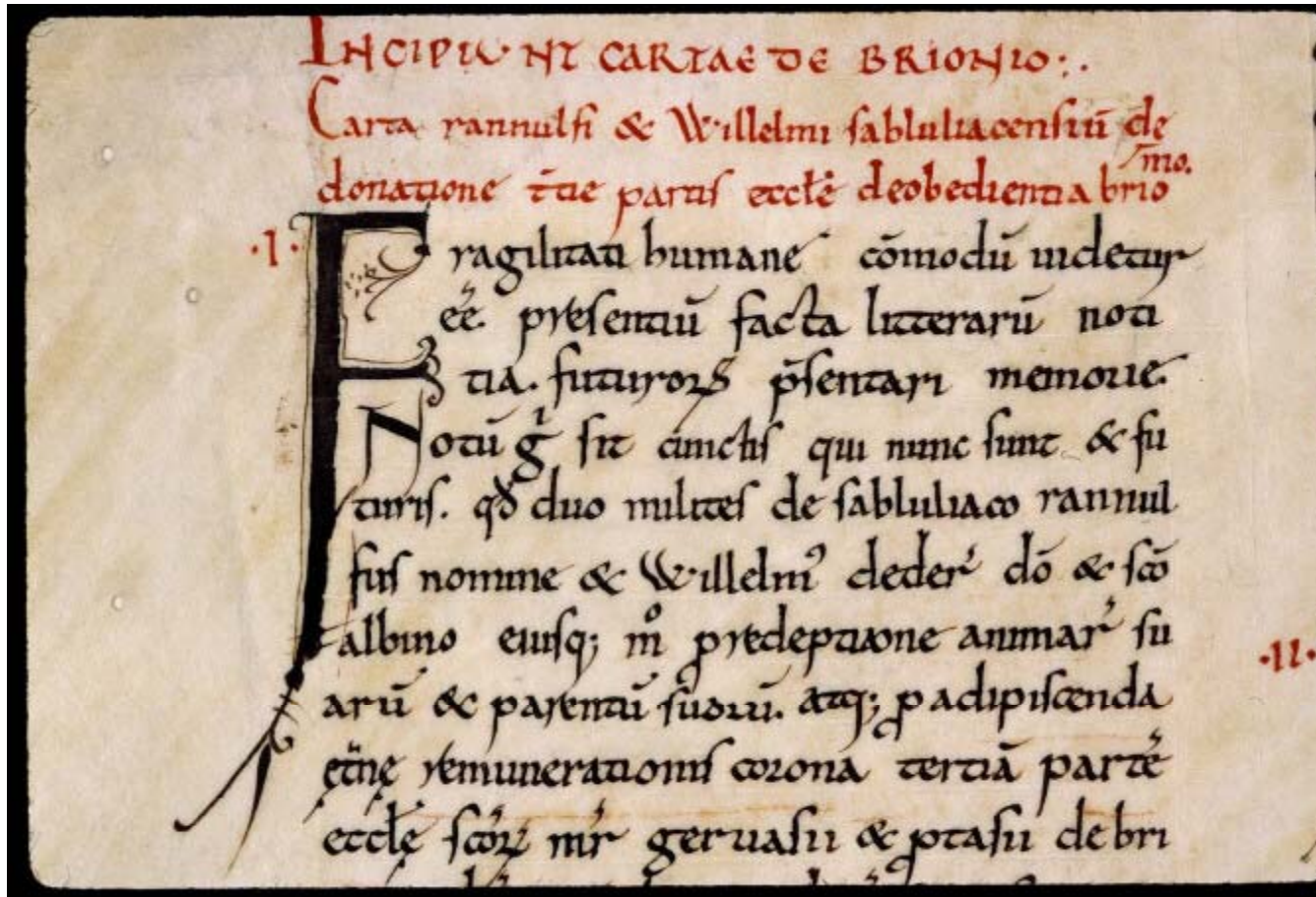




Fig. 13: http://www.culture.fr/Wave/sasimage/enlumine/b/IRHT_042127-p.jpg

Appendix 3: List of All Departments

The list below shows how I chose to combine medievalists from different departments together. Main entries indicate actual department. Terms in parentheses indicate which departments were grouped together. The totals for all groups are given.

Art History (Art): 6
 Art: 2
 TOTAL Art = 8

English: 23
 Comp Lit (English): 3
 TOTAL English = 26

Central Eurasian Studies (For): 3
 Classics (For): 2
 French (For): 2
 French & Italian (For): 4
 German (For): 2
 Hebrew & Semitic Studies (For): 1
 Hispanic and Luso-Brazilian Literatures (For): 1
 Italian (For): 2
 Modern & Classical Languages (For): 2
 Near Eastern Language & Culture (For): 2
 Romance Languages (For): 1
 Russian & Slavic (For): 1
 Scandinavian Studies (For): 1
 Slavic Lang & Lit (For): 1
 Spanish & Portuguese (For): 5
 TOTAL Foreign Language = 30

Music: 5

Philosophy: 2
 Religion (Phil): 5
 TOTAL Philosophy = 7

Geography (Other): 1
 Architecture & Urban Design (Other): 1
 Law (Other): 1
 Political Science (Other): 1
 TOTAL Other = 4

History: 19
 History of Science (Hist): 1
 TOTAL History = 20