Critical Information Literacy and the Technology of Control: The Case of Armenia

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Letting a maximum number of views be heard regularly is not just a nice philosophical notion. It is the best way any society has yet discovered to detect maladjustments quickly, to correct injustices, and to discover new ways to meet our continuing stream of novel problems that rise in a changing environment.

—Benjamin Bagdikian

Introduction

As direct providers of information literacy in higher education, librarians have a foundational role to play in fostering critical thinking skills in students. On a daily basis librarians help university students locate, use and cite information resources, but information literacy can also extend to helping students analyze the social and economic forces involved in the creation and use of information. Successful information literacy in fact should effect some change in a student’s worldview; as the ACRL states in Standard 3 of the Information Literacy Competency Standards for Higher Education, the information literate student not only evaluates information but also “incorporates selected information into his or her knowledge base or value system” (ACRL, 2000). When their work enables a student to reflect on or even modify his or her value system in this manner, librarians are practicing critical information literacy. Critical information literacy applies the principles of critical pedagogy, an approach that explicitly acknowledges “the power relationships inherent in any educational setting” (Donabedian & Carey 2011a, p. 205). If we accept that this process also prepares students for civic participation in an open society—one of the traditional goals of liberal education—then critical information literacy becomes even more crucial for strengthening democracy in developing and transition countries. More than twenty years after emergence from Soviet rule, librarians in Armenia recognize the need for information literacy although its implementation remains nascent. This chapter will discuss why critical information literacy and critical pedagogy in higher education are especially important in the Armenian context, with its unique historical, cultural, and geopolitical concerns.

As Armenian librarians teach their patrons to access and evaluate a wider range of resources than ever before, the Armenian government has employed increasingly sophisticated means of controlling or denying access to online information. We will document how the Armenian government has used cutting-edge Internet controls to filter online content or misdirect users and will discuss global trends toward legislation that would limit a free and open Internet and
raise intellectual property (IP) concerns for Armenia; by contrast, we will suggest ways in which librarians can contribute to the decentralization of and continued access to information resources. Finally, the authors will examine the strong connection between open information flows and the public discourse necessary for democratic participation. Helping university students develop the skills to exercise critical agency will be fundamental to continued democratic progress in Armenia.

**Higher Education and Democracy in Armenia**

Along with other nations in the South Caucasus, Armenia achieved political independence in 1991 upon the dissolution of the Soviet Union. After more than 70 years of authoritarian rule, Armenia and its neighbors began strengthening or developing the institutions necessary for a free and open society. Certainly, an informed citizenry capable of civic participation constitutes one such institution. The critical thinking skills that can be gained from higher education are crucial to developing such an informed citizenry. In fact, Paolo Friere, a founding figure of critical pedagogy, considered critical thinking to be a tool for civic engagement. For Friere, the increased self-awareness and agency achieved through critical pedagogy can “enable students to expand the possibilities of what it means to be critical citizens, while expanding and deepening their participation in the promise of a substantive democracy” (Giroux, 2010). Such an approach was not encouraged during the Soviet years. The Soviet model of higher education regarded knowledge as a received “truth” to be transferred straightforwardly from a professor “expert” to unquestioning students (Baker & Thompson, 2010, p. 59). Moving beyond this legacy has been one of the challenges of independence for librarians and other educators in the region.

Another challenge has been resource deprivation. Higher education faces fundamental fiscal challenges in post-Soviet Armenia, where at present major research libraries can survive but not expand. The Soviet Union made a priority of funding libraries in its territories as part of “a mission of spreading socialist ideas to the masses” (Usova, 2009, p. 246). Following independence, however, academic and research libraries in Armenia lost this centralized support, with some receiving no budget for new acquisitions of books, journals or databases for as much as 15 years (Dowling, 2005, p. 25). In addition to these budgetary constraints, librarians in Armenia and other South Caucasus countries also face political pressures. For several former Soviet republics, independence brought with it the outbreak of hostilities with neighboring countries, including the ongoing conflict between Armenia and Azerbaijan regarding
the territory of Nagorno-Karabakh. These geopolitical conflicts often have an impact on the
information sources that residents can access, as governments seek to filter online content for
political and military purposes. At the most basic level, this filtering may consist of firewalls at
Internet choke points; at more sophisticated levels, it can range from legal instruments such as
slander or defamation laws to technological capabilities that allow actors to control targeted
content at sensitive times (Donabedian and Carey, 2011a, pp. 212-13). Despite the intermittent
use of such filtering techniques, the online environment in post-Soviet Armenia has come to
offer a range of divergent views through forums such as blogs or Internet news and radio sites.

In Armenia as in other former Soviet republics, librarians play a crucial role in helping students
access and evaluate these sources, especially in societies where such freedom of expression
had not previously existed. In fact, some have argued that information literacy is so central to
free expression that it should be recognized as a human right. Sturges and Gastinger (2010)
take as a starting point Article 19 of the United Nations’ Universal Declaration of Human Rights,
which interprets freedom of expression to include the right to “seek, receive and impart
information and ideas, through any media and regardless of frontiers” (The Universal
Declaration of Human Rights 1948, as cited in Sturges & Gastinger, 2010, p. 195). This
endorsement of the work that information professionals do provided the basis for later
resolutions such as the Prague Declaration of 2003, which identifies a basic human right to
lifelong learning; and the Alexandria Proclamation of 2005, which connects information literacy
to development and prosperity (Sturges & Gastinger, 2010). It would be helpful for librarians to
bear this connection in mind when advocating for greater resources to be dedicated to
information literacy.

While Armenian librarians are well aware of the importance of information literacy it is not, with
notable exceptions, a part of university library instruction; research skills are usually taught by
subject PhDs and not librarians. Moreover, although Armenian library education leads to the
MLIS degree and follows a Western curriculum, a professional degree is not required for
employment. Gaining professional status is a major obstacle Armenian librarians face as they
work to strengthen information literacy instruction in colleges and universities. (See
Donabedian, Carey & Balayan, 2012 for a discussion of Armenia’s MLIS degree program,
introduced in 2009.) However, at the American University of Armenia (AUA) and the Republican
Scientific-Medical Library (RSML) we see the beginnings of a librarian-centered approach that
continues to evolve. In a survey of five of the most prominent Armenian research libraries
conducted by Donabedian, Carey & Balayan in the fall of 2011, responses indicated that only the above-named libraries explicitly require librarians to perform instruction (Donabedian, Carey & Balayan, 2012, p. 13). The Papazian Library at the AUA offers orientation sessions and workshops on using databases; the RSML, while not itself a medical school or university library, offers instruction sessions for residency students in cooperation with a nearby medical school as well as seminars and distance lectures for working doctors (Donabedian, Carey & Balayan, 2012). In addition to teaching these skills, the directors of both libraries endorse the need for expanded instruction in critical information literacy. In follow-up communications after the 2011 survey, the directors expressed agreement that information literacy skills can help patrons identify biased information and make better-informed decisions. Satenik Avakian, the director of the Papazian Library, commented that such skills are important for “building a powerful and knowledgeable community” (S. Avakian, personal communication, September 27, 2012). Anna Shirinyan, the director of the RSML, stated that information literacy and critical thinking skills are especially important in the Armenian context “because we need to have [a] more informed . . . society, which will be able to be integrated in the global information and democratic infrastructures” (A. Shirinyan, personal communication, October 9, 2012). For all these reasons, increased instruction in critical information literacy must constitute a major goal for libraries in Armenia.

Setting the Context: Local Circumstances and Information Literacy

There are many circumstances specific to Armenia that affect the scope and quality of information resources available to university students, faculty, and other researchers. Goods and services are accessible to relatively few and “widespread poverty and unemployment remain high” (Diebert et al., as cited in Donabedian & Carey, 2011a, p. 214). Moreover, Armenia has been at war for more than 20 years with neighboring Azerbaijan “over the border region of Nagorno-Karabakh. In 1994, a Russian-brokered ceasefire brought the possibility of lasting peace, but the two nations until now have been unable to resolve their differences” (Donabedian & Carey, 2011a, p. 214). Armenia’s uncertain geopolitical situation has no doubt had an impact on its governmental role in cyber space. Armenian students arrive at university having grown up in an environment that features broad Internet use as well as selective, situation-based filtering of the Internet, particularly with regard to political content. For Armenia as with other governments in the South Caucasus, the “need for internal order and control is at a premium…. Not surprisingly, many in government view the Internet and other
telecommunications through the lens of national security, so that ‘these countries have increasingly turned to security-based arguments—such as the need to secure “national informational space”—to justify regulation of the sector. Consequently, the region is a leader in the development of next-generation information controls” (Diebert et al., as cited in Donabedian & Carey, 2011a, p. 219). The Armenian government employs various “upstream” filtering schemes “including pressures put on Internet service providers, legislative controls, and the pervasive use of surveillance” (Donabedian & Carey, 2011a, p. 214). In assessing online freedom, the Open Net Initiative considers the degree of “transparency” in a given Internet environment, defined as “a qualitative measure based on the level at which…[a]…country openly engages in filtering.” When “filtering takes place without open acknowledgement, or . . . is actively disguised to appear as network errors, the transparency score is low” (as cited in Donabedian & Carey, 2011a, p. 213). Because of substantial filtering, ONI assigned a “low” transparency rating to Armenia in their global assessment of Internet filtering (Diebert et al., p.137). It should be noted that the ONI determined this rating in 2008, when a government-declared state of emergency shut the Internet down for 20 days. Freedom of the press has improved to its pre-2008 level (Reporters without Borders, 2012, p. 4) and this is a hopeful sign.

Proponents of Internet restrictions often couch their initiatives “in business-friendly rhetoric about protecting intellectual property,” as a national security issue, or as attempts to “protect children;” while there is a place for such concerns, especially in terms of Armenia’s national security, some critics worry about the use of such legislation as a pretext to extend control over “the free spread of ideas amongst a public that is allowed to choose for themselves what information to believe and what to discard” (http://www.corbettreport.com/beyond-sopa-the-past-present-and-future-of-internet-censorship/). As a case in point, when Russia recently passed and implemented an Internet censorship bill, it cited the need to stop child pornography from being disseminated. Internet freedom advocates are concerned, however, that the bill’s implementation will be more wide ranging, as has been reported in the Russian media (http://www.themoscowtimes.com/news/article/internet-censorship-faces-obstacles/471430.html). As Russian is the second language of Armenia and Armenians are dependent on Russian sources for their information, the new bill is already impacting Armenian cyberspace. Furthermore, the possibility remains that this bill may set a precedent for the Armenian government to adopt similar legislation (http://www.armenianow.com/economy/it_and_telecom/39368/internet_control_russia_censorship_ip_arsenia_saghyan).
Currently, Russia is extending its efforts to censor Internet traffic in its support of giving the UN control over Internet Protocol-based networks. This was at issue during the December 2012 meeting of the World Conference on International Communications (WCIT), convened by the UN organization the International Telecommunications Union (ITU). Proposals from Russia and several other nations “would authorize member nations. . . to inspect and censor incoming and outgoing Internet traffic on the premise of monitoring criminal behavior, filtering spam, or protecting national security” (http://news.cnet.com/8301-13578_3-57551442-38/russia-demands-broad-un-role-in-net-governance-leak-reveals/). While the reported language of the Russian proposal would grant member states “the sovereign right to manage the Internet within their national territory” it transfers most Internet governance away from non-profit organizations such as ICANN (as cited in http://news.cnet.com/8301-13578_3-57551442-38/russia-demands-broad-un-role-in-net-governance-leak-reveals/). If adopted, these measures would threaten the relative liberty of not only Armenian cyberspace but Internet freedoms throughout the world.

Russia continues to exert its influence on Armenian cyberspace and, because of the two countries’ cultural, historical and military ties, is likely to do so for the foreseeable future. Librarians must take this into account when practicing critical information literacy. In a recent interview, Henry Giroux offers some helpful guidance in this regard: “[W]hat has to be acknowledged is that critical pedagogy is not about an a priori method that simply can be applied regardless of context. It is the outcome of particular struggles and is always related to the specificity of particular contexts, students, communities, available resources, the histories that students bring with them to the classroom, and the diverse experiences and identities they inhabit” (Barroso Tristan, 2013). Thus, it makes sense for librarians to make Armenian students aware of the historical, social, and political forces that shape their contemporary information landscape. While Armenian post-secondary students and researchers face censorship and Internet filtering from their national government, they face further threats to online freedom from a number of transnational legislative proposals. Thus far these efforts have failed to transform law governing the internet due to concerted public resistance. Currently however, the Trans Pacific Partnership Agreement is under negotiation and, according to the Electronic Frontier Foundation, threatens to “extend restrictive intellectual property (IP) laws across the globe and rewrite international rules on its enforcement” (https://www.eff.org/issues/tpp). If successful, proposed global changes to IP law would raise access issues locally for Armenian research libraries in the networked global environment. Successful information literacy addressing both
local and global contexts will enable students to apply a critical consciousness to the information resources they encounter.

Recommendations
While an open Internet is a contested and subjectively understood goal, with many stakeholders including national governments, businesses, and citizens of all countries, the case of Armenia demonstrates the importance of free exchange of ideas in creating a democratic society. To support the growth of such a free online discourse, we suggest that university librarians in Armenia look to the following areas of engagement:

- **Open Access.** Armenia currently publishes five open access scholarly journals—mostly in the sciences—and the National Academy of Sciences maintains an online Fundamental Scientific Library (Donabedian & Carey, 2011, p. 208). Also in 2011, staff from the State Linguistic University were reportedly hoping to implement an institutional repository there (Donabedian & Carey, 2011, p. 208). However, Armenian librarians involved in these efforts acknowledge that awareness of OA publishing among faculty remains low. In addition to increased outreach to local researchers, we would also encourage librarians to consider the “Recommendations for the Next 10 Years” recently issued by the Budapest Open Access Initiative. The BOAI recommendations address the areas of policy, licensing, infrastructure, and advocacy (http://www.opensocietyfoundations.org/openaccess/boai-10-recommendations).

Libraries can continue to work closely with organizations such as the non-profit Electronic Information for Libraries (EIFL) in pursuit of these goals.

- **Public access to taxpayer-funded research.** As part of an open access program, the Armenian government could also mandate open access to articles stemming from publicly funded research, following for instance the example of the U.S. National Institutes of Health. Maximizing the dissemination and use of scientific research also maximizes its benefit to both the public and other researchers. As the authors have argued before, to strengthen and enrich its local research culture Armenia could consider enacting similar legislation (Donabedian, Carey & Balayan, 2012).

- **Free and open source software.** As EIFL has reported, the Armenian Fundamental Scientific Library of the National Academy of Sciences has been using free and open source software (FOSS) since 2006 as an alternative to the high cost of proprietary
software and its attendant fees (Donabedian & Carey, 2011a, p. 204). Given the severe economic challenges Armenia faces as a transition country, this has been very beneficial. Furthermore, FOSS empowers local researchers and helps to decentralize the conditions under which information is created and used.

- **Be Your Own Media.** Despite the rising costs of access to licensed resources, communications technology enables local media production now as never before. Commentators within Armenia are already using such forums as blogs, podcasts, and social media for political, educational, and cultural purposes. More sophisticated platforms are also becoming available for scholarly communications, such as the Open Journal System (OJS). Employing the principles of FOSS, the Public Knowledge Project (a consortium of North American universities and library groups) has made OJS “freely available to journals worldwide for the purpose of making open access publishing a viable option” (http://pkp.sfu.ca/?q=ojs). Installed and controlled locally, OJS takes a manuscript through every stage of the production process, including electronic submission, peer review, copyediting, and online publication. These and no doubt other platforms to come can help researchers in Armenia gain local control over the production, expression, and dissemination of views and scholarly output.

**Final Thoughts: Reframing the Issues**

Armenian librarians and students of higher education find themselves facing several information challenges in the changing landscape. The war with Azerbaijan is intensifying with renewed border skirmishes and ceasefire violations (Radio Free Europe/Radio Liberty, 2013). Moreover, fueled by oil wealth, “Azerbaijan’s spending on defense in 2011 exceeded Armenia’s entire national budget” (German, Eberhardt, & Sammut, 2012). Given this tension, and Armenia’s long history as a war theater, it is likely that the country’s security concerns will continue to influence its political filtering. For a democratic Armenia, the challenge will be to secure its cyberspace while it also safeguards the free flow of information for its citizens. Armenia is also vulnerable to growing censorship in Russian cyberspace on which it is in large part dependent. Furthermore, a continuing stream of global legislative proposals seriously threatens to restrict IP laws in Armenia. Because of cost concerns, these could limit access to information for university and research libraries in the country’s challenged post-soviet economy.
Various interests continue to vie with public proponents of an open and free online culture. The future, however, of Internet freedom for Armenian researchers will be determined not solely through the influence of these forces but—more importantly—locally by a democratic vision of information sharing, community building and citizen empowerment. As Ms. Avakian’s earlier comment brings out, librarians have an important role to play in teaching the critical thinking skills necessary to build vital and informed communities. In this regard, the Internet constitutes “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, as cited in Donabedian & Carey, 2011b, p. 9). The critical tools Armenian research librarians can successfully employ to educate an informed citizenry include identifying diverse resources and points of view, verifying sources and evaluating bias. Librarians can facilitate this process and empower students to challenge efforts to impede it. Selective political filtering aside, Armenia at present has a relatively open Internet and a growing open access movement. This demonstrates Armenia’s support for content sharing and access to a diverse range of sources as well as the increasing power of students, researchers and librarians, backed by constitutional guarantees, to shape the development and scope of Armenian information resources. Cybernetics founder Norbert Wiener speaks to this when he states that “[t]o live effectively is to live with adequate information” (Wiener, p. 18). Here we define “adequate” information as quantitative or qualitative, both credible and sufficient. Information’s control and use “belong to the essence of man’s inner life” (Wiener, p.18), reinforcing the idea of information literacy as a human right. When unfettered by special interests, this inner life expresses itself interactively through the new media and the community-at-large extending globally. Concurrent with action on the local level, we also see the need to reframe the arguments used to justify attempts to regulate the Internet globally. Rather than defining “justice” in terms of business interests or law enforcement, let us instead interpret the notion more broadly to include a rights-based argument for information justice. We submit that information, in order to serve
the needs of society, must be safe-guarded from proprietary interests or monopolies. Indeed, if adequate information is necessary for informed democratic functioning, then democracy itself comes under threat when the public loses access. Therefore, preventing the usurpation of the public commons by commercial or political interests requires that we remain watchful and provide viable alternatives. The 2012 Declaration of Internet Freedom, published by the Free Press/Free Press Action Fund (http://www.internetdeclaration.org/freedom), identifies 5 interdependent principles—privacy, free expression, openness, access, and innovation—that, privacy excepted, are all potentiated by the commons and would not exist in any robust sense without it. Moreover, they embody the principles through which diverse information can be sourced. Contrary to the content industries which have “an interest in creating artificial scarcity by whatever legal and technological means they have at their disposal…. citizens and consumers have an interest in abundant information. To be democratically, artistically, and scientifically useful, information must be cheap, bountiful, and accessible” (Vaidhyanathan, 2004, p. 125). As the volume of publically shared information increases, librarians are needed more than ever to provide university students the necessary tools to weigh and evaluate information and its sources. As information literacy in Armenian higher education grows, librarians could work to instill critical thinking skills, encourage civic participation, and uphold the principles of internet freedom the Declaration sets forth. Indeed, history shows us that lasting change often comes through a critically conscious and empowered minority. For Armenian college and university students, the ability to critically evaluate information will shape their success or failure when exercising individual and collective power. As Buckminster Fuller said, “You never change things by fighting the existing reality.” Instead, he urged, “build a new model that makes the existing model obsolete” (http://www.bfi.org/dymaxionforum/makingtheworldwork). It is toward this end that we encourage Armenian librarians and other educators to direct their efforts.
References


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i See Cirino, p. 32.

ii On the subject of national security, the UN has issued a 2012 report entitled “The Use of the Internet for Terrorist Purposes.” The stated purpose of the report is to provide “guidance regarding current legal frameworks and practice at the national and international levels relating to the criminalization, investigation, and prosecution of terrorist cases involving the Internet” ([http://www.unodc.org/documents/frontpage/Use_of_Internet_for_Terrorist_Purposes.pdf](http://www.unodc.org/documents/frontpage/Use_of_Internet_for_Terrorist_Purposes.pdf)), p. v.

iii As of December 5, 2012, the Center for Democracy and Technology (CDT) reports that the ITU at the WCIT has decided to work toward the censoring of Internet traffic using deep-packet inspection or DPI. According to the CDT, the potential global impact of this decision on privacy, online trust and users’ rights is a major concern ([www.cdt.org/print/19957](http://www.cdt.org/print/19957)).

iv These unsuccessful proposals include the Stop Online Piracy Act, the Protect IP Act, The Anti-Counterfeiting Trade Agreement, and the Cyber Security Act.

v According to the ONI, “[w]ith regard to media rights, the Armenian government constitution guarantees freedom of expression, media, and other means of mass information. . . .” (Diebert et al., p. 142).

vi See N. Stephen Kinsella’s body of work for an examination of the disadvantages of IP, including his book *Against Intellectual Property* ([http://mises.org/books/against.pdf](http://mises.org/books/against.pdf)).