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Cyborgs in the Academic Library: A Cyberfeminist Approach to Information Literacy

Instruction

Abstract

This paper expands on the figure of the cyborg librarian (Yoder 2003), specifically addressing its overtly cyberfeminist intentions. Drawing on critical information literacy and feminist pedagogy, the cyborg is positioned within the discussion of academic library instruction. This paper suggests cyberfeminist techniques for encouraging students to navigate complex and diasporic information resources while thinking critically about issues of diversity and inclusion. Also provided are examples of ways in which the cyborg can guide students to use digital technologies to subvert the narratives that are woven throughout dominant information and knowledge paradigms.

Keywords

information literacy, academic libraries, feminist pedagogy, cyberfeminism, critical information literacy

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Introduction

The academic library has in recent years been reconceptualized as a postmodern institution, one that requires us to rethink the role of the librarian. For Yoder (2003), the librarian is now best imagined as a cyborg, or a human-machine capable of interacting with patrons and technology alike. A myth popularized by Haraway (1991), the cyborg figure has provided us with a way of thinking about how humans interact with and are constituted by the digital world. Haraway's cyborg has an overtly political dimension, yet Yoder fails to address this in her analysis. If we are to remain faithful to the cyborg, then we must consider seriously the ways in which this postmodern yet political figure might find a home in the academic library. Specifically, this paper draws on two existing instructional models to position cyberfeminism within the discussion of academic library instruction.

Following a review of cyberfeminism and the cyborg in the academic library, this paper illustrates the ways in which the cyborg librarian might borrow tenets of critical information literacy and feminist library pedagogy to encourage students to navigate the complexity of information available in the postmodern world while remaining devoted to the principles of critical thinking, diversity, inclusivity, and social justice. Finally, presented are examples of ways in which the cyborg librarian might guide students to use digital technologies to challenge the master narratives that are woven throughout dominant information and knowledge paradigms.

Literature Review

Cyberfeminism

Ecofeminists and other social theorists have criticized technology as being a dominating, colonizing, and patriarchal tool used to control, manipulate, and at times destroy nature and all its historic associations, including people of color, women, children, nonhuman animals, and anything “other” than able-bodied, white, affluent, heterosexual men (Marcuse 1992a & 1992b; Merchant 1980; Ruether 1994; Wajcman 2004). Accused of essentialism, pessimism, and Luddism, this position has been challenged by cyberfeminism, or what Hawthorne and Klein (1999) define as “a philosophy which acknowledges... that there are differences in power between women and men specifically in the digital discourse; and secondly, that cyberfeminists want to change that position” (2). Unlike previous technologies that have been accused of being the tools of patriarchy, cyberfeminists view cyber technology as providing unique opportunities because it does “not develop in predictable and orderly ways and cannot be subject to control. Innovations occur at different points in the Web and create effects that outrun their immediate origins” (Wajcman, 64).

Hawthorne and Klein (1999) write of the potential to “subvert the dominant knowledge system, but it involves knowing and being able to participate in it” (8). Here, engagement with cyber technology is essential to undermining the system and can be a liberatory tool when used for political ends. Cyberfeminism offers examples and suggestions of how women, empowered through technology, are able to transgress social impositions to create change in the material world. Such acts include Internet activism, video art, and hacking.

Engagement with cyber technology offers possibilities previously unavailable, specifically the playing with or trying on of new identities. In a discussion of cyberfeminism and

the body, Wajcman (2004) notes that many cyberfeminists celebrate technology because in virtual worlds, they are free from patriarchy and the gendered body and are thus able to play with a variety of identities that are not corporeally bound.

Finally, a key aspect of cyberfeminism is critique (Hawthorne and Klein 1999).

Reflexive participation in cyberspace allows one to better understand and criticize the ways in which transnational economics, cultural politics, and hegemonic social forces are filtered through cyberspace and into our daily lives. For Kull (2001), this position also allows us to see the myriad ways in which we are shaped by technology and science.

The cyborg

One cyberfeminist figure, that of the cyborg, was popularized in what is often referred to as Haraway's "A Cyborg Manifesto" (1991). Though Haraway acknowledges technology's role in oppressive systems, she too is eager to explore its potential for refiguring social relations and concepts of embodiment. She posits the cyborg as a "myth faithful to feminism, socialism, and materialism," explaining that it "is a hybrid of machine and organism, a creature of social reality as well as a creature of fiction" (149). At the most elementary level, the cyborg can be thought of as a human-machine hybrid, or a monster of sorts; however, for cyberfeminists, the cyborg is a symbol of one who interacts with digital technology to create social change.

The cyborg does not eschew technology but works within it and often with political aims. Graham, in a discussion of the political implications of the Haraway's myth, writes that the cyborg subverts "the traditional exclusion of women from participation in science and technology. Haraway seems to be implying that the ubiquity of the cyborg places all of us – and especially women – in a position of engagement and complicity with technology" (2001, 309-

310). It is this engagement with technology that allows the cyborg to create, act, and ultimately aim for feminist, social, and material change. Here, it would be amiss not to draw upon Haraway's famed words: "The main trouble with cyborgs," she writes, "is that they are the illegitimate offspring of militarism and patriarchal capitalism, not to mention state socialism. But illegitimate offspring are often exceedingly unfaithful to their origins. Their fathers, after all, are inessential" (1991, 151).

A major element of Haraway's cyborg myth is that of subverting binaries (based on gender, race, class, etc.) that have traditionally been called upon to justify the othering or oppression of certain groups of people. Particularly, she imagines the cyborg as a post-gender, even post-human, border freak who is finally free to take "pleasure in the confusion of boundaries and for responsibility in their construction" (1991, 150). Borders, "machines, identities, categories, relationships, [and] space stories" (181) can be reconfigured, transgressed, and even erased in new technological worlds and networks, and it is here where power and thrill of cyber exploration lies. Though she accuses Haraway's cyborg of reinforcing the binary between the religious and the secular, Graham points that "cyborgs... transcend the process of dualism upon which western modernity, patriarchy, and colonialism has been founded" (2001, 309). Haraway suggests that it is these transgressed boundaries and new possibilities that "progressive people might explore as one part of needed political work" (154).

Perhaps the most attractive possibility of the cyborg myth is its commitment to diversity. Though committed to distorting binaries, the cyborg does not aim to resolve contradictions or clump a range of voices into one, but rather celebrates the symphonic dissonance. The cyborg honors all voices in their differences and respects each voice's individual political aims – it

“others” no one. In imagining the potential of the cyborg, Haraway writes, “this is a dream not of a common language, but of a powerful infidel heteroglossia” (1991, 181).

Further, the cyborg privileges no grand unifying theory, refuses a common goal of an Edenic return, and is defiant in its denial of the idea of shared origins. “The relationships for forming wholes from parts, including those of polarity and hierarchical domination, are at issue in the cyborg world,” Haraway writes (1991, 151). “The cyborg does not expect its father to save it through a restoration of the garden; that is, through the fabrication of a heterosexual mate, through its completion in a finished whole, a city and cosmos” (151). In fact, Haraway explains, “the cyborg is resolutely committed to partiality, irony, intimacy, and perversity. It is oppositional, utopian, and completely without innocence” (151).

In these ways, then, Haraway has been positioned as a voice of postmodernity, and the cyborg has often been read as a quintessential postmodern figure that has finally freed us from the confines of the embodiment, binaries, and authoritarian metanarratives of modernity.

The cyborg in the academic library

Yoder (2003) asserts that over the past 50 years, “rampant societal change and a revolutionary cultural mindset” have shaken the foundations of the library, an institution that was founded and flourished on the modern principles of “order, progress, authority and control” (381). This mindset is postmodernism, and as Yoder notes, it is not an easy concept to define. “Opposed to modernism,” she writes, “postmodernism is a fluid continuum refusing association with rigid categories” (382). However, she looks to Lyotard who links postmodernity with the “emergence and dominance of local narratives over monolithic metanarratives and the resulting legitimation and performativity of knowledge” (382). For Yoder, it is through these concepts

that one can better understand the role of education, research, and the librarian in the postmodern academic library.

Yoder (2003) points that within postmodern thought, local narratives, or “small, incompatible stories and exercises in meaning making” (382), have taken precedence over metanarratives that privilege certain knowledge and truths over others. “Postmodernism declares that knowledge does not exist separate from human construction,” writes Yoder (383). “It is created by humans searching for meaning, and packaged in local narratives that vary widely from group to group” (383). She points that libraries and librarians, then, ought to take a humanist approach that “respects the role of the human and the human community in the creation of knowledge” (384).

Another aspect of postmodernity that has implications for the academic library is the performance required for individual and institutional validation and legitimation. Yoder (2013) maps this concept within academic libraries, noting that “libraries and librarians must demonstrate that they play a pivotal role within the life of the college or university” (386). Yoder calls on Van de Linde and Slight who predict that the focus on performance could have negative consequences for those libraries or departments that do not market themselves well enough, for departments that fail to successfully compete for funding, and for libraries that do not have the technology to sufficiently support faculty and students. However, Yoder points to other, not necessarily negative, implications for libraries and gestures to Harley, Dreger, and Knoblock who emphasize “the facilitation role of academic librarians in assisting students’ learning and research” (387). This role includes the increasing importance of the academic librarian in helping students navigate, evaluate, and understand a variety of resources, including local narratives. For Yoder, “the academic librarian becomes a complex, multifaceted being who

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guides students through the labyrinth of academic research, entrenched in the human constructions of local narratives yet simultaneously aware of the implications of technological performativity” (388). This observation leads Yoder to conclude that the cyborg is an appropriate model for the postmodern academic librarian.

“Like the cyborg, the academic librarian is a human-machine,” Yoder writes, “a physical being engaging in meaningful human interactions with students while simultaneously... navigating a network of hypertext discourses, unearthing research sources through online indexes and commercial search engines, and retrieving fragments of information from such disparate sources as reference books, websites, and other human beings” (2003, 389). The cyborg not only uses its own mind and experiences to best help students with “the incongruities of postmodernism” (388), but technological tools as well. Further, the cyborg librarian interacts with students in a way that dismantles the student/teacher binary and in a sense, becomes the “interface... through which library patrons interact with the institution” and the technologies necessary for successful research (389). Finally, Yoder notes that the cyborg is not immune to the postmodern demands of performance and must prove its academic and cultural worth, while at the same time training students to do likewise.

While Yoder’s (2003) examination of the postmodern academic library and librarians is astute, she misses the cyberfeminist essence of Haraway’s cyborg. Though she does gesture to the cyborg as a facilitator of critical thinking, she does little to elaborate. Beyond briefly mentioning the cyborg librarian’s role in guiding “students through the multitude of voices in the collection,” helping them “engage in research questions that are not merely interesting but are important,” and assisting them in becoming aware “that knowledge is created and packaged by

humans in academia,” (340) she does not explore the explicitly political dimensions of cyberfeminism and thus fails to introduce to the library the cyborg’s full potential.

If one is to remain faithful to Haraway’s cyborg, an unabashedly cyberfeminist figure, what does this mean for the academic library, specifically when it comes to instruction? This paper, then, is an attempt to best answer this question. To better frame this position, however, an overview of arguments against the cyborg and cyberfeminism is in order.

Arguments against the cyborg and cyberfeminism

As there are critics of postmodernity, so there are critics of the cyborg. Some contend that cyberspace is not liberatory but is rather another sophisticated iteration of capitalist control over the human subject (Gur-Ze’ev 1999). The cyborg, then, is not somehow free but instead the product of grand technological fetishization (Wajcman 2004). Further, Wajcman argues, “cyberfeminism may appear to be anarchist and anti-establishment, but, in effect, it requires for its performances all the latest free-market American capitalist gizmos” (73). Even more, she insists that the fascination with the cyborg figure is “culturally specific” in that it is only those who have access to the newest technologies who are able to realize the opportunities made available in and through the digital world (98). For Wajcman then, cyberfeminism and its cyborg put too much hope in science and its applications, particularly when it comes to liberating the world’s women.

What might be most relevant to our discussion of the academic librarian as cyborg is the critique of postmodernity itself. As previously discussed, Haraway’s cyborg can be understood as a primary postmodern figure. Indeed, Halberstam notes that Haraway successfully links “radical feminism with a postmodern articulation of history and a politically necessary analysis

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of science and technology” (1998, 474). However, critics argue that by eschewing grand narratives, the modern projects of truth, ethics, and democratic values have been lost in an embrace of multiple, subjective voices (Buschman and Brosio 2006). As a postmodern figure irreverent towards modern embodiments, dualisms, and unifying theories, Haraway’s cyborg has not been immune to attack. Indeed, the cyborg has been accused of abandoning the material world in favor of a frolic in the boundary waters, and this abandonment necessarily involves the desertion of the human struggle and its aims for a just society (Gur-Ze’ev 1999).

Briefly addressing these critiques is now necessary if one is to proceed under the assumption that the cyborg, albeit a postmodern figure, can be a character central to student development in the academic library. First, it is true that cyberspace is often (and even usually) constituted by and through capitalism, and if we extend our definition of cyberspace to include the various digital information technologies that library users encounter, then it is not too far a reach to say that academic libraries are quite dependent on the products of capitalism, including integrated library systems, databases, and the like. Indeed, the academic library often asks patrons to use purchased and curated information that is only accessible through students’ or the library’s technological devices, many of which are manufactured under ethically-questionable capitalist schemes. The academic library, then, is dependent on information technologies created and disseminated in a transnational, capitalist environment. The cyborg is a fluent navigator of these technologies yet remains reflexive and critical. The cyborg is aware of the politics of information and its technologies, and it is because of this knowledge that the cyborg can best equip students to navigate – and thus challenge – the types of information valued in academia as well as the ways in which access to certain technologies determines who is able to participate in knowledge creation.

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As Wajcman (2004) notes, the cyborg is indeed a culturally-specific figure. To imagine the academic librarian as cyborg is to place him or her in a Western institution that, as noted above, has available the newest information technologies afforded by global capitalism. Certainly, the cyborg myth is not appropriate for all of those engaged in information literacy in all parts of the world, nor is it the be-all, end-all of liberation for women or any other group. In this instance, however, it can be called upon to provide a lens through which to understand a more liberatory sort of information literacy paradigm in the Western academic library.

Finally, though a self-proclaimed postmodernist, Haraway (1991) does present her cyborg myth in a political light. “It is ... an effort,” she writes, “to contribute to socialist-feminist culture and theory in a postmodernist, non-naturalist mode” (150). Thus, she is not abandoning the real-world issues of injustice and indeed advocates for what might be recognized as very modern values.

Though they advocate for what they call a democratic theory of librarianship, Buschman and Brosio (2006) too acknowledge that postmodernity is not neutral and point to its political achievements: the recognition of the “complexity of contemporary life,” its dedication to inclusion and pluralism, and calling upon Giroux, the “notion of border pedagogy, which suggests that educators (and by extension, librarians) need to move out of the center of the dominant culture to its margins in order to analyze critically what has been taken for granted...” (410). They continue, “the attempt to recognize, expose, understand, and challenge those master narratives that privilege patriarchal, white, and class-specific versions of the world is a central postmodernist insight” (410). It is in these ways, then, that the cyborg librarian – with its cyberfeminist framework of teaching for social justice – can influence the academic information literacy program.

Drawing from the schools of critical information literacy and feminist library pedagogy, Yoder's cyborg librarian is expanded upon below, and the ways in which the cyborg can effectively challenge students to critically examine dominant systems of information are mapped within these educational frameworks. Also provided are concrete examples of the ways in which students can better understand the complexity of information, realize whose voices are included or left out, and locate and challenge the master narratives laced throughout the dominant knowledge systems in academia.

Discussion

Who cyborgs will be is a radical question; the answers are a matter of survival.

– Donna Haraway, "A Cyborg Manifesto"

As Yoder (2003) points, the academic library can indeed be imagined as a postmodern institution – if not wholly, then at least in part. In 1991, Halberstam wrote that "cultural critics... can thus no longer afford to position themselves simply for or against technology, for or against postmodernism... feminist and other cultural critics must rather begin to theorize their position in relation to a plurality of technologies and from a place already within postmodernism" (1998, 469). It is here, more than 20 years later, where this argument is positioned – from a point steeped in postmodernity and in an attempt to create a space where the academic librarian can navigate morally within it. Information in the postmodern age – digitally dispersed in catalogs, databases, and cyberspace – takes many forms and reflects an increasing number of voices, many of which represent identities that are not fixed and whose authority is unclear. How, then, is the academic librarian to effectively guide students through their encounter with these multiple

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narratives? How is the librarian to assist users in understanding the complexity of these voices, let alone the technologies required to access them? How is the librarian to locate the missing voices and expose the dominant ones? And finally, how is the librarian to effectively encourage students to challenge the master narratives that silence the voices of others?

These questions can be answered, or at least touched upon, using the figure of the cyborg. With cyberfeminism as a guiding principle, the cyborg librarian is in a situation to best facilitate postmodern information literacy projects, as it has the tools to navigate a variety of information technology platforms and foster in its students a critical understanding of the politics of information. Directly challenging Buschman and Brosio's (2006) claim that "a postmodern theory or epistemology of librarianship and its research and teaching agenda tends to sidestep social and educational inequities in a democratic society as part of avoiding the *grand recits* of an overarching purpose for librarianship," (415) this argument illustrates how the cyborg is able to reveal to its students the ways in which academic libraries are sites of "production and reproduction of knowledge and power" (Luke and Kapitzke 1999, 467) and address inequity head-on. Marrying Yoder's cyborg librarian with politically-charged instructional paradigms, the academic instruction librarian can indeed find its place and purpose in the postmodern library.

Critical information literacy and feminist pedagogy

Two instructional models for libraries have developed in the last decade and are helpful in positioning the cyborg within the academic library: critical information literacy and feminist pedagogy. Critical information literacy, popularized by Elmborg in 2006, asks librarians to

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encourage students to think critically about the information they encounter (academic or otherwise) and to develop what can be understood as a “critical consciousness” (192). Rather than simply working within the bounds of traditional academic information literacy, what Elmborg describes as “the ability to read, interpret, and produce information valued in academia,” the librarian hopes to encourage students to “critically evaluate the system itself” (196). Here, students might better understand the “politics of academic exclusion” (197), critically reflect upon the academic publishing process that values certain literacies over others, and consider the ways in which this process influences who has access to information and who does not. Ultimately, it is the librarian’s goal that students are able to actively engage in untangling and navigating information rather than simply being passive recipients of uncontested knowledge.

Critical information literacy is also concerned with the political potential of the digital world. With the cyborg in mind, digital literacy is a particularly potent vein of critical library education, as the Web 2.0 environment provides a constant flow of information spurred by new technologies, digital cultures, and global economies (Luke and Kapitzke 1999). By exploring all that Web 2.0 affords, not only can students see that the current state of the Web has allowed for an influx of user-generated content and participatory modes that challenge traditional models of knowledge creation, but they ought to wrestle with and understand the role of ideology, “diversity, ambiguity, and multiplicity” (Luke and Kapitzke 1999, 467) in the production and dissemination of multimodal texts and information (Gainer 2012; Seale 2010).

Gainer (2012) argues that teaching students technical skills alone is not enough and that the production of multimodal texts allows students to engage with large, global audiences. He points to the ways in which certain groups and organizations have used multimodal literacies in

their quests for democracy and social change, such as Occupy Wall Street and WikiLeaks. Acknowledging that teaching critical information literacy as a means to engage in democratic movements is not an ideologically-neutral approach, Gainer and others (see Dunaway 2011) have created a space within critical information literacy for the cyborg librarian to encourage its students to be active and creative participants in cyberspace. “Web 2.0 allows end users to participate in the construction, critique, and control of information,” Dunaway writes (152). As the cyborg is born to subvert its father, so are students encouraged to use the digital tools of Web 2.0 to problematize dominant voices and information paradigms.

Feminist pedagogy and library instruction are relatively new bedfellows, and while feminist techniques have likely been employed in library instruction for some time (Accardi 2013), this approach to information literacy has only recently been explored in detail. Accardi, in *Feminist Pedagogy for Library Instruction*, acknowledges that feminist pedagogy is a form of critical pedagogy, noting that feminist educators are concerned with learner-centered, anti-hierarchical, collaborative, and participatory learning environments that value personal narratives. Ladenson, whose chapter describing the use of feminist pedagogy in academic library instruction served as inspiration for Accardi’s work, stresses that while “some traditional bibliographic instruction methods emphasize a patriarchal paradigm,” feminist pedagogy provides a different approach (2009, 105). Ladenson includes an overview of the core tenets of feminist pedagogy, including its resistance to passive student behavior and dedication to active learning, critical thinking, cooperation, collaboration, difference, and diversity. She provides examples of how she integrated such practices into her work with first-year composition students, including the use of small group work and student-led discussions and demonstrations.

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Accardi (2013) notes that feminist pedagogy in library instruction includes feminist content in the classroom. In a discussion of the various forms feminist pedagogy might take, she provides an example of demonstrating database searching using the phrases “women in engineering” and “women in computer science” (37). She notes that this instructional technique leads students to articles that will likely expose the real-world sexism that women in these fields confront. Here, students are led to discover how women’s lives are shaped by technology and science, and this example can rightfully be read as a cyberfeminist act.

Ladenson describes how she curated a reserve collection of books covering a diverse group of women so that her students “could acquire valuable knowledge about the vast diversity of women’s experiences and accomplishments” (2009, 110). Broidy (2007), in describing the development of an information literacy course exploring the intersections of gender and information, too writes of the importance of asking students to examine women’s lives. Using Ada Lovelace, “the true foremother of the digital age” (501), as a guiding character for the course, Broidy explains that Lovelace illustrated to students women’s historical role in the technological revolution. “At the same time, Broidy writes, “Ada’s life, work, and untimely death from uterine cancer vividly illustrated the intersecting themes of gender, technology, and the politics of information” (501). Broidy further explored these themes by challenging students to consider how women around the world are impacted by information technologies, focusing on the stark contrast between women’s experiences in the Western and developing worlds. Specifically, she asked that students wrestle with the realities of technology production and consumption to illustrate “the vast differences between the owners of technology and those who build it” (506).

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Finally, Accardi (2013) stresses that feminist pedagogy encourages student action in response to injustice and inequality. For Accardi, the feminist approach “is broadly concerned with social justice and sees education as a site for social change and transformation, exposing and ending oppression against women and all other kinds of marginalization: racism, xenophobia, classism, ableism, and so on” (28). Beyond simply understanding how knowledge is produced, feminist library instructors encourage students to be agents of change, thus “transform[ing] the dominant culture of knowledge production” (67).

In the sections that follow, the ways in which cyborg instructors can weave together the philosophies of both critical information literacy and feminist library pedagogy are detailed. The aim is to best assist students in understanding and navigating various forms of information and in providing them with the tools to ultimately challenge the voices that exclude others.

Cyberfeminism and information literacy

Navigating the information diaspora

As a cyborg living in the borderlands, the librarian has the ability to move from one information source to another, and this mobility requires that cyborgs be fluent in a variety of academic languages as well as the learning styles, literacies, and social languages of its students. Thus, cyborg librarians must simultaneously inhabit multiple identities, interacting with and deciphering changing, fragmented ideas and modes of information. As Haraway notes, the cyborg exists in an “integrated circuit” comprised of newly configured “webs of power and social life” (1991, 170). Here, “the issue is dispersion. The task is to survive in the diaspora” (170). The task for the cyborg librarian, then, is to help its students be conscious of and navigate the scattered state of information within new and changing social and digital cultures.

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To encourage students to critically evaluate information, the cyborg librarian must first explore with its students the great variety of resources available both through the library's information technologies and on the Web. To be successful in doing so, students must be able to identify and differentiate the various types of information sources, from scholarly to non-scholarly, from discipline to discipline, and from mode to mode. This requires that the cyborg librarian introduce students to academically-prized, peer-reviewed literature and ask them to explore a variety of academic publications and journal articles. For example, students might be asked to read a peer-reviewed article on sexual harassment. They will look at which types of information sources are cited in the bibliography as well as the author's affiliation. As a whole group, the class might discuss the absence of certain types of information cited and how most authors are affiliated with an institution of higher education. Next, students might turn to the Web to locate that journal's webpage with the aim of discovering that the act of publishing is an oft drawn-out, highly selective one and that access to the publication's contents typically costs users and libraries money. In some instances, they will find that authors can choose to provide free and open access to the public, though this option often comes with a steep price tag.

The cyborg librarian insists that it is necessary for students to move beyond peer-reviewed literature if they are to truly understand the diasporic nature of information. Indeed, there are a variety of ways of encouraging students to explore the complexity of information available to them in our postmodern state. However, the cyborg must first ensure that its students are able to use the technologies necessary to access a variety of types of information. The cyborg employs learner-centered instructional techniques to empower students to acquire, for example, the technological skills necessary to access additional information related to sexual harassment. Beyond the use of Boolean operators in the online catalog, the cyborg instructor

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spends as much time on efficient database queries as it does with Google searching. The cyborg encourages students to explore multimodal as well as print information resources and values the documentary short as a source of information as much as the written word. The cyborg does not demonize the Web but asks students to explore a variety of sites and specifically encourages them to examine user-generated content in order to access the great variety of personal, local narratives enabled by Web 2.0.

The cyborg asks that students work together to find new digital information resources of interest and to share these findings with the class. Specifically, the cyborg challenges students to find information that reflects the great variety of voices that can speak to a particular topic. For example, one student group might choose to focus on sexual harassment of Latinas, another on sexual harassment in rural areas, and another on sexual harassment on the Web. A class discussion following student presentations can assist students in understanding and speaking to the rich complexity of information in the postmodern world.

The cyborg instructor encourages students to locate what points of view are missing in each of their found resources, stressing that what is missing in one text can be supplemented by another. In doing so, the cyborg illustrates that the integration of a variety of information resources leads to deeper understanding of a topic. More so, the cyborg challenges students to consider which types of information are likely not available on the Web, such as that which is transferred orally from one person, group, or generation to another. Finally, as a way to move towards greater understanding of information politics, the cyborg asks students to consider when and why the different types of resources they found – including peer-reviewed articles, scholarly books, encyclopedia entries, newspaper articles, blog poetry, satirical art, and Vine videos – might be useful in their research as students in the academic environment.

Issues of inclusion

The section that follows provides examples of ways in which the cyborg librarian might approach working with students to locate the voices missing in academia and expose those that are dominant. To return to the topic described above, sexual harassment, students might revisit the peer-reviewed publications they first examined, this time with a more critical eye. The cyborg asks students to think about what sorts of social capital, experience, and opportunity is necessary for one to engage in scholarly conversations. And if this sort of capital, experience, and opportunity (an advanced degree, employment as a faculty member, access to the World Wide Web, and the time to devote to scholarly research, for example) is available and accessible to a very few, then what narratives are left out of dominant, respected modes of knowledge making? Who is allowed to be an expert? Whose truths are validated by the academy, and whose are not?

To answer some of these questions, students might return to the user-generated content they found online. “By listening to these voices,” Seale writes, “learners can begin to question the content of traditional and authoritative sources of information and move towards a critical understanding of information as always subjective, always political, and always inflected by social, political, and economic contexts” (2010, 230). In pairs, students might compare and contrast the scholarly articles they read with non-scholarly resources. They could be asked to create a presentation illustrating the similarities and differences between the authors as well as the format and content. Focusing on issues such as race, gender, and class, students might then be able to better locate some of the social, political, and economic factors that illustrate why and

how some have been excluded from academia and thus silenced in knowledge-making conversations.

Further, the cyborg instructor hopes that such an exercise will act as a way to validate the voices of those who have long been excluded from knowledge making and as a way to empower students to imagine themselves too as capable of entering the conversation. Accardi writes that “knowledge produced in the male-dominated culture is traditionally privileged as valid, true and important, so an emphasis on legitimizing other forms of knowledge, especially the knowledge of oppressed classes, is a feminist act” (2013, 38). Feminist pedagogy privileges the voices and experiences of students, and the cyborg thus encourages students to use digital technologies to create their own information resources that honor local narratives.

Subversion through participation

The cyborg librarian desires to extend the cyborg experience to its students. In other words, the cyborg insists that students know how to not only critique information paradigms valued in academia, but to participate in the digital cultures and global information economies enabled by Web 2.0 technologies. Though written in 1999, Hawthorne and Klein’s articulation of the importance of involvement in cyberspace remains pertinent. “Cyberculture is only as diverse and interesting, or as violent and boring, as the people who contribute to it,” they write. “In its best form it can provide direct interaction between like minds, potentially bypassing the main routes of the male-dominated media and without interference from the gatekeepers. It can promote communication across cultures, and between people of very different social groupings” (14).

Cyborgs and Cyberfeminist Information Literacy

As noted earlier, cyberfeminist thought is centered on the idea of participation for change. As many academic librarians can likely attest, a number of students come to the classroom as already sophisticated users of a great number of technologies, many of which allow for user-generated content. In fact, an increasing number of students in Western academic institutions will enter the academic library as products of Web 2.0 – surely, fewer and fewer will recall a time where Facebook and Twitter did not exist, and more and more will likely be fluent actors in participatory digital cultures. Thus, students are the best teachers and should be encouraged to instruct one another on how to use digital technologies. This tactic can be employed in the classroom to subvert the student/teacher hierarchy, subsequently creating an environment that validates and legitimizes localized student knowledge.

Keeping with the example topic of sexual harassment, students might be urged to reflect on their own social locations and experiences with sexual harassment. How are their local narratives different from or similar to the narratives they found in the peer-reviewed literature? Can their stories build upon this or upon the points of view they found in non-scholarly resources? Can they locate any voices that are absent? If so, how can they integrate the content they found to create narratives that advocate – but not speak for – those who remain missing?

Once students have explored these questions, they might select one of the technologies that was presented by their peers in the classroom. Using such technology, students are encouraged to create a new narrative that addresses the shortcomings of the metanarrative and presents a localized, contextualized take on sexual harassment. Students might share their own stories, interview a friend, or address the ways in which sexual harassment is different or similar for women and men, Asian Americans and African Americans, and for people of different sexual orientations. By doing so, students will gain a greater understanding that local narratives are

invaluable at exposing the truth that experiences with sexuality, gender, power, and violence are colored by intersectionality. Indeed, Seale (2010) notes that the use of user-generated content creates a space where “antiracist, feminist, and queer perspectives” can be explored in library instruction environments (230).

To respect different learning styles, students should be allowed to choose from any variety of technologies enabled by Web 2.0 or otherwise. Tapping into students’ creative potential is integral to this process and the mastery of multimodal literacies. Some might choose to create a video that is shared on Vimeo, others might validate the act of storytelling by creating a podcast that is then uploaded to a personal website, yet others might create a photo essay that is posted on YouTube. Others may simply choose write a blog that acts as a direct response to a peer-reviewed article.

These student-created information resources will live online where they will be able to reach the broadest, most global audience and most powerfully subvert metanarratives perpetuated by privileged forms of knowing. Aware of this potential, the cyborg librarian does not allow these student projects to wither and die once the class or semester comes to an end. Instead, with student permission, the instructor integrates these projects into the library’s resources, including subject and research guides. Linking to these student projects can be read as a cyberfeminist act akin to hacking, for links can reflect biases inherent in academic curatorial practices (Standish 1999) and be used to direct patrons towards content created within privileged knowledge systems and away from alternative information resources. Presenting patrons with the opportunity to explore student-created, local narratives can provide users with new ideas for their own research and illustrates the library’s commitment to students and student voice.

Finally, it is necessary that the cyborg, as one engaged in a critique of cyberculture itself, warn its students that their work might be stolen, misused, or appropriated, and that once shared online, there is potential that their work will be subject to the critique of an involved, global audience.

Conclusion

The example activities and discussion topics suggested above can, of course, be modified for particular classrooms, information literacy programs, and institutional constraints. What is presented above is surely not an exhaustive list of ways to approach information literacy from a cyberfeminist vantage, but should rather act as a starting point for the type of instruction that is possible and desirable in the digital age. All that has been proposed cannot be squeezed into a one-shot library session, though bits and pieces might be implemented when possible. For those librarians who have the opportunity to lead an extended or semester-long course, collaborating with faculty to tailor these instructional techniques to student learning outcomes is necessary. Though these activities could easily be integrated into a course in media, sociology, anthropology, or women's and gender studies, it is important to remember that the cyborg is an interdisciplinary creature and too can find a home in chemistry, architecture, or business.

Further, most of the activities presented in this paper have focused on a comparative approach to peer-reviewed and user-generated content. As Hawthorne and Klein note, issues surrounding cyberspace itself ought to be properly examined, particularly "the allocation of resources for the poor and the marginalized, the experience of time and space, of what is public or private, of the body, the community and global economics" (1999, 8-9). Addressing these

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issues in information literacy too is the work of the cyborg librarian, and many of the suggestions outlined in this paper might be adjusted to address hegemonic forces and resultant inequities on the Web. As an example, students might compare information found on popular American news sites surrounding street harassment with first-hand accounts from user-generated or alternative sources. Further, students ought to be as critical of user-generated content as they are of other sources of information. To include user-generated content in an information literacy approach is not to unequivocally accept all such content as more useful or somehow better than scholarly material, but to alert students to the fact that academic systems of information creation and dissemination tend to be exclusionary – and thus potentially incomplete – in nature.

Finally, the focus of this paper is limited to the implications of the cyborg for instruction in the Western academic library. Surely, there are other areas of library service and other types of libraries where this figure can be useful, particularly when considering different approaches to collection development, archives, cataloging, outreach, and access and reference services.

This paper has attempted fill in the gaps that Yoder neglected when she named the librarian as cyborg in 2003. It presents the cyborg as a creature true to Haraway's political mission and thus provides the academic library with a figure that can assist students in morally navigating the plethora of information resources available in the postmodern world. Indebted to critical information literacy and feminist pedagogy, the cyborg is a necessary figure if the academic library is to remain committed to critical thinking, diversity, inclusion, and social justice in the digital age.

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