

Reconceptualizing Libraries as Academic Spaces: A Postmodern Look at Library Organization

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Introduction

Walk into any academic library in the U.S. or certain countries around the world and you find a familiar classification system for organizing and categorizing books. This system, known as the Library of Congress Classification System (LC), has been employed in academic libraries for the better part of a century. Originally created in 1897, the system is designed to give library users the perception of an epistemologically based library collection organization. When one looks at the way materials are classified, each item is classified by a subject heading. Given the predominance of the internet and alternative ways of seeking information, we argue the organization of library materials should be reconsidered since research in educational psychology and other fields demonstrates the changing ways contemporary information seekers, students in particular, locate information. Indeed, some researchers assert an individual's information-seeking behavior does not reflect subject or numerical classification processes and the classification system's physical manifestations do not match modern, web-based, information-seeking behavior. Furthermore, what on the surface appears to be a subject-based taxonomy in practice is revealed as merely a numerical order reflecting dates books are purchased for the collection amounting to a purely informational rather than epistemological system of categorization. In this paper we advocate for academic libraries rethinking how they organize library collections by taking into consideration changing ways students and library users find, organize, and utilize information in light of postmodernist theoretical tenets.

One early challenge for librarians was how to organize library holdings. Partly they needed to keep track of materials, but it became equally important patrons were able physically to locate materials (Harris, 1995). In the late nineteenth century, Melvil Dewey began work

on a systematic way of organizing library holdings in which subject matter was designated by a code, could be expanded in a linear manner to allow materials be added, and was assigned a specific location where it could be found and returned. The Dewey Decimal System, now in use for nearly a century, nevertheless has its detractors who argue some information is arbitrarily assigned to an area (Kaplan, 2012). The system has been criticized further for its heavily Anglo-American cultural bias (Fandino, 2008).

A second classification system, developed by the Library of Congress, is known as the Library of Congress Classification System. It was designed to replace an organizational system developed by Thomas Jefferson, whose collection served as the basis for the early Library of Congress. Like the Dewey Decimal System, the Library of Congress Classification System has been criticized for primarily serving the organizational needs of libraries and as disconnected from an epistemologically based rationale (Lyotard, 1984). In order to understand how the system no longer aligns with ways students and faculty locate information, it is important to highlight ways patrons of the modern library satisfy their information-seeking behavior. Next we illustrate how the system's inherent drawbacks run counter to an individual's information-seeking behavior. Based on this evidence we suggest alternatives which might help bring the library and use of library materials more in line with the patron's information-seeking behavior.

Literature Review

Information-Seeking Behavior

The Library of Congress Classification System is alphanumerical, meaning letters and numbers are used to organize physical books. However, these letters and numbers give patrons little indication as to the underlying organizational structure of the classification system or its meaning. As a result, libraries spend a great deal of time teaching students to understand this rigid system of classification. Belkin (1980) argues the efficient transmission of information from information generator to human user contains three problems: first, the user recognizes a need for information and presents a question to the information-retrieval mechanism; second, the information-retrieval mechanism presents its results to the user; and third, the user examines the results and is satisfied either completely, partially, or not at all. According to Belkin (1980), an anomalous state of knowledge (ASK) provides the user's foundation for seeking information. We agree, "the emphasis on the role of the user in the communication model and in IR (Information Retrieval) compels one to recognize explicitly that representing users' needs is at least as important as representing texts" (p. 136). The user's needs as well as ensuring concepts' need to be

represented in ways the user can understand should be paramount when reconsidering the utility of the Library of Congress Classification System and the concerns that emerge in the literature.

Constructivist Information-Seeking Behavior

Kuhlthau (1993) provides a constructivist theory of information-seeking behavior by building on theories of John Dewey, George Kelly, and Jerome Bruner. He argues the information-seeking processes these scholars theorize can be synthesized into six phases: initiation, selection, exploration, formulation, collection, and pre-sensation (p. 342). The information seeker experiences a progression of three core functions within these phases: feelings, thoughts, and actions. Each function becomes more crystallized as information processes move from step to step. This constructivist process centers on the needs of the user, so if a library fails to take into account the user's actions it potentially injects artificial barriers into information-seeking processes.

In the initiation phase Kuhlthau (1991) argues users lack confidence, this lack stemming from one's internal understanding of information lack and the associated uncertainty, similar to the anomalous information Belkin (1980) describes. In the exploration phase, the individual again feels uncertainty and doubt since thoughts in this phase rarely fit the user's previously held constructs (Kuhlthau, 1991). Information seeking in the exploration phase is disconnected and fluid, shifting between subjects and categories, which renders the rigid structure of the Dewey Decimal System problematic.

In a naturalistic qualitative study of 45 academics Foster (2004) illustrates nonlinear methods of information-seeking behavior, emphasizing the process reflects the user's experiences as well as his or her internal and external contexts for the search. Although a researcher might draw information from a variety of sources, he or she can be hindered by external factors such as a library's onsite organization. If external factors present too great a barrier, the information seeker is likely to return to the starting phase of the process. Contemporary research studies address the internet's effects on information-seeking behavior.

Contemporary Issues

An Online Computer Library Center-authored (OCLC, 2002) white paper examines the web-based behaviors of college students, concluding most college students rate as paramount the accuracy of web-based information, rating second, the most-used library web resource the online catalog. Indicating information seekers search the library's physical collection as well as electronic resources. Following the OCLC white paper a national study concerning the use of libraries, museums

and the internet conducted by Griffiths and King (2008) characterizes the library as a trusted source of information—more highly trusted than government or commercial websites. The authors also find adults tend to use the internet first when seeking information (83%) followed by libraries and museums (70%) (p. 8). These findings draw attention to a disconnect between a typical user's first information-seeking instinct and the trustworthiness and potential usefulness of information.

Perruso (2016) studies undergraduates' use of google vs. library resources in a longitudinal study, asking where information seekers are likely to start their research, whether they are more likely to use websites or library resources, and where students who receive library instruction start their research as well as the relationship between faculty source requirements for assignments and from where students draw the majority of information, finding 69% of students start their research process using google (p. 621). Interestingly, Perruso (2016) reports as users spend more time at the university their use of the library as their first source increases and use of google decreases. The key intermediating factor for this shift is credited to library instruction sessions. Perruso finds if students have a library instruction session, 55% of those students begin research using library resources by their eighth semester. Included in almost all library instruction is discussion of the Library of Congress Classification System. However, if that system can be changed there is a larger opportunity to use instruction sessions for more-pressing needs like information evaluation.

Bawden and Robinson (2009) consider overload and anxiety among information seekers, especially when using the internet as an information source. As the internet causes a proliferation of information sources it simultaneously homogenizes the delivery mechanism. For example, if a user wants to learn about quantum mechanics he or she likely initially finds a variety of sources ranging from Wikipedia, to newspaper articles, to video. However, each piece of information is moderated and filtered through the medium of the user's web browser, creating normative homogeneity. A challenge arises when that user moves outside the computer screen since navigating different classification systems could potentially cause insecurity or anxiousness and potentially lead to a failed effort to locate information.

Connaway, Dickey, and Radford (2011) examine the importance of convenience in information-seeking behavior as it relates to the proliferation of information sources. Convenience appears as a reason in 171 out of 307 respondents or 56%, and they find convenience a prevailing motivation for millennial subjects (p. 186). The researchers advocate for library materials to be reorganized to work more like the internet, particularly the ways in which information is presented. Web

browsers typically prioritize search results based on relevancy to the user's topic, and online library catalogs function similarly, but we argue a problem arises when the library's physical collection is organized not by relevancy but rather by subject.

Donald Case (2002) outlines five models for how individuals seek information. While it is not necessary to go into too much depth on each, it is important to highlight one model that connects most closely with information-seeking behavior. The Wilson Model focuses on user satisfaction as it relates to information returned. "Wilson suggests that the perceived need then leads the user into a cluster of activities, the most straightforward of which is to make direct demands on sources or systems of information" (p. 117). The search for information is not a structured activity rather it is a fluid activity that draws from multiple sources both formal and informal. For example, one may come across an unfamiliar idea or term and one's first instinct may be to conduct a google search. Google then forms the foundation of not only where one begins but where one returns for additional information. Thereafter one's initial information source may branch into formal mechanisms like acquiring an article or asking a colleague as well as informal mechanisms such as contacting a friend.

At some point the researcher likely finds him or herself at the library seeking resources. Initial interactions with the library happen in a virtual space, mimicking google. It is only when the researcher enters the library's physical location that he or she is confronted with a classification system not reflected in their virtual information-seeking activities, namely a subject-based classification system organized by authors' last names. What this contemporary literature highlights is a disconnect in modern information seeking. When a researcher seeks information he or she has now been conditioned by use of web browsers to explore varied and diverse information-crossing subject barriers to connect with many types of resources. The physical manifestations of the current classification system do not match modern, web-based, information-seeking behavior.

Postmodern Knowledge Formation

Postmodernist theorists problematize society's creation, use, and acceptance of grand narratives and reject objectivist notions of truth, using theory to reveal the socially constructed nature of truth and knowledge (Jameson, 1991). While postmodernist theory has gained favor within some academic disciplines and is referenced frequently in popular culture contexts, its methodological use in revealing the power structures which underlie knowledge formation is a common, practical application (French & Ehrman, 2016) used to analyze such varied topics

as the nature of British football hooliganism (King, 1997) and the foundations of soldiering in Norwegian military training (Sookermany, 2011). More central to the purpose of this paper, postmodern theory has been used to theorize how users interact with information systems (Heelas, Lash, & Morris, 1996).

Discussion

The Library of Congress Classification System is the most widely used classification system in academic libraries, therefore the academic setting provides a logical site to understand the inadequacy to encapsulate modern information-seeking behaviors of the current system. We maintain if information-seeking behaviors have been altered by the use of web browsers, the most logical part of the library's classification and location system, librarians, should be enlisted to address the call-number-classification process. Since library databases are purchased from a third-party vendor and thus are controlled by the vendor's own internal design, the classification and call-number organization of a library's physical collection is the logical location for where librarians can reorder the ways library materials are presented and organized.

Two terms are most often used as part of the Library of Congress classification process: the Library of Congress Control Number (LCCN) and the Library of Congress Classification (LCC) System. The LCCN is a sequential number given to a book or material that is merely a number unique to each library resource. The LCCN does not organize or classify materials. The classification that is the focus of our paper is the Library of Congress Classification System: the commonly recognized system used by most academic libraries colloquially known as a library material's "call number." In this system the physical library location of a book or material is indicated, usually by one or two letters followed by a series of numbers. For example, the book *Education and Identity* by Arthur Chickering (1969) has the call number LB2322.C45; the call number's letters and numbers reveal the basic architecture for how the system is used physically to organize and house library materials. The first letter of a call number denotes its general subject area: A for general topics, L for education, M for music, etc., while the second letter denotes the material's subtopic area. Call numbers never have more than two letters at their start. The numbers following the letters denote where in the subject taxonomy the book is housed. Using the Chickering example (LB2322.C45), this book falls in the primary subject L (education), in subtopic B (theory and practice), and within the numerical range 2300–2430 (higher education). C45 is this book's Cutter number, named for Charles Cutter, which is a way to denote the book's author. By enacting a system of numerical designations, the Library of Congress

Classification System offers precise information where physically to place any book or material. Libraries are also free to add additional information to the end of the call number often used to denote to which campus library collection the material belongs, for instance. Using the Chickering example one notices the classification system forms a neat, efficient taxonomy, but the subject subtopic areas have come to be synonymous with knowledge organization rather than reflecting object organization. By the act of librarians designating materials into different subject headings, the classification system carries the impression of knowledge organized into discrete categories that have rigid meanings and physical locations, the result of which is a denial of the inherent interdisciplinarity of postmodern epistemological conventions. The current classification system also gives users the impression classifications are made objectively which again clashes with the tenets of postmodernist theory, whose authors posit such truths cannot in fact be known.

There are additional implications for organizing library materials in such a rigid structure. Of significant concern, while topic area categories may seem broad, there is in fact neither ability to adapt the classification system to new concepts, ideas, or topics nor to accommodating changing disciplinary knowledges, for instance, to reduce the power bestowed upon Anglocentric knowledges and foreground underrepresented knowledges. These clashes seem already to be forcing the hand of librarians' categorizations, inspiring creep into the system of a kind of bootstrap interdisciplinarity. For instance, as queer theory and gender identity theory have developed Judith Butler's theory is found categorized in both B (philosophy) and H (sociology). Since the rigid subject classifications were set long before many topics existed there is little way to expand topic-heading classifications either to include new ideas or retire old ones, so we see the current call-number system serving merely as geographical waypoint and obstacle.

We now move to explore a radical, potential solution to library organization that could help alleviate the current conundrum occurring when library materials' physical location does not reflect ideological distance due to this significant disconnect between users' information-seeking behavior and the current classification system.

A Proposed Solution

We propose librarians remove call numbers from library materials altogether since we have established an individual's information-seeking behavior typically no longer corresponds to the classification system imposed on patrons physically locating a book. Removing call numbers, while seemingly creating organizational chaos could increase the

possibility of books being physically located along different philosophical or theoretical lines rather than along rigid, purely organizational lines. You may wonder how then can the library address the physical location of an item? By using a series of Remote Frequency Identification (RFID) sensors equipped both in each library stack and within the actual materials, materials can physically be located regardless of position in the stacks using an electronic device. In such a system patrons are free to move library materials around the library without heed of antiquated topic-area restrictions. For example, a patron studying gender searches online for library materials. The patron then goes to the stacks and grabs the first book; he or she then takes the first book to another floor where the patron finds second and third books. He or she then decides these books are not wanted and leaves the books on any shelf, thereby organizing and co-locating library materials in an open, organic "system." Removal of call numbers frees patrons from the disconnect between web-based information-seeking behavior and physically accessing library materials, inspiring librarians to learn from patrons ways to form a more organic taxonomy that reflects a particular university's research trends. Books that are in the old Library of Congress Classification System would not relate to or be housed next to each other are placed by patrons in unique proximity. Theoretically, the ability to shelf read, get lost in the stacks, or explore related ideas is now a freer process.

At first consideration many patrons and especially librarians are likely to gasp in horror at the idea of a free-for-all materials management system, but we argue a library free from the organizational tyranny of rigid call numbers opens opportunity for new associations. In the old classification system when library materials are shelved by call number there is an automatic way to find other, related books on shelves "nearby" that relate directly to the initial item a patron seeks. We argue, however, this can still be accomplished when call numbers are removed entirely, the reason being a patron's delight in serendipitously finding a related item on a nearby shelf is not interrupted but rather broadened by libraries technologically analyzing which books typically get checked out together or which book groupings are left on tables, shelving them together, and introducing new serendipity to patrons' stack-browsing.

Conclusion

In the postmodern library knowledge has been transformed into information through the use of technology (Lyotard, 1984). We argue because the creation of knowledge, along with emerging fields of knowledge are considered co-determinant, their current organizational separation imposes an unnatural sense of bifurcation on patrons' information-seeking behavior. While there remains a strong linkage

between fields of knowledge those connections are culturally based. The classification system we propose gives academic libraries the freedom to maintain materials' organization and location in a way that draws on patrons' epistemological connections between materials in a manner that is locally culturally relevant rather than drawing from a classification system developed for the purpose of easy materials location. Such a library can allow patrons to develop their own local connections across materials, loosening the traditional, linear classification system for organizing materials which constrains patrons against "open representations to contestation and scrutiny, bringing different forms of knowing to compete and clash in the public arena" (Jovchelovitch, 2008, p. 23).

The proposal we advance in this paper may best be framed in terms of a shift from collective to social representations. Collective representations are common across people and even cultures that hold a common definition of ideas, beliefs, or histories. Their power is significant in that they shape how individuals and groups understand the world and how they interact with each other. Furthermore, these are among the mechanisms used to maintain social order and hold societies together (Durkheim, 1897/1997). Collective representations may have common meaning to large groups of people; however, they are not necessarily developed by the people, do not represent them, and do not have their best interests in mind. They often are not developed in a collaborative or democratic manner and may instead be the product of authority bodies or elites seeking social control and the maintenance of privilege.

Our postmodernism-inspired classification system proposal is based on the notion of consensual social representation which involves individual members participating in localized materials organization in a way that represents a variety of perspectives and challenges previous assumptions and labels (Moscovici, 2000). By giving library patrons the freedom to organize information, librarians foster the integration of information into localized worldviews so it can be compared and assimilated (Höijer, 2011).

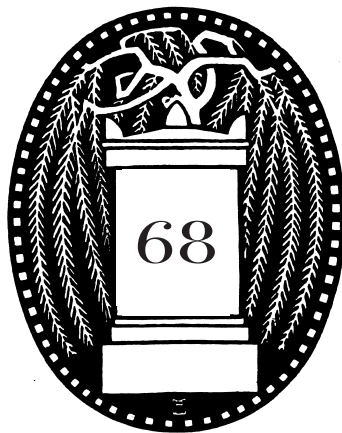
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**JOURNAL OF
PHILOSOPHY &
HISTORY
OF EDUCATION**



2018

The Journal of the Society of Philosophy & History of Education