

Information Behaviour of Theologians: A Literature Review

by *Katharina Penner*

Information needs of various groups of users and their respective information search behaviours have received much attention throughout the last decades. Studies with theologians and their needs and behaviours are, however, rare. This seems odd because theological libraries, like any other library, need to intimately know how faculty and students conduct theological research, what problems they encounter in the process, and what methods their users employ to find needed sources. Verified evidence, and not only anecdotal hearsay knowledge, can provide the basis for tailoring library services to current users, designing meaningful collection development policies, justifying library budgets, and planning library space.

In preparation for a study of research behaviours of theology students at my own institution, the International Baptist Theological Seminary in Prague, Czech Republic, I conducted a literature survey in order to analyse whether and what kind of research has been conducted on the information behaviour of academicians in the area of theology and religious studies and what gaps can be identified that would require future attention. The purpose of this bibliographic essay is to describe findings of the literature search. The review will proceed in concentric circles from the immediate question of enquiry to include research on information-seeking of humanities scholars and, finally, research on information behaviour in general. This approach seems to be necessary because only a few studies were found that concern themselves with theologians, and literature in this area is quite scarce. On the other side, theology is usually perceived to be part of the humanities, and certain parallels in research approaches and behaviours are evident and can illumine the area of study.

Before proceeding to describing the studies themselves, a few words about the method employed in this study are in order. The literature on the information behaviour of humanists and theologians was retrieved from various databases (LISA, LISTA, OCLCFirstSearch, JSTOR, ATLA RDB and ATLAS, NetLibrary, WorldCat Dissertations and Theses, ISI Web of Knowledge, ABI/Inform, IngentaConnect, Emerald Search, EbscoHost) as well as online catalogues (Voyager of the U of Wales, WorldCat, Online Library catalogue of the University of Illinois at Urbana, Union catalogue of the National Library of Czech Republic, British Library Catalogue) for the publication years 1980–early 2008. Web applications such as Google Scholar, Google Books, Intute: Arts and Humanities, reviews (annual or covering longer periods), and Lavonne Jahnke’s annotated bibliography of ATLA all proved to be helpful in the evaluation of sources. The retrieved titles and abstracts were screened for applicability to the topic and preference was given to peer-reviewed materials that explicitly relate to the academic study of religion and theology, as opposed to studies with religious practitioners. Geographic setting, attention to cross cultural issues as well as studies with graduate/postgraduate students were important criteria for inclusion.

THEOLOGY AND RELIGIOUS STUDIES

The literature review starts at the core of the interest, with a discussion of studies that describe the information behaviour of theologians.¹ Some studies that address research behaviour in religion in general need to be noted

¹ The terms “theology” and “theologians” are used broadly to include academicians who engage in the study of the Hebrew and Christian Bible, church and religious history, and theological doctrines and their application in church and synagogue. Due to the context in which this essay is being written and the availability of materials, focus will be limited to the Jewish and Christian traditions.

first. Several user studies have been conducted with pastors on their use of information² and with clergy being resource persons for and sometimes conducting information-seeking activities on behalf of their parishioners.³ The emergence of Web resources resulted in studies on the use of these by congregations for their ministry.⁴ They were also considered as challenging and exciting information sources for theological librarians to include in the traditional theological library.⁵ Although these studies are quite informative, they target the information-seeking behaviour of religious practitioners and, in one case, the practice of theological librarians but do not say much about the research habits of academicians in the area of theology and religious studies; it is assumed that these academicians will differ significantly in their approaches to information-seeking and in the sources they use.

This literature review identified four studies conducted with Judeo-Christian theologians in various parts of the world (Australia, Canada, Israel, and the USA) by authors who seem unaware of each other's research.

In 1989, Gary Gorman was the first to analyse the information-seeking behaviour of theologians at seven theological colleges in Adelaide, Australia, using a quantitative survey with forty-nine questions.⁶ The three parts of his questionnaire addressed areas such as demographic and profile data of participants, their research and information-gathering habits, recent research activity, and provision of relevant information. The study is much in keeping with the Zeitgeist of the 1980s in that quantitative studies dominate information-seeking research and system approach questions are at the forefront.⁷ However, it was a groundbreaking study because it was the first of its kind to focus on theologians. Gorman finds that participants rely heavily on the "invisible college" for exchange of ideas; use libraries but also build their personal collections; function independently of librarians and seek information by themselves; and enjoy browsing shelves and scanning journals (155).

Canada. While Gorman included in his research representatives of various fields of theological studies and covered various information-gathering activities, David Michels in his qualitative study focuses specifically on informal information seeking and only on biblical studies scholars, which comprises quite a small section of theological and religious studies.⁸ He emphasises the interdisciplinary nature of biblical studies and finds that people were regularly

² D.A. Wicks, "The Information-seeking Behavior of Pastoral Clergy: A Study of the Interaction of Their Work Worlds and Work Roles," *Library and Information Science Research* 21, no. 2 (1999): 205-26; D. Brockway, "The Reading and Library Habits of Connecticut Pastors," *American Theological Library Association Summary of Proceedings* 28 (1974): 125-127; Timothy Erdel, "The Reading Habits of Evangelical Mennonite Ministers" (master's thesis, University of Chicago Graduate Library School, 1978); Brewster Porcella, "The Information Gathering Habits of the Protestant Ministers of Cedar Rapids, Iowa" (PhD diss., University of Illinois at Urbana-Champaign, 1973).

³ Thomas M. Tanner, *What Ministers Know: A Qualitative Study of Pastors as Information Professionals* (Metuchen, NJ: Scarecrow Press, 1994).

⁴ K.L. Smith, "How Congregations Can and Do Use the Internet, With Special Reference to Social Action," *Journal of Religious and Theological Information* 4, no. 1 (2001): 25-45; K.L. Smith and V.L. Smith, "The Impact of the Internet on Parish Ministry: A Survey and Annotated List of Web Resources," *Journal of Religious and Theological Information* 4, no. 1 (2001): 9-24; A.E. Adetimirin, "Information Seeking Behaviour of the Catholic Religious in Ibadan, Nigeria," *Information Research* 10, no. 1 (2007): summary, <http://InformationR.net/ir/10-1/abs5>.

⁵ Mark Stover, *Theological Librarians and the Internet: Implications for Practice* (Binghamton, NY: Haworth Press, 2001).

⁶ Gary E. Gorman, "Patterns of Information Seeking and Library Use by Theologians in Seven Adelaide Theological Colleges," *Australian Academic & Research Libraries* 21, no. 3 (1990): 137-156.

⁷ Tom D. Wilson, "Human Information Behaviour," *Informing Science* 3, no. 2 (2000): 51; Peter Ingwersen and Kalervo Järvelin, *The Turn: Integration of Information Seeking and Retrieval in Context* (Dordrecht: Springer, 2005), 55.

⁸ David H. Michels, "The Use of People as Information Sources in Biblical Studies Research," *The Canadian Journal of Information and Library Science* 29, no. 2 (2005): 91-109.

consulted as resources for shaping research and finding relevant information.⁹ His seven Canadian participants increasingly turned to other professionals for confirmation and affirmation as they became more self-confident as researchers (104). Because of the narrow approach and a very small population it is difficult to consider the study as representative; also, the literature review does not include relevant sources beyond 2000.

Israel. Using Ellis' behavioural model of information seeking, Bronstein, employing a grounded theory approach with twenty-five Israeli Jewish studies scholars, finds that information strategies chosen by these researchers greatly depend on "the stage of the research or purpose of the search."¹⁰ Information activities (starting, citation tracking, browsing, differentiating, monitoring, extracting, verifying, and ending), as observed by Ellis,¹¹ expanded by Meho and Tibbo (to include accessing, networking, and information managing),¹² and verified with scholars from other disciplines, are also used by theologians but not randomly, as Bronstein believes that Ellis suggests. Bronstein defines research phases—initial phase, current awareness phase, and final phase—as separate time intervals and finds that she can identify phase-dependent information activities, strategies that can be related only to certain periods in research, and phase-independent elements (differentiating, verifying, managing information), that is, activities that can occur at any time in the research process. Some activities are used only in one phase while others are used in several phases but in a different way, depending on the purpose of the search. An understanding of research stages and the influence they have on information seeking¹³ could have implications for the design of reference services and the provision of resources to more effectively respond to differing needs and activities during each phase. Confirming previous research, she finds that users "perform several information activities with different purposes simultaneously"¹⁴ and especially value the central information activities of browsing, including serendipitous discovery, and citation tracking.¹⁵

U.S.A. More recently, the American Theological Library Association has become interested in analysing "contemporary research behaviours in the theological community"¹⁶ with the goal of providing some guidelines for its member libraries. A pilot project conducted in spring 2007 with eight faculty member from the Lutheran School of Theology and McCormick Theological Seminary in Chicago revealed that the theologians prefer to conduct their research at places where they are not accessible for student questions (that is, not in the seminary library). As also observed by Bronstein, they rely on an informal network of colleagues "alongside of and often

⁹ Michels seems not to be aware of Gorman's study which had already underlined the importance of the "invisible college" for theologians as compared to humanity scholars who prefer to work alone (see below for humanities scholars). He briefly refers to other literature that had corrected the isolationist impression of humanists (cf. Jim Basker, "Philosophers' Information Habits," *Library and Information Research News* 7, no. 25 (1984): 2-10 and others) but believes that the other literature breaks new ground.

¹⁰ Jenny Bronstein, "The Role of the Research Phase in Information Seeking Behaviour of Jewish Studies Scholars: A Modification of Ellis's Behavioural Characteristics," *Information Research* 12, no. 3 (2007): par 1, <http://informationr.net/ir/12-3/paper318.html>.

¹¹ D. Ellis, "A Behavioural Approach to Information Retrieval System Design," *Journal of Documentation* 45, no. 3 (1989): 171-212.

¹² L.I. Meho and H.R. Tibbo, "Modeling the Information-seeking Behaviour of Social Scientists," *Journal of the American Society for Information Science* 54, no. 6 (2003): 570-587.

¹³ Each stage presents a differing problem(s) for the researcher and so Bronstein comes close to Wilson's problem-solving model (par. 45).

¹⁴ Par. 38. See, for example, similar findings in Amanda Spink's "Multitasking Information Behavior and Information Task Switching: An Exploratory Study," *Journal of Documentation* 60, no. 4 (2004): 336-351, or in Marcia Bates' berrypicking model ("Berrypicking," in *Theories of Information Behavior*, ed. Karen E. Fisher, Sanda Erdelez, and Lynne McKechnie (Medford: *Information Today*, 2005)).

¹⁵ See section below on preferred information-seeking activities of humanists.

¹⁶ Christine Wenderoth, "Presidential Address," *American Theological Library Association Summary of Proceedings* 60 (2006): 23.

instead of any bibliographic work done in libraries,”¹⁷ especially at the beginning of a research project. As noted by Gorman, they value their personal libraries and journal subscriptions, but nowadays they also utilise a wide variety of electronic resources to identify helpful materials (Amazon, list serves, publishers’ e-mails, search engines). Often these activities are preferred to and substitute for bibliographic work with library catalogues, indexes, and other bibliographic materials because scholars are uncomfortable with the controlled vocabulary and unaware of or oblivious to the nonacademic weighting criteria of search engines. The end product, or the purpose of research, seems to define the information-seeking approach while the research and writing processes are “swirled together,” that is, it is difficult to define a linear progression.¹⁸ Wenderoth understands that her eight interviews are not sufficiently representative and calls for more research across “denominational, disciplinary, age, institutional and idiosyncratic boundaries.”¹⁹

INFORMATION BEHAVIOUR IN HUMANITIES

Due to the scarcity of sources related specifically to information-seeking behaviour in religious and theological studies, we will need to turn to the broader field of humanities which subsumes theology and religious studies. Although many more studies have focused on humanities scholars, this area still falls far behind user studies with representatives of other disciplines.²⁰

HISTORIANS AND PHILOSOPHERS

Two disciplines seem of special importance and relevance to theologians and will receive additional attention: philosophers, theology’s “closest ‘secular’ cousin,”²¹ and historians, whose “evidence plus interpretation” approach²² comes close to much of theological research.

In her 1981 study, Steig found that historians often do not use existing resources productively. Steig offers various reasons for this: language, format, and geographical barriers; time and financial constraints; inadequate interlibrary loan services; insufficient services at archives; and relative isolation from colleagues.²³ In a 2004 follow-up study with 278 participants, Stieg Dalton and Charnigo found that many aspects of historians’ information use “have not changed in a generation.”²⁴ However, they also observed that “historians have become more sophisticated” (416) in meeting their information needs as they increasingly use the internet and readily available electronic catalogues and indexes. Delgadillo and Lynch find that history students are often assigned by their professors to replicate activities considered standard in the discipline, such as browsing (shelves and indexes), and largely embrace similar

¹⁷ Christine Wenderoth, “Research Behaviors of Theological Educators and Students: The Known and the Unknown,” *American Theological Library Association Summary of Proceedings* 61 (2007): 180.

¹⁸ This goes somewhat against Bronstein and her research stages but supports Foster’s nonlinear information seeking approach (A. Foster, “A Nonlinear Model of Information-Seeking Behavior,” *Journal of the American Society for Information Science and Technology* 55, no. 3 (2004): 228–237; “A Nonlinear Perspective on Information Seeking,” in *New Directions in Human Information Behaviour*, ed. A. Spink and Charles Cole (Dordrecht: Springer, 2006), 155–170).

¹⁹ Wenderoth 2007, 183.

²⁰ Sue Stone, “Humanities Scholars: Information Needs and Uses,” *Journal of Documentation* 38, no. 4 (1982): 292.

²¹ Gorman, 139.

²² Margaret Stieg Dalton and Laurie Charnigo, “Historians and Their Information Sources,” *College & Research Libraries* 65, no. 3 (2004): 400.

²³ “The Information Needs of Historians,” *College & Research Libraries* 42, no. 6 (1981): 549–560.

²⁴ Stieg Dalton and Charnigo, 400.

information-seeking activities.²⁵ While change may come about only slowly, students displayed more openness to adopting new technologies. Other studies have confirmed and expanded on these findings.²⁶

In 1978, Corkill and Mann included several philosophers in their survey; in 1981, Corkill et al. analysed the information needs of humanities doctoral students.²⁷ In 1984, Basker reported on in-depth interviews conducted with eleven philosophy faculty at a university in the United Kingdom in 1977; the study found that 45 percent of the interviewees consulted with colleagues rather than the library to find relevant materials, were reluctant to use bibliographic tools, and did not have helpful working relationships with librarians.²⁸ In 1989, Sievert and Sievert, reporting the findings of interviews with twenty-seven philosophers, highlighted the interviewees' extensive use of interlibrary loan to augment their institutional libraries' limited resources, their reluctance to seek the assistance of librarians for research help, and their irregular browsing.²⁹

HUMANITIES IN GENERAL. 1970-1995

When discussing humanist information-seeking behaviour several reviews are traditionally noted: the 1982 review by Stone and the follow-up review by Watson-Boone.³⁰ Stone's review may have sparked an interest in this "underinvestigated community of scholarship"³¹ which displays differing research habits and is concerned with different sources than are researchers in the natural and social sciences.³² Although Stone has been able to collect an impressive amount of literature on the subject, she laments the fact that it is "superficial and piecemeal" with missing "links between the subjective views of humanists and librarians and the more objective knowledge provided by research."³³ She observes the limited impact of the "invisible college," noticing that humanities scholars usually work alone with lesser amounts of collaboration between scholars and do not delegate literature searching

²⁵ "Future Historians: Their Quest for Information," *College & Research Libraries* 60, no. 2 (1999): 245-259.

²⁶ Donald O. Case, "Collection and Use of Information by Some American Historians: A Study of Motives and Methods," *Library Quarterly* 61, no. 1 (1991): 1-82; Jack King, "History Research into the 21st Century," *Reference Librarian* 47 (1994): 89-108; Charles Cole, "Information Acquisition in History Ph.D. Students: Inferencing and the Formation of Knowledge Structures," *Library Quarterly* 68, no. 1 (1998): 33-54; Wendy M. Duff and Catherine A. Johnson, "Accidentally Found on Purpose: Information-seeking Behavior of Historians in Archives," *Library Quarterly* 72, no. 4 (2002): 472-497.

²⁷ *Information Needs in the Humanities: Two Postal Surveys* (Sheffield: Centre for Research on User Studies, 1978); *Doctoral Students in Humanities: A Small-scale Panel Study of Information Needs and Uses 1976-79* (Sheffield: Centre for Research on User Studies, 1981).

²⁸ Basker, 2-10.

²⁹ "Philosophical Research: Report From the Field," in *Humanists at Work: Disciplinary Perspectives and Personal Reflections*, ed. B.P. Lynch (Chicago: University of Illinois, 1989), 79-99.

³⁰ "Humanities Scholars: Information Needs and Uses"; "The Information Needs and Habits of Humanities Scholars," *Reference Quarterly* 34, no. 2 (1994): 203-16. I prefer to use these reviews as structural elements rather than those published by *ARIST* for some years as the latter are more general in nature and cover information needs and seeking studies and models while these two concentrate specifically on research behaviours in the humanities.

³¹ Donald O. Case, *Looking for Information: A Survey of Research on Information Seeking, Needs, and Behavior*, 2nd ed. (Amsterdam, Boston: Elsevier/Academic Press, 2007), 261.

³² The Bath University study with social science scholars (cf. Maurice Bernard Line, *Information Requirements of Researchers in the Social Sciences* (Bath: Bath University of Technology, 1971) had already earlier emphasised the scarcity of knowledge on humanities' use of libraries, on ways of obtaining needed information, on the preference, or otherwise, of browsing.

³³ Stone, 304.

to others.³⁴ They use the library extensively, often by way of browsing,³⁵ and are, therefore, quite hostile to the idea of remote storage; they depend on a wide range of resources, particularly primary sources but also monographs and journals.³⁶ Humanists appreciate broad retrospective coverage³⁷ and a comprehensiveness of collections which many libraries cannot provide; this is where interlibrary lending becomes vital.³⁸ Their research habits significantly depend on the immediate task and often they “adopt methods more usually associated with other disciplines.”³⁹

Watson-Boone quotes several citation analysis studies that converge on the fact that humanities scholars prefer to cite monographs rather than journal articles—often from their personal collection and about 20-30 years old—and use primary sources more than secondary sources.⁴⁰ Like Stone, Watson-Boone confirms the importance of browsing (which she prefers to call “grazing”) along the shelves and inside books and journals, of serendipity, of “chain-searching” or citation tracing, and guidance from colleagues. Humanities scholars tend to neglect bibliographic tools, indexes and abstracts, current awareness services, or formal bibliographies;⁴¹ they use catalogues mainly to locate and not necessarily to identify materials.⁴² Online searching and electronic databases did not figure prominently, if at all, as a way to find information⁴³ although a significant number of scholars believe they

³⁴ She reasoned that this might include issues of not easily having an assistant, issues of time, trust, and the ability to communicate one’s needs to others; their style of research is so fundamentally based on the personal interaction of a scholar with the material (research journey is as important as the result) (Stone, 295).

³⁵ See, for example, Weintraub’s deliberations on the browsing experience, not only of books on a shelf but also inside a book (“The Humanist Scholar and the Library,” *Library Quarterly* 50, no. 1 (1980): 26).

³⁶ Weintraub underlines that “humanists are probably the most book-bound creatures in the world of scholarship,” they depend on “the availability of original texts” as well as “all editions of the text” (ibid. 25).

³⁷ Humanists usually strongly disagree with weeding in spite of the fact that materials have not been used often or have not been used for a long time (Stone, 301). They would argue for retrospective purchases for all new and shifting research emphases. As they cannot experiment with their data and have no sequentially and hierarchically ordered body of knowledge, they rely on “interpretation of documentary sources in a cultural context” (S.E. Wiberley and W.G. Jones, “Patterns of Information Seeking in the Humanities,” *College & Research Libraries* 50, no. 6 (1989): 639) and “make moral, aesthetic, pragmatic, or theological judgements” (Weintraub, 31).

³⁸ Humanists also take initiative and seek out public libraries and other research as well as multidisciplinary libraries in the local geographical area and abroad (H. Lonnquist, “Scholars Seek Information: Information-seeking Behaviour and Information Needs of Humanities Scholars,” *International Journal of Information and Library Research* 2 (1990): 196; Watson-Boone, 210).

³⁹ Stone, 296.

⁴⁰ See her Table 1 on p. 206. They appreciate special collections, including the staff of these collections, although Lonnquist reports a dissatisfaction of those scholars who heavily depend on archives and museums in their research. The identification and retrieval of materials is difficult, often one needs to travel to the site, and services at archives are perceived to be “bureaucratic, slow and inflexible” (ibid, 197).

⁴¹ See Wiberley and Jones 1989 who observe that their eleven participants avoid machine-readable bibliographic databases (possibly because they are insecure in their use and do not feel comfortable asking a librarian for help) (644) and who do not care much about current awareness services or formal bibliographies (641-2). A comprehensive pattern of information-seeking would cost time which they believe not to have.

⁴² Watson-Boone, 207-8. Cf. the same concern that Wenderoth 2007 expresses thirteen years later about her own theological faculty.

⁴³ Lehmann and Renfro found four components as decisive for humanists’ acceptance of electronic databases: they must include the desired content (humanists emphasise retrospective coverage and databases seemed not to offer this in 1991 to the extent to become attractive); they should offer the possibility of individualised non-observed semi-focused browsing; connectivity (at home, in office, in library study carrel) should be guaranteed (not always given in 1991); they should be user-friendly as humanists were not prepared to spend time on dealing with hardware and software (“Humanists and Electronic Information Services: Acceptance and Resistance,” *College & Research Libraries* 52, no. 5 (1991): 409-413).

should learn to use online services but do not have time to keep up with technological developments.⁴⁴ As became obvious in several studies, humanists do not seek out librarians for help⁴⁵—except if they find themselves in special collections with an unfamiliar organisation scheme—possibly because their creative work results from a “direct interaction between the scholar and his or her material.”⁴⁶ Because they work on their projects long-term and alone they are constantly in the process of filling a “knowledge bag,”⁴⁷ have developed their own (idiosyncratic) research approaches, and combine different seeking patterns.⁴⁸

ELECTRONIC RESOURCES. 1995-2008

The acceptance of, and difficulties experienced with, the use of electronic resources by humanities scholars become the dominant issue for studies between 1995 and 2008.⁴⁹ Stone mentions an early interaction of humanities scholars with computer technology, considering them as being “anti-machine”⁵⁰ and, therefore, reluctant to engage it. Wiberley and Jones mention careful experimentation with technology in 1989 and revisit the subject in 1994 and again in 2000.⁵¹ They believe that for humanists to adopt electronic technologies for their research, relevant database content will be crucial⁵² as will be search training and perceived time savings.⁵³ The Getty project results⁵⁴ confirm low search skills and dissatisfaction with content and imply that, because electronic database design follows science-based theories and terminology, humanists are currently disadvantaged.⁵⁵ Several later studies follow up

⁴⁴ Wiberley and Jones 1989, 640. The excruciating importance of time had not changed in 2000, cf. S.E. Wiberley and W.G. Jones, “Time and Technology: A Decade-long Look at Humanists’ Use of Electronic Information Technology,” *College & Research Libraries* 61, no. 5 (2000): 421–431.

⁴⁵ Margaret Stieg in a provocative article attempts to resolve the dissonance between information science and the humanities. Because librarians have insisted to be part of the sciences, they have manoeuvred themselves into opposition to humanities. With an emphasis on technical details and on procedures instead of the larger view of humanistic values mental constructs and metaphors force the two to such a love-hate relationship. She believes information science “will do well to remember that its purposes are essentially human” (“Information Science and the Humanities: The Odd Couple,” *Library Journal* 112, no. 16 (1987): 40).

⁴⁶ Watson-Boone, 213.

⁴⁷ Lonquist, 200.

⁴⁸ Wiberley and Jones 1989, 640.

⁴⁹ The information-seeking literature exploded around the turn of the century, with many studies done even with humanities scholars (cf. Case 2007, 242–43). The focus on electronic resources is not surprising as these are becoming the “dominant environment within which information-seeking takes place” (T. Wilson, “Revisiting User Studies and Information Needs,” *Journal of Documentation* 62, no. 6 (2006): 683). The state of the information environment is in constant flux with changes happening concurrently so that it is difficult to unequivocally identify to what aspect to attribute the change in information-seeking behaviour.

⁵⁰ Stone, 300. As the Getty project finds, humanists may not be “anti-machine” but their thinking is certainly different from the engineering-oriented and logico-mathematical approach of databases (Marcia J. Bates, “The Getty End-User Online Searching Project in the Humanities: Report no. 6: Overview and Conclusions,” *College & Research Libraries* 57, no. 6 (1996b): 519) while some perceive of online searching as the “industrialisation of scholarship” (517).

⁵¹ “Patterns,” “Humanists Revisited: A Longitudinal Look at the Adoption of Information Technology,” *College & Research Libraries* 55, no. 5 (1994): 499–507; “Time and Technology.”

⁵² Databases will need to include relevant primary sources and provide broad retrospective coverage; digitization of older materials will be “highly advantageous” (Wiberley and Jones 2000: 429, cf. also Lehmann and Renfro).

⁵³ Wiberley and Jones 2000, 424, 430.

⁵⁴ Results of this two-year end-user online searching study with twenty-seven humanities scholars of different nationalities are presented in six articles, see Bates et al 1993; Siegfried et al 1993; Bates et al 1995; Bates 1994; Bates 1996a; and Bates 1996b.

⁵⁵ Bates 1996b, 516–518, 520–1. As Wiberley (“Subject Access in the Humanities and the Precision of the Humanist’s Vocabulary,” *Library Quarterly* 53, no. 4 (1983): 420–33), Bates (“The Design of Databases and Other Information Resources for Humanities Scholars: The Getty Online Searching Project, no. 4,” *Online and CD-ROM Review* 18, no. 6 (1994): 331–40) and Buchanan et al (“Information Seeking by Humanities Scholars,” *Lecture Notes in Computer Science* 3652 (2005): 218–229) underline, humanists’ search terms are quite specific and do not go well with the “common terms” of database thesauri.

on this theme to embark on an in-depth exploration of research needs of humanists⁵⁶ and their interaction with e-texts.⁵⁷

Buchanan et al. find these “intellectually able seekers who are not technical in orientation” (218) using electronic resources especially when they are “new to an area of research,”⁵⁸ even more so if they are at an early stage in their career (223). They see a strong relationship between high usage, strong search skills, and satisfaction with digital libraries (227) but also observe that, even though most participants felt they were successful in meeting their information needs, they could improve their skills to lower the amount of effort they expended. Buchanan et al. confirm a notion expressed in various studies that scholars less privileged with access to well-stocked print libraries are more open to electronic resources.⁵⁹

Studies from 1995 to the present primarily deal with English literature academicians⁶⁰ or, without specifying the discipline, with arts and humanities in general.⁶¹ Changes in information-seeking behaviour as humanists are increasingly involved in interdisciplinary work are emphasised by Palmer and Neumann.⁶² As a response to the frequent admission that humanists need more training to effectively use electronic resources, East presents a full-blown information literacy syllabus for humanities researchers.⁶³ Some helpful studies observe research behaviours

⁵⁶ John W. East, “Subject Retrieval from Full-text Databases in the Humanities,” *Portal: Libraries and the Academy* 7, no. 2 (2007): 227-241; E.G. Toms and H.L. O’Brien, “Understanding the Information and Communication Technology Needs of the E-humanist,” *Journal of Documentation* 64, no. 1 (2008):102-130; J. Rimmer et al., “An Examination of the Physical and the Digital Qualities of Humanities Research,” *Information Processing and Management* 44 (2008):1374–1392.

⁵⁷ J. Bronstein and S. Baruchson-Arbib, “Humanists as Information Users in the Digital Age: The Case of Jewish Studies Scholars in Israel,” *Journal of the American Society for Information Science & Technology* 58, no. 14 (2007): 2269-2279; S. Sukovic, “Convergent Flows: Humanities Scholars and Their Interactions with Electronics Texts,” *The Library Quarterly* 78, no. 3 (2008): 263-284.

⁵⁸ Cf. comments by Getty scholars who perceived the value of online searching to lie in the exploration of (unfamiliar) interdisciplinary topics or those of related neighbouring disciplines (Bates 1996b, 519).

⁵⁹ Buchanan, 221. Cf., for example, Ellis and Oldman: electronic libraries would afford them access to “collections in centrally located libraries, without the burden and expense of travel... rare holdings would be more democratically available” (“The English Literature Researcher in the Age of the Internet,” *Journal of Information Science* 31, no. 1 (2005): 35). This is in keeping with the higher appreciation of interlibrary loan by scholars working in small and remote colleges (Stieg 1981; S.S. Guest, “The Use of Bibliographic Tools by Humanities Faculty at the State University of New York at Albany,” *Reference Librarian* 18 (1987): 157-172).

⁶⁰ H. Oldman, “The Information Seeking Behaviour of Academics Active in the Field of English Literature,” (MA diss., Sheffield University, 1997); W. Shaw, “The Use of the Internet by Academics in the Discipline of English Literature: a Quantitative and Qualitative Approach,” (PhD thesis, University of Wales, 2002); H. Maula and S. Talja, “Reasons for the Use and Non-use of Electronic Journals and Databases: A Domain Analytic Study in Four Scholarly Disciplines,” *Journal of Documentation* 59, no. 6 (2003): 673-691; Ellis and Oldman 2005; D. Gardiner, David McMenemy, and Gobinda Chowdhury, “A Snapshot of Information Use Patterns of Academics in British Universities,” *Online Information Review* 30, no. 4 (2006): 341-359.

⁶¹ Although such research is very important and enlightening, one should be careful, as Shaw and Davis point out, when illegitimately considering findings in one subject area as representative for all of humanities (“The Modern Language Association: Electronic and Paper Surveys of Computer-based Tool Use,” *Journal of the American Society for Information Science* 47, no. 12 (1997): 933).

⁶² “The Information Work of Interdisciplinary Humanities Scholars: Exploration and Translation,” *Library Quarterly* 72, no. 1 (2002): 85-118.

⁶³ “Information Literacy for the Humanities Researcher: A Syllabus Based on Information Habits Research,” *Journal of Academic Librarianship* 31, no. 2 (2005): 134-142. In the same way, though not related only to humanities, Limberg and Sundin, in an attempt to underline that “information-seeking and information literacy are two sides of the same coin,” show ways how information-seeking research can more effectively influence information literacy theory and practice (“Teaching Information Seeking: Relating Information Literacy Education to Theories of Information Behaviour,” *Information Research* 12, no. 1 (2006), <http://informationr.net/ir/12-1/paper280.html>).

of humanities graduate students, as compared with established scholars or undergraduate students,⁶⁴ or attempt contextual comparisons, such as between an Argentinian and Western universities.⁶⁵

HUMAN INFORMATION BEHAVIOUR IN GENERAL

We will need to consider general developments in human information behaviour research because, as already underlined by Stone, the delineations between humanities and other sciences are quite fuzzy and humanists often “adopt methods more usually associated with other disciplines.”⁶⁶ We will do so using Wilson’s 2000, Ingwersen and Järvelin’s 2005, and Case’s 2007 landmark reviews. Wilson and Case start their overviews with early twentieth century studies on library use, the main focus at that time being scientists and information systems, sources, and channels rather than user behaviour and attention to the person.

The shift to being person-centred rather than system-centred came in the 1980s,⁶⁷ together with an increased emphasis on qualitative, instead of the previously exclusive preponderance of quantitative, methods of enquiry,⁶⁸ and the development of a theoretical groundwork of models, theories, and perspectives. The best known models of the time that still exert an influence today are probably Wilson’s 1981 model on information behaviour (later modified to a problem-solving model), Dervin’s sense-making model, Kuhltau’s process model, and Ellis’ information-

⁶⁴ Andy Barrett, “The Information-seeking Habits of Graduate Student Researchers in the Humanities,” *Journal of Academic Librarianship* 31, no. 4 (2005): 324-331. For studies on the information-seeking behaviour of students not necessarily connected to humanities, see K.B. Kelley and G.J. Orr, “Trends in Distant Student Use of Electronic Resources: A Survey,” *College & Research Libraries* 64, no. 2 (2003): 176-191; E. Sadler and Lisa M. Given, “Affordance Theory: A Framework for Graduate Students’ Information Behaviour,” *Journal of Documentation* 63, no. 1 (2007): 115-141; Y. Liao, Mary Finn, and Jun Lu, “Information-seeking Behavior of International Graduate Students vs. American Graduate Students: A User Study at Virginia Tech 2005,” *College & Research Libraries* 68, no. 1 (2007): 5-25; George et al, “Scholarly Use of Information: Graduate Students’ Information Seeking Behaviour,” *Information Research* 11, no. 4 (2006), <http://InformationR.net/ir/11-4/paper272.html>; J. Heinström, *Fast Surfers, Broad Scanners, and Deep Divers: Personality and Information-seeking Behaviour* (Åbo: Åbo Akademis förlag, 2002).

⁶⁵ S.R. de Tiratel, “Assessing Information Use by Humanists and Social Scientists: A Study at the Universidad de Buenos Aires, Argentina,” *Journal of Academic Librarianship* 26, no. 3 (2000): 346-54.

⁶⁶ Stone, 296.

⁶⁷ Wilson’s 1981 article (“On User Studies and Information Needs,” *Journal of Documentation* 37, no. 1: 3-15; reprinted in *Journal of Documentation* 62, no. 6 (2006): 658-670) and Dervin and Nilan’s 1986 ARIST review (“Information Needs and Uses,” *ARIST* 21: 3-33) are often cited as initiating many new developments in information-seeking research, such as attention to models (Wilson’s being the first model), information-seeking in context, move from systems focus with passive and mechanistic users to real studies of user behaviour (Ingwersen and Järvelin, 102). Together with the shift came also an explosion in the number of publications on the topic. Admitting the difficulties to establish hard data on the number of information-seeking publications, Case (2007, 242) suggests that there is an “escalating growth rate: 30 items per year during the early 1970s, 40 during the early 1980s, 50 by the late 1980s, 100 by 1990, and 120 items per year by 2005.” He continues: “It is likely that over 10,000 publications have been published on information needs, uses, seeking, and other aspects of information behaviour, even in the strictest senses of those terms” (243).

⁶⁸ See also Bawden’s (“A Three-decade Perspective on Tom Wilson’s ‘On User Studies and Information Needs.’” *Journal of Documentation* 62, no. 6 (2006): 676) confirmation of the development foreseen by Wilson: “It is no exaggeration to say that qualitative research is now the most common approach for information research involving information-seeking and use, alone or in conjunction with quantitative methods.” Wilson, by now, regrets the number of qualitative studies that do not bother to test/confirm the emerging ideas with quantitative methods (2006: 681). See also Ingwersen and Järvelin, 93, who in their methodology review underline the current emphasis on triangulation which ensures cross-checking of results and coverage of multiple aspects.

seeking activities set.⁶⁹ Two of these have been applied to religion and theology scholars: Bronstein, for example, attempts to verify and expand Ellis' model, and Berryhill appreciates Kuhltau's model for insights it can offer to understand research behaviours of theology students. With its explicit attention to human communication, Dervin's model also has much potential to enrich research on theologians.

Other important topics on which helpful research has been done and which relate to the information-seeking behaviour of theologians are the importance of the social framework for information-seeking behaviour,⁷⁰ the continuing validity of browsing,⁷¹ serendipitous discovery and creativity in searching,⁷² the impact of the principle of least effort and information avoidance, especially during information overload,⁷³ more sophisticated use of electronic resources in general⁷⁴ and by theologians in particular,⁷⁵ and the influence of ethnicity on information-seeking behaviour.⁷⁶

⁶⁹ B. Dervin, "Sense-making Theory and Practice: An Overview of User Interests in Knowledge Seeking and Use," *Journal of Knowledge Management* 2, no. 2 (1998): 36-46; C. Kuhlthau, *Seeking Meaning: A Process Approach to Library and Information Services* (London: Libraries Unlimited, 2004); D. Ellis, "The Derivation of a Behavioural Model for Information Retrieval System Design" (PhD diss., University of Sheffield, 1987). Many more models have been developed, cf., for example, Ingwersen and Järvelin who include task-based information searching (Byström and Järvelin), discourse analysis (Talja), the professionals' information-seeking model (Leckie) and the information acquisition model for decision making (Saunders and Jones). The 2005 volume on *Theories of Information Behaviour*, ed. K. Fisher et al., features a host of other approaches such as the berry picking model (Bates), the domain analytic approach (Talja), information encountering (Erdelez), nonlinear information-seeking model (Foster), women's ways of knowing (Julien), to name only a few that may be relevant to theology. Case 2007 has his own category of ordering existing information-seeking models.

⁷⁰ Hargittai and Hinmant argue "for the inclusion of people's social attributes [gender, age, race, ethnicity, education, socio-economic status] in studies of information behaviour" ("Toward a Social Framework for Information Seeking," in *New Directions in Human Information Behaviour*, ed. A. Spink and Ch. Cole (Dordrecht: Springer, 2006), 57) and the need to consider how their contexts may influence their behaviour. See also the Information-seeking in Context conferences with their publications.

⁷¹ Cf. Case 2007, 89-93 for an extensive review.

⁷² A. Foster and N. Ford, "Serendipity and Information Seeking: An Empirical Study," *Journal of Documentation* 59, no. 3 (2003): 321-340; S. Lee, Y. Theng, and D. Goh, "Creative Information Seeking Part I: A Conceptual Framework," *Aslib Proceedings* 57, no. 5 (2005): 460-75 and "Creative Information Seeking Part II: Empirical Verification," *Aslib Proceedings* 59, no. 3 (2007): 205-21.

⁷³ Ch. Perrow, "On Not Using Libraries," in *Humanists at Work: Disciplinary Perspectives and Personal Reflections*, ed. B.P. Lynch (Chicago: University of Illinois, 1989), 29-42; L. Zach, "When is 'Enough' Enough? Modeling the Information-seeking and Stopping Behavior of Senior Arts Administrators," *Journal of the American Society for Information Science and Technology* 56, no. 1 (2005): 23-35; Sadler and Given 2007; Ch. Prabha et al., "What is Enough? Satisficing Information Needs," *Journal of Documentation* 63, no. 1 (2007): 74-89.

⁷⁴ L. Banwell and P. Gannon-Leary, "JUBILEE: Monitoring User Information Behaviour in the Electronic Age," *OCLC Systems & Services* 16, no. 4 (2000): 189-193; D. Nicholas et al., "Characterising and Evaluating Information Seeking Behaviour in a Digital Environment: Spotlight on the 'Bouncer,'" *Information Processing and Management* 43, no. 4 (2007): 1085-1102.

⁷⁵ Theologians seem to embrace electronic resources even slower than humanities in general and express concerns that technology may become a substitute for spiritual transformation and for pedagogy in theological education. Steve Delamarter ("Theological Educators and Their Concerns about Technology," *Teaching Theology and Religion* 8, no. 2 (2005): 131-143) specifically voices and confronts these concerns.

⁷⁶ Several, mainly North American and Eastern European studies are concerned with the increasing ethnic diversity in the process of globalisation and attempt to discern differences in the information-seeking behaviour of persons with different cultural backgrounds (cf., for example, M. Liu, "Ethnicity and Information Seeking," *Reference Librarian* 49/50 (1995): 123-3; M. Liu and B. Redfern, "Information-seeking Behavior of Multicultural Students: A Case Study at San Jose State University," *College & Research Libraries* 58, no. 4 (1997): 348-54; J. Steinerova and J. Susol, "Library Users in Human Information Behaviour," *Online Information Review* 29, no. 2 (2005): 139-156; and E. Macevicnite, "Information Needs Research in Russia and Lithuania 1965-2003," *Information Research* 11, no. 3 (2006), <http://informationr.net/ir/11-3/paper256.html>). As my institution finds itself serving faculty and students from a broad spectrum of nationalities, the results of these studies seem relevant in the literature review.

In conclusion, the first impression after a literature search suggests that the information behaviour of academicians in the area of religion and theology is a neglected area and only few information-seeking studies have been conducted directly with theologians. Singular studies have been attempted in various parts of the world but they have not (yet) interacted with or enriched each other. However, there is a wealth of materials available regarding the research behavior of humanists and human information behaviour in general that can provide helpful guidance for research design and serve as a sounding board for result comparisons. Human information behaviour research seems to have come of age and covers various aspects that can directly illumine aspects relevant to information behaviour of theologians.

WORKS CITED

- Adetimiriin, A.E. "Information Seeking Behaviour of the Catholic Religious in Ibadan, Nigeria." *Information Research* 10, no. 1 (2004): summary, <http://InformationR.net/ir/10-1/abs5>.
- Banwell, Linda, and Pat Gannon-Leary. "JUBILEE: Monitoring User Information Behaviour in the Electronic Age." *OCLC Systems & Services* 16, no. 4 (2000): 189-193.
- Barrett, Andy. "The Information-seeking Habits of Graduate Student Researchers in the Humanities." *Journal of Academic Librarianship* 31, no. 4 (July 2005): 324-331.
- Basker, Jim. "Philosophers' Information Habits." *Library and Information Research News* 7/25 (1984): 2-10.
- Bates, Marcia J. "The Design of Databases and other Information Resources for Humanities Scholars: the Getty Online Searching Project, No. 4." *Online and CD-ROM Review* 18, no. 6 (1994): 331-40.
- Bates, Marcia J. "Document Familiarity, Relevance and Bradford's Law: The Getty Online Searching Project, No. 5." *Information Processing and Management* 32, no. 6 (1996a): 697-707.
- Bates, Marcia J. "The Getty End-User Online Searching Project in the Humanities: Report No. 6: Overview and Conclusions." *College & Research Libraries* 57, no. 6 (1996b): 514-523.
- Bates, Marcia J. "Berry-picking." In *Theories of Information Behavior*, edited by Karen E. Fisher, Sanda Erdelez, and Lynne McKechnie, 102-105. Medford: Information Today, 2005.
- Bates, Marcia J., Deborah N. Wilde, and Susan Siegfried. "An Analysis of Search Terminology Used by Humanities Scholars: The Getty Online Searching Project Report Number 1." *Library Quarterly* 63, no. 1 (1993): 1-39.
- Bates, Marcia J., Deborah N. Wilde, and Susan Siegfried. "Research Practices of Humanities Scholars in an Online Environment: The Getty Online Searching Project Report No. 3." *Library and Information Science Research* 17, no. 1 (1995): 5-40.
- Bawden, David. "A Three-decade Perspective on Tom Wilson's 'On User Studies and Information Needs.'" *Journal of Documentation* 62, no. 6 (2006): 671-679.
- Berryhill, Carisse. "Sources of Understanding about Research Readers." *American Theological Library Association Summary of Proceedings* 61: 189-190.
- Bronstein, J. "The Role of the Research Phase in Information Seeking Behaviour of Jewish Studies Scholars: A Modification of Ellis's Behavioural Characteristics." *Information Research* 12, no. 3 (2007): 48 pars., <http://informationr.net/ir/12-3/paper318.html>.
- Bronstein, J. and S. Baruchson-Arbib. "Humanists as Information Users in the Digital Age: The Case of Jewish Studies Scholars in Israel." *Journal of the American Society for Information Science & Technology*, 58, no. 14 (2007): 2269-2279.

- Buchanan, G., S.J. Cunningham, A. Blandford, J. Rimmer, and C. Warwick. "Information Seeking by Humanities Scholars." *Lecture Notes in Computer Science* 3652 (2005): 218-229.
- Case, Donald O. "Collection and Use of Information by Some American Historians: A Study of Motives and Methods." *Library Quarterly* 61, no. 1 (1991): 1-82.
- Case, Donald O. *Looking for Information: A Survey of Research on Information Seeking, Needs, and Behavior*. 2nd ed. Amsterdam, Boston: Elsevier/Academic Press, 2007.
- Cole, Charles. "Information Acquisition in History Ph.D. Students: Inferencing and the Formation of Knowledge Structures." *The Library Quarterly* 68, no. 1 (1998): 33-54.
- Corkill, Cynthia M., and Margaret Mann. *Information Needs in the Humanities: Two Postal Surveys*. Sheffield: Centre for Research on User Studies, 1978.
- Corkill, Cynthia M., Margaret Mann, and Sue Stone. *Doctoral Students in Humanities: A Small-scale Panel Study of Information Needs and Uses 1976-79*. Sheffield: Centre for Research on User Studies, 1981.
- de Tiratel, S.R. "Assessing Information Use by Humanists and Social Scientists: A Study at the Universidad de Buenos Aires, Argentina." *Journal of Academic Librarianship* 26, no. 3 (2000): 346-54.
- Delamarter, Steve. "Theological Educators and Their Concerns about Technology." *Teaching Theology and Religion* 8, no. 2 (2005): 131-143.
- Delamarter, Steve, Javier Alanis, Russell Haight, Mark Vitalis Hoffman, Arun W. Jones, and Brent A. Strawn. "Technology, Pedagogy, and Transformation in Theological Education: Five Case Studies." *Teaching Theology & Religion* 10, no. 1 (2007): 64-79.
- Delgadillo, Roberto, and Beverly P. Lynch. "Future Historians: Their Quest for Information." *College & Research Libraries* 60, no. 2 (1999): 245-259.
- Dervin, Brenda, and M. Nilan. "Information Needs and Uses." *ARIST* 21 (1986): 3-33.
- Dervin, Brenda. "Sense-making Theory and Practice: An Overview of User Interests in Knowledge Seeking and Use." *Journal of Knowledge Management* 2, no. 2 (1998): 36-46.
- Duff, Wendy M., and Catherine A. Johnson. "Accidentally Found on Purpose: Information-seeking Behavior of Historians in Archives." *Library Quarterly* 72, no. 4 (2002): 472-497.
- East, John W. "Information Literacy for the Humanities Researcher: A Syllabus Based on Information Habits Research." *Journal of Academic Librarianship* 31, no. 2 (2005): 134-142.
- East, John W. "Subject Retrieval from Full-text Databases in the Humanities." *Portal: Libraries and the Academy* 7, no. 2 (2007): 227-241.
- Ellis, D. "The Derivation of a Behavioural Model for Information Retrieval System Design." PhD diss., University of Sheffield, 1987.
- Ellis, D. "A Behavioural Approach to Information Retrieval System Design." *Journal of Documentation* 45, no. 3 (1989): 171-212.
- Ellis, D. "Modelling the Information-seeking Patterns of Academic Researchers: A Grounded Theory Approach." *Library Quarterly* 63, no. 4 (1993): 469-86.
- Ellis, D., D. Cox, and K. Hall. "A Comparison of the Information-seeking Patterns of Researchers in the Physical and Social Sciences." *Journal of Documentation* 49, no. 4 (1993): 356-369.
- Ellis, D. and M. Haugan. "Modeling the Information-seeking Patterns of Engineers and Research Scientists in an Industrial Environment." *Journal of Documentation* 53, no. 4 (1997): 384-403.
- Ellis, D. and H. Oldman. "The English Literature Researcher in the Age of the Internet." *Journal of Information Science* 31, no. 1 (2005): 29-36.

- Fisher, Karen E., Sanda Erdelez, and Lynne McKechnie, eds. *Theories of Information Behavior*. Medford: Information Today, 2005.
- Foster, A. "A Nonlinear Model of Information-Seeking Behavior." *Journal of the American Society for Information Science and Technology* 55, no. 3 (2004): 228-237.
- Foster, A. "A Nonlinear Perspective on Information Seeking." In *New Directions in Human Information Behaviour*, ed. by Amanda Spink and Charles Cole, 155-170. Dordrecht: Springer, 2006.
- Foster, A., and Nigel Ford. "Serendipity and Information Seeking: An Empirical Study." *Journal of Documentation* 59, no. 3 (2003): 321-340.
- Gardiner, Donna, David McMenemy, and Gobinda Chowdhury. "A Snapshot of Information Use Patterns of Academics in British Universities." *Online Information Review* 30, no. 4 (2006): 341-359.
- George, Carole, A. Bright, T. Hurlbert, E.C. Linke, G. St. Clair, and J. Stein. "Scholarly Use of Information: Graduate Students' Information Seeking Behaviour." *Information Research* 11, no. 4 (2006): 135 pars., <http://InformationR.net/ir/11-4/paper272.html>.
- Green, Rebecca. "Locating Sources in Humanities Scholarship: The Efficacy of Following Bibliographic References." *Library Quarterly* 70, no. 2 (2000): 201-229.
- Gorman, Gary E. "Patterns of Information Seeking and Library Use by Theologians in Seven Adelaide Theological Colleges." *Australian Academic & Research Libraries* 21, no. 3 (1990): 137-156.
- Guest, Susan S. "The Use of Bibliographic Tools by Humanities Faculty at the State University of New York at Albany." *Reference Librarian* 18 (1987): 157-172.
- Hargittai, Eszter, and Amanda Hinmant. "Toward a Social Framework for Information Seeking." In *New Directions in Human Information Behaviour*, ed. by Amanda Spink and Charles Cole, 55-70. Dordrecht: Springer, 2006.
- Head, Alison J. "Information Literacy from the Trenches: How Do Humanities and Social Science Majors Conduct Academic Research?" *College & Research Libraries* 69, no. 5 (2008): 427-445.
- Heinström, Jannica. *Fast Surfers, Broad Scanners, and Deep Divers: Personality and Information-seeking Behaviour*. Åbo: Åbo Akademis förlag, 2002.
- Ingwersen, Peter, and Kalervo Järvelin. *The Turn: Integration of Information Seeking and Retrieval in Context*. Dordrecht: Springer, 2005.
- Järvelin, Kalervo, and T.D. Wilson. "On Conceptual Models for Information Seeking and Retrieval Research." *Information Research* 9, no. 1 (2003): 67 pars., <http://informationr.net/ir/9-1/paper163.html>.
- Kelley, K.B., and G.J. Orr. "Trends in Distant Student Use of Electronic Resources: A Survey." *College & Research Libraries* 64, no. 2 (2003): 176-191.
- King, Jack. "History Research into the 21st Century." *Reference Librarian* 47 (1994): 89-108.
- Kuhlthau, Carol Collier. *Seeking Meaning: A Process Approach to Library and Information Services*. London: Libraries Unlimited, 2004.
- Lee, Shu-Shing, Yin-Leng Theng, and Dion Hoe-Lian Goh. "Creative Information Seeking Part I: A Conceptual Framework." *Aslib Proceedings* 57, no. 5 (2005): 460-75.
- Lee, Shu-Shing, Yin-Leng Theng, and Dion Hoe-Lian Goh. "Creative Information Seeking Part II: Empirical Verification." *Aslib Proceedings* 59, no. 3 (2007): 205-21.
- Lehmann, Stephen, and Patricia Renfro. "Humanists and Electronic Information Services: Acceptance and Resistance." *College & Research Libraries* 52, no. 5 (1991): 409-413.

- Liao, Yan, Mary Finn, and Jun Lu. "Information-seeking Behavior of International Graduate Students vs. American Graduate Students: A User Study at Virginia Tech 2005." *College & Research Libraries* 68, no. 1 (Jan 2007): 5-25.
- Limberg, Louise, and Olof Sundin. "Teaching Information Seeking: Relating Information Literacy Education to Theories of Information Behaviour." *Information Research* 12, no. 1 (2006): 48 pars., <http://informationr.net/ir/12-1/paper280.html>.
- Line, Maurice Bernard. *Information Requirements of Researchers in the Social Sciences*. Bath: Bath University of Technology, 1971.
- Liu, M. "Ethnicity and Information Seeking." *Reference Librarian* 49/50 (1995): 123-34.
- Liu, M. and B. Redfern. "Information-seeking Behavior of Multicultural Students: A Case Study at San Jose State University." *College & Research Libraries* 58, no. 4 (July 1997): 348-54.
- Lonnquist, H. "Scholars Seek Information: Information-seeking Behaviour and Information Needs of Humanities Scholars." *International Journal of Information and Library Research* 2 (1990): 195-203.
- Macevicnite, Elena. "Information Needs Research in Russia and Lithuania 1965-2003." *Information Research* 11, no. 3 (2006), <http://informationr.net/ir/11-3/paper256.html>.
- Maula, H., and S. Talja. "Reasons for the Use and Non-use of Electronic Journals and Databases: A Domain Analytic Study in Four Scholarly Disciplines." *Journal of Documentation* 59, no. 6 (2003): 673-691.
- Meho, L.I., and H.R. Tibbo. "Modeling the Information-seeking Behaviour of Social Scientists." *Journal of the American Society for Information Science* 54, no. 6 (2003): 570-587.
- Michels, David H. "The Use of People as Information Sources in Biblical Studies Research." *The Canadian Journal of Information and Library Science* 29, no. 2 (2005): 91-109.
- Nicholas, David, Paul Huntington, Peter Williams, Tom Dobrowolski. "Re-appraising Information Seeking Behaviour in a Digital Environment: Bouncers, Checkers, Returnees and the Like." *Journal of Documentation* 60, no. 1 (2004): 24-43.
- Nicholas, David, Paul Huntington, et al. "Characterising and Evaluating Information Seeking Behaviour in a Digital Environment: Spotlight on the 'Bouncer.'" *Information Processing and Management* 43, no. 4 (2007): 1085-1102.
- Oldman, H. "The Information Seeking Behaviour of Academics Active in the Field of English Literature." MA diss., Sheffield University, 1997.
- Palmer, Carole L., and Laura J. Neumann. "The Information Work of Interdisciplinary Humanities Scholars: Exploration and Translation." *Library Quarterly* 72, no. 1 (2002): 85-117.
- Perrow, Charles. "On Not Using Libraries." In *Humanists at Work: Disciplinary Perspectives and Personal Reflections*, ed. B.P. Lynch, 29-42. Chicago: University of Illinois, 1989.
- Prabha, Chandra, Lynn Silipigni Connaway, Lawrence Olszewski, Lillie R. Jenkins. "What is Enough? Satisficing Information Needs." *Journal of Documentation* 63, no. 1 (2007): 74 - 89.
- Rimmer, J., C. Warwick, A. Blandford, J. Gow, G. Buchanan. "An Examination of the Physical and the Digital Qualities of Humanities Research." *Information Processing and Management* 44 (2008): 1374-1392.
- Sadler, Elizabeth, and Lisa M. Given. "Affordance Theory: A Framework for Graduate Students' Information Behaviour." *Journal of Documentation* 63, no. 1 (2007): 115-141.
- Shaw, D., and Ch.H. Davis. "The Modern Language Association: Electronic and Paper Surveys of Computer-based Tool Use." *Journal of the American Society for Information Science* 47, no. 12 (1997): 932-940.

- Shaw, Wendy. "The Use of the Internet by Academics in the Discipline of English Literature: a Quantitative and Qualitative Approach." PhD thesis, University of Wales, Aberystwyth, 2002.
- Shawn, M. "Digital Scholarship and Cyberinfrastructure in the Humanities: Lessons from the Text Creation Partnership." *Journal of Electronic Publishing* 10, no. 1 (2007).
- Siegfried, Susan, Marcia J. Bates, and Deborah N. Wilde. "A Profile of End-user Searching Behavior by Humanities Scholars: The Getty Online Searching Project Report No. 2." *Journal of the American Society for Information Science* 44, no. 5 (1993): 273-91.
- Sievert, Donald, and MaryEllen Sievert. "Philosophical Research: Report from the Field." In *Humanists at Work: Disciplinary Perspectives and Personal Reflections*, ed. B.P. Lynch, 79-99. Chicago: University of Illinois, 1989.
- Smith, K.L. "How Congregations Can and Do Use the Internet, With Special Reference to Social Action." *Journal of Religious and Theological Information* 4 (2001): 25-45.
- Smith, K.L., and V.L. Smith. "The Impact of the Internet on Parish Ministry: A Survey and Annotated List of Web Resources." *Journal of Religious and Theological Information* 4 (2001): 9-24.
- Spink, Amanda. "Multitasking Information Behavior and Information Task Switching: An Exploratory Study." *Journal of Documentation* 60, no. 4 (2004): 336-351.
- Spink, Amanda, and Charles Cole. "A Human Information Behavior Approach to a Philosophy of Information." *Library Trends* 52, no. 3 (2004): 617-628.
- Spink, Amanda, and Charles Cole. *New Directions in Human Information Behavior*. Dordrecht: Springer, 2006.
- Steinerova, Jela, and Jaroslav Susol. "Library Users in Human Information Behaviour." *Online Information Review* 29, no. 2 (2005): 139-156.
- Stieg, Margaret F. "The Information Needs of Historians." *College & Research Libraries* 42, no. 6 (1981): 549-560.
- Stieg, Margaret F. "Information Science and the Humanities: the Odd Couple." *Library Journal* 112, no. 16 (1 Oct. 1987): 37-40.
- Stieg Dalton, Margaret and Laurie Chamigo. "Historians and Their information Sources." *College & Research Libraries* 65, no.3 (2004): 400-425.
- Stone, Sue. "Humanities Scholars: Information Needs and Uses." *Journal of Documentation* 38, no. 4 (1982): 292-313.
- Stover, Mark. *Theological Librarians and the Internet: Implications for Practice*. Binghamton, NY: Haworth Press, 2001.
- Sukovic, S. "Convergent Flows: Humanities Scholars and Their Interactions with Electronics Texts." *Library Quarterly* 78, no. 3 (2008): 263-284.
- Tanner, Thomas M. *What Ministers Know: A Qualitative Study of Pastors as Information Professionals*. Metuchen, NJ: Scarecrow Press, 1994.
- Toms, E.G., and H.L. O'Brien. "Understanding the Information and Communication Technology Needs of the E-humanist." *Journal of Documentation* 64, no. 1 (2008):102-130.
- Warwick, C., M. Terras, I. Galina, P. Huntington, N. Pappa. "Library and Information Resources and Users of Digital Resources in the Humanities." *Program: Electronic Library and Information Systems* 42, no. 1 (2008): 5-27.

- Watson-Boone, R. "The Information Needs and Habits of Humanities Scholars." *Reference Quarterly* 34, no. 2 (1994): 203-16.
- Weintraub, Karl J. "The Humanist Scholar and the Library." *Library Quarterly* 50, no. 1 (1980): 22-39.
- Wenderoth, Christine. "Presidential Address." *American Theological Library Association Summary of Proceedings* 60 (2006): 23-26.
- Wenderoth, Christine. "Research Behaviors of Theological Educators and Students: The Known and the Unknown." *American Theological Library Association Summary of Proceedings* 61 (2007): 178-183.
- Wiberley, S.E. "Subject Access in the Humanities and the Precision of the Humanist's Vocabulary." *Library Quarterly* 53, no. 4 (1983): 420-33.
- Wiberley, S.E., and W.G. Jones. "Patterns of Information Seeking in the Humanities." *College & Research Libraries* 50, no. 6 (1989): 638-45.
- Wiberley, S. E., and W.G. Jones. "Humanists Revisited: A Longitudinal Look at the Adoption of Information Technology." *College & Research Libraries* 55, no. 5 (1994): 499-507.
- Wiberley, S.E., and W.G. Jones. "Time and Technology: A Decade-long Look at Humanists' Use of Electronic Information Technology." *College & Research Libraries* 61, no. 5 (2000): 421-431.
- Wicks, D.A. "The Information-seeking Behavior of Pastoral Clergy: A Study of the Interaction of Their Work Worlds and Work Roles." *Library and Information Science Research* 21, no. 2 (1999): 205-26.
- Wilson, T.D. "On User Studies and Information Needs." *Journal of Documentation* 37, no. 1 (1981): 3-15; reprinted in *Journal of Documentation* 62, no. 6 (2006): 658-670.
- Wilson, T.D. "Information Behaviour: an Interdisciplinary Perspective." *Information Processing and Management* 33 (1997): 551-72.
- Wilson, T.D. "Models in Information Behaviour Research." *Journal of Documentation* 55, no. 3 (1999): 249-70.
- Wilson, T.D. "Human Information Behaviour." *Informing Science* 3, no. 2 (2000): 49-55.
- Wilson, T.D. "A Re-examination of Information Seeking Behaviour in the Context of Activity Theory." *Information Research* 11, no. 4 (2006): 27 pars., <http://informationr.net/ir/11-4/infres114.html>.
- Wilson, T. "Revisiting User Studies and Information Needs." *Journal of Documentation* 62, no. 6 (2006): 680-684.
- Zach, L. "When is 'Enough' Enough? Modeling the Information-seeking and Stopping Behavior of Senior Arts Administrators." *Journal of the American Society for Information Science and Technology* 56, no. 1 (2005): 23-35.

