THE LIBRARY QUARTERLY

EDITORS' INTRODUCTION: SPECIAL ISSUE ON DISCURSIVE APPROACHES TO INFORMATION SEEKING IN CONTEXT[1]

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Introduction

Information seeking, like other human activities, arises not only out of behavior but also out of the meanings and values that people attach to their practices and to the methods, means, and technologies available for locating information. In recent years, LIS researchers have begun to explore information practices by focusing on how people give accounts of their information behavior or construct the meanings of technical artifacts in work and everyday life. The issue of how information practice–related topics, actors, and technologies are constructed in discourse and conversation is important for understanding information seeking and technology use from a broader sociological perspective. This special issue gathers together articles that apply a variety of constructionist, discourse, and conversation analytic methods and theories to information seeking in context research and, in particular, studies that explore information practices in interactional settings.

Background to Discursive Approaches

In a recent overview of discourse analysis and the study of communication in LIS, John Budd [1] identified two distinct but related varieties of discourse analysis: linguistically based approaches that rely on techniques such as conversation analysis and the analysis of culturally or socially based discursive practices, drawing largely on the work of Michel Foucault. The approach taken for this special issue is rather more inclusive than Budd's. Our focus is on discursive approaches, broadly conceived, including, but not limited to, discourse analysis. We seek to open up a variety of constructionist approaches to the study of language in use: in other words, the study of the ways that people use language to do things [2, p. 2].

We take as our point of departure a constructionist perspective on language [3–5], one that sees language not as a transparent representation of external facts or mental realities such as emotions, experiences, attitudes, or cognitive processes. Rather, this approach sees language itself as constitutive and constructive, and meaning as coproduced among participants in interaction; while individuals produce language, the language created by them or by other powerful actors either present or absent serves in turn to create positions or slots in culturally recognized patterns of talk [2].

Our understanding of discursive approaches therefore encompasses the full-range of discourse analytic perspectives as described by Margaret Wetherell, Stephanie Taylor, and Simeon Yates [2, p. 5]. They distinguish three central topic areas in the study of discourse: (1) the study of social interaction; (2) the study of minds, selves, and sense making; and (3) the study of culture and social relations.

In the first area, the interest is in "organization and patterns in interaction" [2, p. 5]—in how people work with language to present themselves and accomplish social life. Conversation analysis concentrates on fine details of interactive talk—such as turn-takings, hesitations, and sequential patterns—to understand the contextual functions and action orientation of talk. Conversation analysis's basic unit of analysis is a turn of talk; it attempts to reconstitute and specify participants' ongoing orientation to the interaction in order to understand the very nature and building blocks of social action [6–8]. The study of step-by-step coordination of action through its sequential accomplishment brings into view tacit, seen but unnoticed, and taken-for-granted aspects of work practices and interactions.

In the second group, the interest is in the processes of making sense and the emergence of collective and individual minds [2, p. 5]. The interest is in the possibilities that discourses make available and in what people do with discourses. The basic assumption is that both social practices and social actors are constituted through discourse. This domain focuses on

knowledge production, the formation of selves and identities, and the role of mental vocabularies in social life [9–11].

In the third group, studies of culture and social relations, the interest is in the historical and institutional features of discourse: How has meaning making been organized over time? How has it sedimented into certain formations of making sense? Why those and not some other forms? How can we understand this sedimented process [2, p. 5]? Studies belonging to this group are especially interested in power relations and how power affects the construction of the discursive space. Foucault [12] was the first to outline the analytic approach that focuses on the consequences of different ways of representing reality.

Wetherell and colleagues' [2] description of discourse domains helps in making sense of the range of discursive studies. The data gathering and data analysis methods used in discourse studies also represent a wide scope: critical text analysis, historical methods, interviews, observation, video-assisted ethnography, and analysis of "naturally occurring" conversations. Discursive methods are often quite case-specific, that is, unique data sets and contexts of study may mandate a unique approach to be developed by the researcher. Many of the best studies of discourse combine features of the conversation analytic tradition and Foucauldian discourse analysis.

Discursive methods and approaches thus often require fine-tuning to match the topic and setting studied. Much of the pattern and orderliness made identifiable and observable by the researcher has initially become understandable inductively, as the researcher slowly recognized and gained a sense of distinct recurrent patterns of talking and sense making in the institutional or everyday life setting studied.

Discursive Approaches to Information Seeking in Context

As reviews over the past ten years have pointed out [1, 13], a variety of discourse analytic approaches have been the subject of research method papers in LIS [1, 13–18] and a previous special journal issue [19]. Still more have been applied by researchers in empirical studies, including those using conversation analysis (e.g., [20]), narrative analysis (e.g., [21]), genre analysis (e.g., [22]), discourse analysis based on the work of Jonathan Potter and Wetherell [9, 10] and Rom Harré and Luk van Langenhove ([11]; see also [23, 24]), critical discourse analysis (e.g., [25]), and Foucauldian forms (e.g., [26]). Discursive techniques have been applied to a variety of problems, including automated indexing or parsing for information retrieval, knowledge organization [26], and an analysis of the LIS literature itself [27–29].

Arguably, the earliest application of a discursive approach to information seeking in context is Bernd Frohmann's critique of the cognitive paradigm [27]. The inaugural Information Seeking in Context (ISIC) conference in 1996 marked the beginning of a flowering of interest in discursive approaches, including Sanna Talja's critique of representations of information users [30] and Kimmo Tuominen and Reijo Savolainen's [5] consideration of the ways that information use can take discursive action. This interest has continued and expanded in subsequent ISIC conferences (e.g., [17, 23, 31–38]) and beyond.

Our purpose here is not to provide an exhaustive review but, rather, to highlight some major trends. Researchers have brought discursive approaches to bear on several aspects of information needs, seeking, and use. These aspects span the discursive construction of information seekers and library users (e.g., [23, 30, 31, 34, 38, 39]); the discursive construction of information sources and information use, including the ways that information sources are discursively deployed as justifications for claims (e.g., [5, 35, 36, 40, 41]); discourse analytic critiques of the information-needs and information-seeking literature (e.g., [27–29, 42]); and constructionist analyses of institutional interaction [43] and workplace practices (e.g., [37]).

Discursive information studies capture the socially and culturally shaped practices of creating, using, seeking, accessing, and sharing information. The change in terminology, the preference of the concept "information practice" over "information behavior," conveys a view that information needs, seeking, and use are constituted socially and dialogically, since all human practices are social. A common sense of what constitutes competent practice originates from interactions among a community of practitioners, and practices are always organized in relation to others (coworkers, recipients, coproducers, and clients) [44].

An early text advocating a practice view was by Elisabeth Davenport and Blaise Cronin [45, p. 266], who called for an approach that looks at the world of work per se, not at isolated instances of seeking and accessing "information" seen as exterior to work activities. They argued for a detailed study of work practices in real settings and especially promoted an idea that there is a need to study how work practices are carried out in interaction with coworkers and through texts that may to a large extent constitute the work in a given workplace or domain. Their definition of "texts" included all types of texts, ranging from institutionalized discourse in the form of strategies to texts produced and needed for orchestrating the details of joint activities, such as memos and timetables. This special issue responds to Davenport and Cronin's call by beginning to shed light on what such "a practice turn" in information-seeking research might imply.

The practice turn, stemming from constructionist thinking regarding knowledge production, social action, and interaction, opens up a set of

new questions for information researchers [46]. It runs parallel to movements such as studies of situated action [44], workplace studies [7, 47–49], science and technology studies [50–53], institutional ethnography [54], and sociocultural studies of work and learning [55–57], offering a new goal of linking concrete work practices and larger orders. The term "practice" refers to the detailed mundane activities through which individuals in situ become skilled workers or learners [58].

One difference between "pure" discourse analytic studies in LIS and discourse-oriented studies of information practices is the understanding that social constructions are not solely linguistic in nature but are also constituted through embodied interactions with the world. The knowledge of epistemic communities is both implicit, embodied in ways of performing work tasks, and explicit, expressed linguistically in documents and face-to-face interactions.

In summary, discursive approaches to information practices view information needs, seeking, and use as part of or as embedded in a cultural, social, or organizational practice, and the approaches question the validity of models that "de-domain" information practices. They shift attention to the community of practice in which information is created, shared, and negotiated and is also oriented toward gaining a deeper understanding of how groups organize their work practices through interacting with texts, coworkers, technologies, and other objects of the material world.

Researchers in LIS have begun to attend to these approaches (see, e.g., [59–62]), but there is still room for more analysis of language, discourses, texts, and documents in action. The articles in this special issue take up a particularly complex and challenging object of study in looking at the intersubjective construction of information and "orderly" practice in various sorts of communities.

The Articles in This Issue

In response to the call for papers for this special issue, we received a number of e-mail messages from members of the LIS research community around the world. In selecting from the many proposals and submissions received, we sought a variety of methods and theoretical perspectives and aimed for breadth of research setting, topic, and geographic region. We have been grateful for this opportunity to interact with the researchers worldwide who are actively engaged in this area. We were very fortunate to have a wide range of submissions from which to choose and were able to identify a number that met our inclusion criteria. These were then sent to the *Library Quarterly* editors for blind peer review.

Our final collection reflects a variety of theoretical and methodological

approaches: from interactional linguistics to workplace studies to Foucault-inspired grounded theory. Our seven authors represent five countries on three continents, and the domains of research include the workplace practices of nurses and blue-collar workers, a synchronous computer-mediated chat forum providing math help, and the LIS research community.

Our collection begins with a reflection on the discourse of the discipline itself: a consideration of the terminology used in the literature on information needs, seeking, and use since 1960. Reijo Savolainen [63] provides a broad survey of the major "umbrella concepts," *information behavior* (and its variants, including *information-seeking behavior* and *human information behavior*) and *information practice*, used by researchers in information needs, seeking, and use. He begins by analyzing the use of these terms in the LIS literature, chronicling the rise of information behavior to prominence through the 1970s and 1980s and then noting the development of a competing concept, information practices, in the first years of the twenty-first century. In addition to his analysis of the terminology used, Savolainen explores the LIS discourse on research in these domains and the discursive traditions from which these concepts are developed and through which they are justified. He argues that few researchers working with either concept have explicitly addressed the discursive implications of their terminological choices and that both concepts could benefit from a deeper analysis and contextualization in their broader discursive contexts.

The next article illustrates the potential contributions of conversation analytic techniques to the study of information seeking. Jung-ran Park takes an interactional- and interpersonal-oriented linguistic approach to the analysis of discourse, which she defines as "a linguistic unit beyond the sentence" [64, p. XX]. She notes that online communicators lack many cues available to face-to-face speakers for conveying interpersonal and affective stances. For example, paralinguistic cues such as gesture, facial expression, and tone of voice can both convey emotion and provide the hearer with clues for interpreting the meaning of an utterance. In addition, the time required for typing and transmitting a response in real-time online settings can disrupt face-to-face conventions of turn taking. However, Park demonstrates that communicators in an online chat group providing U.S. elementary and middle school students with math help developed creative ways to convey interpersonal and affective meaning. Participants simulated facial expression and tone of voice through orthographic and typographical elements (e.g., capital letters or repeated punctuation for emphasis, emoticons to represent facial expressions, and repetition of letters to simulate drawing out a word). They minimized the disruption of turn-taking conventions by using contractions that increased their typing speed or by employing a user name to address a speaker directly in a multiparty chat. Park contends that these strategies facilitate the development of group

rapport and cohesion and contribute to the success of online group information seeking and sharing.

The next three articles consider the ways that discourse and practice are shaped by communities of practice and justification. Jenny Johannisson and Olof Sundin study discourses as "enacted in social practices" [65, p. XX]. The articles by Annemaree Lloyd and Tiffany Veinot look more closely at how bodies and embodied knowledge are also constituted in social practices.

Veinot's article foregrounds the concepts of "embodied knowledge" and "situated judgment" to add to our understanding of how a social and professional practice is both a product of linguistic practices—socially shaped, shared understandings—and a product of "training of the body in a certain way" [66, p. XX]. Noting that the information practices of blue-collar workers have been understudied in LIS literature, Veinot probes into the information requirements in the work of a vault inspector, a blue-collar worker who inspects underground electrical installations for a large Canadian power company. Veinot's article renders visible and documents how a vault inspector, Kelly, observes, interprets, and documents phenomena such as cracks, rust, and the amount of sediment in transformers. Work such as Kelly's is conventionally understood as routine application of formal rules and coding practices. Veinot describes how Kelly in fact uses a range of physical, perceptual, cognitive, and navigational skills in making fine-tuned situated judgments to categorize her observations. Her classifications, in turn, coordinate a range of organizational activities such as the summoning of repair crews. Veinot argues that looking at the use and production of information in "manual work" reveals the wide array of forms of "information" that constitutes professional expertise in any type of work.

Anne Lloyd's article [67], in turn, explores the modalities of information that are required to learn the practice and profession of firefighting. She argues that novice Australian firefighters initially learn the "know why" of firefighting through textual sources of information, but it is not until they get access to the experienced firefighters' collective community knowledge and develop the situated and experiential bodily knowledge, which she calls "fire sense," that they become firefighters. Lloyd's article interweaves the study of workplace information practices with the theories and concept of information literacy. She promotes a "whole person in the information landscape" [67, p. XX] perspective to information literacy that acknowledges both the centrality of the body as a source of information and the role played by the communities of practice with which an individual interacts. Such communities of practice, argues Lloyd, have a vested interest in ensuring that novices adopt the discursive, social, and physical practices of the work community. The process of becoming information literate is not solely benign and without tensions, as suggested by the coupling of

the information literacy concept with lifelong learning. Novices may discover that the reality of experienced practice differs from the school or textbook representations of that practice and that the latter may also differ from the collective workplace constructs of key issues and ideas. The process of becoming information literate hence requires engagement with textual, physical, and social information that "over time leads to intersubjective constructions and understandings about the collective life of practice and profession" [67, p. XX].

The article by Jenny Johannisson and Olof Sundin uses what the authors term "a discourse-oriented approach" that seeks to make visible the "sets of rules that members of a community of justification both shape and are shaped by" [65, p. XX]. Johannisson and Sundin argue that discourse not only sets the limits but also provides novel possibilities for the building of social and professional identities for Swedish nurses. The authors provide an understanding of professions as consisting of diverse "communities of justification" that can differ in their views of the boundaries and core knowledge of a profession. Analyzing nurses' accounts of their information practices, the authors highlight how two competing discourses exist within the profession. These differ from each other in many important respects: attitudes toward the seeking, use, and production of professional information, and the criteria through which the relevance of information is assessed. Johannisson and Sundin show how the relevance of information "and thus also the information need of the individual is negotiated rather than given" [65, p. XX].

With Michael Olsson's article [68], we return to an analysis of the LIS literature on information needs, seeking, and use. Olsson studies the social construction of a well-known researcher, Brenda Dervin, by members of the research community. His analysis is inspired by Foucault's reconceptualization of the relationships among the author, the text, and the reader. If the meaning of a text is a social construct created and constantly re-created by members of the research community engaging with the text as they read, evaluate, critique, or interpret it through their own publications, the author likewise becomes the product of social construction within and between discourses. Olsson takes this perspective as a starting point for addressing the question of what happens to the author construct when the author is a living, breathing human being actively involved in the research community. He analyzes the ways that the author's activities in the research community may affect researchers' construction of her and her work. He describes the social interactions and relationships, including with the author herself, involved in participants' construction of the author; analyzes the way that participants draw on their own disciplinary and research background when forming descriptions of the author and her work; and, finally, considers the ways that researchers use their existing construc-

tions of the field, their colleagues, and the academy to accept or contest handed-down constructions of Dervin and her work.

This collection represents the first gathering together of discursively inspired research into information needs, seeking, and use, or perhaps the initial collection of work within the information practices concept. The practice turn in information-seeking research is a perspective whose time has come, and we look forward to seeing many more ventures like this one.

REFERENCES

1. Budd, John M. "Discourse Analysis and the Study of Communication in LIS." *Library Trends* 55, no. 1 (2006): 65–82.
2. Wetherell, Margaret; Taylor, Stephanie; and Yates, Simeon, eds. *Discourse Theory and Practice: A Reader.* London: Sage, 2001.
3. Berger, Peter L., and Luckmann, Thomas. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge.* Garden City, NY: Doubleday, 1967.
4. Burr, Vivien. *An Introduction to Social Constructionism.* London: Routledge, 1995.
5. Tuominen, Kimmo, and Savolainen, Reijo. "A Social Constructionist Approach to the Study of Information Use as Discursive Action." In *Information Seeking in Context: Proceedings of an International Conference on Research in Information Needs, Seeking and Use in Different Contexts, 14–16 August 1996, Tampere, Finland,* edited by Pertti Vakkari, Reijo Savolainen, and Brenda Dervin, pp. 81–96. London: Taylor Graham, 1997.
6. Arminen, Ilkka. "Conversation Analysis: A Quest for Order in Social Interaction and Language Use." *Acta Sociologica* 42, no. 3 (September 1999): 251–57.
7. Arminen, Ilkka. "Workplace Studies: The Practical Sociology of Technology in Action." *Acta Sociologica* 44, no. 2 (June 2001): 183–89.
8. Wooffitt, Robin. *Conversation Analysis and Discourse Analysis: A Comparative and Critical Introduction.* Thousand Oaks, CA: Sage, 2005.
9. Potter, Jonathan, and Wetherell, Margaret. *Discourse and Social Psychology: Beyond Attitudes and Behaviour.* London: Sage, 1987.
10. Potter, Jonathan. *Representing Reality: Discourse, Rhetoric and Social Construction.* Thousand Oaks, CA: Sage, 1996.
11. Harré, Rom, and van Langenhove, Luk. *Positioning Theory.* Oxford: Blackwell, 1999.
12. Foucault, Michel. *The Archaeology of Knowledge.* New York: Pantheon, 1972.
13. Budd, John M., and Raber, Douglas. "Discourse Analysis: Method and Application in the Study of Information." *Information Processing and Management* 32, no. 2 (1996): 217–26.
14. Forrester, Michael A.; Ramsden, Christopher; and Reason, David. "Conversation and Discourse Analysis in Library and Information Services." *Education for Information* 15, no. 4 (1997): 283–95.
15. Frohmann, Bernd. "Discourse Analysis as a Research Method in Library and Information Science." *Library and Information Science Research* 16 (1994): 119–38.
16. Frohmann, Bernd. "Discourse and Documentation: Some Implications for Pedagogy and Research." *Journal of Library and Information Science Education* 42 (Winter 2001): 12–26.
17. Olsson, Michael. "Discourse: A New Theoretical Framework for Examining Information Behaviour in Its Social Context." In *Exploring the Contexts of Information Behaviour: Proceedings of the 2nd Information Seeking in Context Conference, Sheffield, UK,* edited by T. D. Wilson and David K. Allen, pp. 136–49. London: Taylor Graham, 1999.

18. Talja, Sanna. "Analyzing Qualitative Interview Data: The Discourse Analytic Method." *Library and Information Science Research* 21, no. 4 (1999): 459–77.

19. Chelton, Mary K., ed. "Special Issue on Implications of Communication Theory for LIS Education and Practice." Special issue, *Journal of Education for Library and Information Science* 42, no. 1 (Winter 2001).

20. Solomon, Paul. "Conversation in Information-Seeking Contexts: A Test of an Analytical Framework." *Library and Information Science Research* 19, no. 3 (1997): 217–48.

21. Bates, Jessica A. "Use of Narrative Interviewing in Everyday Information Behavior Research." *Library and Information Science Research* 26, no. 1 (2004): 15–28.

22. Cross, Cate, and Oppenheim, Charles. "A Genre Analysis of Scientific Abstracts." *Journal of Documentation* 62, no. 4 (2006): 428–46.

23. Given, Lisa. "Discursive Constructions in the University Context: Social Positioning Theory and Nature of Undergraduates' Information Behaviours." *New Review of Information Behaviour Research* 3 (2003): 127–42.

24. Jacobs, Neil. "Information Technology and Interests in Scholarly Communication: A Discourse Analysis." *Journal of the American Society for Information Science and Technology* 52, no. 13 (2001): 1122–33.

25. Stevenson, Siobhan. "The Rise and Decline of State-Funded Community Information Centres: A Textually Oriented Discourse Analysis." *Canadian Journal of Information and Library Science* 26, nos. 2–3 (2001): 51–75.

26. Olson, Hope A. "Exclusivity, Teleology and Hierarchy: Our Aristotelean Legacy." *Knowledge Organization* 26, no. 2 (1999): 65–73.

27. Frohmann, Bernd. "The Power of Images: A Discourse Analysis of the Cognitive Viewpoint." *Journal of Documentation* 48, no. 4 (1992): 365–86.

28. Tuominen, Kimmo. "User-Centered Discourse: An Analysis of the Subject Positions of the User and the Librarian." *Library Quarterly* 67 (October 1997): 350–71.

29. Radford, Gary P. "Trapped in Our Own Discourse Formations: Toward an Archaeology of Library and Information Science." *Library Quarterly* 73, no. 1 (2003): 1–18.

30. Talja, Sanna. "Constituting 'Information' and 'User' as Research Objects: A Theory of Knowledge Formations as Alternative to the Information Man-Theory." In *Information Seeking in Context: Proceedings of an International Conference on Research in Information Needs, Seeking and Use in Different Contexts, 14–16 August 1996, Tampere, Finland*, edited by Pertti Vakkari, Reijo Savolainen, and Brenda Dervin, pp. 68–80. London: Taylor Graham, 1997.

31. Byström, Katriina. "Information Seekers in Context: An Analysis of the 'Doer' in INSU Studies." In *Exploring the Contexts of Information Behaviour*, edited by Thomas D. Wilson and David K. Allen, pp. 82–95. London: Taylor Graham, 1999.

32. Olsson, Michael. "Meaning and Authority: The Social Construction of an 'Author' among Information Behaviour Researchers." *Information Research* 10, no. 2 (January 2005), http://informationr.net/ir/10-2/paper219.html.

33. Sundin, Olof. "Nurses' Information Seeking and Use as Participation in Occupational Communities." *New Review of Information Behaviour Research* 3 (2002): 187–202.

34. McKenzie, Pamela J. "Connecting with Information Sources: Information Seeking as Discursive Action." *New Review of Information Behaviour Research* 3 (2003): 161–74.

35. Tuominen, Kimmo. "'Whoever Increases His Knowledge Merely Increases His Heartache': Moral Tensions in Heart Surgery Patients' and Their Spouses' Talk about Information Seeking." *Information Research* 10, no. 1 (October 2004), http://informationr.net/ir/10-1/paper202.html.

36. Savolainen, Reijo. "Enthusiastic, Realistic and Critical: Discourses of Internet Use in the Context of Everyday Life Information Seeking." *Information Research* 10, no. 1 (October 2004), http://informationr.net/ir/10-1/paper198.html.

37. Davies, Elisabeth, and McKenzie, Pamela J. "Preparing for Opening Night: Temporal

Boundary Objects in Textually-Mediated Professional Practice." *Information Research* 10, no. 1 (October 2004), http://informationr.net/ir/10-1/paper211.html.

38. Hedemark Åse; Hedman, Jenny; and Sundin, Olof. "Speaking of Users: On User Discourses in the Field of Public Libraries." *Information Research* 10, no. 2 (January 2005), http://informationr.net/ir/10-2/paper218.html.

39. Chelton, Mary K. "Young Adults as Problems: How the Social Construction of a Marginalized User Category Occurs." *Journal of Education for Library and Information Science* 42 (Winter 2001): 4–11.

40. McKenzie, Pamela J. "Justifying Cognitive Authority Decisions: Discursive Strategies of Information Seekers." *Library Quarterly* 73, no. 3 (2003): 261–88.

41. Wikgren, Marianne. "Health Discussions on the Internet: A Study of Knowledge Communication through Citations." *Library and Information Science Research* 23, no. 4 (2001): 305–17.

42. Olsson, Michael. "Beyond 'Needy' Individuals: Conceptualizing Information Behavior." In *ASIST 2005: Proceedings of the 68th Annual Meeting of the American Society for Information Science and Technology*, no. 42, edited by Andrew Grove. CD-ROM. Charlotte, NC: ASIST, 2005. http://eprints.rclis.org/archive/00005261/01/Olsson_Beyond.pdf.

43. McKenzie, Pamela J. "Mapping Textually-Mediated Information Practice in Clinical Midwifery Care." *New Directions in Human Information Behaviour*, edited by Amanda Spink and Charles Cole, pp. 73–92. Dordrecht: Springer, 2006.

44. Suchman, Lucy A. *Plans and Situated Actions: The Problem of Human Machine Communication.* Cambridge: University of Cambridge Press, 1987.

45. Davenport, Elisabeth, and Cronin, Blaise. "Texts at Work: Some Thoughts on 'Just for You' Service in the Context of Domain Expertise." *Journal of Education for Library and Information Science* 39, no. 4 (Fall 1998): 264–74.

46. Talja, Sanna; Tuominen, Kimmo; and Savolainen, Reijo. "'Isms' in Information Science: Constructivism, Collectivism, and Constructionism." *Journal of Documentation* 61, no. 1 (2005): 79–101.

47. Drew, Paul, and Heritage, John. *Talk at Work: Interaction in Institutional Settings.* Cambridge: Cambridge University Press, 1992.

48. Arminen, Ilkka. *Institutional Interaction: Studies of Talk at Work.* Directions in Ethnomethodology and Conversation Analysis, edited by David Francis and Stephen Hester. Aldershot: Ashgate, 2005.

49. Luff, Paul; Hindmarsh, Jon; and Heath, Christian, eds. *Workplace Studies: Recovering Work Practice and Informing System Design.* Cambridge: Cambridge University Press, 2000.

50. Knorr Cetina, Karin. *Epistemic Cultures: How the Sciences Make Knowledge.* Cambridge, MA: Harvard University Press, 1999.

51. Latour, Bruno, and Woolgar, Steve. *Laboratory Life: The [Social] Construction of Scientific Facts.* Princeton, NJ: Princeton University Press, 1986.

52. Bowker, Geoffrey C., and Star, Susan Leigh. *Sorting Things Out: Classification and Its Consequences.* Cambridge, MA: MIT Press, 1999.

53. Star, Susan Leigh, and Griesemer, J. R. "Institutional Ecology, 'Translations' and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology, 1907–1939." *Social Studies of Science* 19, no. 3 (1989): 387–420.

54. Smith, Dorothy E. *Texts, Facts, and Femininity: Exploring the Relations of Ruling.* New York: Routledge, 1990.

55. Lave, Jean, and Wenger, Etienne. *Situated Learning: Legitimate Peripheral Participation.* Cambridge: Cambridge University Press, 1991.

56. Orr, Julian. *Talking about Machines: An Ethnography of a Modern Job.* Ithaca, NY: IRL, 1996.

57. Wenger, Etienne. *Communities of Practice: Learning, Meaning and Identity.* Cambridge: Cambridge University Press, 1998.

58. Tuominen, Kimmo; Talja, Sanna; and Savolainen, Reijo. "Information Literacy as a Socio-Technical Practice." *Library Quarterly* 75, no. 3 (July 2005): 329–45.

59. Van House, Nancy A. "Science and Technology Studies and Information Studies." In *Annual Review of Information Science and Technology*, no. 38, edited by Blaise Cronin, pp. 3–86. Medford, NJ: Information Today, 2004.

60. Wilson, T. D. "A Re-examination of Information Seeking Behaviour in the Context of Activity Theory." *Information Research* 11, no. 4 (July 2006), http://informationr.net/ir/11-4/paper260.html.

61. Davenport, Elisabeth, and Hall, Hazel. "Organizational Knowledge and Communities of Practice." In *Annual Review of Information Science and Technology*, no. 36, edited by Blaise Cronin, pp. 171–226. Medford, NJ: Information Today, 2002.

62. Frohmann, Bernd. *Deflating Information: From Science Studies to Documentation.* Toronto: University of Toronto Press, 2004.

63. Savolainen, Reijo. "Information Behavior and Information Practice: Reviewing the 'Umbrella Concepts' of Information-Seeking Studies." *Library Quarterly* 77, no. 2 (2007): XXX–XXX.

64. Park, Jung-ran. "Interpersonal and Affective Communication in Synchronous Online Discourse." *Library Quarterly* 77, no. 2 (2007): XXX–XXX.

65. Johannisson, Jenny, and Sundin, Olof. "Putting Discourse to Work: Information Practices and the Professional Project of Nursing." *Library Quarterly* 77, no. 2 (2007): XXX–XXX.

66. Veinot, Tiffany. "'The Eyes of the Power Company': Workplace Information Practices of a Vault Inspector." *Library Quarterly* 77, no. 2 (2007): XXX–XXX.

67. Lloyd, Annemaree. "Learning to Put Out the Red Stuff: Becoming Information Literate through Discursive Practice." *Library Quarterly* 77, no. 2 (2007): XXX–XXX.

68. Olsson, Michael. "Power/Knowledge: The Discursive Construction of an Author." *Library Quarterly* 77, no. 2 (2007): XXX–XXX.