

The Patron as Producer: Libraries, Web 2.0, and Participatory Culture

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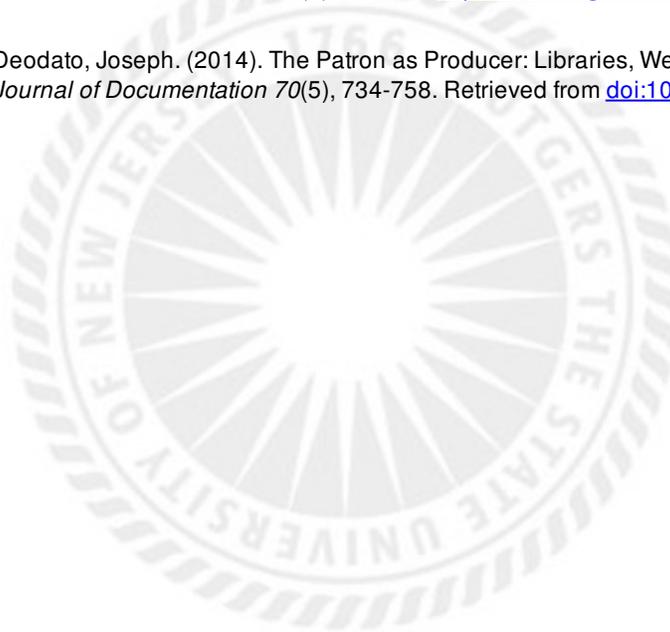
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The Patron as Producer: Libraries, Web 2.0, and Participatory Culture

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1. Introduction

Advances in information and communication technologies have been said to have had a democratizing effect on culture insofar as they have allowed greater numbers of people to create and share their own intellectual and creative expressions with the world. Nowhere has this effect been more readily apparent than in our interactions with technologies described as “Web 2.0.” According to some commentators, the read-write web has helped facilitate a transition from a hierarchical, institutionally dominated consumer culture to a broad-based “participatory culture” in which individuals act as producers as well as consumers of content. This article investigates the application of Web 2.0 technologies to the development of participatory cultures within libraries. In particular, it offers a theoretical framework for understanding participatory culture as a model of socially responsible librarianship. The framework begins from the premise that libraries do not merely organize knowledge; they construct it. Furthermore, these constructions tend to reinforce dominant or mainstream viewpoints while marginalizing others. Libraries, therefore, have an ethical responsibility to make these biases transparent and create spaces for alternative perspectives. Creating such spaces requires librarians to share control of information systems and services with their users. Accordingly, this article argues that the adoption of Web 2.0 technologies and design principles can be used to transform the library from a hegemonic, top-down model of knowledge organization to one that facilitates greater diversity of expression through broad-based user participation.

This framework is assembled through an interdisciplinary literature review that combines insights from several discourses including Marxist theories of cultural hegemony, critical theories of library and information science (LIS), professional literature regarding “Library 2.0” service models, and media studies theories of participatory culture. The article begins with an overview of Western Marxist conceptions regarding the role of cultural institutions as agents of ruling class ideology. It progresses to examine the role libraries play in reinforcing this ideology using biases within bibliographic description and classification as an example. It then explores the concept of “Library 2.0” in relation to theories of participatory culture as the basis for a revised model of library service aimed at facilitating user participation and creating spaces for marginalized discourses. The article concludes that participatory culture offers an instructive, albeit untested, model for developing socially responsible library praxis and outlines some areas for future research.

2. Theories of Cultural Hegemony

Western, or cultural, Marxism largely derived from the need to address the perceived failure of Marx’s projections for the revolutionary overthrow of capitalism. Theorists working within this tradition found in the 20th century development of mass culture a compelling explanation for this failure. They viewed mass culture as the ideological vehicle through which ruling class constructions of reality were naturalized and accepted by the rest of society.

According to Marx (1932/1970), the ruling ideas of a given epoch are the ideas of those who rule. In other words, the class which controls the means of material production also controls its means of cultural production.

The concept of cultural hegemony was first developed by Antonio Gramsci (1971), who argued that the position of society's ruling classes was secured not merely through coercion, but also ideologically, through a hegemonic culture that promoted their interests, values, and worldview as the "common sense" of society (p. 80). Unlike Marx, however, Gramsci did not ascribe dominance to a single class, but rather a shifting and unstable alliance of different social groups forming a "historic bloc" (p. 115). Hegemony, therefore, is never complete but always shifting and open to negotiation as different factions within the bloc contend to advance their immediate interests. Contests and realignments between different factions may give rise to progressive or reactionary cultural influences at different historical moments. The orthodox Marxist conception of a dominant ideology is replaced by the notion of competing discourses and culture is no longer a closed, monolithic system but subject to a "war of position" in which dominant and subordinate social groups advance competing definitions of reality (p. 243).

The two most influential schools of Marxist cultural analysis have been the Frankfurt School of critical theory and the Birmingham school of cultural studies. While both schools shared a similar understanding of the ideological function of mass culture, they differed over the nature of cultural hegemony and the extent to which resistance to it was possible. The Frankfurt School position, as represented by leading theorists Adorno and Horkheimer (1944/1997), was that the hegemony of the ruling class was near total by virtue of its ownership of the means of cultural production. The emergence of mass publishing, radio, film, and broadcasting (collectively described as the "culture industry") had replaced traditional folk cultures with a monolithic, top-down commercial culture that turned subjects into spectators and fostered passive acceptance of the status quo.

Critics of the Frankfurt School charged its proponents with economic reductionism, pointing out that the culture industry model explained only how culture is produced, but not how it is actually consumed. In contrast, the Birmingham School of cultural studies examined the reception of mass culture and argued that audiences were not passive receptacles but active participants in the construction of cultural meanings. Drawing on Gramsci's conception of hegemony as "moving equilibrium," they sought to demonstrate that hegemony is never complete, but constantly contested. The studies of Hall, Jefferson, and Clarke (1975/1993) highlighted the various tactics used by subordinate groups to interpret, appropriate, adapt, and reuse elements of the dominant culture for ends other than those intended by – even in direct opposition to – its producers.

As a result, theories of cultural hegemony have tended to divide between political economy and cultural studies interpretations. Political economists view producers, by virtue of their ownership of the means of cultural production, as having a dominating influence in shaping culture and public discourse. Cultural studies view consumers as co-creators of culture capable of reinterpreting or appropriating cultural artifacts to construct their own meanings and identities. Accordingly, Marxist cultural analysis has created a neat, but arguably flawed, dichotomy between coercive producers on the one hand and resistant consumers on the other.

The theoretical bridge between these two camps comes from the work of one of the less orthodox thinkers of the Frankfurt School, Walter Benjamin. In his writings, Benjamin suggested a more nuanced approach to hegemony that went beyond the simple binary of producers and consumers to include the role that technology plays in shaping the social relations of cultural

production. In his 1934 essay “The Author as Producer,” Benjamin argued that new media technologies such as film, photography, radio, and newspapers were beginning to blur traditional distinctions between writers and readers, creators and audiences, producers and consumers. Offering the example of the newspaper, which combined articles written by professional journalists alongside letters and opinions from readers, Benjamin (1934/2008) argued, “the conventional distinction between author and public that the press has maintained ... is disappearing ... The reader is at all times ready to become a writer – that is, a describer or even a prescriber. As an expert – not perhaps in a discipline, but perhaps in a post that he holds – he gains entrance to authorship” (p. 83).

In determining what constituted the political tendency of a cultural artifact, Benjamin argued that it was not its content but rather its relation to the system of cultural production. As he and many other critics since (Debord, 1967/1977; Ewen, 1988; Hebdige, 1979) have pointed out, commercial culture is infinitely capable of absorbing and commodifying radical or alternative forms of cultural expression. In outlining an agenda for a politically engaged cultural practice, Benjamin demanded that artists, writers, and intellectuals not simply create works of revolutionary content, but rather seek to revolutionize the means through which such work is produced and distributed.

A political tendency is a necessary but never sufficient condition for the organizing function of a work. This further requires a directing, instructing stance on the part of the writer ... *An author who teaches writers nothing teaches no one.* What matters, therefore, is the exemplary character of production, which is able, first, to induce other producers to produce, and second, to put an improved apparatus at their disposal. And this apparatus is better, the more consumers it is able to turn into producers – that is, readers or spectators into collaborators. (89)

Benjamin saw in the emergence of new media technologies an implicit attack on the expert paradigm of culture. As newer, more easily accessible media technologies democratized the means of cultural production, more people would be able to participate as creators thereby permitting greater variety of cultural and intellectual expression and making any form of cultural hegemony virtually untenable. According to this view: “technical progress is ... the foundation of ... political progress. In other words, only by transcending the specialization in the process of intellectual production – a specialization that, in the bourgeois view, constitutes its order – can one make this production politically useful” (87).

In highlighting the democratizing effect of new media technologies on cultural production, Benjamin anticipated the cultural transformation commonly associated with Web 2.0. Over the last decade, the widespread availability of easy-to-use tools for digital content creation has allowed more and more people to participate in cultural production. According to a 2007 study from the Pew Internet & American Life Project (Lenhart et al., 2007), 64% of teenagers ages 12 to 17 have engaged in some form of digital content production such as creating a website, authoring a blog, contributing to media-sharing sites, or remixing existing Web content. The perceived democratization of cultural production marks the emergence of what recent media scholars have described as “participatory culture.” Although the scholarly lineage of the concept of participatory culture is often traced back to the Birmingham School of cultural studies (Jenkins, 1992; 2009), it seems to owe just as much to the work of Frankfurt theorists like Benjamin. We will return to a fuller discussion of participatory culture later.

3. Libraries as Hegemonic Institutions

Although theories of hegemony have tended to focus primarily on the ideological function of mass media, this framework can just as easily be applied to analyses of educational and cultural institutions such as schools, libraries, archives, and museums. Insofar as they tend to reflect and reinforce the dominant worldview of the societies that create them, libraries can be understood as institutions of cultural hegemony. Librarians have traditionally perceived themselves as neutral mediators within the process of information-seeking. Over the last several years, however, there has developed a small but growing body of critical theory within LIS scholarship dedicated to re-examining inherited assumptions and developing a self-reflexive praxis within librarianship (Budd, 2003; Leckie et al., 2010; Raber, 2003; Radford, 2003; Wiegand, 1999). These studies have suggested that library practices, far from being neutral, are in fact deeply implicated in the maintenance and reproduction of existing power relations.

Theories and practices of LIS have been largely grounded in positivist conceptions of truth, knowledge, and objectivity. Librarians have traditionally conceived of their work in terms of “knowledge organization,” an objective, even scientific, practice of collecting, organizing, and providing access to the world’s recorded knowledge as embodied in collections of cultural artifacts. These practices have been perceived as being value-neutral and organically derived from the nature of the materials themselves. However, such practices resemble more of “an art rather than an exact science” since librarians “impose their subjective judgments” in deciding what materials to collect and how those materials will be ordered and described (Radford and Radford, 2005, p. 76). Moreover, the ways in which libraries order and describe materials have a formidable impact on how those materials are interpreted by users. In deciding what about a work accounts for its meaning, determining its classification and placement within the collection, and assigning names and access points, libraries shape the way those works will be understood and used by researchers. Libraries, therefore, do not merely organize knowledge; they construct it (Deodato, 2010, p. 82).

One of the most prominent ways in which libraries seek to organize knowledge is through bibliographic classification and description, which involves assigning each text a unique identifier (classification number) and a limited number of subject access points (subject headings) for retrieval. However, indexing and classification schemes offer, at best, a limited system for representing all possible facets of a text’s meaning. Books and other informational objects are complex entities capable of encompassing a variety of different subjects, only a few of which are selected for representation. Furthermore, the subject(s) of a text may not always find corresponding expression within existing classification and indexing schemes. As a matter of practicality, no system of representation can ever be all inclusive. According to Olson (1998), all classification and indexing schemes inevitably have limits insofar as they represent some concepts and relationships while excluding others. And because these systems are not natural but social constructions, the limits of representation are defined by the social context in which they are created. That is, they tend to reflect the values and biases of the existing dominant culture.

Sanford Berman’s pioneering study of cultural bias in Library of Congress Subject Headings (LCSH) represents one of the earliest critiques of library neutrality. In *Prejudices and Antipathies* (1971/1993), Berman revealed the racial, ethnic, gender, sexual, and other biases within library subject headings and called for the “reexamination of inherited assumptions and underlying values” deeply embedded within professional practice (p. 19). Far from providing an

objective, value-neutral representation of knowledge about the world, Berman argued that LCSH reflected the values and worldview of only a subset of its inhabitants. These biases were not merely evident in LCSH's terminology (exemplified by terms such as "Kaffir", "Yellow Peril", and "Idiocy"), but also in its syndetic structure. For example, the cross-referencing of the subject headings "Gipsies" with "Rogues and vagabonds," "Homosexuality" with "Sexual Perversion," "Anarchism" with "Terrorism," and "Abortion" with "Offenses against the person," shaped the meaning of those terms in very specific ways. The presence of bias within library descriptive practices, argued Berman, not only limits the ability of users to effectively locate materials but creates interpretive contexts for those materials that favor certain interpretations over others.

Thanks in large part to the efforts of critics like Berman, some of the more egregious examples of bias have since been removed from LCSH (Knowlton, 2005). However, his work has inspired a host of similar studies over the years highlighting the systematic marginalization of subordinate groups within subject access standards, including women (Foskett, 1971; Rogers, 1993), gays and lesbians (Wolf, 1972; Greenblatt, 1990), racial and ethnic minorities (Clack, 1995; Harris, Milstead, and Clack, 1979), and colonized peoples (Bethel, 1994; Kam, 2007). The persistence of these biases becomes especially problematic when one considers the influence of Western bibliographic standards within an increasingly globalized information economy. For instance, some have suggested that the adoption of LCSH in other parts of the world have rendered those societies "susceptible to a latent form of U.S. hegemony" that "circumscribes local perspectives" of historical events (McKennon, 2006, p. 45-46). In 2008, the director-general of Venezuela's National Library went so far as to charge the Library of Congress of "cultural imperialism" and announced an official campaign to combat its influence in Latin American libraries (Oder, 2008).

If subject headings, which at least have the potential to provide multiple interpretations of a text, offer a limited system of representation, a classmark, which confines itself to a single reading of a text's meaning, is even more restrictive (Higgins, 2012, p. 259). Like subject headings, classification schemes tend to construct information in ways that reflect the biases of the cultures that produce them. Because relationships between texts can be drawn in a variety of ways, classifications necessarily privilege some concepts and relationships over others. Furthermore, classification tends to reflect the most mainstream version of these relationships with the result of marginalizing those outside the mainstream (Olson, 1998, p. 235).

By using Arabic numerals for notation, for instance, Dewey Decimal Classification (DDC) creates an arbitrary limit of ten divisions of the universe of knowledge. Because it is not feasible to fit all subjects within these ten divisions, some subjects are grouped merely as "Other" (usually numbered 9). The result is a system that tends to marginalize subjects that fall outside the dominant culture. For example, the 800 class of literature allots eight subdivisions for Western literature, but groups all non-Western literature into the remaining 890 subdivision. The allocation of 80 percent of DDC's religion section (DDC 200) exclusively to Christianity or the assignment of American Indians to a subdivision of U.S. history (DDC 970) offer further examples of bias.

Like DDC, the Library of Congress Classification (LCC) also reflects the social context in which it was developed. Unlike DDC however, LCC was not originally designed to represent the totality of human knowledge, but rather with the more modest goal of developing a practical scheme for organizing the existing holdings of a secular state library. According to Higgins, the structure of LCC reflects "the Eurocentric nature of early twentieth-century American thought" (p. 256). For example, its classification of history allots sixteen sub-classes to Europe while the

rest of the world (excluding the American continents) is represented by only three. Moreover, the essential pragmatism of LCC makes it useful locating for works on discrete subjects but its oversimplified and outdated disciplinary divisions make it difficult to research complex or interdisciplinary topics. As Langridge has suggested, LCC is “the practical man’s scheme, for those who believe there are simple solutions to all problems as long as you do not think about them” (p. 61). All of these limitations point to the need to understand library classification schemes less as objective representations of reality than as constructed discourses of particular historical contexts. As Higgins (2012) stated:

Disciplines in LCC are understood in a social context — the context of the late nineteenth-century congressman — a part-time landowner (agriculture is well served), one-time soldier (as is military science), sometime inventor (reflected in the uncomplicated division of the sciences), interested in his own country’s history (with almost two whole letters granting twice as much weighting as all other histories combined). (p. 259)

Given that libraries do not simply organize knowledge but construct it; and given that these constructions tend to reflect and reinforce the values, biases, and worldviews of the dominant culture; how can libraries develop ethical practices that disclose or mitigate these potential biases? As the preceding discussion has sought to demonstrate, conventional library indexing and classification schemes offer a limited system for representing the totality of human knowledge and experience. According to Olson (1998), all systems of representation inevitably contain limits insofar as they allow for the expression of some concepts, values, and identities while excluding or marginalizing others. Librarians therefore have what Olson (1993) referred to as an ethical “responsibility to otherness;” a responsibility to create space for the expression of other identities, other values, and other perspectives within the structures of knowledge organization (p. 111). Creating space for other voices entails developing “techniques for making the limits of our existing information systems permeable” (Olson 2001a, 20).

Replacing one standard with another (i.e., replacing a Eurocentric classification scheme with an Afrocentric one, or using feminist subject headings in place of patriarchal headings) simply creates new limits. Instead, Olson proposed a deconstructive approach that involves breaching the limits of the system in a way that allows the relationship between dominant and marginal discourses to be negotiated. This creates what Olson (1998) called “paradoxical spaces” that permit “existence on both sides of a limit simultaneously or alternately. It is both inside and outside, center and margins. In this way it does not put a new structure in place of the old but puts a different spin on existing concepts that come to coexist with concepts from the margins” (p. 242).

According to Olson (2001b), creating space for the other requires that librarians “relinquish some of our power to the other – power of voice, construction, and definition. Instead of possessing this power exclusively, we who are on the inside of the information structures must create holes in our structures through which the power can leak out” (p. 659). The most immediate group of “others” is, of course, library users. Olson (2001a) suggested that one way of making the limits of our information systems more permeable might involve relinquishing some of our control to empower users – especially marginalized users – to create their own structures of knowledge organization. In particular, she highlighted the potential of Web 2.0 tools such as social bookmarking and tagging to allow users to construct their own descriptions of and

relationships between documents and share them with others. For Olson, much like Benjamin, countering hegemonic culture requires giving users the tools to participate meaningfully in its construction. Instead of concentrating control over the tools of knowledge organization, she suggested that it be distributed in ways that would allow for greater diversity of expression. “Could this sort of mundane technology,” asked Olson (2001a), “be used in innovative, provocative, subversive ways to create spaces in our boundaries for the voices of those who have been excluded” (p. 22)?

The remainder of this article attempts to answer this question by exploring the professional literature on the use of Web 2.0 technologies in libraries. In particular, it seeks to explore ways in which these technologies could be used to foster the development of a participatory culture that empowers users to participate in the organization and construction of knowledge.

4. Library 2.0

Web 2.0 is a term coined by tech publisher Tim O’Reilly in 2004 to describe the set of principles and practices characterizing the next generation of online services. These principles (summarized in Table 1) include user-generated content, the wisdom of crowds, architecture of participation, software as a service, network effects, data-driven applications, and flexibility (O’Reilly, 2005). They are typically associated with a host of relatively recent web technologies such as blogs, wikis, RSS, APIs, media sharing sites, and social networking platforms as well as user activities such as content creation and sharing, collaborative editing, mashups, tagging, ratings, and reviews.

User-generated content	The Web no longer merely delivers content for users to consume, but provides frameworks for users to create and share their own content.
Wisdom of crowds	Knowledge is created collaboratively through the collective input of individual users rather than distributed via a centralized, authoritative provider.
Architecture of participation	Applications are designed to facilitate participation both explicitly by encouraging user contribution and implicitly by leveraging their collective activity to enhance the value of the platform.
Software as a service	Software is delivered as a service (rather than a finished product) that is routinely updated and improved based on continuous user feedback.
Network effects	The service gets better or becomes more valuable the more people use it.
Data-driven applications	Applications are increasingly data-driven whether that data is licensed from a proprietary source or generated by the activities of the users themselves.
Flexibility	Applications combine lightweight programming models and open standards that allow system components and data to be reused and remixed to create new, custom applications.

Table I: Web 2.0 Design Principles

Generally speaking, Web 2.0 marks a shift toward the design of applications that focus more on facilitating interaction and the creation of content by users rather than the consumption of content created or compiled by experts and professionals. It describes a new generation of web tools explicitly designed to encourage participation. The primary means through which this is accomplished is by lowering barriers to participation through the design of tools and interfaces that make it easier for users to create, modify, and distribute content.

The discourse on Web 2.0 has made a notable impression within the library profession where it has inspired a groundswell of discussion and debate regarding the promises of new service model based on its principles and commonly referred to as “Library 2.0.” As many critics have noted, much of the literature on Library 2.0 has tended to be vague and inconsistent; often imbued with more hype and cheerleading than theoretical or empirical analysis. In an attempt to bring a measure of coherence to a much discussed but frequently misunderstood topic, Crawford (2005) compiled an extensive literature review in which he assembled sixty-two different (and often contradictory) statements and seven distinct definitions of Library 2.0 advanced by some of its leading advocates. While these definitions vary, they typically stress one or more aspects of the following:

- Providing ubiquitous access to resources and services wherever and whenever users require them
- Inviting user participation in the creation of content and the design of library services
- Liberating library content and data from closed, proprietary systems where it can be reused and remixed in new applications specifically tailored to the needs of end users
- Developing user-driven services based on continual assessment and feedback
- Espousing a general philosophy of constant change and continual innovation

The sheer variety and breadth of the visions advanced by evangelists has made the concept of Library 2.0 somewhat difficult to pin down. For example, Michael Casey (who is credited with the coining of the term) has suggested “Any service, physical or virtual, that successfully reaches users, is evaluated frequently, and makes use of customer input is a Library 2.0 service” (Casey and Savastinuk 2006, 42). Given such an expansive definition, it is not difficult to see why so many have had trouble identifying either the essence or the novelty of the concept. Meanwhile, other treatments seem to suffer from the opposite problem: a specificity that conceptualizes Library 2.0 simply as a list of new (and not-so-new) web technologies and trends such as blogs, wikis, folksonomies, instant messaging, and podcasting (Stephens, 2006 and 2007; Maness, 2006; Curran et al., 2006; Aqil et al., 2011).

In the final analysis, what seems to be lacking in the existing literature on Library 2.0 is a conceptual framework for understanding and evaluating how these technologies might be applied to achieve some specific fundamental goal within libraries. The only authors to attempt this feat have been Lankes, Silverstein, and Nicholson (2007). In order to be effective, the decision of whether or not to adopt any new technology ought to be grounded in a larger framework for evaluating how it can be applied to better serve the needs of the library and its users. Without a framework, the authors argued, “the field becomes open to the influence of personalities and trendy technology” (Lankes et al., 2007, p. 17). The problem with much of the discourse on Library 2.0 is that it focuses too heavily on the technology itself rather than the phenomena that it makes possible. For Lankes et al., the most important of these phenomena is the potential for user participation.

What most clearly distinguishes Web 2.0 from its predecessor is the ability to create applications that leverage end-user participation instead of merely pushing content to them. As Rosenberger (2006) has suggested, Web 2.0 marks the end of “the one-way diatribe” that was the vestige of the age of mass media and the transition toward “a platform for conversation where the voices and information flow freely.” Library 2.0 marks a similar transition – “from the library as a one-way conversation to the ‘read-write’ library.” Thus, Rosenberger defined Library 2.0 as “a conversation” in which “the information, expertise, knowledge, resources, and materials available are just as likely to come from the patrons as they are from the shelves.” As librarians in this new environment, “our goal should be to encourage the broadest possible participation in the ‘read-write’ library” and “continue to do what we do best – make connections between people and the information sources they need,” whether those sources come from the shelves or from the users themselves (Rosenberger, 2006).

Lankes et al. (2007) seized upon this idea of the library as conversation facilitator to develop their concept of “participatory librarianship.” They ground this concept in conversation theory, the basic premise of which is that all knowledge is created through conversation; interactions between two or more agents attempting to “establish meaning through determining common definitions and building upon shared concepts” (p. 18). If the fundamental mission of libraries is to provide access to and facilitate the creation of knowledge, then this mission can be best served by facilitating conversation. The traditional brick-and-mortar library has always been a place that facilitates conversation. Book groups, speaker series, group study, reference interviews, and even collection development (the tangible artifacts of conversation) are all premised, at least implicitly, on the importance of building knowledge through conversation. The digital library, however, has managed to fall short of this ideal of conversation facilitator. The library’s digital presence, as manifested through its website, online catalog, databases, and digital collections, offers at best only a one-way mode of communication.

This concern was expressed as far back as 1994 by Ackerman who noted that digital library architecture narrowly focused on the mechanical aspects of information access while neglecting the importance of social interaction within information seeking. Researchers often seek information informally through interaction with peers and colleagues where they refine research questions, identify relevant sources, and exchange practical tips and advice (p. 198). Accordingly, Ackerman recommended that elements of social interaction be integrated into digital library architecture in order to facilitate not only interaction with librarians but also among users. Gazan (2008) has similarly called for a broader vision of digital libraries beyond mere searchable electronic collections that includes dynamic spaces for user interaction and engagement. Drawing on studies of reading that highlight the role marginalia plays in student engagement with and understanding of texts, Gazan advocated the integration of “social annotations” in digital collections. By allowing users to create and share content in association with library collections, digital libraries can become spaces where “conversations spring up and ideas are exchanged, resulting in an added dimension of engagement with both the text and fellow readers” (Gazan, 2008). Although the focus is on users, librarians, of course, still have an integral role to play in these conversations. Schrier (2011), for example, has offered librarians a series of strategies for effectively using social media to facilitate conversations around digital collections in ways that promote knowledge creation rather than merely the interests of the library.

The adoption of Web 2.0 principles and technologies is therefore not simply about chasing the latest trends, being where our users are, or staying relevant in the digital age. It is an

opportunity to re-imagine the digital library from a content-centric system in which expert librarians store, organize, and provide access to collections to a user-centric platform in which librarians facilitate interaction, collaboration, and conversation around those collections to create new knowledge. This is the vision at the core of Lankes' concept of participatory librarianship, which is defined as the application of Web 2.0 principles and technologies to the development of a participatory, conversational model within libraries. As a concept rooted within a larger theoretical framework that links libraries to their core mission of knowledge creation, "participatory librarianship" offers a more focused and grounded service model than "Library 2.0." Furthermore, it allows libraries to establish clearer criteria for the adoption and assessment of new technologies by, for example, asking how such technologies help further conversation and interaction.

However, the concept of participatory librarianship falls somewhat short of providing a suitable framework for addressing the larger question posed by this article, namely whether creating opportunities for user participation can facilitate the expression of marginalized discourses within the construction of knowledge. The basic premise of conversation theory – that all knowledge is based on conversation – oversimplifies the nature of knowledge because it fails to acknowledge the role of power relations in shaping it. In other words, it does not ask who gets to participate in these conversations, on what terms, and with what effect. If we acknowledge that knowledge is a social construct, then it follows that it cannot be based solely on conversation, but also on power – the power to speak, to define, and to be heard. Ultimately, what is required is a theoretical framework that acknowledges the role of power in shaping knowledge and the importance of creating spaces for marginalized discourses. For this, we must once again look outside the library literature to find a framework capable of addressing the larger social context in which librarians carry out their work.

5. Participatory Culture

As we have seen, political economy scholars have typically viewed users as passive consumers of content produced by large-scale institutions that, by virtue of their control of the means of cultural production and distribution, are able to wield a dominating influence in shaping culture and public discourse. However, recent scholars working within the tradition of cultural studies suggest that the emergence of easily accessible media technologies has shifted traditional power relations by democratizing the means of cultural production and allowing once passive consumers to become active producers of culture. Foremost among these is Henry Jenkins who has argued that Web 2.0 has fostered the development of a "participatory culture" in which everyday citizens participate in the creation and distribution of content and information content once monopolized by a handful of hierarchical institutions. According to Jenkins:

Participatory culture is a culture with relatively low barriers to artistic expression and civic engagement, strong support for creating and sharing one's creations, and some type of informal mentorship whereby what is known by the most experienced is passed along to novices. A participatory culture is also one in which members believe their contributions matter, and feel some degree of social connection with one another. (Jenkins et al., 2006, p. 3)

Web 2.0 marks a shift toward the design of information systems focused on the collaborative creation of content by users rather than the consumption of content created or compiled by experts. The value of these systems, said Jenkins, “depends not on the hardware or the content, but on how they tap the participation of large-scale social communities, who become invested in collecting and annotating data for other users” (Jenkins et al., 2006, p. 50). Participatory culture is therefore premised on a new mode of knowledge production in which the traditional expert paradigm has been replaced by a model of collective intelligence.

According to Peter Walsh (2003), knowledge production has historically been based on the expert paradigm in which bodies of knowledge are controlled by groups of experts. Experts are distinguished from lay persons by mastery over a bound body of knowledge, specialized vocabularies for communicating this knowledge, rules governing its access and use, and symbols and rituals that define the expert group from outsiders. Religion, insofar as it was based on the administration of divine knowledge by a priestly class, represents the earliest form of the expert paradigm, which subsequently developed into other forms of expert knowledge such as philosophy, law, medicine, etc.

The differentiation between interior and exterior, expert and layperson, producer and consumer, creates what Walsh (2003) called “knowledge hegemony” in which control over the creation and distribution of knowledge and information is monopolized in the hands of the few (p. 366). However, advances in information technology – from the printing press to the World Wide Web – have led to the steady erosion of this hegemony insofar as they have allowed greater numbers of people to participate in knowledge production. The printing press, for example, undermined one of the key elements of the medieval Church’s knowledge hegemony: the control of book production and libraries. Mass publishing and the spread of literacy formed the basis the Reformation, the Age of Enlightenment, and the Scientific Revolution.

Today, the Web is undermining the knowledge hegemony of a number of fields such as journalism, publishing, education, and museums. Echoing sentiments similar to those expressed by Benjamin in his essay “The Work of Art in the Age of Mechanical Reproduction” (1936/1968), Walsh (2003) argued that loss of physical control over art, owing to new technological means of mass production and distribution, undermines the ability of museums to control what types of art are made accessible to the public, the context in which they are seen, and the types of discourses about them that are considered “appropriate” (p. 369). The availability of easy-to-use digital technologies for reproducing, creating, and distributing content – artistic, literary, informational, or otherwise – has effectively weakened existing knowledge hegemonies by lowering the barriers to participation in knowledge production. Participatory cultures therefore produce a counter-hegemonic effect insofar as they “erode monopolistic positions held by professions, educational institutions, and experts, and they increase the diversity of perspectives on the way the world is and the way it could be” (Fischer, 2010, p. 76).

The spread of mass publishing and literacy has been considered instrumental to the emergence of the participatory civic culture that fueled 18th century Western democratic revolutions. Key to this development was the formation of what Frankfurt theorist Jürgen Habermas (1962/1991) called the “public sphere.” The public sphere was constituted by the social sites (public meeting halls, pubs, salons, etc.) where informed citizens congregated to engage in critical debate and discussion about matters of public concern. By the 20th century, Habermas argued, the public sphere was eclipsed by the emergence of mass media which limited participation in public discourse and replaced engaged civic debate with passive spectatorship and the manufacture of consent by experts.

Advocates of participatory culture view today's virtual communities as a contemporary revival of the Habermasian public sphere. Online forums provide a platform for ordinary people to share their knowledge and opinions – to post reviews of products and services, exchange advice on home repair or cooking, report on community news and events, and generally contribute to a growing body of collective knowledge about the world. According to Delwiche and Henderson (2012), the modern information landscape has been “transformed by participatory knowledge cultures in which people work together to collectively classify, organize, and build information” (p. 3). This new mode of knowledge production has replaced the expert paradigm with what Pierre Lévy (1997) has called “collective intelligence.” Collective intelligence refers to the ability of virtual communities to leverage the combined expertise of their members towards the accumulation of information or the solving of problems that would be impossible to achieve individually. Knowledge accumulation emerges from conversations among individuals and each individual inherits and benefits from the knowledge that has been collectively accumulated. These individuals form what Lévy called “knowledge communities” organized around “the mutual production and reciprocal exchange of knowledge” and its application toward “shared goals and objectives” (Jenkins, 2006, p. 27). Much like the traditional liberal ideal of a “well informed citizenry,” Lévy saw knowledge communities as central to participation in a democratic society. As sites for “collective discussion, negotiation, and development,” they serve the function of a virtual public sphere and a necessary counterbalance to the prevailing power of nation-states and corporations (Lévy, 1997, p. 217).

Perhaps the most commonly cited example of this new regime of knowledge production is the collaboratively-edited, open content encyclopedia *Wikipedia*. As a functioning model of collective intelligence, *Wikipedia* challenges traditional conceptions of both knowledge and expertise. For example, *Wikipedia* covers a much wider range of specialized and traditionally marginalized topics that tend to be absent from conventional encyclopedias. Furthermore, by inviting broad-based participation it allows for the expression of a wider variety of perspectives. While this approach to knowledge production has raised serious concerns about information quality and accuracy, some studies have suggested that inaccuracies are no less common among recognized authoritative sources (Giles, 2005). In order for this approach to work, participatory cultures such as *Wikipedia* attempt to enforce guidelines that respect inclusiveness and diversity. This fosters what Jenkins (2006) called a “moral economy of information” governed by a set of “mutual obligations and shared expectations about what constitutes good citizenship within a knowledge community” (p. 266). By creating information resources capable of presenting diverse or conflicting viewpoints without endorsing an “official” version of truth, participatory cultures allow for the proliferation of multiple perspectives while encouraging intellectual independence and critical thinking.

To date, much of the scholarship on participatory culture has focused primarily on audience interactions with popular culture such as books, movies, music, software, and video games. Indeed, much of Jenkins' (1992; 2009) analysis stems from his research on participation within fan communities. However, this is just one aspect of a larger cultural movement. Participatory culture reflects a growing shift “away from a world in which some produce and many consume media, toward one in which everyone has a more active stake in the culture that is produced” (Jenkins et al., 2006, p. 10). Participation has become a fundamental aspect of how we interact with and through new media technologies. According to Jenkins, we are presently learning how to participate through our relation to entertainment and consumer culture. But the skills we acquire through play will have implications for how we learn, work, and engage in

civic life. Jenkins suggested that the reason why participation might be more prominent within popular culture rather than politics or education (aside from simply being more fun) is that the latter are still largely modeled on the expert paradigm. Young people's apparent disconnection from politics and lack of engagement in education reflects their perception of disempowerment. Politics and education, as constructed by conventional political and academic institutions, resemble more of a "spectator sport, something we watch but do not do" (Jenkins et al., 2006, p. 10). However, the participatory culture of the Web, as constructed by online forums, blogs, social networks, and massively multiplayer games, empower users by offering opportunities to participate, create, interact, and engage in decision-making. The challenge lies in applying the principles of participatory culture to these other aspects of daily life.

6. Creating Participatory Library Cultures

This shift toward user participation, made possible in large part by the advent of Web 2.0, has significant implications for libraries. The traditional relationship between libraries and users has been one of information provider to information receiver. Existing library information systems are designed according to top-down architectures that mirror the bureaucracy of the institutions they represent and reinforce traditional expert-user relationships. According to Jenkins, "students can no longer rely on expert gatekeepers to tell them what is worth knowing. Instead, they must ... be able to identify which group is most aware of relevant resources" and learn how to tap into the collective intelligence of like-minded users (Jenkins et al., 2006, 50). How can libraries utilize Web 2.0 technologies to develop a new service model grounded in user participation? How can this new service model foster the development of a participatory culture that empowers users as collaborators in the construction and organization of knowledge?

For the purposes of this discussion, a participatory library culture is defined as one in which users are encouraged to create and share information, resources, metadata, organizational schemes, and the products of their own research rather than being passive consumers of top-down library information systems. According to Cocciolo (2009), the primary objective of participatory culture is "to move the locus of activity from traditional power relationships (consumer/producer, expert/novice, and teacher/student) to one that focuses on the individual's empowerment and willingness to construct and contribute to one's cultural and physical reality" (p. 7). In order to accomplish this, libraries must design systems that not only provide users with access to knowledge, but also to allow them to become active collaborators in its construction.

The key to creating a participatory library culture lies in what Gerhard Fischer (2010) has referred to as "meta-design." Meta-design is a framework for implementing information technologies in ways that support "cultures of participation" by creating open information systems that can be modified or further developed by end-users to suit their specific needs (Fischer, 2010, p. 53). It is based on the assumption that all potential uses or inadequacies of a system cannot be fully anticipated at the time of its design. Users inevitably discover gaps between their needs and the support an existing information system can provide. If a system fails to meet the needs of its users (who know best what those needs are), then users should be able to modify it accordingly. As a result, meta-design focuses on making users co-designers of the system by allowing for easy modification and customization at the point of use. According to Fischer:

Meta-designers use their own creativity to create socio-technical environments in which other people can be creative. Their main activity shifts from predetermining the meaning, functionality, and content of a system to that of encouraging end-users to act as designers and engage in these activities. Meta-designers must be willing to share control of how systems will be used, which content will be contained, and which functionality will be supported. (p. 59)

Meta-design offers a useful framework for reconceptualizing the role of librarians within a Web 2.0 world. It shifts the focus of librarianship from administering closed content systems to providing open platforms for users to create and share their own content. Furthermore, it facilitates the creation of a system architecture that allows users to construct their own information environment rather than forcing them along a single, predetermined path. As meta-designers, librarians are no longer the sole architects of the library but share this responsibility with their users. The creation of a participatory library culture through the framework of meta-design allows librarians not only to serve the role of Lankes' conversation facilitators, but also fulfills Olson's requirement to make the limits of information systems permeable by sharing their control with users.

Participatory culture, therefore, provides a useful framework for understanding and evaluating the application of Web 2.0 technologies to library services while also serving as a model of socially responsible library praxis. But, what does a participatory library culture actually look like? How can this model be applied to specific library practices? The remaining discussion offers some examples on how principles of participation might be integrated into the delivery of library services such as collection development, cataloging and classification, reference, instruction, and institutional repositories.

6.1 Collection Development

In an environment in which information resources are more readily discoverable, it is increasingly possible to let users identify the materials that best suit their needs. Many libraries have already begun to experiment with patron-driven acquisition in addition to or in place of traditional collection development by library selectors. Instead of acquiring books that users *might* want, the library provides a platform for discovering available titles and allows users to select those they *actually* want. Collection development has long been considered the province of the expert bibliographer, but a number of studies have suggested that only a small portion of what is collected actually gets used (Nixon et al., 2010). Although far from perfect, patron-driven acquisition has become an increasingly attractive option for libraries where large portions of librarian-curated collections go unused and shrinking budgets have made traditional collecting unsustainable.

However, more than mere utilitarian considerations are at stake in this matter. The library profession has always been committed to ensuring that collections represent the broadest possible diversity of human thought and experience. Implicit in this commitment is the recognition that "libraries should collect materials not just representative of dominant societal viewpoints, but also the views of historically underrepresented groups within society" (LaFond et al., 2000, p. 137). However, a number of studies (Dilevko et al., 1997; Marinko et al., 1998; LaFond et al., 2000) have suggested that library collections do not always adequately represent alternative, or non-mainstream, points of view. This is partly due to the implicit or explicit biases

of individual library selectors and partly to acquisition practices that tend to favor larger, corporate publishers and distributors over smaller, alternative presses. Given these limitations, it seems fair to ask whether broadening participation in collection development decision-making might lead to more diverse, representative collections. Of course, many librarians may balk at the idea of allowing others to make collection development decisions, but the fact remains that we have allowed commercial vendors to make such decisions since at least the 1960s by relying on practices such as standing orders, blanket orders, and approval plans. Vendors, of course, make these decisions according to pre-determined criteria specified by the library. Could library users not be entrusted to participate in collection development with at least the same level of responsibility?

6.2 Cataloging and Classification

Another area in which libraries have begun inviting user participation is cataloging and classification. Allowing users to enrich catalog records and supplement metadata with tags, comments, ratings, and reviews can help improve the retrieval and discovery of library content. Library cataloging has always perceived itself to be user-centered insofar as it aims to select and assign access points using terminology that the user is most likely to be familiar with. The problem is that this involves making certain assumptions about the identity of the user, which all too often reflect a dominant white, male, Christian, heterosexual archetype. To be truly user-centered, cataloging practices must allow users some leeway to define and categorize information in their own terms using folksonomies. In cases where user tagging produces alternative headings for controversial or traditionally marginalized topics, the simultaneous expression of both mainstream and alternative perspectives on the topic produces Olson's "paradoxical spaces" by allowing dominant and marginalized discourses to co-exist side-by-side without giving preference to either.

Moreover, allowing users to add their own content to library information retrieval systems transforms them from static inventories to dynamic platforms for interaction. By linking library materials to ratings, reviews, recommendations, group discussions, and related works, each record may serve as the basis of a conversation among users or between users and librarians. No longer merely a tool for accessing information, the catalog becomes a place where user may create and share new knowledge. Unlike the traditional OPAC, the participatory catalog does not simply present information about collections, but serves as a platform in which users can construct new knowledge by participating in an ongoing conversation about those collections.

6.3 Reference

As any reference librarian will readily admit, we do not always possess the necessary expertise to answer any and every research question that comes our way. Moreover, the reference desk is not always the first, or even the most frequent, place researchers go when seeking research assistance. As Ackerman and others have pointed out, researchers often seek information informally from peers, professors, and colleagues who help them refine questions, identify appropriate resources, and offer practical tips and advice. Unlike traditional reference services, premised on the model of one information expert to many information consumers, a participatory reference model would be based on Lévy's concept of knowledge communities in

which each participant contributes to and benefits from the combined expertise of the whole. Although few libraries have adopted such a model of reference, a number of social question and answer services such *Yahoo! Answers*, *Wiki Answers*, and *Answerbag* can be found on the Web. Essentially, these services allow users to submit questions which are answered by a community of volunteers. Users are free to elaborate, clarify, or contradict answers submitted by other users. Users also rate answer quality thereby providing a collaborative filtering function whereby the highest-rated answers are listed first. While the credibility of individual answers varies widely, quality control is based on a model of aggregate peer authority whereby responses and ratings from a large enough number of users can provide a general sense of trustworthiness. Similar to *Wikipedia*, social Q&A replaces the expert model with a model of collective intelligence based on the collaborative creation of knowledge through conversation and negotiation. Rather than relying on the authority of a single expert, “users get the benefit of multiple perspectives and can evaluate claims in the best tradition of participative, critical inquiry” (Gazan, 2008).

6.4 Instruction

Pedagogical methods are products of the socio-technical environments in which they are developed. As Farkas (2012) has pointed out, traditional approaches to teaching were developed in an environment in which access to information was scarce and the dissemination of knowledge was mediated by experts. This resulted in behavioral theories of learning based on the top-down transmission of knowledge from instructor to student. The Internet has made an abundance of information readily accessible at the point of need and rendered the ability to find information more important than mastery of knowledge in a given area. Educational paradigms have been further disrupted by the participatory architecture of Web 2.0, where the ability for anyone to contribute and share knowledge has eroded traditional conceptions of expertise and authority. In light of these developments, Farkas and others have recommended models of participatory library instruction based on social constructivist theories of learning. Social constructivist theory posits that the acquisition of knowledge does not occur in isolation but is collaboratively constructed with others. No longer perceived as passive receptacles, constructivist pedagogy “views students as active participants in learning who construct knowledge based on their existing understanding as well as interactions with peers and their instructor” (Farkas, 2012, p. 86). Accordingly, the role of the instructor shifts from “sage on the stage” to “guide on the side”; acting primarily as a facilitator or moderator of a learning community in which “every member contributes to and negotiates a collective understanding of the topic” (Farkas, 2012, p. 87).

Web 2.0’s collaborative model of knowledge production not only impacts the relation between students and instructors but also the relation between students and information. According to Špiranec and Banek Zorica (2010), the erosion of information context, which began with the Internet but has since accelerated under Web 2.0, requires students to be equipped with a “critical understanding of the social origins of information” (p. 147). Although, current information literacy standards recognize the importance of understanding the socio-cultural contexts in which information is created and used, most library instruction has overwhelmingly focused on the mechanics of access. Participatory library instruction requires a renewed focus on the evaluation of information that extends beyond determining whether or not that information is peer-reviewed to include a critical understanding of its context, authority, authenticity, and underlying ideological assumptions. Part of this evaluative process includes acknowledging,

evaluating, and negotiating different and competing versions of reality. Information literacy programs must therefore abandon “the limited present approach according to which there is only one right answer or path to this answer and instead offer insight into the variety of complex layers our current information universe consists of” (Špiranec and Banek Zorica, 2010, p. 148).

Finally, Web 2.0 allows users to take part in content creation and distribution. Yet, traditional approaches to information literacy tend to see users only as receivers of content. Libraries need to reframe information literacy to promote competencies in content production as well as consumption. According to Jenkins, the pervasiveness of computers and Internet access means that the “digital divide” has given way to the “participation gap” (Jenkins et al., 2006, p. 12). Now that access has become more widespread, the primary agenda of media and information literacy should focus on equipping individuals with the skills required for participation. As more and more users take up Web 2.0 tools to create digital content, what role do libraries have in teaching them how to use those tools effectively and ethically? Participatory library instruction requires not only teaching users how to use these tools to publish and share their own ideas, but also fostering an understanding of related legal, political, and ethical concerns regarding intellectual property, privacy, and data ownership.

Incorporating Web 2.0 technologies such as blogs, wikis, media-sharing, and social bookmarking into library instruction offers ways of teaching users participatory competencies such as peer collaboration, critical thinking, meaning negotiation, and intellectual independence. However, in order to be effective, these technologies must be grounded in specific pedagogical principles and learning objectives rather than deployed simply for their novelty or perceived hipness. Bobish (2011) has provided several excellent examples of how Web 2.0 tools can be applied to achieve specific information literacy learning outcomes. For example, user tagging in a social bookmarking system can be used to help students brainstorm keywords and map concepts in order to build more effective search strategies. Thesis statements and hypotheses can be posted on blogs where students might refine their topic or evaluate conflicting viewpoints based on comments from other students and the instructor. By using Web 2.0 tools to openly and collaboratively organize, describe, and analyze information resources, students may come to a clearer understanding of how knowledge is constructed “both by constructing knowledge themselves, and by examining the processes by which others have constructed knowledge” (Bobish, 2011, p. 63).

6.5 Institutional Repositories

Perhaps no other library service more clearly recognizes the role of library users as content creators than the institutional repository. Here, users are directly invited to participate in the library by depositing their own work in its collection where it can be preserved and made accessible to the public. Most academic library repositories typically consist of faculty preprints and published works as well as student theses and dissertations, but may also include conference papers, lectures, research data, and creative works. Yet despite the benefits of making one’s work more widely accessible, studies suggest that voluntary participation in institutional repositories remains relatively low for a variety of reasons (Davis and Connolly, 2007). One of those reasons is that institutional repositories have tended to focus more on library-oriented needs and interests rather than those of its users. Cocciolo (2010) has suggested that libraries can increase participation in institutional repositories by “shifting the focus from library goals (such as an interest in preserving and indexing the scholarly work of the institution) to one that focuses on

building localized teaching and learning communities through connecting individuals with the creative and intellectual output of one another” (p. 312). Rather than serving as a mere repository (literally, “tomb” or “resting place”) for the work of faculty and graduate students, it can become a dynamic site for scholarly communication and the exchange of ideas. For example, instead of just hosting preprints, why not allow users to comment and provide feedback to authors that might be helpful in preparing them for final publication? Why not permit users to identify and “follow” other users with similar research interests, or even provide tools for online collaboration and co-authoring? Why not supply widgets that allow users to promote their work by embedding it in their personal or departmental websites, blogs, and online CVs? Why not extend some or all of these same services to undergraduates who may use them to build online portfolios that help showcase and assess their coursework? In their current formulation, institutional repositories typically fall short of their fundamental goal of collecting, preserving, and disseminating the intellectual output of an institution because they capture, at best, only a sliver of this activity. By expanding participation through the integration of Web 2.0 tools and design principles, the participatory repository more accurately reflects the richness and diversity of scholarly communication at a living institution.

7. Conclusion and Limitations

This article has attempted to demonstrate that libraries do not merely organize knowledge; they construct it. The decisions we make regarding what to collect, how it will be organized and described, and how it will be made accessible have a profound impact on how those materials will be interpreted by users. Furthermore, these decisions often tend to reflect and reinforce dominant discourses while marginalizing others. Librarians, therefore, have an ethical responsibility to counteract these biases by designing information systems that facilitate broad-based participation and diversity of expression. One way of fostering this participation is through the adoption of Web 2.0 technologies and design principles. Failing to find a cogent theoretical framework for understanding and evaluating Web 2.0 within the existing library literature, this article has proposed a framework based on the concept of participatory culture. By applying Web 2.0 technologies and design principles to library services, libraries can not only help users obtain the necessary skills to navigate today’s complex information environment, but also create spaces for conversation, critical inquiry, and the expression of alternative viewpoints. Participatory culture, therefore, offers a model of socially responsible librarianship based on relinquishing some of our power to users and providing them with the tools to participate more fully in the construction of knowledge. The remainder of this article discusses some of the limitations of this model and outlines some areas for further research.

7.1 Theoretical Limitations

While Web 2.0 offers the promise of a more participatory democratic culture, the concept of participation still requires a good deal of qualification. Who is participating? How are they participating? What factors motivate and shape participation? Since the emergence of the Internet as a mass medium, public policy experts have highlighted the “digital divide” between those with and without access to this technology. And while the latest studies have reported a shrinking of this divide in recent years (Zickuhr and Smith, 2012; International Telecommunications Union, 2012), we must remain cognizant of the ways in which disparities in

access to the tools and skills necessary to participate in the digital public sphere shape contemporary discourse. As Schradie (2011) has pointed out, most research on digital inequality has focused primarily on access to the means of content consumption, not production. Although the availability of cheap and easy-to-use technologies has certainly made it *easier* for larger numbers of people to create their own content, this alone does not *guarantee* it. In fact, some studies have suggested that only a small minority of Internet users actually create content while the vast majority simply consume it (Arthur, 2006; Tancer, 2007). Schradie's research has suggested that the division between those who do and do not produce online content is based on class. Taking a deeper look at Pew survey data, she demonstrated that content production is determined by the frequency, autonomy, and quality of one's Internet activity; factors heavily influenced by one's level of education and income. Borrowing from Bourdieu, Robinson (2009) used the term "information habitus" to describe how those with high levels of Internet access and autonomy tend to engage in more creative and productive online activities ('playing seriously'), while those who face greater constraints on access tend to adopt more task-oriented dispositions ('taste for the necessary'). Contrary to claims of an emerging participatory culture, critics like Schradie and Robinson suggest that all are not equal participants in the new digital public sphere and elite perspectives continue to dominate.

Furthermore, as we have seen, many of the examples of participatory culture have come predominantly from user interactions with entertainment and consumer culture. While advocates maintain that this same participatory model can be applied to "more serious matters" such as education, work, and politics, this assumption remains largely untested (Jenkins, 2006, p. 327). We must be careful not to conflate the popularity of creating and sharing humorous homemade videos, pop music mash-ups, or subversive fan fiction with an interest, willingness, or ability to create, organize, and share scholarly content. It is worth asking whether ordinary users can fulfill the role of experts beyond the realm of popular culture. Is knowledge production more democratic in popular culture simply because the bar for participation might be lower? Indeed, it seems that the major weakness of participatory culture is that users may be forced to participate in contexts where they lack interest or expertise. Although the ability to participate provides users with a greater degree of freedom, power, and control, it also places on them the onus of participating in situations that might be better served by the experience and skill of a trained professional (Fischer, 2010, p. 75).

Finally, it is important to acknowledge that there are varying levels of participation. A 2006 Forrester Research report on social computing behavior classified users according to six levels of participation ranging from "active creators" (users who create their own content) and "critics" (users who comment, review, and rate content) to "collectors" (users who aggregate content and create metadata) and "spectators" (users who consume the content created, evaluated, or aggregated by others) (Li, 2007). Rating a novel on Amazon and creating a book review blog are both forms of participation, but each speaks to a different set of objectives, users, interests, and abilities. When creating services aimed at generating user participation, designers must be clear about the type and quality of participation they can expect from their users.

Despite (or perhaps because of) predictions of their growing irrelevance, libraries have been quick to adopt the latest and greatest of Web 2.0. It is almost impossible to pick up a professional journal or attend a conference and not hear about what libraries are doing with *Tumblr*, *Flickr*, *Twitter*, *Google+*, *Pinterest*, etc. However, the rush to keep pace with technology has not been accompanied by techniques for assessing the use and effectiveness of these services. Most of these initiatives have been undertaken with a faith-based "if you build it,

they will come” mentality. However, the few usage studies that have been conducted suggest that user participation in so-called Library 2.0 services tends to be highly limited. For instance, Rutherford (2008) has found that despite the potential of blogs and social software to make library services more interactive, user activity tends toward weaker forms of participation such as “friending,” “liking,” and occasional commenting. Similarly, Gerolimos and Konsta (2011) have noted that few users typically take advantage of the new social features of so-called “next generation” library catalogs such as the ability to create tags, offer ratings and reviews, or share resources with other users. As the authors of both studies have concluded, it is vital that libraries articulate clear goals and assessment strategies for these services prior to their implementation. Above all, it is important to remember that users are not homogeneous and the types of participation they choose to engage in vary according to their individual motives, interests, skills, and abilities. Further empirical research is required in order to better understand the constraints and affordances that influence and shape user participation.

7.2 Practical Limitations

While the promise of participatory culture might seem alluring to some, others will no doubt dismiss it as utopian fantasy, or at least an unnecessary distraction from core library services. Indeed, many librarians (the author included) are wary of the faddishness surrounding emerging technologies and the recent onslaught of 2.0 inspired services that threaten to take time and labor away from tried and true library practices. Given the limited resources of most libraries, there is always inherent friction between providing new services and maintaining existing ones. Moreover, as Marshall Breeding (2006) has pointed out, many libraries still need to catch up with Web 1.0 before they can progress to 2.0. While some are off exploring the potential of social networking, media sharing, and mashups, the vast majority are still struggling to provide well-designed websites, accurate holdings information, and usable search and discovery interfaces. Similarly, assessments of user needs indicate that issues related to access, search, and discovery often rank higher in priority than social media and content creation tools. In other words, many of us must focus on managing content before we can begin experimenting with new ways of facilitating user interaction. As with the adoption of any new service, libraries must determine what level of commitment is appropriate based on a thorough assessment of local needs, staffing, and resources.

7.3 Technical Limitations

Participatory culture asks that libraries “open not just access to their catalogs and collections, but access to their control” (Maness, 2006). However, libraries themselves must first gain control over their systems and content before they can share it with users. User participation requires the freedom to aggregate, annotate, remix, and share content from multiple information sources. But ILS vendors, database providers, and publishers have been slow to adopt Web 2.0 delivery models and continue to place both technical and legal restrictions on how content can be accessed and used. Therefore, in order to support participatory culture, libraries must pursue strategies aimed at liberating their data from closed proprietary systems and, wherever possible, seek out open source and open access methods of content management and delivery. Because the cost and expertise required to develop in-house systems can be prohibitive, Lankes et al. (2007) recommended that libraries collaborate to build a large-scale experimental test bed that could be

used to test new Web services against pooled data. The test bed would provide “an active playground” where new participatory technologies and best practices could be tested, evaluated, and shared with the library community (p. 31). Further research is required in order to determine how this or similar collaborative infrastructure projects might be managed, funded, and supported.

7.4 Ethical Limitations

The participatory library shares power over the construction of knowledge with its users. However, there is no guarantee that users will exercise this power any more responsibly than librarians have. They will no doubt bring their own biases and predispositions to this process. There is little reason to expect, for example, that user-generated folksonomies and classification schemes should be any more impartial or objective than top-down, hierarchical schemes have been. The point that critics like Olson and Berman have attempted to make is that such decisions can never be truly value-neutral. However, by inviting participation in the process of knowledge construction, libraries may render it more transparent while simultaneously fostering necessary information literacy skills by encouraging critical thinking about the nature and social origins of information. Further research is required to investigate the methods by which users construct, negotiate, and share information as well as the skills and competencies required to participate ethically within a collaborative knowledge community.

References

- Ackerman, M. (1994), “Providing social interaction in the digital library”, in Schnase, J. L. (Ed.), *Proceedings of the digital libraries '94: First annual conference on the theory and practice of digital libraries*, Texas A&M University, College Station, TX, pp. 198-200.
- Adorno, T. W. and Horkheimer, M. (1997), *Dialectic of Enlightenment*, Verso, New York, NY. (Original work published 1944)
- Aqil, M., Ahmad, P., and Siddique, M. A. (2011), “Web 2.0 and libraries: Facts or myths”, *Journal of Library & Information Technology*, Vol. 31 No. 5, pp. 395-400.
- Arthur, C. (2006), “What is the 1% rule?” *The Guardian*, 19 July, available at: <http://www.guardian.co.uk/technology/2006/jul/20/guardianweeklytechnologysection2> (accessed 30 August 2012).
- Benjamin, W. (1968), “The work of art in the age of mechanical reproduction”, in Arendt, H. (Ed.), *Illuminations: Essays and Reflections*, New York, NY, Schocken Books, pp. 217-251. (Original work published 1936)
- Benjamin, W. (2008), “The author as producer”, in Jennings, M. W., Doherty, B., and Levin, T. Y. (Eds.), *The Work of Art in the Age of Its Technological Reproducibility and Other Writings on Media*, Harvard University Press, Cambridge, MA, pp. 79-95. (Original work published 1934)

- Berman, S. (1993), *Prejudices and Antipathies: A Tract on the LC Subject Heads Concerning People*, Scarecrow Press, Metuchen, NJ. (Original work published 1971)
- Bethel, K. E. (1994), "Culture keepers: Cataloging the Afrocentric way", in Curry, D. A., Blandy, S. G., and Martin, L. M. (Eds.), *Racial and Ethnic Diversity in Academic Libraries: Multicultural Issues*, Haworth Press, New York, NY, pp. 221-240.
- Bobish, G. (2011), "Participation and pedagogy: Connecting the social web to ACRL learning outcomes", *Journal of Academic Librarianship*, Vol. 37 No. 1, pp. 54-63.
- Breeding, M. (2006), "Web 2.0? Let's get to Web 1.0 first", *Computers in Libraries*, Vol. 26 No. 5, pp. 30-33.
- Budd, J. M. (2003), "The Library, Praxis, and Symbolic Power", *Library Quarterly*, Vol. 73 No. 1, pp. 19-32.
- Casey, M. and Savastinuk, L. C. (2006), "Library 2.0: Service for the next-generation library", *Library Journal*, Vol. 131 No. 14, pp. 40-42.
- Clack, D. H. (1995), "Subject access to African American studies resources in online catalogs: Issues and answers", *Cataloging & Classification Quarterly*, Vol. 19 No. 2, pp. 49-66.
- Cocciolo, A. (2009), *Using Information and Communications Technologies to Advance a Participatory Culture: A Study From a Higher Education Context*, Ph.D. Columbia University.
- Cocciolo, A. (2010), "Can Web 2.0 enhance community participation in an institutional repository? The case of PocketKnowledge at Teachers College, Columbia University", *Journal of Academic Librarianship*, Vol. 36 No. 4, pp. 304-312.
- Crawford, W. (2006), "Library 2.0 and 'Library 2.0'", *Cites & Insights*, Vol. 6 No. 2, pp. 1-32.
- Curan, K., Murray, M., Norrby, D. S., and Christian, M. (2006), "Involving the user through Library 2.0", *New Review of Information Networking*, Vol. 12 No. 1/2, pp. 47-59.
- Davis, P. M. and Connolly, M. J. L. (2007), "Institutional repositories: Evaluating the reasons for non-use of Cornell University's installation of DSpace", *D-Lib Magazine*, Vol. 13 No.3/4, available at: <http://dx.doi.org/10.1045/march2007-davis> (accessed 30 August 2012).
- Debord, G. (1977), *Society of the Spectacle*, Black & Red, Detroit, MI. (Original work published 1967)
- Delwiche, A. and Henderson, J. J. (2012), "What is participatory culture?", in Delwiche, A. and Henderson, J. J. (Eds.), *The Participatory Cultures Handbook*, Routledge, London, pp. 3-9.

- Deodato, J. (2010), "Deconstructing the library with Jacques Derrida: Creating space for the 'Other' in bibliographic description and classification", in Leckie, G. J., Given, L. M., and Buschman, J. E. (Eds.), *Critical Theory for Library and Information Science: Exploring the Social from Across the Disciplines*, Libraries Unlimited, Santa Barbara, CA, pp. 75-88.
- Dilevko, J. and Grewal, K. (1997), "A new approach to collection bias in academic libraries: The extent of corporate control in journal holdings", *Library and Information Science Research*, Vol. 19 No. 4, pp. 359–385.
- Ewen, S. (1988), *All Consuming Images: The Politics of Style in Contemporary Culture*, New York, NY, Basic Books.
- Farkas, M. (2012), "Participatory technologies, pedagogy 2.0 and information literacy", *Library Hi Tech*, Vol. 30 No. 1, pp. 82-94.
- Fischer, G. (2010), "End user development and meta-design: Foundations for cultures of participation", *Journal of Organizational & End User Computing*, Vol. 22 No. 1, pp. 52-82.
- Foskett, A. C. (1971), "Misogynists all: A study in critical classification", *Library Resources & Technical Services*, Vol. 15 No. 2, pp. 117-121.
- Gazan, R. (2008), "Social annotations in digital library collections", *D-Lib Magazine*, Vol. 14 No. 11/12, available at: <http://dx.doi.org/10.1045/november2008-gazan> (accessed 30 August 2012).
- Gerolimos, M., and Konsta, R. (2011), "Services for academic libraries in the new era", *D-Lib Magazine*, Vol. 17 No. 7, available at: <http://dx.doi.org/10.1045/july2011-gerolimos> (accessed 30 August 2012).
- Giles, J. (2005), "Internet encyclopaedias go head to head", *Nature*, Vol. 438, available at: <http://dx.doi.org/10.1038/438900a> (accessed 30 August 2012).
- Gramsci, A. (1971), *Selections from the Prison Notebooks of Antonio Gramsci*, International Publishers, New York, NY.
- Greenblatt, E. (1990), "Homosexuality: The evolution of a concept in Library of Congress Subject Headings", in Gough, C. and Greenblatt, E. (Eds.), *Gay and Lesbian Library Service*, McFarland & Company, Jefferson, NC, pp. 75-101.
- Habermas, J. (1991), *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*. MIT Press, Cambridge, MA. (Original work published 1962)

- Hall, S. and Jefferson, T. (1993), *Resistance through Rituals: Youth Subcultures in Post-war Britain*, Routledge, London. (Original work published 1975)
- Harris, J., Milstead, L., and Clack, D. H. (1979), "Treatment of people and peoples in subject analysis", *Library Resources & Technical Services*, Vol. 23, pp. 374-390.
- Hebdige, D. (1979), *Subculture: The Meaning of Style*, Methuen, London.
- Higgins, C. (2012), "Library of Congress Classification: Teddy Roosevelt's world in numbers?" *Cataloging & Classification Quarterly*, Vol. 50 No. 4, pp. 249-262.
- International Telecommunications Union. (2012), *Measuring the Information Society*, International Telecommunication Union, Geneva, Switzerland, available at: <http://www.itu.int/ITU-D/ict/publications/idi> (accessed 30 August 2012).
- Jenkins, H. (1992), *Textual Poachers: Television Fans and Participatory Culture*, Routledge, London.
- Jenkins, H. (2009), *Convergence Culture: Where Old and New Media Collide*, New York University Press, New York, NY.
- Jenkins, H., Clinton, K., Purushotma, R., Robison, A. J., and Weigel, M. (2006), *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century*, MacAthur Foundation, Chicago, IL.
- Kam, D. V. (2007), "Subject headings for aboriginals: The power of naming", *Art Documentation: Bulletin of the Art Libraries Society of North America*, Vol. 26 No. 2, pp. 18-22.
- Knowlton, S. A. (2005), "Three decades since prejudices and antipathies: A study of changes in the library of congress subject headings", *Cataloging & Classification Quarterly*, Vol. 40 No. 2, pp. 123-45.
- LaFond, D. M., Van Ullen, M. K., and Irving, R. D. (2000), "Diversity in collection development: Comparing access strategies to alternative press periodicals", *College & Research Libraries*, Vol. 61 No. 2, pp. 136-144.
- Langridge, D. W. (1992), *Classification: Its Kinds, Elements, Systems and Applications*, Bowker-Saur, London.
- Lankes, R. D., Silverstein, J., and Nicholson, S. (2007), "Participatory networks: The library as conversation", *Information Technology and Libraries*, Vol. 26 No. 4, pp. 17-33.
- Leckie, G. J., Given, L. M., and Buschman, J. E. eds., (2010), *Critical Theory for Library and Information Science: Exploring the Social from Across the Disciplines*, Libraries Unlimited, Santa Barbara, CA.

- Lenhart, A., Madden, M., Smith, A., and Macgill, A. (2007), *Teens and Social Media*, Pew Internet and American Life Project, Washington, DC, available at: <http://www.pewinternet.org/Reports/2007/Teens-and-Social-Media.aspx> (accessed 30 August 2012).
- Lévy, P. (1997), *Collective Intelligence: Mankind's Emerging World in Cyberspace*, Perseus Books, Cambridge, MA.
- Li, C. (2007), *Mapping Participation in Activities Forms the Foundation of a Social Strategy*, Forrester Research, Cambridge, MA.
- Maness, J. M. (2006), "Library 2.0 theory: Web 2.0 and its implications for libraries", *Webology*, Vol. 3 No. 2, available at: <http://www.webology.org/2006/v3n2/a25.html> (accessed 30 August 2012).
- Marinko, R. A. and Gerhard, K. H. (1998), "Representations of the alternative press in academic library collections", *College & Research Libraries*, Vol. 59 No. 4, pp. 362–376.
- Marx, K. (1970), *The German Ideology, Part One*, International Publishers, New York, NY. (Original work published 1932)
- McKennon, E. (2006), "Importing hegemony: Library information systems and U.S. hegemony in Canada and Latin America", *Radical History Review*, Vol. 95, pp. 45-69.
- Nixon, J. M., Freeman, R. S., and Ward, S. M. (2010), "Patron-driven acquisitions: An introduction and literature review", *Collection Management*, Vol. 35, pp. 119-124.
- Oder, N. (2008), "Venezuelan National Library battles 'imperialism' of Library of Congress", *Library Journal*, available at: http://www.libraryjournal.com/lj/communityintellectualfreedom/861070-269/venezuelan_national_library_battles_quotimperialismquot.html.csp (accessed 30 August 2012).
- O'Reilly, T. (2005), "What is Web 2.0? Design patterns and business models for the next generation of software", *O'Reilly Network*, available at: <http://oreilly.com/web2/archive/what-is-web-20.html> (accessed 30 August 2012).
- Olson, H. A. (1993), "Assumptions of naming in information storage and retrieval: A deconstruction", in *Information as a global commodity: Communication, processing and use*, CAIS/ACSI '93, Canadian Association for Information Science, Antigonish, NS, pp. 110-119.
- Olson, H. A. (1998), "Mapping beyond Dewey's boundaries: Constructing classificatory space for marginalized knowledge domains", *Library Trends*, Vol. 47 No. 2, pp. 233-54.

- Olson, H. A. (2001a), "Patriarchal structures of subject access and subversive techniques for change", *Canadian Journal of Information & Library Sciences*, Vol. 26 No. 2, pp. 1-29.
- Olson, H. A. (2001b), "The power to name: Representation in library catalogs", *Signs: Journal of Women in Culture & Society*, Vol. 26 No. 3, pp. 639-668.
- Raber, D. (2003), "Librarians as Organic Intellectuals: A Gramscian Approach to Blind Spots and Tunnel Vision", *Library Quarterly*, Vol. 73 No. 1, pp. 33-53.
- Radford, G. P. (2003), "Trapped in our own discursive formations: Toward an archaeology of library and information science", *Library Quarterly*, Vol. 73 No. 1, pp. 1-18.
- Radford, G. P. and Radford, M. L. (2005), "Structuralism, post-structuralism, and the library: De Saussure and Foucault", *Journal of Documentation*, Vol. 61 No. 1, pp. 60-78.
- Robinson, L. (2009), "A taste for the necessary", *Information, Communication & Society*, Vol. 12 No. 4, pp. 488-507.
- Rogers, M. N. (1993), "Are we on equal terms yet? Subject headings concerning women in LCSH, 1975-1991", *Library Resources & Technical Services*, Vol. 37 No. 2, pp. 181-196.
- Rosenberger, L. (2006), "Two point oh", *The Gordian Knot*, available at: <http://web.archive.org/web/20070518233716/http://www.gordian-knot.org/index.php/2006/01/06/two-point-oh/> (accessed 30 August 2012).
- Rutherford, L. L. (2008), "Building participative library services: The impact of social software use in public libraries", *Library Hi Tech*, Vol. 26 No. 3, pp. 411-423.
- Schradie, J. (2011), "The digital production gap: The digital divide and Web 2.0 collide", *Poetics*, Vol. 39, pp. 145-168.
- Schrier, R. A. (2011), "Digital librarianship & social media: The digital library as conversation facilitator", *D-Lib Magazine*, Vol. 17 No. 7, available at: <http://dx.doi.org/10.1045/july2011-schrier> (accessed 30 August 2012).
- Špiranec, S. and Banek Zorica, M. (2010), "Information literacy 2.0: Hype or discourse refinement?", *Journal of Documentation*, Vol. 66 No. 1, pp. 140-153.
- Stephens, M. (2006), *Web 2.0 & Libraries: Best Practices for Social Software*, ALA TechSource, Chicago, IL.
- Stephens, M. (2007), *Web 2.0 & Libraries, Part 2: Trends and Technologies*, ALA TechSource, Chicago, IL.

- Tancer, B. (2007), "Who's really participating in Web 2.0?" *Time*, 25 April, available at: <http://www.time.com/time/business/article/0,8599,1614751,00.html> (accessed 30 August 2012).
- Walsh, P. (2003), "The withered paradigm: The web, the expert and the information hegemony", in Jenkins, H. and Thorburn, D. (Eds.), *Democracy and New Media*, MIT Press: Cambridge, MA, pp. 365-372.
- Wiegand, W. A. (1999), "Tunnel visions and blind spots: What the past tells us about the present; Reflections on the twentieth-century history of American librarianship", *Library Quarterly*, Vol. 69 No. 1, pp. 1-32.
- Wolf, S. (1972), "Sex and the single cataloger: New thoughts on some unthinkable subjects", in West, C. and Katz, E. (Eds.), *Revolt of Librarians*, Booklegger Press, San Francisco, CA, pp. 39-44.
- Zickuhr, K. and Smith, A. (2012), *Digital Differences*, Pew Internet and American Life Project, Washington, DC, available at: <http://pewinternet.org/Reports/2012/Digital-differences.aspx> (accessed 30 August 2012).