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Class meetings: Tuesday and Thursday, 12:30 – 1:45, 307 Manning Hall

Office hours: by appointment

[Sakai site for course](#) (password-protected, only for course members)

Course description

This course, INLS 500 - Human Information Interactions, is concerned with the **behavioral and cognitive activities** of people who interact with information. The role of **information mediators** - such as other people, books, or computers - is emphasized. The course provides an overview of the literature on **information needs, seeking, and use**; the role of **context** in information interactions; and how information professionals support information interactions.

Course Objectives

- Be familiar with the empirical and theoretical literature related to information seeking, including the recognition of information needs, actions taken to resolve those needs, the roles of intermediaries (both human and machine), and the retrieval and use of information.
- Understand key concepts related to the ways in which information is created, structured, disseminated, and used, with particular emphasis on scholarly information behaviors.
- Be able to investigate the ways in which the context of an information interaction can affect the process and outcomes of that interaction.
- Be able to investigate the impact of technology on human information interactions.
- Critically apply theories and empirical findings to the definition and solution of problems related to human information interactions.

UNC Honor Code

Students in this course are expected to abide by UNC's Honor Code. It is your responsibility to read the Honor Code, which is available online at: <http://studentconduct.unc.edu/sites/studentconduct.unc.edu/files/Fall2012print.pdf>. The section on Academic Dishonesty is printed here for your reference.

1. Plagiarism in the form of deliberate or reckless representation of another's words, thoughts, or ideas as one's own without attribution in connection with submission of academic work, whether graded or otherwise.
2. Falsification, fabrication, or misrepresentation of data, other information, or citations in connection with an academic assignment, whether graded or otherwise.

3. Unauthorized assistance or unauthorized collaboration in connection with academic work, whether graded or otherwise.
4. Cheating on examinations or other academic assignments, whether graded or otherwise, including but not limited to the following: (a) using unauthorized materials and methods (notes, books, electronic information, telephonic or other forms of electronic communication, or other sources or methods), or (b) Representing another's work as one's own.
5. Violating procedures pertaining to the academic process, including but not limited to the following: (a) violating or subverting requirements governing administration of examinations or other academic assignments; (b) compromising the security of examinations or academic assignments; or (c) engaging in other actions that compromise the integrity of the grading or evaluation process.

Schedule

1. Thursday, January 9: Directions of human information interaction research

- Wilson, T.D. (2010). Fifty years of information behavior research. *Bulletin of the American Society for Information Science & Technology*, 36(3), 27-34. http://www.asis.org/Bulletin/Feb-10/FebMar10_Wilson.pdf.
- Wildemuth, B.M., & Case, D.O. (2010). Early information behavior research. *Bulletin of the American Society for Information Science & Technology*, 36(3), 35-38. http://www.asis.org/Bulletin/Feb-10/FebMar10_Wildemuth_Case.pdf.
 - These two brief articles were written as part of the 10th anniversary celebration (in 2009) of the Special Interest Group on Information Needs, Seeking, and Use of the American Society for Information Science & Technology. Together, they provide a brief historical overview of the general directions taken in information behavior research.

2. Tuesday, January 14: Theoretical perspectives and basic concepts

- *Each of these two readings takes a slightly different view of our field and, in particular, the portion of our field surveyed in this course.*
- Bates, M. J. (1999). The invisible substrate of information science. *Journal of the American Society for Information Science*, 50(12), 1043-1050. [[UNC libraries](#)]
 - In this article, Bates discusses the "below-the-water-line" portion of information science. While she focuses more of her attention on the content/information of concern, she does include human-information interactions among her "Three Big Questions" in information science. Read through this article quickly, to get an overview of the field as background for the semester.

- Marchionini, G. (2008). Human-information interaction. *Library & Information Science Research*, 30(3), 165-174. [[UNC libraries](#)]
 - Marchionini focuses more directly on the scope of this course. Read through the entire article, but focus special attention on sections 2 and 6.

3. Thursday, January 16: Models of information behavior (I)

- Case, D. O. (2012). Models of information behavior. In *Looking for Information: A Survey of Research on Information Seeking, Needs and Behavior* (3rd ed., pp. 133-162). Emerald Group Publishing.
- Wilson, T. D. (1999). Models in information behaviour research. *Journal of Documentation*, 55(3), 249-270. doi:10.1108/EUM0000000007145.

4. Tuesday, January 21: Models of information behavior (II)

Assignment due: Information model presentations

- Hearst, Marti. (2009). Models of the information seeking process. In Hearst, M. *Search User Interfaces*. Cambridge University Press.
http://searchuserinterfaces.com/book/sui_ch3_models_of_information_seeking.html
 - Hearst's article is general, but she provides very clear overviews of several information seeking models not covered in Case or Wilson's articles from our last session.

5. Thursday, January 23: Cognitive approaches to information behaviors

Assignment due: Information model comments

- Ingwersen, P., & Järvelin, K. (2005). *The Turn: Integration of Information Seeking and Retrieval in Context*. Springer. [[UNC libraries - electronic resource](#)]
 - Section 6.1, Building the conceptual framework, p263-274.
 - This section of this important book walks through the model that the authors are proposing. They believe that the model encompasses all of the information behaviors of interest to our field. The cognitive aspects of those information behaviors are at center stage. (Feel free to skim other parts of chapter 6 if you have time.)
- Dinet, J., Chevalier, A., & Tricot, A. (2012). Information search activity: An overview. *Revue européenne de psychologie appliqué*, 62(2), 49-62. (Read sections 2.1-2.2.1.) [[UNC libraries](#)]
 - A number of models of information seeking are briefly reviewed here. Of particular interest are those described in sections 2.1-2.2.1 (as background for understanding the Ingwersen and Järvelin model).

6. Tuesday, January 28: Affective approaches to information behaviors

- Lopatovska, I., & Arapakis, I. (2011). Theories, methods and current research on emotions in library and information science, information retrieval and human-computer interaction. *Information Processing & Management*, 47(4), 575-592. [[UNC libraries](#)]
 - This literature review provides a strong foundation for moving forward with research about emotions and their relationships with information behaviors. Focus your reading on sections 2 and 4.1. The first and last sections are overviews, so will help you put the detail into context. Skim section 3, just to get a sense of what methods have been used in studies of emotions.
- Savolainen, R. (2013). Approaching the motivators for information seeking: The viewpoint of attribution theories. *Library & Information Science Research*, 35(1), 63–68. doi:10.1016/j.lisr.2012.07.004 [[UNC libraries](#)]
 - This article is a bit complex, but focus on how search outcomes are related to both positive and negative emotions, as described on pages 65–67.

7. Thursday, January 30: Experiencing an information need

- Case, D.O. (2012). Information needs and information seeking. In *Looking for Information: A Survey of Research on Information Seeking, Needs, and Behavior*. 3rd edition. Boston: Academic Press, 77-93.
 - This chapter summarizes what we know about people's information needs, so will provide you with a good overview.
- Taylor, R.S. (1968). Question negotiation and information seeking in libraries. *College & Research Libraries*, 29(3), 178-194. (Read about the four levels of "questions," on pages 182-183.)
 - This is a classic reading, so you'll want to eventually study it all. For now, we want to focus our attention on Taylor's explanation of visceral, conscious, formalized, and compromised needs.
- Savolainen, R. (2006). Information use as gap-bridging: The viewpoint of sense-making methodology. *Journal of the American Society for Information Science & Technology*, 57(8), 1116-1125. [[UNC libraries](#)]
 - Brenda Dervin has proposed a Sense-Making Theory to explain how people experience information needs and act on them. In this article, Savolainen focuses on gaps (i.e., information needs). One of Dervin's articles on this theory and an additional article on it by Savolainen are listed among the optional readings for today.

8. Tuesday, February 4: Expressing information needs

Milestone due: Target audience description for your service proposal.

- Belkin, N. (1980). Anomalous states of knowledge as a basis for information retrieval. *Canadian Journal of Information Science*, 5,133-143.
 - This, along with his 1982 *Journal of Documentation* article with Oddy and Brooks, are the classic works explaining this concept. It's a relatively straightforward concept; I'd like you to pay special attention to his explanation of the specificity of an information need, p136-139, with Figure 3.
- Sparck-Jones, K., Robertson, S.E., & Sanderson, M. (2007). Ambiguous requests: Implications for retrieval tests, systems and theories. *ACM SIGIR Forum*, 41(2), 8-17. [[Online](#)]
 - The problem of clear specification of information needs still causes worries for those of us who want to design effective information retrieval systems. You'll enjoy reading this relatively recent discussion of the problem by three of the field's leaders.
- Nückles, M., & Ertelt, A. (2006). The problem of describing a problem: Supporting laypersons in presenting their queries to the internet-based helpdesk. *International Journal of Human-Computer Studies*, 64(8), 648-669. (Read sections 1-3, p648-651.)
 - The literature on expressing information needs covers a broad range of questions and domains. This article focuses on a particular situation: a computer user trying to request help in using a computer. The authors were particularly interested in developing a "script" that the user would fill out, in order to provide complete and accurate information to the expert/helper, but we'll focus our discussion on the more conceptual aspects of this problem, described in the first few sections of the article.

9. Thursday, February 6: Analyzing information needs

- Herman, E. (2004). Research in progress: Some preliminary and key insights into the information needs of the contemporary academic research. Part 1. *Aslib Proceedings*, 56(1), 34-47.
 - Based on interviews with faculty at the University of Haifa, Herman investigated 11 aspects of information needs: subject, function, nature, intellectual level, viewpoint, quantity, quality/authority, date/currency, speed of delivery, place of publication, and processing/packaging.
- **One additional study** that analyzes the information needs of a particular group, **other than** college/graduate students or scholars. Identify a study from the optional reading list on Sakai or through searching the literature.

10. Tuesday, February 11: Selection of information sources

- Savolainen, R. (2008). Source preferences in the context of seeking problem-specific information. *Information Processing & Management*, 44(1): 274-293. [[UNC libraries](#)]

- Savolainen uses the concepts of information source horizon and information pathway to study the sources people use in resolving everyday information needs. You'll want to read the entire paper, to get a good feel for both the concepts and his findings.
- Lopatovska, I., Fenton, M. R., & Campot, S. (2012). Examining preferences for search engines and their effects on information behavior. *Proceedings of the American Society for Information Science and Technology*, 49(1), 1-11. doi:10.1002/meet.14504901110.
 - In this study, participants tried to meet their information needs without using online search engines. Structured diaries and interviews were used to collect data about their experiences. The results are quite interesting.

11. Thursday, February 13: Domain, disciplinary, and organizational context

- Cool, C. (2001). The concept of situation in information science. *Annual Review of Information Science & Technology*, 35, 5-42.
 - ARIST chapters are comprehensive literature reviews in a particular area. Of interest to us in this chapter is the section on "Situation, context, and interaction with information," pages 7-9. It will introduce you to a bit of the terminology in this area. The chapter, as a whole, is organized around several theoretical perspectives on situation: the problematic situation, social interaction theory, situated action, situation awareness, the person-in-situation model, and situation as information environment.
- Ellis, D., Cox, D., & Hall, K. (1993). A comparison of the information seeking patterns of researchers in the physical and social sciences. *Journal of Documentation*, 49(4), 356-369.
 - You will recall that we already looked briefly at the information seeking strategies Ellis identified; now you'll get a chance to look at them more closely. In this classic study, Ellis and his colleagues examined the effects of disciplinary context on scholars' information behaviors. They compared physicists, chemists, and social scientists
- Taylor, R.S. (1991). Information use environments. *Progress in Communication Sciences*, 10, 217-255.
 - This is a classic reading that examines the effects of context on information behaviors. Read Section II (p221-233). Then read about one of the three information use environments studied (engineers, legislators, or physicians), based on the following schedule: last name beginning with A-C, engineers; last name beginning with G-M, legislators; last name beginning with P-W, physicians.

12. Tuesday, February 18: Evidence-based reviews

Please bring your laptop to class. The articles and the class session will help you with your service proposal assignment.

Milestone due: Search strategy for service proposal.

- Koufogiannakis, D. (2013). EBLIP7 Keynote: What we talk about when we talk about evidence. *Evidence Based Library and Information Practice*, 8(4), 6-17.
<http://ejournals.library.ualberta.ca/index.php/EBLIP/article/view/20486>.
 - This article explains different types of evidence, and is a helpful guide for understanding how to use evidence to make better decisions as information professionals.
- Raff, J. (2013, August 25). How to read and understand a scientific paper: a guide for non-scientists. *Violent metaphors*. Retrieved from <http://violentmetaphors.com/2013/08/25/how-to-read-and-understand-a-scientific-paper-2/>
 - This blog post will help you deconstruct and understand scientific articles, a useful skill not just for this class but for your time at SILS and beyond.
- Bates, M.J. (1989). The design of browsing and berrypicking techniques for the online search interface. *Online Review*, 13(5), 407-424. (Only read page 412; skim the rest of the article.)
 - Pay special attention to the techniques listed on page 412; you're expected to incorporate all of them in your searching for Assignment 3.

13. Thursday, February 20: Everyday life information seeking

- Savolainen, R. (1995). Everyday life information seeking: Approaching information seeking in the context of "way of life". *Library & Information Science Research*, 17(3), 259-294. [[UNC libraries](#)]
 - This is the seminal article on everyday life information seeking, which is now an important area of information behavior research. One question for us is which types of everyday life information needs are we likely to be able to address via our current information institutions or systems.
- Fisher, K.E., & Naumer, C.M. (2006). Information grounds: Theoretical basis and empirical findings on information flow in social settings. In Spink, A., & Cole, C. (eds.), *New Directions in Human Information Behavior*. Springer, 93-111. [[UNC libraries](#)]
 - Fisher and her students have been developing the concept of an information ground. This chapter reviews several of her studies that address the definition of this concept.

14. Tuesday, February 25: Incidental information acquisition; Browsing and serendipity

- Bawden, D. (2011). Encountering on the road to Serendip? Browsing in new information environments. In Foster, A., & Rafferty, P. (eds.), *Innovations in Information Retrieval: Perspectives for Theory and Practice*. London: Facet Publishing, 1-22.
 - Bawden argues that browsing behaviors pre-Web may have different characteristics that browsing on the Web. He provides an extensive review of the relevant literature.

- Bates, M.J. (2007). What is browsing -- really? A model drawing from behavioural science research. *Information Research*, 12(4), Paper 330. [<http://informationr.net/ir/12-4/paper330.html>]
 - Bates take a very fine-grained look at browsing behaviors and finds a series of four steps: "1) glimpsing a field of vision, 2) selecting or sampling a physical or informational object within the field of vision, 3) examining the object, 4) acquiring the object (conceptually and/or physically) or abandoning it."

15. Thursday, February 27: Interactive information retrieval as part of the information seeking process

- Marchionini, G. (2006). Exploratory search: From finding to understanding. *Communications of the ACM*, 49(4), 41-46. [[UNC libraries](#)]
 - Exploratory search is differentiated from lookup searches (including fact retrieval, known item searches, etc.) and incorporates searches conducted for the purposes of learning and investigating. A few examples of systems that support exploratory search are presented.
- Vakkari, P., & Huuskonen, S. (2012). Search effort degrades search output but improves task outcome. *Journal of the American Society for Information Science & Technology*, 63(4), 657-670. [[UNC libraries](#)]
 - Unlike most studies of searching, this study goes beyond the link between search behaviors and search results and also examines the link between search results and task outcomes.

Diary assignment due Friday, February 28 by 5pm.

16. Tuesday, March 4: Relevance judgments

- Saracevic, T. (2007). Relevance: A review of the literature and a framework for thinking on the notion in information science. Part II: Nature and manifestations of relevance, [and] Part III: Behavior and effects of relevance. *Journal of the American Society for Information Science & Technology*, 58(13), 1915-1933, 2126-2144. [UNC libraries: [Part II](#), [Part III](#)]
 - Part I of this series is his 1975 article on the topic of relevance. In this update, he provides a really-compact overview of a huge amount of the literature on relevance. Read these two parts for the primary concepts, not necessarily for the nuanced details.
- Hariri, N. (2011). Relevance ranking on Google: Are top ranked results really considered more relevant by the users? *Online Information Review*, 35(4), 598-610.

17. March 6: Assessment of information quality/value

These two studies are examining very similar behaviors, so we'll focus our attention on the differences between them. Pay attention to the research questions asked, who is included in the study sample, what data were collected, and what conclusions were drawn.

- Rieh, S.Y. (2002). Judgment of information quality and cognitive authority in the Web. *Journal of the American Society for Information Science & Technology*, 53(2), 145-161. [[UNC libraries](#)]
- Tombros, A., Ruthven, I., & Jose, J.M. (2005). How users assess web pages for information seeking. *Journal of the American Society for Information Science & Technology*, 56(4), 327-344. [[UNC libraries](#)]

Tuesday, March 11, & Thursday, March 13: Spring Break (no class)

18. Tuesday, March 18: Collaborative search and information retrieval intermediaries

Milestone due: Outline for service proposal.

- Talja, S., & Hansen, P. (2006). Information sharing. In Spink, A., & Cole, C. (eds.), *New Directions in Human Information Behavior*, Vol. 8. Springer, 113-134. [[UNC libraries](#)]
 - After providing some context and definitions, Talja and Hansen review the research that has been conducted on collaborative information behaviors/practices; they then conclude with a discussion of CIB as a social practice. Skim sections 1 and 2; focus your reading on section 3.
- White, R.W. (2009). Designing information-seeking support systems. In *Information Seeking Support Systems: An Invitational Workshop (June 26-27, 2008, Chapel Hill, NC)*, 55-58. http://ils.unc.edu/ISSS/ISSS_final_report.pdf.
 - White's very brief paper outlines some of the key challenges yet to be addressed in designing information-seeking support systems. Consider which of these have been addressed (five years later) and which remain as opportunities for design and development.
- Parser, E. (2011). Beware online "filter bubbles". TED Talk. http://www.ted.com/talks/eli_pariser_beware_online_filter_bubbles.html.
 - Parser warns about the dark side of algorithmic search personalization.

19. Thursday, March 20: Human intermediaries: Reference services and social Q&A

- Agosto, D.E., Rozaklis, L., MacDonald, C., & Abels, E.G. (2011). A model of the reference and information service process: An educators' perspective. *Reference & User Services Quarterly*, 50(3), 235-244. [[UNC libraries](#)]
 - Based on focus groups and town hall meetings, six trends in reference services were identified. Of particular interest to us for today's discussion are the results related to

reference services as a collaborative process (p239), but do make sure you understand the other trends, too.

- Shah, C., & Kitzie, V. (2012). Social Q&A and virtual reference -- Comparing apples and oranges with the help of experts and users. *Journal of the American Society for Information Science & Technology*, 63(10), 2020-2036. [[UNC libraries](#)]
 - This study examined both social Q&A systems and libraries' virtual reference systems, from the perspectives of librarians and students in relation to the relevance, quality, and satisfaction of interacting with each type of system.
- Wakeling, S., Clough, P., Sen, B., & Connaway, L.S. (2012). "Readers who borrowed this also borrowed...": Recommender systems in UK libraries. *Library Hi Tech*, 30(1), 134-150.

20. Tuesday, March 25: Information overload

- Bawden, D., & Robinson, L. (2009). The dark side of information: Overload, anxiety and other paradoxes and pathologies. *Journal of Information Science*, 35(2), 180-191. [[UNC libraries](#)]
 - This paper provides an overview of the issues associated with the quantity and diversity of information now available. Read the entire paper, but focus particular attention on sections 3 and 4 (in case you're feeling overloaded).
- Goulding, A. (2001). Information poverty or overload? *Journal of Librarianship and Information Science*, 33(3), 109-111.

21. Thursday, March 27: Information poverty

- Chatman, E. A. (1996). The impoverished life-world of outsiders. *Journal of the American Society for Information Science*, 47(3), 193-206.
 - Chatman draws on results from four previous studies to identify four concepts that serve as a basis for defining information poverty: risk-taking, secrecy, deception, and situational relevance.
- Yu, L. (2006). Understanding information inequality: making sense of the literature of the information and digital divides. *Journal of Librarianship and Information Science*, 38(4), 229-252.

22. Tuesday, April 1: Ways of using information

We will choose our groups for the scholarly communication assignment in class today.

Each of the studies below examined or proposed a different type/aspect of information use. I've tried to briefly state the type of information use with each citation. To support our class discussion today, select TWO of these articles and read them before coming to class. If the study examined additional information behaviors (e.g., information seeking), skim those sections; focus on the sections discussing USE of the information.

- *Reading e-books*: ChanLin, L.-J. (2013). Reading strategy and the need of e-book features. *Electronic Library*, 31(3), 329-344. [[UNC libraries](#)]
- *Using information from PubMed to help solve neuroscience problems*: Mirel, B., Tonks, J.S., Song, J., Meng, F., Xuan, W., & Ameziane, R. (2013). Studying PubMed usages in the field for complex problem solving: Implications for tool design. *Journal of the American Society for Information Science & Technology*, 64(5), 874-892. [[UNC libraries](#)]
- *Discussing found information with a physician or using it to improve one's health*: Warner, D., & Procaccino, J.D. (2004). Toward wellness: Women seeking health information. *Journal of the American Society for Information Science & Technology*, 55(8), 709-730. [[UNC libraries](#)]
- *Eight different ways that information is used within organizational contexts*: Choo, C.W., Bergeron, P., Detlor, B., & Heaton, L. (2008). Information culture and information use: An exploratory study of three organizations. *Journal of the American Society for Information Science & Technology*, 59(5), 792-804. [[UNC libraries](#)]
- *Packaging and sharing information with stakeholders*: Mutshewa, A. (2010). The use of information by environmental planners: A qualitative study using Grounded Theory methodology. *Information Processing & Management*, 46(2), 212-232. [[UNC libraries](#)]
- *Use of images for the information they provide or as illustrations*: McCay-Pett, L., & Toms, E. (2009). Image use within the work task model: Images as information and illustration. *Journal of the American Society for Information Science & Technology*, 60(12), 2416-2429. [[UNC libraries](#)]
- *Use of images by four different groups of users*: Beaudoin, J.E. (2014). A framework of image use among archaeologists, architects, art historians and artists. *Journal of Documentation*, 70(1), 119-147. [[UNC libraries](#)]
- *Selection and use of particular pieces of information in house listings*: Savolainen, R. (2009). Interpreting informational cues: An explorative study on information use among prospective homebuyers. *Journal of the American Society for Information Science & Technology*, 60(11), 2244-2254. [[UNC libraries](#)]

23. Thursday, April 3: Re-using and re-finding information

- Capra, R., & Pérez-Quiñones, M.A. (2005). Using Web search engines to find and refind information. *IEEE Computer*, 38(10), 36-42. [[UNC libraries](#)]
 - Finding and refinding present different user challenges. Synthesizing results from one of their studies with related work, the authors propose a search engine use model based on prior task frequency and familiarity.

- Jones, W., Bruce, H., & Dumais, S. (2001). Keeping found things found on the Web. *Proceedings of the 10th International Conference on Information and Knowledge Management*, 119-126. [[UNC libraries](#)]
 - This is one of the earliest serious studies of re-finding and re-use, based on observation of the methods people use to manage web information for re-use.

Friday, April 4: Service proposal due by 5 PM.

24. Tuesday, April 8: Ethics and copyright

- Floridi, L. (2008). Foundations of information ethics. In *The handbook of information and computer ethics* (pp. 4-23). Hoboken, NJ: John Wiley & Sons, Inc.
- Seadle, M. (2007). Copyright cultures. *Library Hi Tech*, 25(3), 430-435

25. Thursday, April 10: Information privacy

- Introna, L. D. (1997). Privacy and the computer: why we need privacy in the information society. *Metaphilosophy*, 28(3), 259-275.
- Solove, D.J. (2007). "I've got nothing to hide" and other misunderstandings of privacy. *San Diego Law Review*, 44(4), 745-772.

26. Tuesday, April 15: Scholarly work and models of scholarly publishing

- Palmer, C.L. (2005). Scholarly work and the shaping of digital access. *Journal of American Society for Information Science & Technology*, 56(11), 1140-1153. [[UNC libraries](#)]
 - Palmer analyzes scholarly work in terms of two general modes of information access, one used primarily by scientists and one used primarily by humanities scholars. Once useful resources are discovered, the scholar assembles them into thematic research collections and uses those collections to create new knowledge.
- Harnad, S., Brody, T., Vallieres, F., Carr, L., Hitchcock, S., Gingras, Y., Oppenheim, C., Hajjem, C., & Hilf, E.R. (2008). The access/impact problem and the green and gold roads to open access: An update. *Serials Review*, 34(1), 36-40.
- Pochoda, P. (2013). The big one: The epistemic system break in scholarly monograph publishing. *New Media & Society*, 15(3), 359-378. doi:10.1177/1461444812465143

27. Thursday, April 17: Metrics of scholarly productivity and the future of scholarly publishing

Milestone due: List of selected articles for the scholarly communication assignment.

- Smith, L.C. (1981). Citation analysis. *Library Trends*, 30(1), 83-106. [Sakai [Resources](#)]

- Though this article is older, it is not really outdated as a clear introduction to the use of citation data for both assessing scholarly productivity and for mapping the relationships among scholars.
- Priem, J. (2013). Scholarship: Beyond the paper. *Nature*, 495(7442), 437-440.
<http://www.nature.com/nature/journal/v495/n7442/full/495437a.html>.
 - Priem argues that the journal and article are being superseded by algorithms that filter, rate and disseminate scholarship as it happens.
- Thelwall, M. (2012). Journal impact evaluation: a webometric perspective. *Scientometrics*, 92(2), 429-441. doi:10.1007/s11192-012-0669-x

28. Tuesday, April 22: The invisible college: discovery and representation; Diffusion theory and how it applies to the diffusion of information and information technologies

- Haythornthwaite, C. (1996). Social network analysis: An approach and technique for the study of information exchange. *Library & Information Science Research*, 18, 323-342. [[UNC libraries](#)]
 - This is a fairly brief tutorial on the basic concepts and methods of social network analysis, with a discussion of how they can be used to study the exchange of information. Be sure you understand all the basic concepts described on pages 323-331; then you can skim lightly to page 338, then focus on the last section (pages 338-340).
- Rogers, E. (1995). *Diffusion of Innovations*. 4th ed. New York: Free Press.
 - We'll read only a portion of the first chapter (page 5, beginning with the section on "What is diffusion?" through page 31, before the "hybrid corn" example; skip the "scurvy" boxed example if you need to limit your time on this). This is an overview chapter and introduces most of the basic concepts of diffusion theory. Also examine Figure 5-1 on page 163; it provides an overview of the stages of the innovation decision process. If you have any extra time at all, also read pages 389-400, "The innovation process in organizations".

29. Thursday, April 24: Course wrap-up and summary

- Rangaswami, J.P. (2012). Information is food. TED Talk.
http://www.ted.com/talks/jp_rangaswami_information_is_food.html.
 - Rangaswami discusses the production, preparation, and consumption of information as if those processes were parallel to the production, preparation, and consumption of food. Should information professionals strive to be the equivalent of nutritionists?
- Course evaluations

Friday, May 2, 8am: Assignment 4, In-Depth Analysis of an Example of Scholarly Communication is due

Assignments

All of your assignments should be clearly labeled with your name and a title for your assignment on the top of the page. Please clearly name your files by indicating your name and title of the assignment; I should be able to look at the filename and understand what the file is. Submit in .doc, .docx, or .pdf only; other file-types will not be accepted. Work that does not conform to these guidelines will be returned ungraded.

All assignments are due at 12:30 on Sakai unless otherwise indicated.

Assignment 1: Information model presentation (10%)

Due January 21: Presentation

Due January 23: Comments

Based on an assignment prepared by Angela Murillo.

The purpose of this assignment is to develop an understanding of multiple models of human information behavior.

- Students will choose from the following models to present. Descriptions of these models can be found in the readings for sessions 3 and 4.
 - Standard model of the search process (Broder, 2002)
 - Berry-picking model (Bates, 1989)
 - Information search process model (Kuhlthau, 1991)
 - Information foraging theory (Pirolli & Card, 1999)
 - Sense-making framework (Dervin, 1983)
 - Information retrieval model (Ingwersen, 1996)
 - Wilson's second model (1996)
 - Everyday life information seeking model (Savolainen, 1995)
- Each student will have 5-7 minutes to present their model
 - Present an overview of the model
 - Discuss strengths and weaknesses
 - Be sure to address potential applications of the model
- Students will use UNC Voice Thread to create and upload their presentations at <http://voicethread.unc.edu>
- Students will post a link to Sakai by 12:30 on January 21.
- Each student will post three to four text or voice comments on each other's presentations before session 5 (January 23). Be sure to compare and contrast the models you comment on with the model you discussed in your presentation.

Assignment 2: Diary and analysis of an information-seeking event (20%)

Due February 28 by 5 pm

Based on an assignment developed by Dr. Verna Pungitore, SILS, Indiana University, with modifications by Dr. Deborah Barreau and Dr. Barbara Wildemuth.

As information professionals, we are concerned with designing systems and services that help our clients. For this assignment, you are the client. You will keep a short diary over a period of hours or days that covers a real-life information-seeking experience with an identifiable beginning and end. It does not have to be a unique event and it may or may not have been resolved. You will write up what you thought, felt, and did, and how you understand the experience based upon our readings and discussions in class. The two final deliverables for this assignment are (1) the diary itself, and (2) your analysis of the event described in the diary.

The diary

Start by describing your information need. This can be any kind of problem and doesn't have to be something you take to an information system. For your assignment, you should choose an information need that is occurring during the period in which you're working on the assignment.

Take notes or record your experience in some way. How did you know when you needed to look for information? What steps did you take and what motivated you along the way? Did you make any incidental discoveries that influenced your behavior? When and why did you finally stop looking (or are you still looking)? How did your emotions affect the search process?

The diary does not need to be neat and orderly. It's more important that you record what's happening and what you're thinking/feeling as it's happening than that you present it neatly. It only needs to be neat enough so that you can interpret and remember what happened for your later analysis of the event.

While the diary is a necessary deliverable for this assignment, it will play only a minor role in the grading. I will refer to it only as needed to understand and evaluate your analysis of the event.

The analysis

Assess which (if any) of the information seeking and use models we have discussed in class apply to your situation - as motivation, as information-seeking process, or as use. You may want to present this using a diagram to aid your reader.

Write a brief report (3-4 single-spaced pages) that interprets the experience. Concentrate on analyzing what happened instead of recounting each step. It is more important to hear your reactions to what you did than to hear what you did - how important was the information to you? What sources were consulted? What barriers or surprises did you experience? If you consulted systems or online sources, describe the interaction and why it worked, or did not. If you consulted other people, describe the interaction and how you were able to convey your need to this person. Why do you think your experience was a successful (or unsuccessful) one? What did you learn that you did not know beforehand? What would you do differently if a similar problem arises in the future?

Be sure to relate your observations to readings and discussions from class. Cite them as appropriate.

Evaluation criteria

Grades will be based upon the quality and depth of your analysis of the experience. A description of the need and what motivated it, any obstacles you experienced, sources used, tasks performed, and results obtained along with your evaluation of those results should be included in the paper. While this paper is relatively informal in style, it should be formatted using a standard publication style (APA Style is recommended) and must include citations to the literature as appropriate.

Assignment 3: Service proposal (40%)

Due Friday, April 4 by 5:00 PM

Milestone assignments due February 4, February 18, and March 18

You will write a proposal to deliver to your boss at an information setting of your choice, proposing a service or services for a specific user population of your choosing. This assignment will consist of a 2 page (single-spaced) proposal, a 4-6 (single-spaced) page summary of our current knowledge about the user population, and a listing of the methods you used to conduct your search of the literature for the summary.

As information professionals, you will often need to design services for specific user populations at your place of work. For example, a librarian at a school library may have to design a program that motivates young students to use the library. A family nurse practitioner may need to create educational materials for newly diagnosed cancer patients and their families. A law librarian may want to make sure that the library meets the needs of people who are representing themselves in court.

In order to develop these services, you must first understand the characteristics of your user population. Begin by identifying the group and setting that you would like to focus on in this assignment. I encourage you to choose a user group that is of interest to you, ideally one related to the setting where you wish to work after you graduate from SILS. So, for example, if you would like to work in a school library, you may want to focus on K-5 students; if you are interested in working in a law library, you might want to focus on law students or lawyers. (The examples used in this assignment description are intended to be suggestive, not comprehensive or restrictive.)

Next, develop a profile of your user group by reading and synthesizing the literature primarily published in library and information science about your group. I want you to be methodical in your search of the literature; specific instructions for your search are outlined below in the second milestone assignment (Due February 18). Please recall the lecture on search strategies and to your group discussion held on February 18 when constructing your search. Also look at the Bates 1989 article from February 18 – page 412 suggests a variety of ways to identify relevant literature, and you should attempt all of these strategies in your search.

What are the information needs of your user group? Are there particular commonalities in the way that they seek information? What sources do they prefer? How do they typically meet their information needs? How do they use information? This portion of the assignment will be your 4-6 single-spaced page summary of our current knowledge about the user population.

Once you have developed this profile of your user group, examine the services and/or programs that are typically offered to these users. Are there commonalities in the literature? What services and programs have been successful for information professionals targeting your population in the past? Are there common pitfalls or problems reaching this population described in the literature? How can these be mitigated? Are there particularly innovative or surprising programs that should be tested further? Make recommendations for programs and/or services targeting your user group using this evidence. This will be the 2-page proposal in your final assignment. In your proposal, be sure to “sell” the idea to your supervisor – describe the service you are proposing, but also persuasively argue the purpose it will serve for your user group of interest. Make sure that your plan is feasible and realistic within your specific setting. It is vital that your proposal be related to your summary of your user group’s information behaviors.

For example, you may have focused on elderly users of public libraries. Studies of their current information use may conclude that they are interested in accessing more information about current politics, but are hampered from reading current materials by decreasing visual abilities. In such a situation, you may propose a program for loaning e-readers to the library's clients, with easy interactions for increasing the font size.

Finally, write up your findings in the format of a proposal package that could be given to someone interested in developing programs for your population, like your boss or a board of directors. Your final proposal will have three sections:

- (1) The proposal (no more than 2 single-spaced pages)
- (2) A summary of our current knowledge about the user population (4-6 pages, single-spaced), the list of references used as evidence
- (3) A list of the methods you used to conduct the literature review, including which databases were searched, the search terms and strategies you used, the number of items you retrieved with each search, and your relevance/selection criteria for articles included in your summary.

The final proposal will be evaluated based on the thoroughness and rigor of the literature review methods, the quality of the synthesis of the literature included in the summary of your population's characteristics, the logic connecting those findings to your proposal, the usefulness, originality and feasibility of your proposal, and the clarity of expression of the final product.

Milestone assignments

Summary of user group (Due Tuesday, February 4)

You will write three short and informal paragraphs for this milestone assignment:

- One paragraph summarizing your user population
- One paragraph explaining why you selected this population
- One paragraph describing the professional setting that is the context of your problem.

Search strategy draft (Due Tuesday, February 18)

You will begin by planning your review procedures. You should decide which databases/sources you will search and what search strategies you will use in each. Your plan for finding literature will undoubtedly evolve over time, and it is likely that the methods you describe in your final paper will be somewhat different than the methods described in your preliminary plan. Aim for a comprehensive set of evidence to support your proposal. Start with the articles that directly address some aspect of your selected population within a similar setting, and work your way out from there. You may need to adjust the scope of your population as you learn more about them.

As noted above, Bates (1989, p. 412) suggests a variety of ways to identify relevant literature. Be sure to incorporate most or all of these methods in your own searching.

After you've assembled some evidence (i.e., articles or publications), you will need to assess them for their quality, relevance and usefulness for your purposes. Your quality criteria might include such characteristics as the validity of the research design, the quality and size of the sample included in the study, the validity of the analysis conducted, and the credibility of the conclusions as they relate to the underlying data. Your relevance/usefulness criteria might include such characteristics as the match between your population of interest and the study sample, and the similarity of the study context and your own setting of interest. Additional criteria may also apply, as you make decisions about which evidence to weigh most heavily in developing your proposal.

There will be a lot of variability in the number of citations included in the reviews completed for this assignment, but here is a bit of guidance on scope/scale: I would expect that you might identify hundreds of potentially useful documents through your literature search; I would expect that you would closely examine the abstracts of over 100 documents; I would expect that you would examine the full text of 30-60 articles; I would expect that you would identify 20-30 articles to be included in your review.

You will develop a preliminary plan for identifying the literature to include in their review. The plan should include the list of databases/sources to be searched, the search strategies to be used, and the inclusion/exclusion criteria to be used to evaluate the literature retrieved. You will bring this plan to class and discuss it with your classmates on February 18.

Outline for service proposal (Due Tuesday, March 18)

Provide a detailed outline, a concept map/matrix, or a similar sketch of what you've learned about the population. Include the preliminary list of references to the articles you're using as evidence.

A brief article that will guide you through the process of extracting and synthesizing knowledge for a literature review is: Webster, J., & Watson, R.T. (2002). Analyzing the past to prepare for the future: Writing a literature review. *MIS Quarterly*, 26(2), xiii-xxiii (available in [UNC libraries via JSTOR](#)).

Assignment 4: In-Depth Analysis of an Example of Scholarly Communication (20%)

Due May 2 by 8am.

List of main articles analyzed due April 17.

To be completed in teams of 3-4 people. Teams will be formed in class on April 1.

In this assignment, you will work with a few of your classmates to review and reflect on an example of scholarly communication. Specifically, your team will choose and analyze a set of related scholarly articles, including references and citations from, to, and among them. You will write one 6-8 page paper and turn it in as a group.

Selecting the articles

Choose a small set of articles (at least one for each member of your team, with a minimum of 3 articles for the team) from a concept area or research area of particular interest to the team.

Any scholarly articles within the scope of INLS 500 are eligible for inclusion, in terms of their topic area. Articles that we read in class are acceptable. The set of articles should include several different authors or research groups. While some overlap in authorship is acceptable, selecting the entire set from the works of one principal investigator or team leader is not appropriate for this assignment. Please see me if you have questions about whether the set of articles you've selected meets this criterion.

The articles should have been published sometime between 1960 and 2010. One or more of the articles must have been cited at least 20 times in the scholarly literature since being published. Each article in the set must be directly linked to another article in the set; that is, it must cite or be cited by at least one other article in the set.

Analysis of the articles

Write an analysis of each article in your set. The analysis should reflect your team's impressions of the paper with respect to the article's structure and content. The review should describe what you found useful in the article, what you liked about it, what the article's deficiencies or limitations are, and how the article has influenced your thinking about the field or about practice. You should relate your discussion to other readings or topics from the class.

Pay particular attention to the visual elements of the paper - how it is structured, illustrated, and how the ideas are presented. How successful was the author (or authors) in making an argument or conveying their ideas? What appealed to you about the presentation (structure, illustrations, writing style, length, level of detail, etc.)? Who was the intended audience for the paper and how is this made evident?

Note: It may be more fun to be critical, but one of the goals of this assignment is to recognize that the author is trying to make a point, to convey information that he/she/they believe is important, so it is

important to appreciate that and place your comments in context. Consider the target audience when assessing the appropriateness of form and content. When the authors have failed in their effort, be precise about how they failed and offer suggestions for improvement.

Analysis of the scholarly context of the articles

To understand the scholarly context of each article, you will analyze its references and the citations to this paper.

Begin by examining the reference lists in your selected papers. How old are the citations? Who wrote the work that the author(s) cited? Is the author's (or authors') prior work cited? In what journals or other media were the references published? What clues do the references give you about the purpose of the paper or the intended audience? How much overlap is there between the reference lists of the several articles in your selected set?

Your next step is to discover who has cited the papers you selected. At a minimum, conduct citation searches for your article in the ISI Web of Science database and at least one of these other citation databases: Google Scholar, CiteSeer X (from Penn State University), the ACM Digital Library (for some technical papers), other online databases that might include your paper and that include citation data, and/or Scopus. Be sure to keep track of which citations were discovered in which database.

Write up your citation analysis. How many times has each of the selected articles been cited? Who has cited each? Are there examples of bibliographic coupling (i.e., where two or more of your selected articles are citing the same article/document)? In what fields/disciplines are your selected articles cited? What do these citations tell you about the importance (or lack of importance) of this work? If you feel the paper has not received the attention it deserves, reflect on why that may be so. If the paper has received more attention than it deserves, reflect on why that may be so.

Finally, examine the context of citations to your papers. Selected at least one citation to each of your selected papers and examine it directly. Find the point in each paper at which the selected paper is cited. In which section of the paper is it cited? What does the citing author say about it? Is it cited in combination with any other papers? What does the citation context tell you about the influence of your selected paper? In addition, analyze in a similar way any instances that you found in which multiple papers from your set of selected papers were cited in the same article/document.

In evaluating the citations, what, if anything, did you learn about citation behaviors or about the citation sources themselves? (Feel free to graphically represent some of your findings, if that would be useful in discussing them.) Based on your analysis, are there particular sources, categories of readers, topics, or functions that may have found the paper particularly useful?

Writing up your analysis

Write up what your team has learned in a brief paper, 6-8 pages, single-spaced. Be sure to include the references to all the specific papers that you'll want to discuss (i.e., the original set of papers, possibly one or more references from each, and several examples of papers citing papers in your selected set).

Your writing style for this paper should be relatively formal/academic, in comparison with other assignments in this course.

Evaluation criteria

Grades will be based on evidence of your understanding of the selected papers, the depth and thoroughness of your analysis of the set of papers and their scholarly context, evidence of your understanding of scholarly communication and scholars' use of information, and clarity of expression.

Class Participation (10%)

This class is a cooperative venture toward which you are encouraged and expected to contribute. This includes **asking questions and sharing insights** from class readings and other course content. The purpose of the discussions is to help you to think critically about research and theory and the implications of research and theory for the practice of the information professions.

Read at least the required readings before each class session; dip into the additional readings as you are able. For each reading, as appropriate, consider:

- What are the key point(s) of the reading?
- What are the strengths and weaknesses of the authors' arguments?
- What are the implications of the reading for your area of professional interest?

There are a variety of ways in which you can contribute to the class discussion of each reading. These include:

- Juxtaposing: You may have had an experience, or have encountered ideas in another reading that complements the ideas in the reading.
- Contradiction and reconciliation: Your experiences or ideas encountered in other readings may appear to represent very different understandings of information behavior. Examine those differences and the possible ways that they might be explained.
- Extension: Your experiences or ideas might suggest an extension of the ideas presented in a reading, or you might see limitations in the applicability of those ideas. Critically examine those possible extensions or limitations.

Class participation will be evaluated on the substance and quality of your comments in class.

Grading

UNC-CH graduate students are graded on the H/P/L/F scale. The following definitions of these grades will be used for this course. While assignments are not graded "on a curve," **most grades for graduate students are expected to be P's.**

Grading scale for INLS 500 (graduate students)

Letter grade	Numeric range	Description of grade
H	95-100	High Pass: Clear excellence; beyond expectations for the course.
P	80-94	Pass: Entirely satisfactory; fully meets expectations for the course.
L	70-79	Low Pass: Minimally acceptable; clear weaknesses in performance.
F	Below 70	Fail: Unacceptable performance.
IN	NA	Work incomplete.

Grading scale for INLS 500 (undergraduate students)

Letter grade	Numeric range	Description of grade
A	95-100	Mastery of course content at the highest level of attainment that can reasonably be expected of students at a given stage of development.
A-	90-94	
B+	88-89	
B	86-87	Strong performance demonstrating a high level of attainment for a student at a given stage of development.
B-	84-85	
C+	82-83	
C	80-81	A totally acceptable performance demonstrating an adequate level of attainment for a student at a given stage of development.
C-	78-79	
D+	74-77	

D	70-73	A marginal performance in the required exercises demonstrating a minimal passing level of attainment.
F	Below 70	For whatever reason, an unacceptable performance. The F grade indicates that the student's performance in the required exercises has revealed almost no understanding of the course content.
IN	NA	Work incomplete.

This syllabus was last updated on 1/10/2014. It was greatly informed by Dr. Barbara Wildemuth's syllabus for INLS 500-001.