Introduction

In recent decades, advances in information technology have vastly increased the channels by which librarians and educators can connect patrons or students with relevant resources. Certainly, it is difficult for librarians today—whether in reference or technical services—to imagine doing their jobs without access to online databases, internet resources, cataloging or circulation software, and the many other tools we now take for granted. Similarly, it is difficult to imagine contemporary patrons voluntarily relinquishing the ability to search OPACs, export bibliographic citations, retrieve full-text articles from thousands of journals, or contact a librarian at all hours via e-mail, chat, or text messaging. These new information-seeking habits of patrons drive libraries—and librarians—to keep up with new applications of technology, whether by using blogs and social networking sites to help promote the services we offer or by ensuring remote access to library resources on mobile devices.

Given this centrality of technology to the evolving practice of contemporary librarianship—especially academic librarianship—it is difficult to remember that not all librarians welcomed the appearance of computers in libraries during the transformative era of the 1990s. Yet if we agree with Ranganathan's most basic principles that "books are for use" and that librarians should "save the time of the reader," why would any librarian object to new tools that help connect more users with more resources, more quickly than ever (Ranganathan, 1963)? Some,
perhaps, felt threatened by the new skill sets required or the uncertainty of a transitional period. However, this paper will argue that the deeper answer points to a fundamental question of how librarians view our profession, its mission, and its role in fostering the values essential to liberal education and democracy. The technology that has enabled libraries to expand their roles has also led them to depend increasingly upon powerful commercial publishers, even as governments surrender more and more oversight to these corporate interests. Increasing consolidation of major media channels—including sources of scholarly communication—has allowed a shrinking number of corporations to control distribution and access to the materials libraries offer, through licensing fees, copyright restrictions, and digital rights management. If left unchecked, this trend threatens to stifle access to the information students need to construct knowledge, thereby undermining information literacy, critical pedagogy, and the development of those critical thinking skills so crucial to the mission of liberal education.

I.

Critical Pedagogy and the Threat to Liberal Education

In order to understand how libraries arrived at this crossroads, it is instructive to assess the traditionally agreed upon values of libraries and liberal education, and to examine why some librarians felt those values to be under attack when technology took a larger role in libraries. Within the larger world of higher education, advocates for liberal education in the humanities argue that the critical thinking skills engendered in these fields can fortify an open society against domination by corporate or political elites. In her recently released book Why Democracy Needs the Humanities, the philosopher Martha Nussbaum argues that "[a]s the critical thinking taught by the humanities is replaced by the unexamined life of the job-seekers, our ability to argue rights and wrongs is silenced. In a society of unreflective, undiscerning yes-men and yes-women, politics becomes meaner and business can invite disasters such as the economic meltdown or the BP oil spill in the Gulf of Mexico" (Allemang, 2010, p. F1). For Nussbaum, liberal education imparts a sense of the importance of ethical values, empathy, and community; without it people are isolated, unorganized, and susceptible to manipulation by special interests. While other departments may focus more directly on preparing students for specific professions, the humanities pursue a mission that is at once less utilitarian but more broadly applicable. This is because, according to Nussbaum, "[t]he first thing you get from the humanities, when they're well taught, is critical thinking" (Allemang, 2010, p. F1). Instructors help students develop their critical thinking skills through the practice of critical pedagogy.

Through critical pedagogy, information becomes knowledge that then informs students' decisions in the wider world. What Harris calls "critical information literacy" teaches students to "question the social, political, and economic forces involved in the creation, transmission, reception, and use of information," ultimately leading students to recognize "the complicity of the individual—and the individual as a community member—in information-based power structures and struggles" (Harris, 2009, p. 279). Professionally, the ACRL endorses this outcome in their Information Literacy Competency Standards for Higher Education, where Standard 3 states that the "information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base or value system" (ACRL, 2000, p. 11). This inclusion of a "value system" implies that the authors of the ACRL standards expect students to apply these analytical skills in public life. When they act on what they have learned, students can be said to have developed a critical consciousness or agency. Ellis and Whatley describe how, as library instruction programs have expanded since the late 1980s, "critical thinking skills for students have been increasingly emphasized" (Ellis & Whatley 2008, p. 6). As the campus' most direct providers of information literacy, librarians therefore have a vital role to play in the development of students into critical
Critical Consciousness

If critical pedagogy can lead to critical action, then information literacy takes on a political dimension. As Harris puts it, "[w]hile some will be satisfied with the recognition that social and political inequality exists between peoples, the being of critical consciousness will also act in response to these findings" (Harris 2009, p. 281). It is this capacity for critical agency that threatens the agenda of elite interests who seek to bend public opinion through the use of publicity and the media. As Giroux writes, "[k]nowledge is increasingly controlled by a handful of corporations and public relations firms and is systematically cleansed of any complexity" (Giroux 2011, p. 42). Citing as example the distortions used to justify the U.S. invasion of Iraq in 2003, Giroux argues that liberal education equips people to challenge such narratives, and is therefore under attack by political and corporate interests: "At a time when education is reduced to training workers and is stripped of any civic ideals and critical practices, it becomes unfashionable for the public to think critically" (Giroux, 2011, p. 42). This assault on critical thinking has as its ultimate aim "a troubling form of infantilization and depoliticization" (p. 43), seeking to undo the critical consciousness at the core of liberal education.

Michael Gorman, a former president of the American Library Association, sees this same threat. Gorman notes the "sad irony that as American democracy has reached its theoretical ideal [universal enfranchisement] . . . it is in danger because of an increasingly ill-informed, easily manipulated, and apathetic electorate" (Gorman, 2000, p. 160). Gorman sees information literacy as one remedy for our "culture of sound bites," arguing that "[t]he best antidote to being conned by television is a well-reasoned book, article, or other text" (p. 160). Some go even further in linking critical information literacy and social praxis. Giroux, for example, argues that critical pedagogy "opens up a space where students should be able to come to terms with their own power as critical agents; it provides a sphere where the unconditional freedom to question and assert is central to the purpose of the university, if not to democracy itself" (Giroux, 2007, p. 180). Goomansingh (2011) also stresses the link between critical consciousness and agency, writing that "[w]ithout critical engagement, there will be apathy for critical action which is fundamental to the hope for democracy" (p. 46). Democracy is defined here as "not a system of government" but more socially as "a way of life . . . that empowers the people. . . . It's inclusive and it's empowering. And it starts the conversation" (E. P. Morgan, recorded lecture at McNally Jackson Bookstore, New York City, March 1, 2011, minute 1:08:40 seconds at http://www.youtube.com/watch?v=rNIlpEgxckE). Indeed, and this conversation is one of fundamental inquiry. For example, despite attempts by the right since the Reagan presidency to characterize the 1960s as a time of excess and violence, it was the values implicit in liberal education that gave the anti-war movement the critical tools necessary to question U.S. involvement in the conflict. Through sit-ins and teach-ins, establishment values and motives were questioned and perspectives changed. The value given to critical exploration from within the movement allowed its participants to see beyond the overriding narrative of safeguarding "democracy" from communism and question U.S. foreign policy. Thus, it is no exaggeration to claim that librarians are helping to strengthen democracy when we teach critical information literacy.

The Prophet

A more traditional, less politically engaged view stresses the moral, rather than the political, dimension of humanities education. William H. Wisner sees librarians as "defenders of the life of the mind," in a direct line from Aristotle to the present day (Wisner, 1994, p. 131). Wisner is not alone in elevating librarians to the stature of cultural caretakers; Gorman (2000) suggests that "library collections constitute the
memory of humankind" (p. 161). Gorman makes this point as a way of underscoring the importance of libraries to a healthy democracy, arguing that "a developed democracy . . . depends on information, knowledge, and education" (Gorman 2000, p. 160). Wisner begins by staking the same claim but arrives at a different conclusion; for Wisner, liberal education is valuable not because it trains students to critically engage in a democratic society but because it perpetuates the "philosophical light of the West" and is a "defense of truth" (p. 131). According to this view, libraries and universities were never broken and the mistake was in our contemporary efforts to fix them with technology and diversification. Wisner rails against the cultural relativism of the postmodern "overspecialized" university, in which "the professionalization of the . . . humanities has well nigh destroyed them spiritually" (p. 131). The biggest threat for Wisner, however, comes from technology, which he fears is corrupting the traditional mission of libraries. "It is as increasingly lonely defenders that we [librarians] should see ourselves," he writes, "unmoored and alienated in a culture impatient to replace the written word with the computerized image, a society recklessly abandoning the Logos for the LAN" (p. 131). Writing at a time when computers had just begun to appear in libraries, Wisner condemns a world in which librarians must become "information specialists" and students visit the library only to check their e-mail.

Today, Wisner's rejection of technology—along with his refusal to recognize academic specialties outside the Western canon—seems increasingly problematic and dated. Indeed, some of the formats that he felt so threatened by, like CD-ROMs, have come and gone. As one respondent noted, Wisner's article is "based on beliefs that may be unfounded—certainly they are unsupported by evidence—and on assumptions that not everyone shares" (Fine, 1994, p. 138). However, despite all the exaggeration and denial, Fine nevertheless finds a kernel of validity in Wisner's manifesto; perhaps, she notes, Wisner's resistance is not "to technology itself" but to "the tyranny of technological change" (p. 139). In other words, Wisner would certainly face a challenge persuading librarians today that computers and the Internet have actually impeded the teaching of information literacy; however, contemporary librarians may find that any tyranny in evidence comes not from the tools that we all use on a daily basis, but rather from the issue of who provides those tools and who controls access to the content that they make available. Fine sympathetically likens Wisner to "a prophet of old, with fervent eyes and a forceful voice, forewarning us of the dangers ahead" (p. 138). An examination of the current state of scholarly communications reveals that this prophet, while wrong about the particulars, may have been more prescient than even he realized.

**Media Consolidation and Scholarly Publishing**

**The Crisis of Scholarly Communications**

Academic libraries today find themselves caught in a cycle of escalating journal prices and declining, or at best stagnant, budgets. Whether one chooses to refer to the current situation as a "crisis in scholarly publishing" (Helfer, 2004, p. 27), as a serials or journals crisis, or more broadly as a "library crisis" (Quandt, 2003, p. 351), the end result is that many libraries are paying more and more for access to fewer and fewer journals, with correspondingly fewer resources available for acquisition of other materials. The roots of this crisis extend back several decades; as Pfund (2004) notes, "As long ago as the mid-1970s, academic publishers were bemoaning the crisis in scholarly publishing. Of late, however, rhetoric has become reality" (p. 27). Writing from a producer's perspective (as a then-vice president at Oxford University Press), Pfund notes that overall sales in the industry declined steadily in 2001, 2002, and 2003, especially in the humanities and social sciences. This failure to generate profit may be inseparable from the nature of the academic publishing industry. As Davidson (2003) notes, "The bottom line is that scholarly publishing isn't financially feasible as a business model—never was, never was
intended to be, and should not be. . . . Without a subsidy of one kind or another, scholarly publishing cannot exist" (p. B7). She notes that the mainstay of such publishing has always been the university press.

However, university presses are far from the only producers involved in scholarly communications. Lawal (2001) traces the course of events that first attracted commercial publishers to academic content. Following the Second World War, the American effort to become the world's foremost scientific power led the United States government to put an unprecedented amount of federal funds into scientific research and development projects, spurring a boom in related journals. By the 1970s, Lawal notes, scientific and technical journals showed "remarkable" growth, and "[c]ommercial publishers saw the opportunities for scientific publishing. Extending scholarly publishing to commercial publishers also meant that authors turned over the rights to their works, hence sowing the seeds of the current crisis" (p. 137). Velterop and Goodman (2003) second this point in blunt language: "STM [scientific, technical, and medical] publishing is a gold mine for the publishers who acquire the material for virtually nothing and make $5,000 per article" (p. 73). Scientific journals thus led the way into a new publishing business model, one that recast scholarly communications as a commodity often supported by public funding, produced free of charge by researchers who ask only to be published, and yet available for sale by a commercial entity.

University presses, association publishers, and scholarly societies are now left to compete in an environment for which they were never intended. Compounding the difficulty is the consolidation taking place in the commercial publishing industry. Lawal (2001) discusses a study commissioned by the Department of Justice Antitrust Division which concluded that—with regard to the academic journals market—"publishers' mergers of relatively modest size can cause competitive harm" (p. 138). As these mergers continue, content becomes concentrated in the hands of a few large houses. Quandt's (2003) assertion that these publishers are now in a position to "reap monopoly profits" (p. 352) seems borne out by events. Helfer (2004) quotes the following statement issued in November of 2003 by the Cornell University Libraries:

[T]he top research libraries in North America have been spending ever more money on ever fewer publications for at least the past 15 years: The prices of serials have increased by 215 percent, library expenditures on serials have gone up by 210 percent, and the serials titles purchased by large academic research libraries have decreased by 5 percent. The Consumer Price Index during the same period has increased by only 62 percent. (p. 27)

Simply cancelling subscriptions to certain journals does not help; as Helfer (2004) notes, one of Cornell University's complaints centered around the fact that "Elsevier has priced its journals in such a way that, if a library cancels anything it is currently subscribing to, the pricing of the individual journals the library keeps increases substantially" (p. 29). The fact that publishers can so overtly detach pricing from traditional notions of customer satisfaction or desirability underscores how thoroughly mergers within the industry have suppressed any conventional mechanism of competition.

Quality and Price: A Question of Culture

Even more surprising is one researcher's finding that the high prices that commercial publishers charge for their journals does not necessarily reflect any superior quality—at least, if one measures quality by a journal's impact factor (Bergstrom, 2001). Willinsky notes that as giants such as Reed Elsevier, Taylor and Francis, and Springer merge with smaller publishers and acquire their journals, these acquisitions are consistently associated with an average price increase of more than 20% for each journal (Willinsky, 2006, p. 18). Yet, in the
Institute for Scientific Information's list of—for instance—the 20 most influential economics journals (ranked by impact factor), titles owned by commercial publishers occupied only five places; the other fifteen went to journals published by nonprofit ventures such as professional associations or scholarly societies (Bergstrom, cited in Willinsky 2006, pp. 19–20). This begs the question of how, especially in the face of a sophisticated community of readers and consumers, any such market could sustain itself. Or, as Willinsky succinctly asks, "How, in this world of consumer savvy, can you sell a product that is more than nine times as expensive as an equally good if not better alternative?" (p. 20).

The answer comes, in part, from within academic culture itself. As journal publishers charge more and more each year, some customers cancel subscriptions due to the increased prices; this causes a pricing spiral, so that a dwindling number of subscribers are forced to pay the journal's operating expenses. As Willinsky notes, this process does not describe the free actions of informed consumers; rather, this model works "only if the consumer is blind to price differences and is interested only in acquiring a wide range of top-ranked products" (Willinsky, 2006, p. 20). For professional reasons, faculty members need access to the most influential journals in their field, regardless of the cost. In essence, the commercial publishers are exploiting a difference in priorities between the library and other academic departments—namely, that faculty "run on a different journal economy than the library, one that is determined by the scramble among them for greater research impact" (Willinsky, 2006, p. 21). As long as tenure and promotion within academia are based on scholarly productivity, faculty will strive to read—and publish in—the highest impact journals that they can; universities must supply these resources or risk losing instructors to competing institutions. Thus, in order to accommodate one of its core user groups, the academic library must surrender whatever leverage it may have had left in its dealings with the few remaining publishing concerns.

**Open Access**

To regain some of this leverage, libraries and universities are investigating ways to maintain or even increase access to scholarly communications while controlling or reducing costs. New developments in digital publishing and collaborative technologies often drive these efforts. Two of the most promising areas in this regard have been the rise of open-access journals and the related emergence of institutional repositories.

**Open Access Publishing: Definitions and Missions**

According to longtime open access advocate Peter Suber, open access publishing is "digital, online, free of charge, and free of most copyright and licensing restrictions" ([http://www.earlham.edu/~peters/fos/overview.htm](http://www.earlham.edu/~peters/fos/overview.htm)). A more detailed definition was promulgated by the Bethesda Statement on Open Access Publishing. Formulated by a group of participants drawn from the academic, research, and library spheres ([http://www.earlham.edu/~peters/fos/bethesda.htm#participants](http://www.earlham.edu/~peters/fos/bethesda.htm#participants)) and released in June of 2003, the Bethesda Statement declares that an open access publication must meet the following two conditions:

> The author(s) and copyright holder(s) grant(s) to all users a free, irrevocable, worldwide, perpetual right of access to, and a license to copy, use, distribute, transmit and display the work publicly and to make and distribute derivative works, in any digital medium for any responsible purpose, subject to proper attribution of authorship . . . as well as the right to make small numbers of printed copies for their personal use.
Of course, even paperless publishing requires funding, which in the case of open access usually comes in the form of author fees. These fees often run into the thousands of dollars for a single article. The online Public Library of Science, for example, charges authors on a sliding scale by discipline when publishing in its journals, with prices ranging from $1,250 to $2,750 (http://www.plos.org/journals/pubfees.html); however, it also offers full or partial wavers to authors unable to pay—for instance, researchers in developing countries or at non-elite institutions. Researchers from better-resourced institutions may often have access to grants or other funding to offset this fee.

**Open Repositories**

Accompanying the rise of open access publishing has been the emergence of open archives—the online repositories referred to in the Bethesda Statement, usually affiliated with academic institutions or scholarly societies. After all, as Helfer (2004) points out, "faculty are both the producer and consumer of scholarly information" (p. 32); therefore, why hand research over to commercial publishers who then sell it back to universities for a profit? In this effort to gain back ground lost to commercial publishers, universities, scholars, and libraries are forming new alliances. As Eaton, MacEwan, and Potter (2004) emphasize, "university libraries and university presses have a shared stake in the future of scholarly communication" (p. 216). In a discussion of joint projects between the libraries and the university press at Pennsylvania State University, they identify three areas targeted for long-term cooperation: "Press use of electronic repositories hosted on the libraries' servers and network. . . . Digitization and joint access via the libraries' e-repositories . . . and . . . Online e-journals, a three-way partnership between faculty, the press, and the libraries" (p. 219). Such partnerships could help universities regain control over the dissemination of research while serving the academic community as well or better than traditional journals. As Misek (2004) points out, through the "share and share alike" (p. 38) approach of open access, these repositories can provide faster, cheaper communication of research findings. If it is true that "the power is in the hands of those who control the content" (Boettcher 2006), then open archives could represent a way for academic libraries and universities to increase their leverage in the scholarly publishing market.

Clifford Lynch of the Coalition for Networked Information argues that open archives "are now clearly and broadly being recognized as essential infrastructure for scholarship in the digital world" (Lynch, 2005). Three open access mandates passed in early 2008 bear out Lynch's claim. By that time, numerous public initiatives in support of open access had already appeared. In addition to the aforementioned Bethesda Statement on Open Access Publishing, the year 2003 also saw the Association of Research Libraries Principles and Strategies for the Reform of Scholarly Communication, the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities, and the United Nations World Summit on the Information Society Declaration of Principles and Plan of Action (ARL, 2007). In 2004, the nonprofit Organisation for Economic Co-Operation and Development persuaded more than thirty nations to sign its Declaration on Access to Research Data from Public Funding, an effort to broaden international access to publicly funded research (ARL, 2007). However, the open access movement solidified its momentum when within the first two months of 2008, Harvard University, the European Research Council (ERC), and—with Congressional
authorization—the National Institutes of Health (NIH), all passed initiatives mandating that works financed under their auspices be published in digital repositories affiliated with those institutions. Thus, scholars are turning to open access as a way of reclaiming for themselves leverage that had been lost to an increasingly profit-driven academic publishing industry, reversing the long-standing trend noted by Lawal (2001) toward giving commercial publishers the rights to their works.

II.

Corporate Control of Distribution

Stepping back from the consolidation within academic and commercial publishing discussed above, let us now consider the wider consolidation of the media industry as a whole. Bagdikian in his The New Media Monopoly (2004) states "[f]ive global-dimension firms, operating with many of the characteristics of a cartel, own most of the newspapers, magazines, book publishers, motion picture studios, and radio and television stations in the United States. Each medium they own, whether magazines or broadcast stations, covers the entire country, and the owners prefer stories and programs that can be used everywhere and anywhere. . . . Their strategy has been to have major holdings in all the media, from newspapers to movie studios. This gives each of the five corporations and their leaders more communications power than was exercised by any despot or dictatorship in history" (Bagdikian, 2004, p. 3). Moreover, this power extends to the selection of network commentators, the lobbying for legislation and regulation, and the buying of political influence through election contributions and donations to political parties (Bagdikian, pp. 25-26). Because of the influence peddling and media manipulation detailed above the believing public is at serious risk of acting against its best interests. One organization, Project Censored, is determined to change the situation by creating dialog in the press and providing access to hitherto unknown information.

Project Censored defines "modern Censorship as the subtle yet constant and sophisticated manipulation of reality in our mass media outlets. . . . Such manipulation can take the form of political pressure (from government officials and powerful individuals), economic pressure (from advertisers and funders), and legal pressure (the threat of lawsuits from deep-pocket individuals, corporations, and institutions)" (http://www.projectcensored.org/censorship/). According to Mickey Huff, Associate Professor of history and social science at Diablo Valley Junior College, and associate director of Project Censored, such manipulation has led to "a literal truth emergency" (http://home.sevenstories.com/index.php/news/mickey-z-interviews-mickey-huff-on-project-censored/). Huff extends this view to include "an international truth emergency, now in evidence . . . the result of fraudulent elections, compromised 9/11 investigations, illegal preemptive wars, and continued top down corporate media propaganda across the spectrum on public issues" (http://www.globalresearch.ca/index.php?context=va&aid=14339).

This is of concern, Huff argues, because "the health of any democracy can be diagnosed by the degree to which information flows freely in the culture. Anything that interferes with that free flow of information is a form of censorship, which acts to derail, distort, and deny the efficacy of any true democratic experiment" (http://www.mediafreedominternational.org/2010/01/23/media-democracy-in-action-the-importance-of-including-truth-emergency-inside-the-progressive-media-reform-movement/). That interference may also be packaged as entertainment, further misleading the public with a flood of amusements that capture its attention and also prevent matters of real community importance from reaching viewers. Although entertained, the public is left wanting for good information, except for a minority who venture outside of corporate channels to the countercultural media of the small presses and the Internet.
In contrast to the controlled media's corporate fare, the Internet, although far from non-commercial, remains at this writing a relatively uncontrolled outpost of shared thought and information. Non-hierarchical, inclusive, informational and relational it is, in its openness, Big Media's greatest fear. As long as the web is a forum where Morgan's democratic conversations are free to question and challenge the dominant narrative of endless growth and materialism, it represents perhaps the greatest long-term threat to the military-industrial-academic complex: a counter-narrative based, like the work done by libraries, on information sharing, needs assessment and community building.

The Internet in this regard is an especially powerful tool when users network with each other not only online but also face-to-face, in the street. The infrastructure of the net "after all, simply amounts to the latest kind of community infrastructure, one that . . . allows all people to be productive and prosperous, not merely those who already have achieved that condition. In today's world . . . broadband is a necessity, one that has fueled economic development, transformed communications, fostered free speech, unlocked new services and innovations, and engaged millions of people in civic participation" (Huff & Philips, 2010, p. 415). Because the internet is all of these things and more, attempts to tame, control, monopolize and profit from this revolutionary mode of exchange are in full swing.

The corporate players involved include powerful media interests who would like to end net neutrality and see a tiered service model in its stead. In this scenario, the commercial content provider would choose the type of content delivered and determine the speed with which it loads. Heavy usage of bandwidth would come at extra cost. This threatens to effectively create two classes of users, the information rich and an impoverished underclass. Most at stake with regard to the future of broadband is "that infrastructure's ability to offer people a platform to distribute their own messages in an alternative manner to that of the dominant commercial media" (Huff & Philips, 2010, p. 416). If these efforts to reroute the infrastructure of the net are successful, users would lose this platform for civic participation.

A related threat comes from the issue of surveillance and self-censorship. Although the right to privacy is guaranteed by the 4th Amendment to the Constitution, and the Privacy of Act of 1974 served to strengthen this protection, increasingly government measures have been taken to surveil the web since the September 11, 2001 attacks. These changes have been justified in order to keep the population and country safe from enemies of the "homeland." Although surveillance is nothing new, "today's surveillance systems are much more extensive and penetrating and are legitimized by permissive anti-terror legislation that removes many previously operational constraints. They are also increasingly operated and controlled not by the state but by private actors. As with just-in-time blocking, surveillance . . . is . . . a very powerful force of information control and can create a stifling climate of self-censorship" (Deibert et al., 2010, p. 9). Indeed, "[w]ith respect to surveillance, the United States is believed to be among the most aggressive countries in the world in terms of listening to online conversations" (Deibert et al., 2010, p. 381). If citizens feel that their constitutional liberties have been violated and that by sharing information they will be censured or, like First Class Private Bradley Manning be imprisoned and reportedly tortured, the utility of the net as an enabler of free speech and civic participation is called into deep question.

As the United States continues to face economic decline, multiple and long-term wars abroad, high unemployment and growing social unrest, it appears to be positioning itself for a possible takedown of the Internet. Indeed, according to proposed legislation, "if the President declares a 'cyber emergency,' the Department of Homeland Security could issue mandatory orders and directives to 'critical infrastructure systems'" (Zittrain & Sauter, 2011). While there has been
debate over how such capabilities might be used, some internet freedom advocates see it as another sign that the sharing of free thought and uncontrolled information is under increasing threat.

**Digital Rights Management and the Digital Millennium Copyright Act**

Congress enacted the Digital Millennium Copyright Act (DMCA) in 1998 at the behest of publishers determined to recover their vanishing copyright profit streams in a fast changing entertainment industry. With the signing of the act, it became illegal to disable technological protection measures—encrypted audio files for example—which are already chipped with Digital Rights Management (DRM) software (Puckett, p. 13). This one-two combination of both DRM and DMCA also limits what a listener might hear as the fair use exemption or non-profit use is ruled out a priori. In section 107 of the copyright law, there are four factors to weigh in determining fair use:

1. The purpose and character of the use, including whether such use is of commercial nature or is for nonprofit educational purposes
2. The nature of the copyrighted work
3. The amount and substantiality of the portion used in relation to the copyrighted work as a whole
4. The effect of the use upon the potential market for, or value of, the copyrighted work

As Puckett has written, "[t]he combination of the DMCA and DRM can make a crime out of an otherwise legal information use. [O]ne must not only have a fair use right to use the material but one must also have the permission to gain access to the work to make a fair use of it in the first instance....It is as if the landowner is allowed to...erect a locked gate across the public walkway or point of access leading to the park or public space. Even if one 'sneaks' over the fence to make a lawful 'fair use' of the land, the law will still see harm in the act of fence hopping" (Lipinsky 829-30 quoted in Puckett, 2009, p. 14). Thus, rather than simply preventing illegal use, the DMCA and DRM also limit even fair use. Yet users have found ways around DRM and, as we will see, the content industry has found such barriers ineffective in preventing file-sharing.

**Copyright/Copy Left**

While copyright has been interpreted variously since 1787 when it was first mentioned in the U.S. Constitution, there's no real arguing that these days it is one more corporate mechanism of access control. The lengthening copyright coverage granted the entertainment industries, new strictures against reproducing protected material or the outright denial of its use are several ways in which copyright protections have been tightened to profit the copyright holder (Boynton, 2004). In turn, progress in science and the useful arts has been weakened as the commons have grown bare. These changes can be seen in the growing cost of downloading pictures, music and text in various formats. In contrast to those who might want copyright control in perpetuity, a group of contrarians champion a different vision of copyright. This group is comprised of lawyers, scholars and activists who fear that bolstering copyright protection in the name of foiling 'piracy' will have disastrous consequences for society -- hindering the ability to experiment and create and eroding our democratic freedoms. This group of reformers, which Lawrence Lessig...calls the 'free culture movement,' might also be thought of as the 'Copy Left'....What they...share is a
fear that the United States is becoming less free and ultimately less creative. While the American copyright system was designed to encourage innovation, it is now, they contend, being used to squelch it. They see themselves as fighting for a traditional understanding of intellectual property in the face of a radical effort to turn copyright law into a tool for hoarding ideas. (Boynton, 2004, p. 40)

The original idea behind copyright law was to reward the creator but after a reasonable period of time allow for reuse in order to make the ideas and content therein available for repurposing and invention. It is this notion that the Copy Left group is working to recover.

**Creative Commons**

Copy Left's sharing-positive attitude towards intellectual property has been strengthened significantly with the advent of Creative Commons licensing. A statement on the Creative Commons website summarizes the aims, objectives and results of the movement: "The Creative Commons copyright licenses and tools forge a balance inside the traditional 'all rights reserved' setting that copyright law creates. Our tools give everyone from individual creators to large companies and institutions a simple, standardized way to grant copyright permissions to their creative work. The combination of our tools and our users is a vast and growing digital commons, a pool of content that can be copied, distributed, edited, remixed, and built upon, all within the boundaries of copyright law." Licensing can be granted by the copyright holder either for "noncommercial use" or commercial. A "noncommercial license option is an inventive tool designed to allow people to maximize the distribution of their works while keeping control of the commercial aspects of their copyright" ([http://wiki.creativecommons.org/FAQ](http://wiki.creativecommons.org/FAQ), viewed 3/29/11).

With the embrace of Creative Commons licensing, the value placed on immediate profit is abandoned in favor of deep sharing and leaving the room necessary for experimentation and creation. This innovation-friendly approach intersects with the open access movement to liberate content from access control.

**III.**

**The Fight against Access Control**

In the face of the alarming price increases of information resources, the question naturally arises, How much influence should the market wield? Clearly the elimination of most competitors and the centralization of power by a small group of publishing giants encourages price-fixing and correlates with the stratospheric rise in library subscriptions in recent decades. This underscores the need for open access to serve as a countervailing force in scholarly communications against the commercial plundering of our library budgets.

**Pirates and Librarians**

Between Big Media interests and the growing supporters of open access stands the librarian, who must engage and negotiate with them both. To the side in the shadows is a third figure, who like the librarian also delivers information to the public without charge at the point of delivery. This much misunderstood figure lives outside the law and with a price on his head. Yet this robber, this "pirate" is closer to the open access-supporting librarian in spirit than one might, at first, think. Both are agents of liberation. Like the pirate, the open access librarian seeks to do away with the pay wall and liberate the information that has been, for many years, hoarded by the few. However, while the librarian works through channels
sanctioned by society, the pirate is willing to go further to separate content from its proprietors. Through channels such as torrent sites that undermine conventional notions of ownership, the pirate is prepared to give the user what libraries and publishers can't or won't. In addition to other media, this now includes an active market for textbooks.

As we shall see below, over most of the globe, piracy has been the means to address the systemic failure of affordable access. In 2011 the Social Science Research Council released a groundbreaking three-year study of media piracy in emerging economies and developing countries. The report notes that efforts to defeat piracy have largely failed and that "the problem of piracy is better conceived as a failure of affordable access to media in legal markets" (http://piracy.ssrc.org/about-the-report/). Moreover, "[t]he failure to ask broader questions about the structural determinants of piracy and the larger purposes of enforcement imposes intellectual, policy, and ultimately social costs" (Masnick, 2011). The report notes that despite enforcement efforts, piracy has in fact increased in the past decade, due to "high media prices, low local incomes, technological diffusion, and fast-changing consumer and cultural practices" (Masnick, 2011). The SSRC also dispels the myth that media piracy is systematically linked to organized crime, noting instead that "criminals can't compete with free". In short, more open access to content would reduce motives for piracy.

Will the content industry succeed in its monopolization of knowledge? It would if it could, once and for all, lock information behind a pay wall and keep it from its liberators. But since technology evolves and corporations cannot control the many that would liberate and distribute knowledge irrespective of cupidity, it never will.

IV.

Conclusion

Liberal Education and Invisible Government

As demonstrated earlier, critical thinking skills are crucial for the development of an informed citizenry capable of shaping the future and resisting political and commercial manipulation.

In his seminal work Propaganda, Edward Bernays recognized that "manipulation of the organized habits and opinions of the masses is an important element in democratic society. Those who manipulate this unseen mechanism of society constitute an invisible government which is the true ruling power of our country" (Bernays, 1928, p. 9). Without the tools to analyze and contextualize the content presented to us by competing narratives, we are all Nussbaum's undiscerning yes-men and women.

Indeed, Bernays presciently recognized that a population without critical consciousness leaves itself vulnerable to the type of exploitation by authorities that Nussbaum fears. The difference is that Bernays favored such an approach as the only way of organizing what he saw as the "chaos" of modern life: "As civilization has become more complex, and as the need for invisible government has been increasingly demonstrated, the technical means have been invented and developed by which opinion may be regimented" (Bernays 1928, p. 12). In fact, the means of regimentation have grown exponentially since the time of Bernays' writing; witness the manifold media messages, images, and incitements of our contemporary media environment. We are not so much being sold product but a fantasy and consumptive lifestyle where the images of the war dead do not intrude. By contrast, the act of deep inquiry that is fundamental to liberal education enables learners to look beyond the boundaries of a dominant media discourse and
examine its assumptions.

Liberal education, however, and the inquiry that it fosters are under threat. While critical information literacy, as mentioned previously, has received more emphasis in library instruction since the late 1980s, it has not changed the dominant narrative on campus. The decreasing popularity of the liberal arts, the adoption of the corporate model by academia, and the culture's embrace of business and professional training reflect a significant shift in the perceived value and role of education as a whole since the early part of that decade. Indeed, "within Universities...the language of education has been very widely replaced by the language of the market, where lecturers deliver the product . . . where students have become customers . . . where 'skill development' at Universities has surged in importance to the derogation of the development of critical thought. (p. 9)" (Hill, quoted in Goomansingh, 2011, p. 40). This growing corporatization of the academy weakens and limits the democratic conversation that is vital to critical inquiry. As the primary practitioners of critical information literacy, librarians can take a central place in this conversation. As previously seen in examining the ACRL information literacy standards, librarians can and should help students incorporate new knowledge into their existing value systems, and Giroux and others have mapped the process by which critical pedagogy leads to critical consciousness, so that learners can apply their critical thinking skills in society. Restrictions on freedom of inquiry, whether commercial or otherwise, jeopardize this mission.

The Way Forward

Wisner's sensitivity to the threat of technological change has been warranted when we consider, as demonstrated above, the few commercial concerns that control access to electronic content. Yet technology also offers librarians a way around this obstacle. The open access movement opens up a space where the scholarly community can organize together to assert their vision of a system in which researchers are free to share and reuse knowledge. In fact, this type of organizing and advocacy is essential if libraries are to not only reassert control over their collections but also support liberal education—especially at non-elite institutions or in developing countries. As Willinsky argues, "[h]ow do those who are interested in seeing the university resist the powers of the state or the economy imagine that such resistance can take place as long as they are so little interested in making available the . . . basis of that resistance to anyone who lives and works outside of . . . the small circle of well-endowed universities?" (2006, p. 148). Thus, despite the often grim fiscal constraints libraries now face, online collaborative technologies and open access offer librarians an unheralded opportunity to create a more inclusive scholarly community.

Librarians today find themselves operating between a content industry inherited from the past and a more fluid model of scholarly communication that is still forming. As we strive to ensure that we have leverage in shaping any emerging system of scholarly communication, we must maintain a parallel focus on the role the library can play in safeguarding and promoting freedom of access to information. At stake are two competing visions of the future. In one direction awaits a society in which liberal education helps to foster ethical values, strengthen democracy, and build a sense of community. Down the other path, however, lies an atomized society in which isolated individuals with poorly developed critical agency fall prey to government and corporate manipulation, competing against each other in an increasingly forbidding marketplace.

References


Puckett, J. (2010). Digital rights management as information access barrier.


