The Cyborg Librarian as Interface: Interpreting Postmodern Discourse on Knowledge Construction, Validation and Navigation within Academic Libraries

Amanda R. Yoder

portal: Libraries and the Academy, Volume 3, Number 3, July 2003, pp. 381-392 (Article)

Published by The Johns Hopkins University Press

DOI: 10.1353/pla.2003.0074

For additional information about this article
http://muse.jhu.edu/journals/pla/summary/v003/3.3yoder.html
The Cyborg Librarian as Interface: Interpreting Postmodern Discourse on Knowledge Construction, Validation, and Navigation within Academic Libraries

Amanda R. Yoder

**abstract:** This paper explores the implications of postmodernism upon a historically modern institution by articulating and applying three components of postmodernity to the academic library: the rise of local narratives, the performativity of knowledge, and the notion of the cyborg, a human-machine hybrid inhabited, in many ways, by the academic librarian.

In his 1999 article “Towards a Postmodern Context for Information and Library Education,” Dave Muddiman explains the dilemma of postmodernism for libraries as a paradigm incompatible with the profession’s origin story. He writes, “The roots of information and library science lie very firmly in the ‘modern.’” Not only were the majority of libraries founded during modern times (circa 1750–1950), but it was against the backdrop of modernist notions of order, progress, authority, and control that these libraries flourished. Libraries aligned themselves with modernist ideals, claiming the organization and dissemination of knowledge as their privileged contribution to society, in effect becoming a “supreme form of rational social organization . . . that . . . imposed order upon the chaos of human thought and made the resultant knowledge available for the good of mankind.” The value-laden modernist library proved both prolific—writing its mantras into policies for patrons, as well as into the broader cultural memory—and steadfast. However, over the past fifty years, rampant societal change...
and a revolutionary cultural mindset called “postmodernism” have taken a toll on the self-assured institution, cracking the fortress of the modern library and demanding an exploration into its changing functions and values. As is evident in other sectors of society, this undercutting of traditional authority produces anxiety and turmoil. Librarians and critics vary in their assessment of the influence of postmodernism on libraries, but fear is undeniable. William H. Wisner’s book *Whither the Postmodern Library* is one example of a scathing attack on the admission of postmodernism into libraries. He equates the advent of postmodernism in libraries with an unhealthy reliance on technology, a decline in the American educational system, and a disregard for truth and ethics amid a mad dash to consume information rather than seek knowledge. Wisner predicts that libraries, unable to compete with technology and edged out by competition with for-profit information management companies, will cease to exist; they will die within the coming century.3

I believe that if libraries are to take seriously such ominous predictions, they must learn to speak the language of postmodernism. By its very concept, the term defies definition. Postmodernism is not a unified ideology, but a pastiche of thought. It is one thing to one person, and something entirely different to another. Opposed to modernism, postmodernism is a fluid continuum refusing association with rigid categories. It pervades art, literature, cultural criticism, science, and religion, offering new conceptions of revered disciplines. For purposes of this paper, however, a specific working definition of postmodernism is necessary. One influential theorist, Jean-Francois Lyotard, situates postmodernism in the context of the emergence and dominance of local narratives over monolithic metanarratives and the resulting legitimation and performativity of knowledge.4 While superficially opposed to one another, these components of postmodernism not only speak to the current situation of the academic library, they combine to form a new conception of the processes of education and research, and a revisiting of the role of the academic librarian within those processes. The idea that emerges is that of a “human-machine,” a term inspired by Donna Haraway’s postmodern invention of the “cyborg,” which she defines as, “a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction.”5

**Constructing Knowledge: Local Narratives Replace Metanarratives**

Lyotard categorizes postmodernism by the presence of localized narratives—small, incompatible stories and exercises in meaning-making. This is coupled with an “incredulity toward [modern] metanarratives,” which sought to explain the whole of the universe.6 To Lyotard, postmodern society is composed of disparate communities, each with its own values, language games, and symbols. As such, these communities are fragmented groups, broken off and isolated from one another and unable to communi-
cate with one another. Each must define and perpetuate its own truth, for the larger, all-encompassing metanarratives prevalent in modernism fail to unify and explain all knowledge. This is problematic for libraries, institutions that have historically thrived on metanarratives, ranging from the liberating quality of knowledge, to the sacred authority of texts, to the vision of a society as ordered as the library institution. To go further, libraries have helped to create and to sustain some pervasive cultural metanarratives. Lyotard believes that while metanarratives claim a totalizing ideology, they have excluded and marginalized certain groups who do not fit their criteria. Muddiman posits this notion in terms of knowledge constructed by those in positions of power and authority, and then presented as truth within the ordered confines of the library. Muddiman writes, “information and library science, reflecting this [metanarrative] culture of exclusion, has [sic] thus helped construct a privileged form of knowledge which, far from being universal, amounts to a partial yet dominant culture which is male, European, positivist, and humanist.”

Muddiman also names “controlling discourse” as an obsession of the modern library metanarrative.

Another postmodern theorist, Dr. Stuart Hannabuss, whose 1997 article “Lyotard and Postmodern Knowledge” encapsulates the key points of Lyotard’s postmodern theory, suggests two overarching metanarratives behind the field of library and information science: “the idea that knowledge is produced for its own sake . . . and the idea that knowledge is produced for a person/subject in search of emancipation.” The latter idea represents a romantic ideal tightly embedded in the origin stories of libraries: that knowledge, or access to it, is the solution to humanity’s quest for self-actualization. That knowledge, or access to it, frees humanity to lead improved lives, to choose proper, fulfilling work and to enjoy leisure activities rather than toil ceaselessly under the burden of ignorance of the possibility of a better life. An assumption underlying this metanarrative was that individual improvement would lead ultimately to the betterment of society. As he traces the history of librarianship in the United States, Wayne A. Wiegand explains that since its inception, library leaders believed the profession was a project of improvement, “that would inevitably contribute to the nation’s progress and social order.” However, as postmodernism takes its place in history, social “progress” is no longer a unified, national ideal, nor is its value accepted without question. Indeed, some communities label “progress” a pejorative term, for it implies the silencing of certain discourses, environmental destruction, and greater stratification between the privileged and the marginalized. This prolific metanarrative—and the others that have molded the profession—is questioned, with enormous consequences for libraries and information centers as they teach and conduct research.

How, then, do the multiple realities and truths of their surrounding communities play out in libraries and information centers? This dilemma is especially relevant to academia, as Taylor E. Hubbard discusses in “Bibliographic Instruction and Postmodern Pedagogy.” Hubbard asserts that academic libraries, once founded upon the belief in the sacred quality of scholarship, must rethink their conception of academic knowledge as inerrant purveyor of truth. Postmodernism declares that knowledge does not exist separate from human construction; it is created by humans searching for meaning, and packaged in local narratives that vary widely from group to group. Hubbard suggests that the postmodern model of information requires a transformation in traditional
methods of bibliographic instruction. This change re-envisioned the persona of the academic librarian from one of rigid authority, handing down information from on high, to a dynamic co-creator, facilitator, enabler, and guide. In this new understanding, the librarian orchestrates the process of learning; he or she is instrumental in empowering students to achieve agency in their education.

This conception of academic libraries, librarians, knowledge, and information is grounded in humanism, for it acknowledges and respects the role of the human and the human community in the creation of knowledge and in its subsequent unearthing during the search process. Rather than simply to educate students how to locate materials relevant to their research, librarians must facilitate discovery. Texts are no longer sacred or authoritative; they are the products of human attempts to impose meaning onto the universe. In the past, librarians emphasized respect for, and acceptance of, reference sources. Now the emphasis is shifting toward awareness of, and interaction with, the texts. Hubbard urges librarians to introduce students to the politics of knowledge-making in a postmodern world, asking them to consider, “What is going on in the texts we collect? How do they create the knowledge that places the library at the center of the university?” Introducing students to these questions equips them with a greater understanding of the ways in which the various academic disciplines claim and organize knowledge. Gary P. Radford echoes this idea and conceives of this role as that of a guide. In his article, “Flaubert, Foucault, and Bibliotheque Fantastique: Toward a Postmodern Epistemology for Library Science,” he envisions the process of information-seeking as an art, not a science, in which “the relationships between texts are open and created anew each time a modern library search is carried out.” The library user is the active agent in this scene, and the librarian is the guide, facilitating the search for and creation of a unique set of sources. As the local narratives represented by each text dialogue with one another, “the ideas of ‘context’ and ‘relationship’ replace the idea of ‘the search,’” Radford explains. Instead of yielding the authoritative source on any given subject (i.e., a metanarrative), the process of information retrieval results in a multitude of voices (local narratives), from a personal web page on the Internet to a scholarly journal article. Moreover, local narratives do not dominate one another: “every source has the same weight and credibility as every other. No authority is “privileged” over any other beyond the contexts of the author’s own bibliotheque fantastique.” While this is a thoroughly postmodern conception of authority, it has yet to be realized in academia, where “scholarly” sources are, in fact, consistently privileged over popular ones. Here the key is not for the “librarian guide” to exclude popular sources from entering the student’s search, but to articulate to students the value differences imposed by the academic community.

Hubbard concludes that the discovery and creation of knowledge that results from the interaction between user and librarian will ultimately be of great value to both parties. Analyzing the local narratives in various sources invites the student into partici-
pation with the text (or media) at hand. Conducting the postmodern library search will increase their problem-solving and critical-thinking skills; they will learn to engage with and to evaluate sources rather than passively to defer to them. Librarians are freed from rigid devotion to order and control and invited into the research discovery process. Even more importantly, they may be released from the pejorative stereotypes that defined the modern library experience and “render[ed] the library an emotionless, cold, and mechanistic place.” Analyzing local narratives—the communities from which they come, the languages they use, and the values they put forth—ultimately generates a more satisfying library teaching and learning experience, incorporates a wide variety of voices and formats, and de-emphasizes order and control, valuing instead discovery, creation, and the search itself. This is the human side of the postmodern search. The central figure here is the human being in search of information and knowledge-building, not the society that shapes his or her search, or the end product of the search. And yet, in postmodernism, this is not the final answer for libraries questing after a proper definition and meaning of the library search. Indeed, there is no final answer in postmodernism, for as soon as it suggests one conception of knowledge (or other phenomenon), it immediately subverts that conception as it introduces another layer of thought. In this case, the legitimation and performativity of knowledge deconstructs the importance of local narratives and the value of the individualized library search. While local narratives and interaction with library materials are indeed one manifestation of postmodernism, they ultimately defer to the broader society’s postmodern demand for performance in assessing the value of any institution, including libraries.

Validating Knowledge: Legitimation and Performativity

Let us return to Lyotard. He identifies another important trend in postmodernism: the functional, performative aspects of science and knowledge. In postmodern society, knowledge, discovery, and learning are valued not for their own sake (or for self-improvement/self-actualization properties), but for what they are able to contribute to the economic and political machinery of society. Lyotard postulates that it is the government of a society that determines what knowledge is or is not valuable, and that this determination is based upon what the knowledge in question can do for the State. The same is true of research. Because metanarratives have broken down and thus cannot validate or justify the importance of scientific research, research must validate itself by an exhaustive, endless supply of data as “proof” that it is indeed proving what it is claiming to prove. This proof of proving is, in effect, a classic postmodern language game, according to Lyotard. Moreover, it carries over to the realm of higher education, where the “performativity principle[s] . . . general effect is to subordinate the institutions of higher learning to the existing powers. The moment knowledge ceases to be an end in itself—the realization of the Idea or the emancipation of men—its transmission is no longer the exclusive responsibility of scholars and students.”

Performativity means that knowledge must perform. It is not enough to know something and to be better because of it; personal self-actualization matters little in performativity law. Knowledge must perform a social function, or produce specific data that will perform a social function. For example, under the rules of performativity, medi-
cal doctors undertake research studies in order to obtain quantifiable data that will be implemented directly into devising a new surgical procedure or medical therapy. Companies conduct research to understand the demographics of their customer base, or to assess the effectiveness of a particular marketing strategy. In performativity, there is always a specific end driving the process of research. Education is not the process of becoming more fully human, but a specific means to a desired end (entering a career, accumulating wealth, gaining status, etc.). It is pragmatic and utilitarian, its focus of study the agenda of the government. Therefore, in reality there is little latitude in what will be studied, and how. Hannabuss explains that the driving force behind this performativity is capitalism, an insatiable machine that hunger for research and educational systems to churn out both scientific advancements and skilled laborers to produce greater wealth for the society; he notes Lyotard’s distaste for this scenario, pointing out that Lyotard, “places faith . . . in paralogy, the hallmark of postmodern science, with dissent and heterogeneity in the language games of science, suggesting that this works against commodification.”

(Thus, for Lyotard, the multiple, diverse local narratives work to counteract the totalitarian principle of performativity in postmodern culture.) In the article, “Knowledge, Power and the Academic Library in Postmodern Society,” G. van der Linde also finds the proposition of performativity troubling. In his view, the “ascent of technology” is one visible sign of the takeover of performativity. Technology speeds research, transforming it into an industry that equates discovery with profit, “subservient to a totalizing programme whose aim is to control the proliferation of knowledge” so that those in power control the knowledge, the wealth, and the power. Whatever positive consequences postmodernism introduced with local narratives, it negated with the advent of performativity.

What are the manifestations of performativity within the academic library world? Owen Slight addresses this question in his article, “The Academic Research Library in the Postmodern Era.” Slight predicts major changes in the mission and services of academic libraries as performativity dictates institutional funding and resources. Libraries and librarians must demonstrate that they play a pivotal role within the life of the college or university. They must be functional, efficient models of organization that transmit more than content to the students they serve. They must teach access to, and evaluation of, sources, in effect making students savvy consumers of information. Van der Linde echoes these ideas, but interprets the overall changes as negative ones. Universities, he predicts, will compete for “academic capital” as they try to market themselves; internally, departments will compete with one another for funding and those that do not receive adequate resources will inevitably experience decline. Other ominous signs for academic libraries revolve around collection management, as van der Linde predicts that, “the privileging of certain paradigms . . . in the process of book selection . . . [necessarily means that] some discourses are silenced.” To combat this trend, academic librarians are indispensable. They are more than “specialized technical workers”; they are charged with ensuring patrons’ access to a variety of resources, not merely those that reflect the hegemony of privileged perspectives.

In Slight’s view, librarians are “consultants” to the university’s population. Borrowed terminology from the language of the corporate sector, this mentality of librarians as specialists who advise students and faculty is clearly reflective of the
performativity principle. Libraries and librarians exist to ensure that universities contribute to the broader society through research activities and career preparation of the students who attend them. This is the postmodern ideal; however, it is rarely realized to its full potential. The reality is that academic libraries often do not have, “the massive technological capability to ensure service” (i.e., to establish proof) of top-quality to their university communities. This dilemma begs the question of which comes first: cutting-edge technology or proof of performativity. If academic libraries do not have the technology necessary to validate themselves as primary to the functioning of the university, they cannot prove their worth. If they cannot prove their worth, the libraries will not receive the funding necessary to upgrade their technological services. In response to this problem, Slight proposes a new model for academic libraries: that of a “library-museum.” Rather than to try to prove their worth through means of collection (technology or otherwise), Slight suggests that academic libraries focus on preservation “of significant aspects of our cultural past for use by present and future scholars . . . [and] materials containing the roots and affinities of the modern era that has just passed.” By doing so, academic libraries can keep pace with and “sell themselves” to the broader society.

This is a radical notion, a complete redefinition of academic libraries. Other writers exploring the implications of postmodern performativity upon academic libraries interpret the changes less dramatically and with greater focus on the practical strategies for dealing with those changes. Like Muddiman, Bruce Harley, Megan Dreger, and Patricia Knobloch emphasize the facilitation role of academic librarians in assisting students’ learning and research. These authors suggest that postmodernism, marked by consumerism, superficiality, and knowledge fragmentation, entered libraries with the introduction of the World Wide Web. Although counterintuitive, as students rely more heavily upon the Web to fulfill their research assignments, the role of the academic librarian becomes more important in order to help them decipher the information they find, to help them understand the overall scheme of the Web and how it works, and to guide them through the maze of resources available to them. All of these outcomes require academic librarians to interact with students not by rote skills’ training, but through dynamic facilitation, encouraging students to think critically and engage themselves with the library’s materials, both print and nonprint. This approach includes teaching active evaluation of sources, the packaging of information, and the relationship between texts. This signals a return to the ideas discussed regarding the introduction of local narratives. Despite all the contradictions in postmodernism, there is convergence between the effect of local narratives and performativity on the reshaping of the academic librari-
ian. The academic librarian becomes a complex, multifaceted being who guides students through the labyrinth of academic research, entrenched in the human constructions of local narratives yet simultaneously aware of the implications of technological performativity. The academic librarian can navigate both discourses with ease. He or she becomes, in effect, a “human-machine.”

Enter the Cyborg: Navigating Knowledge within the Postmodern Academic Library

Thus enters the cyborg, part human and part machine. The idea of the cyborg, originally proposed in science fiction as far back as Mary Shelley’s *Frankenstein* and co-opted by space travel scientists in the 1960s, is now a reality in fields such as robotics and medical science. Like any postmodern concept, its definition (and implications) is interpreted differently. Within the realm of science fiction, a cyborg represents the extensions of human bodies with tools or machines, the marriage between the natural and the artificial. In a cyborg, the boundary between the human and the machine dissolves so that the two are inseparable. This happens every time that a human uses a tool, from something as simple as a stick to the complicated machinery of computers. Alongside this notion of the cyborg is a fundamental change in the way that humans view the relationship of the material, physical body to the outside world. In her 2000 essay “Cyborgs, Agents, and Transhumanists,” Barbara Becker describes humans’ attempts to control and to conquer the limits of the physical body through the use of machines.

To some critics, this obsession with power and control is interpreted negatively, dominated by fear and anxiety about limitations, helplessness, and the potential takeover of machines. Another critique revolves around dehumanization, as David Porush articulates the possibilities of cyberspace utopia in his article, “Transcendence at the Interface: The Architecture of Cyborg Utopia, or, Cyberspace Utopoids as Postmodern Cargo Cult.” Porush situates the cyborg as the product of discourses on reinventing the human being within the realm of a utopian world—a conversation that strikes fear and loathing into the hearts of ultra-conservatives, for “postmodern technologies which aim at modeling human nature—and manipulating it—through computational mechanisms . . . represent the culmination of cybernetic technologies that threaten most humanist positions.” This view seems to represent dichotomous thinking: if machines and humans merge in any way, it is a threat to the dignity of the individual. Machines do not empower or transform humanity; machines taint or pervert humanity. Nothing noble—let alone transcendent or redemptive—can come from the machine’s interactions with humanity. Porush points to author William Gibson as one such critical voice. Gibson’s novel *Neuromancer*, though suggesting the romanticism of a new world order on its surface, is bleak at its core. Gibson writes of the cyberworld as though it were “a sort of hell . . . where not-beings are subjected to excruciating experiments on the boundary between hallucination and bodiless exultation: a nightmarish configuration of technology, death, and the unconscious.”

And yet, “we are all cyborgs already, controlled by the systems we’ve embraced . . . our media, our computers, our systems of communication.” Those who are suspicious of the cyborg have their own critics— theorists who interpret the cyborg in a more
positive light, due in part to Donna Haraway’s theories: she characterizes the cyborg as a liberated being that does not exist separate from its surroundings/communities, but as part of them. She conceives of the cyborg as a fluid, shifting, dynamic, amorphous being that shapes its environment even as its environment acts upon it. The physical body of the cyborg is permeable, for it permits external phenomena inside of it just as it transmits internal phenomena to the outside world. If we are cyborgs, the culture writes itself upon our bodies and we in turn write into the culture through our experiences. Porush describes this phenomenon in terms of osmosis between information and the human mind. Before cyberspace, sacred texts (scripture) acted as intermediaries between humans and their quest for transcendence. But now, with the invention of the cyborg, “cyberspace represents a thrust as the illuminated landscape beyond textuality, where information suffers no mediation whatsoever and the soaring cognitive dome of the brain itself becomes the interface and the sensory text of cyberspace.” Haraway classifies this process as an active exchange and not merely a passive acceptance of external stimuli; thus, she suggests the cyborg is an exciting, positive being. At the heart of this positive conception of the cyborg is its representation of the breakdown of dualities and, in their place, an overarching synthesis of modernist dichotomies. Haraway writes, “Cyborg imagery can suggest a way out of the maze of dualisms in which we have explained our bodies and our tools to ourselves . . . It means both building and destroying machines, identities, categories, relationships, space stories.”

With this understanding, the cyborg is a useful model for the postmodern academic librarian on many different levels. Like the cyborg, the academic librarian is a “human-machine,” a physical being engaging in meaningful human interactions with students while simultaneously a machine, navigating a network of hypertext discourses, unearthing research sources through online indexes and commercial search engines, and retrieving fragments of information from such disparate sources as reference books, websites, and other human beings. At each step of the research process, the librarian utilizes his or her own judgment and experiences, as well as tools/machines, in order to guide students. Moreover, the librarian engages with the student, the “other,” even as he or she employs internal calculations and assessments that will define the search. The boundaries between librarian, student, and the infinite supply of information hovering in the universe suddenly explode in the reference interaction.

The cyborg librarian is the interface, in more ways than one. He or she is the “thing” through which library patrons interact with the institution, its patterns of organization, and its technological systems. He or she links the world of text and media with the life of the student, facilitating an active exchange. He or she acts as a bridge between the incongruities of postmodernism, specifically the dichotomy between local narratives and truths and the totalizing societal ideology of performativity. As he or she guides students through the multitude of voices in the collection and assists them in understanding the relationship and context of sources, the cyborg librarian also functions within the confines of performativity. The cyborg librarian initiates students into the process of information selection and evaluation based upon their desired outcomes, helps students engage in research questions that are not merely interesting but important, and assures that students learn the technologies necessary to the project of research. In a culture of performativity, the cyborg librarian must continually prove his or
her worth to the academic institution through interactions with students even as he or she trains the same students to prove themselves—to professors, to academia, to the culture at large—as they conduct research and disseminate the results. This looks very different from the traditional passivity embodied by the reference podium, where librarians lie in wait for students to approach, to ask a question, and then to retreat into the stacks. The cyborg librarian, skilled at teaching students, comfortable with assisting faculty, and adept at maneuvering through the intricacies of technology, permeates the whole of the library, at once stopping to help a student with a computer malfunction, at another point guiding a student’s search to the bowels of preservation. Active and empowered, the cyborg librarian seeks out reference interaction in a manner similar to a department store’s sales personnel. He or she approaches with a smile, eager to showcase the latest reference services and technologies.

Conclusion

As academic libraries and librarians witness the decline of modernism in the broader society and begin to explore the implications of postmodernism upon their institution and profession, two themes emerge: the triumph of local narratives over metanarratives and the performativity of knowledge. The manifestation of local narratives within the academic library world carries the recognition that texts and academic knowledge—the very things that academic libraries have tried to capture through collection—are products of human construction rather than divine authorities. This poses new roles for the academic librarian: to facilitate interaction between students and library sources, to help students become aware that knowledge is created and packaged by humans in academia, and to inspire critical thinking and engagement with a text. The second theme of postmodernism that affects the academic library, the performativity of knowledge, is superficially opposed to the triumph of local narratives, for it exults not the value of learning and discovery, but the bottom line of performance. Performativity demands that knowledge perform a social function, namely generate research data to supply a proof that will factor into a capitalist equation and generate greater wealth for society. Performativity in the academic library requires that academic librarians be consultants or specialists who transform students into savvy consumers of information, emphasizing skills training and the pragmatics of library research.

Taken together, local narratives and performativity introduce a new conception of the academic librarian: a complex “human-machine” who both guides students through the maze of library sources and initiates them into the human construction of knowledge and equips students with the skills demanded by the performativity principle. This new librarian figure is the cyborg librarian, a dynamic being who transcends traditional separation of roles. The cyborg librarian is a teacher, a guide, a machine, a consultant, a specialist, a salesperson, and much more. The cyborg librarian is the interface between the library and its users and the vast potential of the technological reorganization of the postmodern world.

Amanda R. Yoder is a graduate student in Library and Information Science at the University of Iowa; she may be contacted via e-mail at: amanda-r-yoder@uiowa.edu or aryoder@hotmail.com.
Notes

2. Ibid., 5.
12. Ibid.
13. Ibid., 445.
15. Ibid., 631.
16. Ibid.
17. Hubbard.
18. Radford, 621.
19. Lyotard.
20. Lyotard, 50.
23. Ibid., 252.
25. van der Linde, 252.
27. Ibid.
28. Slight, 93.
29. Slight, 95.
30. Slight, 96.
31. Slight, 97–98.
37. Ibid., 132.
38. Ibid., 129.
39. Haraway.
40. Porush, 135.
41. Haraway, 181.