PHILANTHROPY'S UNINTENDED CONSEQUENCES: public libraries and the struggle over free versus proprietary software

by Siobhan Stevenson

In 2003, Phase 1 of the Bill and Melinda Gates Foundation's U.S. Library Program was completed. Over a period of 5 years, the Foundation reported funding approximately 40,000 public access computers in more than 10,000 libraries across all fifty states (Gordon, Andrew, et al., 2003, 44). At its completion, "…more than 95 percent of public libraries offer[ed] Internet access to their patrons, with an average of 7.5 workstations per location (Bill & Melinda Gates Foundation, 2004, 15). Phase 2 of the program, designed to help libraries stay connected, is well under way. For participants and philanthropoids alike, the Gates Library Initiative Phase 1 achieved its original purpose to bridge the digital divide. Indeed, according to Alabama's State librarian, Rebecca Mitchell, "the digital divide has been seriously bridged" (Kniffle, 2003, 54). In more measured tones, a recent Foundation sponsored report stated, "by reaching nearly all communities, library computers have been an effective way to reach the 'digitally divided.'" (Bill & Melinda Gates Foundation, 2004, 6)

But the policy problem captured in the catchphrase "to bridge the digital divide" is not as transparent as it might first appear. For Bill Gates, the problem was one of access: access to the technology and training, hence his philanthropic program consisted of the distribution of hardware and full suites of Microsoft software including the Internet browser, Internet Explorer. In addition to the hardware and software, a comprehensive training component was included to support software training for both library staff and, through train-the-trainer programs, their publics. Conversely, for Richard Stallman, founder of the Free Software Foundation (FSF), the digital divide is the symptom of a much larger and more complex social problem: proprietary software. According to Stallman, "Computer users should be free to modify programs to fit their needs, and free to share software, because helping other people is the basis of society" (Stallman, 2002, 16). In a critique of the 2003 World Summit on the Information Society (WSIS), Stallman described the problem this way, "Part of the digital divide comes from artificial obstacles to the sharing of information. This includes the licenses of non-free software, and harmfully restrictive

copyright laws" (Stallman, 2003, ¶4). Stallman also emphasized the educational value of free software over proprietary:

> But free software offers a deeper benefit for education: the knowledge in free software is public knowledge, not secret. The sealed black box of a proprietary software system is designed to keep people in the dark. With free software students can study the software they use, to learn how it works. They can write improvements to the software, and thus learn the craft of software development (Kuhn 2, 2001, ¶4).

From this perspective, the problem of the digital divide cannot be separated from the culture surrounding proprietary software and within which Bill Gates has amassed his fortune. Not surprisingly then, the ideological divide between Bill Gates and Richard Stallman runs deep and wide. To be fair however, while Stallman targets Gates with most of his criticism of the proprietary software movement, he does concede that "Microsoft is just one of many proprietary software companies all more or less disrespecting the freedom of their own users. Microsoft is not really worse than a lot of others. They're all bad" (Bowman, 2002, ¶2). That being said, in response to a statement attributed to Gates that "anyone who won't give blanket support to all these [intellectual property] laws is a communist," Stallman cautioned "When someone uses the term 'intellectual property,' typically he's either confused himself, or trying to confuse you. The term is used to lump together copyright law, patent law and various other laws, whose requirements and effects are entirely different" (Stallman, 2005, ¶2).

Public libraries may seem far removed from the conflict between Bill Gates and the Microsoft Corporation and the dissident hackers at the center of the Free Software Movement. There is however no more relevant arena for this conflict than the public library, not the least because Gates chose libraries as the object of his philanthropy which came bundled with a free suite of Microsoft software. The influence of Gates's philanthropy is evident. Equally evident is the apparent consonance of the ideals of the Free Software Movement with the traditional mandate of the public library. Indeed on the face of it there would seem to be a greater affinity between the public library profession and free software hackers than public libraries and the corporate mission and goals of Microsoft.

The premise underlying the following discussion is that as a result of Bill Gates's library philanthropy, public librarians have been provided with an important window of opportunity with respect to defining and establishing a new and indispensable place for themselves within a yet to be stabilized global information society. And while technology will be at the root of this change, it will at the same time bear the unmistakable imprint of the public library's traditional values and philosophy of service. This window of opportunity exists at the intersection of the completed Phase I of Gates Library Program, and the resulting public access computing (PAC) services and programs now established in over 95% of America's public libraries.

Libraries and philanthropies

Before considering the meaning of this intersection, we need to step back for a moment and think about public libraries and private philanthropy. Gates's library philanthropy was well covered in the popular and professional presses not only at the time of its inauguration in 1996 but up to and including its completion in 2003. One common feature of this coverage was the inevitable comparison with Andrew Carnegie and his library-building program at the turn of the last century. Such comparisons are not without merit; indeed the similarities between both men as captains of industry during periods of profound social change are quite stunning, if not historically significant. For our purposes here, it is the role of Gates's and Carnegie's programs as public policies that is relevant.

First, together both Carnegie's library-building program and Gates's automation program represent the most significant philanthropic programs to affect American public libraries during their history. Further, these types of philanthropic enterprises are a uniquely American phenomenon and play a profound but often unacknowledged role in the establishment of public policy agendas and programs. According to the radical philanthropy scholar, Robert Arnove, large scale private philanthropies such as Carnegie, Ford, and Rockefeller, and here we could include Gates,

> …represent relatively unregulated and unaccountable concentrations of power and wealth which buy talent, promote causes, and, in effect, establish the agenda of what merits society's attention. They serve as cooling out agencies, delaying and preventing more radical structural change. They help maintain an economic and political order, international in scope, which benefits ruling class interests of philanthropists and philanthropoids – a system which has worked against minorities, the working class and Third World Peoples . (Arnove, 1980, 2. Emphasis mine.)

This is important because by virtue of their private status they are able to operate outside of the regular public policy process. And yet, given their resources (wealth, expertise, and the status and connections of their founders), they play a powerful role in shaping policy directions and decisions.

One of the key ways in which they achieve this is through the provision of seed monies and other forms of support to get specific projects and initiatives up and running. Once the programs become relatively stabilized, they withdraw their presence and the responsibility most often falls to a public body to maintain the operating costs of the program.

Gates's Library Philanthropy

Like Carnegie before him, Gates's largesse received mixed reviews among the library community. On the one hand, the donation of computers,

software, Internet access and training for the purpose of bridging the digital divide speaks directly to the democratic concerns of public librarians. For the executive director of the American Library Association, the Gates Foundation represented "the culmination of a dream" and "is an enormous gift to our nation's libraries. It means potentially every child and adult will have access to global information online…"(Kniffel, 1997, 14). On the other hand, Gates's gesture was viewed as self-serving. In 1997, an editorial in Library Journal stated "some observers in the library community have said they feel that Gates may be pulling off a marketing power play to try and bring Microsoft software to hundreds, if not thousands of communities, through the public's frontlines, their local libraries" (Anonymous, December, 1997, 71). In a similar vein, others accused him of trying to whitewash his reputation and that of his corporation in light of the U.S. government's allegations of anticompetitive and predatory behavior within the Internet browser market. This interpretation is not without merit given the timing between the program and the Department of Justice's antitrust lawsuit.

Regardless of where people stand on these questions, an analysis of the program as a public policy illuminates some of its more troubling aspects and, in so doing, provides recipients with the ability to make different decisions with respect to the program's future directions.

Setting the Library Agenda: constituting a role for the public library in an information society

Essentially what Gates has done with his program is set the public library policy agenda for at least the foreseeable future. There are a number of ways in which he has achieved this through his philanthropy program.

First, the one-time nation-wide infusion of cash, computers, software and training combined with the design of the program itself has solidified Gates's positive relationship with the public library community. As described by researchers at the University of Washington in their report, "Legacy of Gates Foundation's U.S. library program: impacts of public access computing positive, widespread" (2003), "The Gates Library Program has been unprecedented in its size and comprehensiveness, in the speed with which it has been implemented, and in the rich array of resources it has provided [e.g. installation, training, on-going technical support, etc.]" (Gordon, Andrew, et al. 2003, 48). The specific features of the program that facilitated library buy-in and local compliance included: the creation and repetition of a set of clear and consistent messages regarding the purpose of the program and its social value; the provision of significant training opportunities (on-site, online, and in Seattle) to support library workers in setting up and managing a public access computing centre including working with individual pieces of Microsoft software, and providing software support and training to library users; the creation of a technical help desk to support troubleshooting; the dissemination of

abundant program documentation and support materials for both library staff and the public; and, the establishment of a vehicle for professional communication in the form of the newsletter Connections which dealt with a broad range of issues associated with implementation, program maintenance and sustainability. Perhaps one of the most significant strategies undertaken to ensure the program's ongoing success was in the area of program monitoring, evaluation and feedback. In 1998, the Foundation approached researchers at the University of Washington's Evans School of Public Affairs, Public Access Computing Project (PACP) and asked them to assist in evaluating the effectives of the library program in bridging the digital divide. PACP developed a multi-year, multi-method, and independent research project and by 2003 it had released more than 23 evaluation reports. Most recently it published its "Legacy of Gates Foundation: Impact of Public Access Computing Positive, Widespread" (Gordon, Andrew; et al., 2003). The scope of the research project coupled with the regular communication of its findings in professional venues such as *Library Journal* (Gordon, Margaret; et al., February 15, 2001; Gordon, Andrew; et al., 2003), and at professional conferences (i.e. the Public Library Association's conference in 2002) further legitimated the program's goals as well as ensuring widespread community support.

A second aspect of the program which went a long way toward ensuring its success, particularly when combined with the design elements mentioned above, was that it represented a one-time only infusion of technology, support and cash. As a seed program many library recipients expressed grave concerns regarding the program's long-term sustainability. (Gordon, Margaret; et al., October, 2002). In a time of government retrenchment and fiscal austerity, maintaining a public access computing center is no small feat. However, the decision about whether to continue or not was, for all intents and purposes, taken out of the public librarian's hands given the tremendous reception that public access computing received in their communities and as repeatedly reported in numerous PACP reports (Gordon, Margaret; et al., February 15, 2001; Gordon, Margaret, et. al., October 2002; Gordon, Andrew; et al., May 2001). Published research demonstrated that indeed the program did what it had set out to do, that is, connect society's most vulnerable with the technology and public access to the Internet (Gordon, Andrew; et al., 2003). The research also emphasized some of the positive spin-off affects of the program including attracting new users and increasing circulation (Gordon, Margaret; et al., February 15, 2001). However, it is early days yet, and as technology and connectivity costs drop, the value of public access computing for attracting new users and increasing circulation will need to be revisited.

It is clear that any program as significant as the introduction of public access computing into libraries has serious implications for all aspects of that organization's functioning including personnel, facilities, administration (finance and organizational planning), and services. Yet despite reported concerns with the program itself and/or sustaining the initiative in the long term (Gordon, Margaret, et. al., October 2002) the overarching message

contained within the collective PACP reports is that the program had been good for America's libraries and "librarians [were] proud of the changes that have accompanied public access computing and the enhanced reputations and importance of their libraries" (ibid., 22). To recap then, some of the main pressures to continue with public access computing at the time of the program's completion in 2003 were:

(1) User expectations had been established with respect to technology in libraries which libraries would have been hard pressed to unplug.
(2) Government support via the provision of the e-rate served to further legitimate the Foundation's program.
(3) Pressure from within the public library community itself. Again, research out of the University of Washington clearly demonstrates that among librarians there is agreement that this is the way to go. Further, library users, as well as librarians and administrators were reported to feel that PAC services should become a budgetary and service priority after traditional collections (Gordon, Margaret; et. al. May 2001, 16; Gordon, Andrew; et. al. May 2001).

But there is a caveat. Concomitant with constitutions of the positive impact of the program on libraries are repeated reminders of the symbiotic relationship that now exists between the Gates Foundation and America's libraries.

> All in all, the Bill & Melinda Gates Foundation's U.S. Library Program's efforts to assist America's public libraries in making public access computing available to everyone has proven to be very successful. Access to a wide variety of useful computer programs, and up to date information on the Internet, have become key features in libraries throughout the United States. Further, about three-quarters of libraries in the first 10 states appear to be able to sustain their programs. The remaining fourth seem to need additional support before they can sustain their programs alone. PACP assumes the foundation will want to make the additional effort in order to protect their investments, but especially to ensure that access to computers and information continues to bring the advantages of technology to all citizens (Gordon, Margaret, et al., February, 2004, 29. Emphasis mine.).

Gates's seed program worked because it managed to transfer a sense of ownership and responsibility for its reproduction to the local library community. This is particularly noteworthy in light of the near hegemonic status of Microsoft software products for public access computing and related programs.

So what's this window of opportunity & how does it represent a site of struggle?

It is not about whether or not to continue offering public access computing but it is about rethinking what it is all about and what public librarians and their communities want to achieve with it. Certainly the goal of the original program was laudable (ensuring that every one has access to the Internet) and not out of step with what public libraries traditionally provide.

Indeed, libraries were heading in this direction before Bill Gates arrived on the scene. The A.L.A.'s *Goal 2000: Planning for the millennium* (1996) targeted connecting America's public libraries to the information highway as one of its key initiatives. In fact, it was the A.L.A.'s Executive Director, Elizabeth Martinez, who initially approached Bill Gates and Microsoft in 1995 with "'The Big Idea'— a plan to fulfill A.L.A.'s Goal 2000 through connecting every library in the nation, especially in poor communities, and training libraries to use electronic resources" (Kniffle, 1997, 14). So no, the service of continuing to provide the community with public access to computing information resources and the Internet is not the issue. The issue is perhaps far more historically significant and offers one possible window of opportunity for public libraries to carve out a unique and relevant role for the library in an information society. The issue is about maintaining the integrity of the public library as an information commons in an increasingly technologically mediated world. Maintaining the public library as an information commons demands both a philosophical response and a pragmatic response.

Let's consider the philosophical aspects of this issue first.

The concept of a "commons" comes from the English tradition in which lands were held in commonality and everyone in the community was given free access to use these lands for a wide variety of purposes. Commons benefited the individual and the community. From this perspective, the library as place has long represented a community information commons. In an article entitled "Reclaiming the Commons," David Bollier provides an excellent summary of what constitutes the commons today.

> The American commons comprises a wide range of shared assets and forms of community governance. Some are tangible, while others are more abstract, political, and cultural. The tangible assets of the commons include the vast quantities of oil, minerals, timber, grasslands, and other natural resources on public lands, as well as the broadcast airwaves and such public facilities as parks, stadiums, and civic institutions. The government is the trustee and steward of such resources, but "the people" are the real owners.
>
> The commons also consists of intangible assets that are not as readily identified as belonging to the public. Such commons include the creative works and public knowledge not privatized under copyright law. This large expanse of cultural resources is sometimes known as the public domain or—as electronic

> networking increases its scope and intensity —"the information commons" (2002, ¶4,5).

The issue here is the need to articulate an underlying philosophy towards the public library's future role in public access computing within an information society and one which resonates with the public library's long-standing traditional values. These include the public library as a place which allows and encourages the free exchange of ideas, a place which promotes free access to a diversity of opinions and world views, and a place which celebrates individual freedoms with respect to the right to access information without barriers or constraints, the freedom to create and the freedom to innovate.

The challenge for libraries now is to find a way of translating these values and practices beyond their physical walls and out into cyberspace. The following, or some variant of it, might capture the spirit of the library as an information commons in a digital context: A digital gateway and a space (physical and virtual) within which citizens actively and freely participate in the new information society, celebrate the emancipatory and democratizing potential of the new information and communications technologies, and basically reap the benefits of what Gates has described as the "web lifestyle" (Gates, 1997). But a way of life defined by the community and not by Bill Gates.

It is important to step back for a minute and consider Gates's discourse. Despite Gates's high praise for libraries (St. Lifer, 1996; St. Lifer & Rogers, 1996), librarians (Kniffle, 1998) and the continuing value of the book (ibid, 1998), many of his essays constitute a world in which libraries and librarians are rendered essentially redundant, or at least, no longer necessary in the ways in which they have been in the past (Gates 1996, 1999, 2000, 2001, 2005). The following is representative of that vision as expressed around the time of Gates's entry into the philanthropy business.

> Living a web lifestyle will mean that you rely heavily on the interactive network to gather and use information. You'll take the network for granted, turning to it instinctively and without a second thought. You'll check it to see what's cool, what people are talking about and what they're thinking. You'll check it before making any major purchases and minor one's too. (Gates, 1996, ¶7)

For Gates, a distinguishing feature of a web lifestyle is that digital devices and digital connections are based on immediate and customized access to the web. The emphasis on the "personal" as in "personal computer" and "personal digital companion" assumes private ownership of the device. Public access computing as exists in libraries, while currently providing the have-nots with an alternative means of access, cannot, by Gates's definition, allow these citizens to take advantage of the powerful new services available over the Web and as required for a web lifestyle.

In order for "turning to the Web" to become a reflex, access must be immediate and continuous. This is not the case in a public access computing context. It is not a reflex if you have to drive or walk or take a bus to the library in order to take advantage of your scheduled half-hour of computer time.

The information commons

Lawrence Lessig in *The Future of Ideas: The Fate of the Commons in a Connected World* (2002) persuasively argues that the origins of the Internet were that of an information commons. Early software development was premised on the notion of freedom, as in the code (API) that runs the program was made freely available to all. If you wrote a program for something, you placed your program on the net with your source code and anyone else was free to pick it up and to improve it or create something new as long as they in turn made their code free. It was the Internet as an information commons that generated TCP/IP protocols, Unix, gopher space, WWW, Mosaic, all of which represent important building blocks of the Net (19-25).

Lessig (1999, 2002, 2004) argues that this commons is in the process of being enclosed by powerful social forces on both a legal and architectural front. Legally through the extension to the duration of U.S. copyrights by 20 years (Sonny Bono Copyright Term Extension Act, 1998) and the establishment of the Digital Millennium Copyright Act in the same year. Architecturally, this is occurring vis-à-vis the increasing commercialization of the web. If any one doubts the latter, consider Nick Dyer-Witheford's findings:

In 1991 there were only some 181,361 ".com" hosts, 12 percent of the total, lagging just behind the 13 percent of ".edu" sites associated with universities, research institutes, and schools. In 1995 "dot.coms" were not only some ten times as numerous—1,829,119—but also accounted for 31% of all hosts. In 2000 there were a staggering 32,696,253 commercial sites—35 percent of all hosts. In 1993, 1.5 percent of the World Wide Web had the ".com" suffix, by 1995, 31.3 percent, and by 1997, 62.6 percent. According to the OED two-thirds of Internet traffic consists of internal data transfers within corporations (Dyer-Witheford, 2002, 135).

Dyer-Witheford goes on to say that "even these figures may underestimate the actual commercial presence. A 1999 study of Web server content in the journal Nature [Lawrence & Giles, 1999] reported 1.5 percent of its sampled pages as 'pornographic,' 2 percent as 'personal,' 3 percent as 'health information,' 6 percent involving 'scientific and educational' material, and 83 percent as 'commercial'" (Ibid).

With respect to the extension of copyright to software: there can be no clearer example of the threats this poses to intellectual freedom than the findings of the US government's antitrust suit against Microsoft.

Not surprisingly then, for Lessig "code" is the law of cyberspace and the extension of copyright to software and digital materials completely undermines the original values of the Net and ones commensurate with public library philosophy.

On a practical level, the choice is between proprietary versus free/open system architecture

Let's step back in time and envisage a completely imaginary world in which public libraries are being asked to adapt themselves to computers and the Internet. They are given two choices:

(1) Sponsorship from a philanthropic foundation whose founder's corporation has actually been convicted in a US court of law for abusing its monopoly position by engaging in anti-competitive behavior and among other things, stalling innovation (see U.S. District Judge Thomas Penfield Jackson's Court's Finding of Fact, November 5, 1999, S. VII). As industry leader, the software (operating and productivity) has become the *de facto* industry standard and once libraries sign on a perpetual schedule of expensive upgrades based on the corporation's own research and production agenda ensues. Finally, the software code itself is copyrighted (the code does not travel with the software) so libraries and their users are restricted from making any modifications, customizations and fixes that would enhance the software's value for the institution and its users, not the least of which would be the value of free and open software as an important educational tool for those looking to enter the IT industry as independents. Programming knowledge is power today. Programming knowledge and free access to a world of code is emancipatory. Or,

(2) Choosing free software in which the source code is open, and adapting it to the library and community's needs. By making this choice, the public library finds itself aligned with a social movement, the Free Software Foundation (FSF), which is committed to the principle of free software as a matter of liberty not price, or as the founder of the FSF Richard Stallman likes to say, "remember to think of 'free' as in 'free speech' not as in 'free beer'" (Stallman, 2002, 63). This principle is embedded in the concept of "copyleft" and the General Public License or GPL, both of which are very important to the anti-enclosure movement. From a practical perspective, free and open software it has been shown actually results in a better quality product sooner and certainly cheaper (Raymond, 2001). While there may be an initially steep learning curve, the longterm payoffs are substantial, not the least of which is arming public librarians with a powerful new tool and literacy with which to develop customized library applications, and, if the public library community as a whole adopts the software and the underlying philosophy, some very exciting things can begin to happen. Not only will librarians have the language and skills necessary to establish a strong public presence on the Web, but they will also be able to empower their users as both citizens and workers. Rather than offering "Word Wednesdays" and other Windows and Microsoft training programs (for

example the Flint Public Library, Newark Public Library, and Arlington Public Library, among many others advertise MS Office training), libraries will be able to provide learning opportunities that promote the emanicpatory potential of the new ICTs, while at the same time providing their users with some of the skills necessary for good independent work in the new information economy. In a free and open source world, there are few barriers to market entry.

Free/Open Software and the Struggle to Create an Information Commons

Lawrence Lessig and Richard Stallman among others create a very interesting and alternative agenda for public libraries and one which is far more in keeping with the institution's traditions, values and social purpose. Public libraries are by definition committed to the principles of free access (both "free" as in free speech and "free" as in free beer) to information and knowledge without barriers or restrictions on use (except those constraints currently imposed by fair use legislation). Given the increasing reliance of these institutions on information and communications technologies for the purpose of information access and service provision to their citizens, attending to the warnings and challenges posed by individuals such as Stallman, Lessig and others is essential, if not fundamental to their social mandate.

Buildings and Codes: Architectures for Compliance

Ursula Franklin in *The Real World of Technology* (1999) described our current world like this,

> As I see it, technology has built a house in which we all live. The house is continually being extended and remodeled. More and more human life takes place within its walls, so that today there is hardly any human activity that does not occur within this house. All are affected by the design of the house, by the division of its space, by the location of its doors and walls. Compared to people in earlier times, we rarely have a chance to live outside this house. And the house is still changing; it is still being built as well as being demolished (1).

In *Code and other laws of cyberspace* (1999), Lessig captures the essence of the challenge:

> This code presents the greatest threat to liberal and libertarian ideals, as well as their greatest promise. We can build, or architect, or code cyberspace to protect values that we believe are fundamental, or we can build, or architect, or code cyberspace to allow those values to disappear. There is no middle ground. There is no choice that does not include some kind of building. Code is never found: it is only ever made, and only ever made by us (Lessig, 1999, 6).

He finishes with a quote by Mark Stefik, author of *Internet dreams: archetypes, myths, and metaphors* (1996): "Different versions of [cyberspace] support different kinds of dreams. We choose wisely, or not" (Lessig, 1999, 6). It is this battle in which the FSF finds itself positioned on one side and Microsoft on the other.

In an increasingly networked world in which more and more services and products are migrating to the web (e-government, e-commerce, e-education, e-health, etc.), the kinds of communication pathways, computing conventions, and practices coded into enabling software (communications, operating systems and productivity) play a significant role in mediating the life experiences of users just as the organization of physical space directs the flow of movement. For individuals such as Richard Stallman and Lawrence Lessig, the code that makes up software, while enabling some activities must, by definition, constrain others. If, as Richard Stallman (2002) argues, software were to be "free" and individuals were "free" to modify/ restructure and otherwise adjust the program to suit their needs, they would no longer be economically and socially constrained by what experimental physicist and social activist Ursula Franklin has referred to as "control-related technologies" (1999, 9). This, of course, presupposes access to the software's source code. Without this access however, users are denied the option of working with the software and hence must learn to live within its constraints and restrictions and essentially incorporate these into their practices. In essence, they must comply with the software's requirements. It is this concept of constraint, artificial barriers to access, and forced compliance (as entrenched in current copyright and intellectual property law) and its implications for civil liberties and freedoms which concern, albeit for different reasons, people like Lawrence Lessig and Richard Stallman and should be of great concern to librarians.

Conclusion

At no other time in our history, except perhaps in the early days of the public library movement have we had the opportunity to reassess and reshape our services and our approach to their delivery. The underlying democratic principles remain the same and continue to hold the same value but the kinds of battles and the ways in which we chose to practice them have changed. As a profession, public librarians have a responsibility to themselves and their communities to aggressively embrace the new information and communications technologies, to uncover their emancipatory and democratic potential, and to translate these into their services, practices, and research. This is a time for critical reflection, political action, and community building.

Works Cited

Anonymous. (December 1997). "1997 newsmakers: LJ's top stories" *Library Journal*. 122 (20):70-71.

Arnove, R. (Ed.). (1980). *Philanthropy and cultural imperialism: The foundations at home and abroad*. Boston: G.K. Hall & Co.

Bollier, David. (Summer 2002). "Reclaiming the commons." *Boston Review*. 27(3-4). Viewed November 28, 2006 at http://bostonreview.net/BR27.3/bollier.html

Bowman, Lisa. (2004). "Richard Stallman: open source vision." CNET News.com. Viewed November 28, 2006 at http://news.com.com/1200-1070-975444.html

Bill and Melinda Gates Foundation. (2004). *Toward equality of access: The role of public libraries in addressing the digital divide*. Report available online at http://www.gatesfoundation.org/Search/

Dyer-Witheford, Nick. (2002). "E-capital and the many-headed hydra." Greg Elmer (ed). *Critical perspectives on the internet*. Md.: Rowan & Littlefield.

Franklin, Ursula.(1999). *The real world of technology*. Toronto: Anansi, 1999.

Free Software Foundation. The free software definition. Viewed October 5, 2006 at http://www.gnu.org/philosophy/free-sw.html

Gates, Bill. (July 16, 1996). "Better government? Sure, in the Information Age." _July 10, 1996. Viewed November 29, 2006 at http://www.microsoft.com/billgates/ columns/1996essay/ESSAY960710.aspx

Gates, Bill. (October 4, 1999). "Everyone, Anytime, Anywhere _The next step for technology is universal access." Viewed November 29, 2006 at http://www.microsoft.com/presspass/ofnote/10-04forbes.mspx

Gates, Bill. (2000). "Beyond Gutenberg." Reprinted from The World in 2000 (A publication of The Economist Group). Viewed November 29, 2006 at http://www.microsoft.com/presspass/ofnote/11-19billg.mspx

Gates, Bill. (2001). "Now for an Intelligent Internet." Reprinted from *The World in 2001* (A publication of The Economist Group). Viewed November 29, 2006 at http://www.microsoft.com/presspass/ofnote/11-00intelligenti.mspx

Gates, Bill. (December 2005). The new road ahead: where next for the knowledge economy? Reprinted from *Newsweek*, Special Edition on Technology Viewed November 29, 2006 at http://www.microsoft.com/presspass/ofnote/12-05Newsweek.mspx

Gordon, Andrew; Gordon, Margaret; and Elizabeth Moore. (May 2001). *Library Patrons Heavily Use Public Access Computers & Other Library Services, and Want More. A Report to the Bill & Melinda Gates Foundation U.S. Library Program on a Survey of Library Patrons in Five States*. Washington, Seattle: Public Access Computing Project, Evans School of Public Affairs, University of Washington. Viewed November 29, 2006 at http://www.gatesfoundation.org/NR/Downloads/Libraries/eval_docs/pdf/Patron_501.pdf

Gordon, Andrew; Gordon, Margaret; & Moore, Elizabeth (2003). The Gates legacy. *Library Journal*. 128(4): 44-48.

Gordon, Margaret; Gordon, Andrew, and Elizabeth Moore. (February 15, 2001). "New computers bring new patrons". *Library Journal*. 126(3), 134-138.

Gordon, Margaret; Moore, Elizabeth; and Andrew Gordon. (May 2001). Library Staff Support Public Access Computing; Experience Increased Workloads, Stress and Satisfaction: A Report to the Bill & Melinda Gates Foundation U.S. LibraryProgram on a Survey of Library Staff, Volunteers and Administrators in FiveStates. Washington, Seattle: Public Access Computing Project, Evans School of Public Affairs, University of Washington. Viewed November 29, 2006 at http://www.gatesfoundation.org/NR/Downloads/libraries/eval_docs/pdf/Lib_staff_501.pdf

Gordon, Margaret; Moore, Elizabeth; and Andrew Gordon. (February 2004). *Sustainability in First Ten States to Receive Gates Awards: Most Libraries Maintaining Public Access Computing Programs, but 25% Are Still Fragile. A Report to the Bill & Melinda Gates Foundation U.S. Library Program*. Washington, Seattle: Public Access Computing Project, Evans School of Public Affairs, University of Washington. Viewed November 29, 2006 at http://www.gatesfoundation.org/NR/Downloads/libraries/eval_docs/pdf/sustaina-final-2-13.3.pdf

Gordon, Margaret; Moore, Elizabeth; and Gordon, Andrew (October 2002). *Unique aspects of Gates library program help libraries and patrons; administrators still see challenges ahead to sustainability, technical support and training for public access*

computing. A report to the Bill and Melinda Gates Foundation U.S. Library Program on a survey of library administrators. Washington, Seattle: Public Access Computing Project, Evans School of Public Affairs, University of Washington.Viewed November 29, 2006 at http://www.gatesfoundation.org/NR/Downloads/libraries/eval_docs/pdf/variationstheme020316.pdf

Kniffle, L. (1997). "Gates Foundation to invest $400 million in libraries. *American Libraries,* 28(7), 14-15.

Kniffle, Leonard. (1998). "Gates Expands Access Mission During Alabama Mission."*American Libraries* .pp16,19.

Kniffel, L. (2003). "When Stars Fell on Alabama." *American Libraries* v. 34 no. 11 p. 53-6

Kuhn, Bradley. (2001). "Richard Stallman Inaugurates Free Software Foundation-India, First Affiliate in Asia of the Free Software Foundation." Boston: Free Software Foundation. Viewed November 28 at http://www.gnu.org/press/2001-07-20-FSF-India.html

Lawrence, Steve and C. Lee Gills. (1999). "Accessibility of information on the web." *Nature*. July 8, 400(6740): 93-194.

Lessig, L. (1999). *Code and other laws of cyberspace*. New York: Basic Books.

Lessig, L. (2002). *The future of ideas: The fate of the commons in a connected world*. New York: Random House.

Lessig, L. (2004). *Free culture: the nature and future of creativity.* New York: Penguin Books.

Raymond, E. (2001). *The Cathedral and the Bazaar: Musings on Linux and open source by an accidental revolutionary*. Cambridge, MA: O'Reilly.

Stefik, Mark. (1996). *Internet dreams: archetypes, myths, and metaphors*. Mass.: MIT Press

Stallman, R. (2002). *Free Software, Free Society: Selected Essays of Richard M. Stallman*. Introduction by Lawrence Lessig. Boston, MA: GNU Press.

Stallman, R. (2003). "RMS covers WSIS." *NewsForge*. December 16. Viewed November 29 at http://www.newsforge.com/business/03/12/16/187234.shtml?tid=110&tid=85.

Stallman, R. (2005, February 15). "Bill Gates and other communists". ZEDNet.co.uk. Viewed November 28, 2006 at http://opinion.zdnet.co.uk/comment/0,1000002138,39188059,00.htm

St. Lifer, Evan. (November 1996). Born Again Brooklyn: Gates Wires the Library." *Library Journal*. Vol. 121(18): 34.

St. Lifer & Evan, Rogers, Michael. (August 1996) "Microsoft to expand Libraries Online! project for FY97." *Library Journal*. Vol.121 (13): 15-17.

United States. (1998). Digital Millennium Copyright Act. Pub. L. No. 105-304, 112, Stat. 2860.

United States. (1998). Sonny Bono Copyright Term Extension Act. Pub. L. No. 105-298, 112 Stat. 2827.

United States. (November 5, 1999) District Judge Thomas Penfield Jackson's Court's Finding of Fact. Viewed November 29, 2006 at http://www.usdoj.gov/atr/cases/f3800/msjudgex.htm#vii