

*From Knowledge to Data to Knowledge:
Expanding the Horizons of Information Studies*

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Despite the expansion of information studies to encompass much of library and information science, documentation, and archival science, the “document” and “the user” have remained the basic units of analysis for theory and practice. Neither are adequate conceptions to reflect the transformation of scholarship in the digital age. Data, once discarded after the documents describing them were published, are now valuable entities to be used and re-used. Data are even messier and less well understood than are documents, and they vary more between fields of research than do documents such as journal articles, conference papers, and books. While data may be generated by an individual “user” or sought by an individual “re-user,” more often data are the result of collaborative research processes and are input to subsequent collaborative processes. Data practices are deeply embedded in the cultures of their individual research areas. Knowledge is applied to create data, and in turn, data can yield knowledge. For the latter to occur, we need to know how to interpret the data. For the data producer, some of this knowledge is typically tacit, embedded in habits of thought and action acquired through daily experience and shared by the researcher’s community. Other elements of the necessary knowledge include facts about how the data were produced, and in what context: where, when, with which instruments, under what conditions. Important details about context often fail to be documented explicitly, which brings us back to issues of documents, users, and re-users.

This talk will argue for expanding the scope of information studies research to address issues of data and collaborative work toward a broader understanding of knowledge production. It will draw upon empirical research conducted in the Center for Embedded Networked Sensing, a National Science Foundation Science and Technology Center, and upon collaborative research with Geoffrey Bowker, Paul Edwards, Thomas Finholt, Matthew Mayernik, Alberto Pepe, William Sandoval, and Jillian Wallis.