

experience are currently undergoing scrutiny and revision, but the project remains in its early stages. Changing the very foundations against which knowledge claims are deemed legitimate or not is a fundamental and global task that will, if successful, penetrate all areas of the discipline and its neighbors. However, it is a project that needs to be continued if library and information science is to progress beyond the limits of the positivist view and develop a more sophisticated account of the modern library experience.

#### Foucault's Fantasia of the Library: Reconceptualizing the Modern Library Experience

It is against this growing awareness that the work of the late French philosopher Michel Foucault is introduced. The recourse to Foucault's work is not an arbitrary choice but one determined by the nature of the problem addressed in this article. That problem is to question the self-evidence of a still dominant acceptance of a positivist conception of knowledge and its relationship to the modern library experience. The thrust of Foucault's work is to question, at the most fundamental level, aspects of contemporary thought and behavior that are commonly perceived as self-evident, natural, and unproblematic. As such, Foucault's perspective may have much to offer library and information science in its attempts to deal with the nature of our underlying assumptions, which until recently have remained largely unexamined.

Edward Said describes Foucault as "the central figure in the most noteworthy flowering of oppositional intellectual life in the twentieth century West" [61, p. 1]. Foucault refuses to take any contemporary practice, such as those of science [62], institutionalized medicine [63, 64], or sexuality [65-67] at face value. His analyses suggest alternative ways of seeing and provide the basis of reconceptualizations and, ultimately, the potential for change in practices that otherwise would be viewed as fixed and unquestionable.

Foucault's view of scientific knowledge holds in abeyance the self-evidence of an objective world that positivism addresses. This entails substituting for the term *knowledge* (of the world) the term *knowledge claims* (about a world). A scientific theory makes a particular kind of claim that is considered valid only under certain conditions, such as when it can predict other events observable under controlled conditions or satisfy some mutually agreed upon criteria of significance. At its most fundamental level, however, a claim to knowledge is always an appearance of discourse, manifest, to use the terminology of Hubert Dreyfus and Paul Rabinow, as a "serious speech act" that is produced with re-

spect to other claims [68, pp. 45-56]. Taken together, these claims form particular arrangements that define the boundaries of a scientific discipline. Knowledge is contingent upon the manner in which claims to objective knowledge are arranged and organized. New claims to knowledge\* are incorporated and legitimated by a prevailing system of knowledge claims in which they subsequently fit. This view is similar to that of Kuhn, which argues that any scientific theory makes sense with respect to a prevailing paradigm that is essentially social in nature [9]. Knowledge claims acquire their force and meaning by virtue of particular discursive and social contexts.

For a particular proposition, theory, or statement to be considered part of a particular scientific discipline and achieve the status of scientific knowledge, it must conform to certain structures and rules. Foucault argues that scientific disciplines "constitute a system of control in the production of discourse" [69, p. 224]. They inevitably establish constraints on what can and what cannot be said, the way it is said, and where it should be said if it is to count as an instance of scientific knowledge. Even one's vocabulary, grammar, and text structures are explicitly prescribed, by style manuals. The discourse of scientific knowledge is defined very precisely, and, for Foucault, this precision represents a mechanism of control. He argues that "in every society the production of discourse is at once controlled, selected, organized, and redistributed according to a certain number of procedures" [69, p. 216].

The key to understanding the production of scientific knowledge is not the phenomena comprising the world but the prevailing systems of speaking, of discourse, in which certain propositions about the world can count as objective and others cannot. Foucault's work analyzes ways in which such systems arise and produce science, objectivity, and ultimately, the nature of truth. He argues that such systems change and mutate through historical periods and consequently change that which is considered objective and true [70, 71]. For example, the human sciences of sociology and psychology are relatively recent manifestations in the history of thought, each becoming established around the turn of the nineteenth century. Foucault argues that this is because man as an object of inquiry did not exist in the prevailing systems of scientific discourse prior to that time. Foucault's *The Order of Things* is an account of the emergence of systems of discourse through which certain statements about man could be counted as scientific, and how this made possible the disciplines of psychology and sociology, which could investigate man as an objective fact [62]. Foucault concludes this study with the speculation that just as man as an object of scientific inquiry was made possible by the emergence of a particular arrangement of discourse, it is possible that a similar change in the future could result in

the disappearance of man as a valid object of scientific inquiry: "If those arrangements [of discourse] were to disappear as they appeared, if some event of which we can at the moment do no more than sense the possibility-without knowing either what its form will be or what it promises—were to cause them to crumble . . . then one can certainly wager that man would be erased, like a face drawn in sand at the edge of the sea" [62, p. 387]. According to Foucault, scientific knowledge is primarily structured by the limits of what it is possible to say at a given historical point with respect to a particular system of discourse. For Foucault, there is nothing tangible that lies beyond discourse that can be objectively described by a value-free scientific language. Foucault's accounts of madness [64], medicine [63], and the human sciences [62] are all accounts of such changes in discourse, of what it is possible to say, and the subsequent changes in the nature of objective facts. For Foucault, objectivity and truth are sites of struggle among competing systems of discourse. What is scientific at any particular historical juncture is determined by which system is dominant and not which system is true: "There is a battle 'for truth,' or at least 'around truth'-it being understood once again that by truth I do not mean 'the ensemble of truths which are to be discovered and accepted,' but rather 'the ensemble of rules according to which the true and the false are separated and specific effects of power attached to the true' " [72, p. 132].

At any point in history, institutions attempt to legitimate the current version of knowledge and truth by controlling the manner in which texts are ordered with respect to each other. A scientific knowledge claim relies "on institutional support: it is both reinforced and accompanied by whole strata of practices such as pedagogy-naturally-the book system, publishing, [and] libraries" [69, p. 219]. The library, as an institution for arranging texts, becomes a component in the legitimation of a particular order of discourse. It enforces the "ensemble of rules according to which the true and false are separated" [72, p. 132].

In Foucault's conception of scientific knowledge, the library institutionalizes the arrangement of texts that provides the appropriate spaces in which new knowledge claims can be located and given meaning. Truth is discovered not only in the library through the location of a particular text, as is implied by the positivist view of the library, but it is also made possible by their arrangements and in the "spaces" that these arrangements make possible. I have argued that to comprehend the nature of a discipline such as psychology, for example, it is not enough simply to collate the finite number of facts that psychologists claim to have discovered; rather, one must immerse oneself in the discourse of psychology to grasp the patterns and arrangements of its knowledge claims, its systems of constraints and legitimation, and to

locate one's own discourse within it [73]. The arrangement of texts becomes the basis for the possibility of new texts and, hence, new knowledge. The formulation of specific scientific hypotheses is always grounded in discussions of the same or similar problems, with respect to particular theories, with particular methods, in particular disciplines, with particular philosophies of the nature of the world.

Foucault's view of knowledge may have the potential for providing an alternative way of structuring the experience of the library. Following Eco, the library can be conceptualized as a labyrinth of texts that contains the possibilities for new arrangements. As Eco explains, the labyrinth is like a net where "every point can be connected with every other point, and, where the connections are not yet designed, they are, however, conceivable and designable. A net is an unlimited territory" [74, p. 81]. The individual text gains its value with respect to its place in the network, or in a multitude of networks, and not as the vessel containing some discrete knowledge put there by its author. Similarly, Foucault argues that "the frontiers of a book are never clear cut: beyond the title, the first lines, and the last full stop, beyond its internal configuration and its autonomous form, it is caught up in a system of references to other books, other texts, other sentences: *it is a node within a network*" [71, p. 23; emphasis added]. A library user engages with the library system, searching stacks and indexes for connections and patterns, and, ultimately, the creation of new patterns. The library experience is much more than locating discrete pieces of information. The activity of conducting literature searches becomes the individual's attempt to locate his knowledge claims within an existing order of knowledge claims. Foucault argues that such knowledge "derives from words spoken in the past, exact recensions, the amassing of minute facts, monuments reduced to infinitesimal fragments, and the reproductions of reproductions" [75, pp. 90–91]. The production of commentaries, critiques, arguments, and debate becomes the act of validating or questioning those locations within the limits of the prevailing arrangement.

The library makes the creation of new knowledge possible at its most fundamental level. One stands awed in the labyrinth of the library because of the knowledge that can be discovered through its potential for new connections. One stands hushed in the presence of that which the library makes possible, as well as that which the library contains. Foucault makes this point through the image of the "fantasy" [75]. The unstructured nature of the fantasy is an image that is usually regarded as standing in opposition to the rigorous systems of organization imposed by the library. But within the limits of this arrangement, Foucault posits the presence of an infinite number of spaces "in the interval between books" [75, p. 90]. In such spaces resides the possibility of "impos-

sible worlds," worlds other than the objective world constituted in the discursive arrangements of science: "Fantasies are carefully deployed in the hushed library, with its columns of books, with its titles aligned on shelves to form a tight enclosure, but within confines that also liberate impossible worlds. . . . The imaginary is not formed in opposition to reality as its denial or compensation; it grows among signs, from book to book, in the interstice of repetitions and commentaries; it is born and takes shape in the interval between books. It is a *phenomenon of the library*" [75, pp. 90-91; emphasis added].

From the Foucauldian viewpoint, the fantasia of the library is the experience of the labyrinth, of seeking connections among texts as well as their contents. The practices of the library institutionalize particular arrangements of texts, but Foucault argues that one can work within this to create new labyrinths, new perspectives, and ultimately, new worlds. The library becomes an instrument of possibility rather than a place where possibility seems exhausted. The image of the library as an impersonal collection of silent and dusty texts containing the sum total of the knowledge of the world is challenged by a more dynamic image, in which users immerse themselves within the crevices and spaces between texts, forming connections and making discoveries far more profound than simply collecting specific facts.

### Conclusion

To change the perceived reality of the library experience, the library community must address and explicitly question the prevailing positivist foundation of its field. The work of Michel Foucault offers a powerful framework that might be employed in some of the conceptual work in library and information science that is already taking place. Foucault can be seen as a perspective in an ongoing research agenda and thus stands alongside this work, rather than above it. The evolving library environment will not be served by a dominant preconception that characterizes the library as an institution for housing particular texts that contain specific facts and the librarian as an impersonal, source-oriented intermediary whose function is to locate them. Following Foucault, the library can be a place of fantasia as well as facts, of creation as well as acquisition. As the positivist version of scientific knowledge gradually loses its dominance as an account of what scientists do, so the positivist foundations of the library experience also must be seriously reconsidered. The recognition of the work of European philosophers such as Eco and Foucault may represent a new foundation for structuring the preconceptions of the library experience for the librarian and the user.

### REFERENCES

- Hybels, Sandra, and Weaver, Richard L., II. *Communicating Effectively*. 3d ed. New York: Random House, 1992.
- Garrett, Jeffrey. "Missing Eco: On Reading *The Name of the Rose* as Library Criticism." *Library Quarterly* 61 (October 1991): 373-88.
- Eco, Umberto. *The Name of the Rose*. Translated by William Weaver. New York: Warner, 1983.
- Miller, Richard W. *Fact and Method: Explanation, Confirmation and Reality in the Natural and the Social Sciences*. Princeton, N.J.: Princeton University Press, 1987.
- Hesse, Mary. *Revolutions and Reconstructions in the Philosophy of Science*. Brighton: Harvester Press, 1981.
- Van Fraassen, Bas C. *The Scientific Image*. Oxford: Clarendon Press, 1980.
- Rorty, Richard. *Philosophy and the Mirror of Nature*. Princeton, N.J.: Princeton University Press, 1979.
- Rorty, Richard. *Objectivity, Relativism, and Truth*. Cambridge: Cambridge University Press, 1991.
- Kuhn, Thomas S. *The Structure of Scientific Revolutions*. 2d ed. Chicago: University of Chicago Press, 1970.
- Kuhn, Thomas S. *The Essential Tension: Selected Studies in Scientific Tradition and Change*. Chicago: University of Chicago Press, 1977.
- Churchland, Paul M., and Hooker, Clifford A., eds. *Images of Science: Essays on Realism and Empiricism, with a Reply from Bas C. van Fraassen*. Chicago: University of Chicago Press, 1985.
- Prelli, Lawrence J. *A Rhetoric of Science: Inventing Scientific Discourse*. Columbia: University of South Carolina Press, 1989.
- Aronowitz, Stanley. *Science as Power: Discourse and Ideology in Modern Society*. Minneapolis: University of Minnesota Press, 1988.
- Longino, Helen E. *Science as Social Knowledge: Values and Objectivity in Scientific Inquiry*. Princeton, N.J.: Princeton University Press, 1990.
- Laudan, Larry. *Science and Relativism: Some Key Controversies in the Philosophy of Science*. Chicago: University of Chicago Press, 1990.
- Suppe, Frederick, ed. *The Structure of Scientific Theories*. 2d ed. Urbana: University of Illinois Press, 1977.
- Bronowski, Jacob. *Science and Human Values*. New York: Harper & Row, 1956.
- Bronowski, Jacob. *A Sense of the Future: Essays in Natural Philosophy*. Cambridge, Mass.: MIT Press, 1977.
- Burke, James. *The Day the Universe Changed*. Boston: Little, Brown, 1985.
- Hawking, Stephen W. *A Brief History of Time: From the Big Bang to Black Holes*. New York: Bantam, 1988.
- Young, Heartsill, ed. *The ALA Glossary of Library and Information Science*. Chicago: American Library Association, 1983.
- Shcra, Jesse H. "Librarianship, Philosophy of." In *The ALA World Encyclopedia of Library and Information Services*, edited by Robert Wedgeworth. 2d ed. Chicago: American Library Association, 1986.
- Buschman, John, and Carbone, Michael. "A Critical Inquiry into Librarianship: Applications of the 'New Sociology of Education.'" *Library Quarterly* 61 (January 1991): 15-40.
- Harris, Michael H. "State, Class, and Cultural Reproduction: Toward a Theory of Library Service in the United States." In *Advances in Librarianship*, vol. 14, edited by Wesley Simonton. New York: Academic Press, 1986.

25. Saracevic, Tefko. "Relevance: A Review of and a Framework for the Thinking on the Notion in Information Science." *Journal of the American Society for Information Science* 26 (November-December 1975): 321-43.
26. Rothstein, Samuel D. "Across the Desk: 100 Years of Reference Encounters." *Canadian Library Journal* 34 (October 1977): 391-99.
27. Childers, Thomas. "The Quality of Reference: Still Moot after 20 years." *Journal of Academic Librarianship* 13 (May 1987): 73-74.
28. Lancaster, Frederick W. *If You Want to Evaluate Your Library* . . . . Champaign: University of Illinois Press, 1988.
29. Miller, William "Causes and Cures for Inaccurate Reference Work." *Journal of Academic Librarianship* 13 (May 1987): 71-73.
30. Hennon, Peter, and McClure, Charles R. "Library Reference Service: An Unrecognized Crisis—a Symposium." *Journal of Academic Librarianship* 13 (May 1987): 69-80.
31. Cummins, Thompson R. "Question Clarification in the Reference Encounter." *Canadian Library Journal* 41 (April 1984): 63-67.
32. Radford, Marie L. "Interpersonal Communication Theory in the Library Context: A Review of Current Perspectives." In *Library and Information Science* Annual, vol. 5, edited by Bohdan S. Wynar. Englewood, Colo.: Libraries Unlimited, 1989.
33. Mount, Ellis. "Communication Barriers and the Reference Question." *Special Libraries* 57 (October 1966): 575-78.
34. Swope, Mary Jane, and Katzer, Jeffrey. "The Silent Majority: Why Don't They Ask Questions?" *RQ* 12 (Winter 1972): 161-66.
35. Dervin, Brenda, and Nilan, Michael. "Information Needs and Uses." In *Annual Review of Information Science and Technology*, edited by Martha E. Williams. Vol. 21. White Plains: N.Y.: Knowledge Industry Publications, 1986.
36. Belkin, Nicholas J. "Information Concepts for Information Science." *Journal of Documentation* 34 (March 1978): 55-85.
37. Belkin, Nicholas J., and Robertson, Stephen E. "Information Science and the Phenomenon of Information." *Journal of the American Society for Information Science* 27 (July-August 1976): 197-204.
38. Machlup, Fritz, and Mansfield, Una. "Cultural Diversity in Studies of Information." In *The Study of Information: Interdisciplinary Messages*, edited by Fritz Machlup and Una Mansfield. New York: Wiley, 1983.
39. Machlup, Fritz. "Semantic Quirks in Studies of Information." In *The Study of Information: Interdisciplinary Messages*, edited by Fritz Machlup and Una Mansfield. New York: Wiley, 1983.
40. Ingwersen, Peter, and Pejtersen, Mark A. "User Requirements-Empirical Research and Information Systems Design." In *Information Technology and Information Use: Towards a Unified View of Information and Information Technology*. London: Taylor Graham, 1986.
41. Wilson, Thomas D. "On User Studies and Information Needs." *Journal of Documentation* 37 (March 1981): 3-15.
42. Saracevic, Tefko; Kantor, Paul; Chamis, Alice Y.; and Trivison, Donna. "A Study of Information Seeking and Retrieving. I. Background and Methodology." *Journal of the American Society for Information Science* 39 (May 1988): 161-76.
43. Saracevic, Tefko, and Kantor, Paul. "A Study of Information Seeking and Retrieving. II. Users, Questions, and Effectiveness." *Journal of the American Society for Information Science* 39 (May 1988): 177-96.
44. Saracevic, Tefko, and Kantor, Paul. "A Study of Information Searching and Retrieving. III. Searchers, Searches, and Overlap." *Journal of the American Society for Information Science* 39 (May 1988): 197-216.
45. Dervin, Brenda. "Useful Theory for Librarianship: Communication, Not Information." *Drexel Library Quarterly* 13 (July 1977): 16-32.
46. Belkin, Nicholas J. "Anomalous States of Knowledge as a Basis for Information Retrieval." *Canadian Journal of Information Science* 5 (May 1980): 133-43.
47. Belkin, Nicholas J.; Oddy, Robert N.; and Brooks, Helen M. "ASK for Information Retrieval: Part I. Background and Theory." *Journal of Documentation* 38 (June 1982): 61-71.
48. Belkin, Nicholas J.; Oddy, Robert N.; and Brooks, Helen M. "ASK for Information Retrieval: Part II. Results of a Design Study." *Journal of Documentation* 38 (September 1982): 145-64.
49. Kuhlthau, Carol C. "Developing a Model of the Library Search Process: Cognitive and Affective Aspects." *RQ* 28 (Winter 1988): 232-42.
50. Kuhlthau, Carol C. "Perceptions of the Information Search Process in Libraries: A Study of Changes from High School through College." *Information Processing and Management* 24/4 (1988): 419-27.
51. Kuhlthau, Carol C. "The Information Search Process: From Theory to Practice." *Journal of Education for Library and Information Science* 31 (Summer 1990): 72-75.
52. Ruben, Brent D. "The Communication-Information Relationship in System-Theoretic Perspective." *Journal of the American Society for Information Science* 43 (January 1992): 15-27.
53. Radford, Gary P. "A Foucauldian Perspective of the Relationship between Communication and Information." In *Information and Behavior*, vol. 4, edited by Brent D. Ruben and Jorge R. Schement. New Brunswick, N.J.: Transaction, 1992.
54. Halloran, James D. "Information and Communication: Information Is the Answer, but What Is the Question." In *Information and Behavior*, vol. 1, edited by Brent D. Ruben. New Brunswick, N.J.: Transaction, 1985.
55. Thayer, Lee. "How Does Information 'Inform'?" In *Information and Behavior*, vol. 2, edited by Brent D. Ruben. New Brunswick, N.J.: Transaction, 1988.
56. Thomas, Gloria P., and Soldow, Gary F. "Information Theory and Interpersonal Communication." In *Information and Behavior*, vol. 2, edited by Brent D. Ruben. New Brunswick, N.J.: Transaction, 1988.
57. Croft, W. Bruce. "Approaches to Intelligent Information Retrieval." *Information Processing and Management* 23/4 (1987): 249-54.
58. Rau, Lisa F. "Knowledge Organization and Access in a Conceptual Information System." *Information Processing and Management* 23/4 (1987): 269-83.
59. Brajnik, Giorgio; Guida, Giovanni; and Tasso, Carlo. "User Modeling in Intelligent Information Retrieval." *Information Processing and Management* 23/4 (1987): 305-20.
60. Brooks, Helen M. "Expert Systems and Intelligent Information Retrieval." *Information Processing and Management* 23/4 (1987): 367-82.
61. Said, Edward W. "Michel Foucault, 1926-1984." In *After Foucault: Humanistic Knowledge, Postmodern Challenges*, edited by Jonathan Arac. New Brunswick, N.J.: Rutgers University Press, 1988.
62. Foucault, Michel. *The Order of Things: An Archaeology of the Human Sciences*. New York: Vintage, 1973.
63. Foucault, Michel. *The Birth of the Clinic: An Archaeology of Medical Perception*. Translated by A. M. Sheridan Smith. New York: Vintage, 1975.
64. Foucault, Michel. *Madness and Civilization: A History of Insanity in the Age of Reason*. Translated by Richard Howard. New York: Vintage, 1988.
65. Foucault, Michel. *The History of Sexuality*. Vol. 1, *An Introduction*. Translated by Robert Hurley. New York: Vintage, 1980.

66. Foucault, Michel. *The History of Sexuality*. Vol. 2, *The Use of Pleasure*. Translated by Robert Hurley. New York: Vintage, 1985.
67. Foucault, Michel. *The History of Sexuality*. Vol. 3, *The Care of the Self*. Translated by Robert Hurley. New York: Vintage, 1986.
68. Dreyfus, Hubert L., and Rabinow, Paul. *Michel Foucault: Beyond Structuralism and Hermeneutics*. 2d ed. Chicago: University of Chicago Press, 1983.
69. Foucault, Michel. "The Discourse on Language." Translated by Rupert Swyer. In [71].
70. Foucault, Michel. "History of Systems of Thought." Translated by Donald F. Bouchard and Sherry Simon. In *Language, Counter-Memory, Practice: Selected Essays and Interviews* by Michel Foucault, edited by Donald F. Bouchard. Ithaca, N.Y.: Cornell University Press, 1977.
71. Foucault, Michel. *The Archaeology of Knowledge*. Translated by A. M. Sherician Smith. New York: Pantheon, 1972.
72. Foucault, Michel. "Truth and Power." Translated by Colin Gordon. In *Power/Knowledge: Selected Interviews and Other Writings by Michel Foucault, 1972-1977*, edited by Colin Gordon. New York: Pantheon, 1980.
73. Radford, Gary P. "Communication and the Constitution of Scientific Knowledge: A Foucauldian Examination of the Discursive Production of Subliminal Perception in Psychology." Ph.D. dissertation, Rutgers-The State University of New Jersey, 1991.
74. Eco, Umberto. *Semiotics and the Philosophy of Language*. Bloomington: Indiana University Press, 1984.
75. Foucault, Michel. "Fantasia of the Library." Translated by Donald F. Bouchard and Sherry Simon. In *Language, Counter-Memory, Practice: Selected Essays and Interviews* by Michel Foucault, edited by Donald F. Bouchard. Ithaca, N.Y.: Cornell University Press, 1977.