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January 2018

Stepping into the Future

Holley Cornetto

San Jose State University, hcornetto@gmail.com

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As we begin a new year, our thoughts naturally incline toward stepping into the future, and change – change in who we are, who we want to be, and what we want to achieve. This is the first issue of the *Student Research Journal* that I have the honor to introduce as Editor-in-Chief, and, more significantly, the first issue published under our new title, *School of Information Student Research Journal* (SRJ). This new title reflects changes at San Jose State University, as the program evolves to meet the challenges of information professionals in the twenty-first century. Although the name of the journal has changed, our mission has not. We are still committed to being the only double-blind, open access, peer-reviewed library and information science journal to publish graduate student research. Here at *SRJ*, we are dedicated to publishing excellent scholarship and sharing it with the larger LIS community. In this issue, we are pleased to present to you two articles that address this theme of change. Our invited contribution discusses changes that are ongoing in our field, while our regular article explores directions in which it still needs to change.

For this issue, we have an invited contribution from Bernd Becker, who addresses the myths surrounding information literacy and digital literacy, and examines the different elements of the two types of literacies (p. 1). Becker discusses the different behaviors associated with a digitally literate individual, and how information literacy is evolving as the Information Age becomes the Digital Age. Becker describes digital literacy as “something much greater than just learning how to use software or digital technology” (p. 5). Becker serves as the SJSU Martin Luther King, Jr. Library liaison to the Psychology Department, the Child & Adolescent Department, and the Counselor Education Department. He also serves as the Collection Development Coordinator at the King Library and is a regular author for the Taylor and Francis journal *Behavioral & Social Sciences Librarian*. He teaches courses for the iSchool, notably the course on Information Literacy and Learning. We appreciate Mr. Becker’s willingness to provide an article for *SRJ*, as instruction continues to be a growing field in the area of information science.

We also have a peer-reviewed research article for this issue written by Patricia Mars, titled “Gender Demographics and Perception in Librarianship.” This essay explores gender issues and stereotypes in the field of library and information science by analyzing data on current trends in libraries (p. 1). In addition to her analysis, Ms. Mars provides options for moving forward and combating issues of gender inequality in the profession. This article is timely, considering the current social climate and focus on women’s issues in the United States. Mars is currently a student in the Library and Information Science program at the Catholic University of America.

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thank you to the faculty and staff here at San Jose State University. We could not do this without your support and guidance.


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Information Literacy in the Digital Age: Myths and Principles of Digital Literacy

Bernd W. Becker

San Jose State University, bernd.becker@sjsu.edu

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Librarians have traditionally served as the champions of information literacy, adopting it as a core principle of the profession and creating a movement that tries to facilitate fair, equal access to knowledge and its creation. There are plenty of publications on this topic, but as the Information Age has become the Digital Age, there also needs to be a discussion of how information literacy is evolving. More specifically, librarians are now finding themselves shouldering the responsibilities of digital literacy alongside traditional approaches to information literacy, especially considering how more and more information needs can only be met via digital resources. This paper serves to add to this discussion by examining the different elements of the two literacies, the myths that surround them, and provide some basic principles of information literacy learning and instruction in the digital age.

One of the first myths of the two literacies is that digital literacy and information literacy are the same thing. Discussion of this perspective depends on one's definition of digital literacy. While the two literacies are very similar, it is arguable that digital literacy evolved from information literacy and that they are not equal in their scope. The traditional perspective of information literacy existed before the digital age, and digital literacy's roots are in information literacy, but there are nuances that keep them separate.

It is important to recognize, however, that a person's definition of digital literacy may reflect their professional or occupational community. Another response someone might have to the digital/information literacy discussion is that digital literacy is literacy. A professor of design, illustration, and photography may feel that digital literacy is the new literacy, implying that we could remove the "digital" aspect from the term since everything within the scope of his field is determined by a certain level of digital literacy competency. In this sense, we must recognize that some people will consider digital literacy a novelty or hobby, while others will see it as a core literacy.

From a library and information science perspective, the Association of College & Research Libraries (ACRL) states that "Information literacy is the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning" (p3, 2016). Similar ideas are also reflected in the American Library Association's (ALA) definition of digital literacy: "Digital literacy is the ability to use information and communication technologies to find, understand, evaluate, create, and communicate digital information, an ability that requires both cognitive and technical skills" (p2, 2013).

It's important to break down the similarities and differences between these two literacies. Side by side, the core components of each are similar. Both definitions are grounded in concepts of finding, understanding, and using the necessary information. But it's the qualities of a digitally literate person that brings the differences between the two literacies to light. The ALA has identified five sets of traits of a digitally literate person (2013).

First, The ALA (2013) considers a digitally literate person as someone who possess the variety of skills -that are both cognitive and technical- required to

find, understand, evaluate, create, and communicate digital information in a wide variety of formats.

In terms of functions, the ALA (2013) states that a digitally literate person is someone who appropriately and effectively uses diverse technologies to search for and retrieve information, interpret search results, and judge the quality of the information retrieved.

The third aspect of a digitally literate person is that he or she understands the relationships among technology, lifelong learning, personal privacy, and appropriate stewardship of information. Here we see an aspect of the context of the digital information. There's a knowledge about how digital information and technology can affect life beyond the information need. (ALA, 2013)

The aspects of a digitally literate person don't always focus on technical skills, it's also about connections. There is the idea of using these skills and appropriate technologies to communicate and collaborate with peers, colleagues, family, and the general public. A digitally literate person uses these skills to participate actively in civic society and contribute to a vibrant, informed, and engaged community. (ALA, 2013)

These five characteristics of a digitally literate person show how information technology is integrated into the person's life, rather than it just being a set of technical skills, which is what the traditional idea of information literacy gravitated towards. In this sense, digital literacy has become its own literacy. However, digital literacy and information literacy cannot exist without one another.

Another myth that is important to address is the idea that digital natives are by default, digitally literate. The term *digital natives* is a categorization of a person born or brought up during the age of digital technology. In many ways this leads them to be familiar with computers and the Internet from an early age. The problem is that being familiar and being literate are not necessarily the same thing. This has caused all kinds of stereotypes for digital natives. It's also led to unfair assumptions about those who are far from being digital natives, specifically older adults.

The reality is that everyone struggles with digital literacy. Younger generations might have the technical skills, but lack the refined cognitive skills to find, evaluate, create, and communicate. Older generations might have the cognitive skills, but lack the refined technical skills to find, evaluate, create, and communicate.

No one is born digitally literate, and no one's age will determine their digital literacy skills. This also applies to everyone in between digital natives and the elderly. As library and information professionals, we need to keep these stereotypes at bay. The general population across all ages have different issues with digital literacy. So instead of physical or social demographics, we might consider grouping students and patrons by how ready they are to embrace digital literacy skills.

Fortunately, John Horrigan for the Pew Research Center (2016) published a recent study on digital divides and digital readiness. The new research

examined the attitudes and behaviors in people's preparedness and comfort in using digital tools, specifically for learning.

The Pew study looked at five main factors: confidence in using computers, facility with getting new technology to work, use of digital tools for learning, ability to determine the trustworthiness of online information, and familiarity with contemporary *education tech* terms. The analysis of results shows several distinct groups on the spectrum of digital readiness.

In general, about 52% of the population are *Relatively Hesitant* to learn in a digital environment, while 48% are *Relatively Prepared* to learn in a digital environment. This means about half of the students and patrons we work with are comfortable moving forward, while the other half have generally lower levels of involvement with personal learning activities, lower level of digital skills, and a low level of trust in an online environment.

The Pew research then breaks down each of those cohorts into distinct groups. For the 52% that are *Relatively Hesitant*, 14% of those are *Unprepared*, 5% are *Traditional Learners*, and 33% are likely to be *Reluctant*.

The *Unprepared* is a group with both low levels of digital skills and limited trust in online information. The *Unprepared* rank at the bottom of those who use the internet to pursue learning, and they are the least digitally ready of all the groups.

The small group of *Traditional Learners* are active learners, but they use traditional methods to pursue their interests. They are less likely to fully engage with digital tools, because they have concerns about the trustworthiness of online information.

A larger group, *The Reluctant* have higher levels of digital skills than *The Unprepared*, but very low levels of awareness of new "education tech" concepts. They also have lower levels of performing personal learning activities of any kind. This is correlated with their general lack of use of the internet in learning.

On the other end of the spectrum, we have about 48% of the population who are *Relatively Prepared* to use online tools for learning. The research has broken this cohort into two groups, *The Cautious Clickers*, and the *Relatively Prepared*.

The group deemed the *Cautious Clickers* comprises 31% of adults. They have tech resources at their disposal, they have trust and confidence in using the internet, and they have a drive to put digital resources to use for their learning pursuits. But they have not ventured into e-learning to the extent *the Digitally Ready* have and are not as likely to have used the internet for some or all of their learning.

The final group, the *Digitally Ready*, make up 17% of adults who are both active learners and confident in their ability to use digital tools for online learning. They are aware of the latest educational technology tools and are more likely to use them in the course of their personal learning.

The *Digitally Ready* have high demand for learning and use a range of tools to pursue it – including, to an extent significantly greater than the rest of the population, digital outlets such as online courses or extensive online research.

These categories provide a snapshot of the general population, and the important thing to take away is that we need to start thinking of our patrons or students in terms of where they are on the spectrum of digital readiness, which is reflected in attitudes and experiences, not physical traits such as age.

Another principle to consider is that digital literacy behavior is driven by goals. In a 2015 research study, Michelle DCouto and Serena Rosenhan looked at how students carry out research, what they found can impact how we go about teaching our users about digital literacy. They found that behavior is driven by goals, and categorized learners into four different groups.

First, there's the *Gen-Req-er*. This is a learner who is driven by the minimum need or requirements. This learner wants the quickest and easiest way to get to the information. They are not interested in learning all the ins and outs of a piece of software. Their digital literacy skills will grow in small, incremental steps as they go through trial and errors in their learning. This is the type of person who might get frustrated with librarians if they try to explain how a program works, or if they try to show them lots of different features in a digital product. Librarians must be very patient when working with this type of person, and realize that the Gen-Req-er might not be ready to learn skills beyond their information need.

The next type of learner is identified as the *Domain Learner*. This is a person who is driven to learn information about a specific discipline or practice. He or she is ready to invest in the tools and resources connected to a subject. This is a person who is, for example, interested in learning the different tools or websites available for doing a family history and genealogy search. They are going to be in a mode where they're driven to learn and make connections between digital literacy and information literacy as they explore products and features. Digital literacy instruction in this scenario is probably going to be a survey of the different genealogy services and resources that are available in a library and online.

The next type of learner is the *Apprentice*. This is someone who probably has a good grasp of the information that they need, but librarian can work with them as a specialist. Less time will be spent on covering basic terms and practices, but and more time will be spent on deeper exploration of the features of a digital resource. This is where the librarian can teach how database is indexed, and how to search with deep filters. Information literacy skills will develop as the patron is shown the controlled vocabulary that the database uses and as they are introduced them to more complex search strategies. The content of this type of information literacy instruction of would likely not be appropriate for a Domain Learner, and especially not for a Gen-Req-er.

Finally, there is the learner whose digital literacy behavior is driven by his or her role as a scholar. The *Scholar* is already an expert, and will continue to build upon years of knowledge and contribution. This person needs to know all the tools and techniques available, and is motivated by advanced learning. It's with these kinds of interactions that the librarian is likely to learn just as much from the learner as they are teaching him or her something new about the tools and resources within the discipline.

Each of these goals will drive someone's digital literacy behavior. Their goals will help determine the content of your instruction, as well as the pace and scope. Digital literacy isn't always about being an expert, or having to provide an expert level of instruction. Try to tailor information/digital literacy interactions according to the person's needs or goals.

This idea of goals driving digital literacy development is also reflected in the Principle of Three Models of Digital Literacy. This principle comes from the New Media Consortium (NMC, 2016), a community of experts in educational technology who research emerging technology and digital trends.

The NMC wrote a brief on Digital literacy in October 2016 to try to help colleges and universities better understand how to advance digital literacy among students and faculty. In their brief they propose three models of digital literacy: Universal Digital Literacy, Creative Digital Literacy, and Digital Literacy Across Disciplines. Approaching digital literacy in this way will help determine the content of a librarian's digital literacy instruction.

First is the model of Universal Digital Literacy. This of this as a baseline set of practices cuts across the diversity of responses, and it applies to learners and creators of all ages. Universal Digital Literacy means that the learners are familiar with using basic digital tools such as office productivity software, image manipulation, cloud-based apps and content, and basic web content authoring tools.

If a librarian is teaching content that falls under Universal Digital Literacy, they will need to consider that their learners are starting with a low level of digital learning. They will need to be exposed to all the basic terms, concepts surrounding the topic, and instruction will need to be focused on the basic, simple steps.

Then there is the model of Creative Digital Literacy which builds upon Universal Digital Literacy, but emphasizes the production (or creation) of content. Technical skills in this model are more challenging ones that can lead to richer content such as image/video editing and an understanding of device hardware and programming. This model also connects digital practices to online citizenship and behavior by introducing knowledge about privacy, security, and ethics. Creative Digital Literacy isn't separate from Universal Digital Literacy, it's just a model that takes the learner beyond the basics. For example, if a librarian were teaching a basic workshop about social media tools, he could expand the universal literacy of "how to tweet" to now include a review of Twitter's user agreements which explains that Twitter will immediately own whatever is posted post, and even sell that information to other companies that aggregate and analyze the data.

The NMC also identifies the model of Digital Literacy Across Disciplines. This is the act of embedding digital literacy into the curriculum in a way that is appropriate and unique to each learning context. This is the most crucial form of literacy for many academic librarians. There's no way the library can reach every one of 30,000+ students. However, effective outreach to the teaching faculty to training them how to incorporate digital literacy into their assignments and exercises moves agency away from a single library or librarian, and into the

different learning communities. This model also allows a learner to connect digital literacy skills to specific subject areas and focuses the instruction.

These three models of digital literacy line up well with the models of learners that were discussed earlier. It is critical to adjust your information/digital literacy instruction so that it reflects the learners' goals and context. But what about the times when the audience is a mixed bag of learning goals and digital readiness? In cases like that, it is a best practice to always teach to the lowest common denominator.

Regardless of the model, information/digital literacy instruction needs to be built around the idea that the librarian is going to be teaching both cognitive and digital skills. Notice the two important traits in the ALA definition of Digital Literacy: "Digital literacy is the ability to use information and communication technologies to find, understand, evaluate, create, and communicate digital information, an ability that requires both cognitive and technical skills" (ALA, p2, 2013).

It is important to recognize that cognitive and technical skills are the fundamental skills in supporting digital literacy. Digital literacy is something much greater than just learning how to use software or digital technology.

The necessary cognitive skills are developed through teaching, while the technical skill as something that is developed through training. This can be considered as the teaching and training approach to digital literacy instruction.

The teaching (cognitive) aspect is addressed as the librarian teaches about the technology necessary to fulfill an information need, such as the context of the information. The instruction is about the organization of the resource and some of the more universal concepts of digital literacy. The librarian is helping the learner understand the information need. This is important because it sets the stage and helps a person put the technical skills in the context of the information need.

Then, pair the teaching aspect with the training. This is the technical components of information/digital literacy instruction, where the learner is trained on how to use the technology. You demonstrate and train the learner to go through the process necessary to reach the information that they need.

This approach to digital literacy instruction fosters experiential learning. It facilitates information retrieval with knowledge about the technology. In this way, the user learns about the information while experiencing an efficient and effective way to use the technology to retrieve the information.

Another approach to addressing the cognitive and technical aspects of digital literacy is to realize that it creates a double learning curve. The patron is having to make progress in learning about their information need as well as their technology need.

First the person is going to have to learn the context of their information. For example, consider a patron who needs to access online databases to locate research in order to write a literature review. First they have to understand the information need, in this case they are going to have to learn about what a literature review is, and what it is not. They're going to have to learn about the components and its scope of a literature review.

At the same time, or very close to the same time, they're going to be introduced to the technical needs, where they must learn how to use the software (in this case, the databases). They are simultaneously having to process the theory behind the literature review, while learning the technical skills required by the database.

This can immediately lead to frustration, stress, hopelessness, and feelings of stupidity. The double learning curve is one of the biggest obstacles to improving digital literacy skills. To a new user, it will feel like everything is being thrown at them at once, and there's no way they can process all that information at once (and retain it).

One way to work around this experience is to teach like a tutorial. Move through the content slower than you normally would. Keep the lessons short, and include exercises that allow the person to demonstrate what they just learned. Another best practice is to always start instruction by describing the goals of the instruction. This helps the learner understand what the technology is and what it does.

Finally, the information presented should be provided in multiple formats, which leads to the last principle of information/digital literacy instruction. Prepare the instruction or interactions to be delivered in multiple modes. Have the material be available online, provide supplemental handouts with key concepts and steps, and be able to deliver the instruction face-to-face.

Each of these modes will require an adjustment to the instructional content to fit the delivery method, but this is a crucial step in delivering digital literacy instruction. The librarian needs to be sensitive to the different learning styles, and be available to cater to each of them. Whether you are operating within a public, academic, or special library serving children, students, or the general community, information literacy and digital literacy are intertwined in such a way that librarians are having to draw upon a variety of skill and pedagogies. Information literacy is no longer bibliocentric, and the profession must adopt digital literacy principles to remain relevant throughout the Digital Age.

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Article 3

Gender Demographics and Perception in Librarianship

Patricia Mars

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Introduction

The gender pay gap, despite much attention and discussion, remains a pervasive social justice concern in the American workforce. According to the White House Council of Economic Advisors (2015), women, on average, earn 78 cents to every dollar that a man earns (para. 2). The field of librarianship is not immune to this problematic wage inequality. However, the situation of librarianship is particularly unique, because women make up the majority of the profession. Despite this female majority in the library workforce, there remains both a wage inequality between genders, and an unequal proportion of men in leadership roles. Beyond the pay gap and the leadership bias in the field, librarians are often plagued by stereotypes, many related to gender, that perpetuate these issues and lead to false perceptions and “feminization” of the library profession. This exploratory essay examines the root of these issues through a study of the historic gender demographics of librarians, through a consideration of gender stereotypes in the field, and finally, through an analysis of current trends and data in libraries. Further, this paper explores options to combat the negative gender perceptions that plague the profession.

Historical Overview of Gender in the Library Profession

Rubin (2016) gives a brief overview of the history of gender perceptions in U.S. libraries, beginning with the first female clerk hired by the Boston Public Library in 1852 (p. 286). From this lone female library employee in 1852, “by 1878 two-thirds of the library workforce was female, and by 1910 more than 75% of the library workers were women” (Rubin, 2016, p. 286). Women have continued to dominate the library profession to this day. Rubin (2016) does offer a few theories as to why women were so drawn to library work and why they have consistently made up the majority of the workforce. One of the initial reasons for the flux of women in

librarianship stems from the social developments of the nineteenth century. Library systems were rapidly expanding, and this expansion called for additional workers. However, much like today, many libraries faced funding shortages and financial difficulties. In the 1800s, women were willing to work for a much lower salary than most male employees were, and in fact, “male library directors openly acknowledged the desirability of hiring talented women because they worked for half the pay” (Rubin, 2016, p. 287).

Libraries were certainly not the only places that took economic advantage of women, and Jane Simon (1994) writes “denied access to a living wage on the assumption that they were supported by men, women were thus forced into relations of dependence” (p. 258). While the workplace has changed since the 1800s, this inequality of wages remains from this earlier philosophy. These early assumptions regarding dependent relationships positioned women in an inferior relationship to men in the professional world of librarianship as well. Men were assumed to be the primary breadwinners. This assumption is a potential cause of the library leadership gender bias, as men were consistently given higher salaries and positions than their female counterparts. Simon (1994) goes on to explain that in the early days of women in the workforce, “women had the right to paid work only after men’s need for such work was satisfied. They should not compete with men for work, especially if it was well paid and had prospects for career advancement” (p. 258).

Beyond the financial advantage of hiring female librarians in the nineteenth century, there were also sociological reasons for the rapid increase of women in the profession. Women in the workplace was a still a new phenomenon, and many believed that women ought to only work in professions that catered to “natural, feminine” skills, such as caregiving and homemaking. Rubin (2016) elaborates, “because libraries were seen as civilizing and nurturing,

they were acceptable places for women to work” (p. 287). Additionally, the idea that libraries were centers for self-improvement and moral development meant that women were viewed as being especially suited to this “missionary work” (Rubin, 2016, p. 287). However, once again, this idea that libraries were pantheons of moral development and that women were delicate, passive guides in this quest, had far-reaching consequences: “women were perceived as more delicate and unable to tolerate the rigors of administration” (Rubin, 2016, p. 287). This perception, while perhaps unconsciously, has continued to influence the gender of library leadership positions to this day.

Feminization: The Pay Gap and Leadership Bias

While libraries did open a positive new frontier for women to work outside the home, this opportunity had negative effects as well, including the creation of stereotypes and unnecessary genderization of the profession. Librarianship is an example of a field that has been “feminized,” much like nursing or social work. Debra Gold Hansen, Karen F. Gracy, and Sheri D. Irvin (1999) defined feminization as a process in which an increased number of women in the workforce lead to “depressed salaries, limited professional advancement, and [segregation of] women into low-status, nonadministrative positions” (p. 312). The rapid increase of female librarians meant that a feminine stereotype emerged in addition to these sexist limiting factors. Though as Hansen, Gracy, and Irvin (1999) also point out, the fact that the majority of librarians were women meant that women did influence the shape of an emerging profession, a unique opportunity, and one that women used to establish a perceived “‘gender-linked value system’ of altruism, advocacy, and intellectual uplift” (p. 312). These early influencers affected the development of many libraries’ modern service-based missions.

Many early female librarians were ambitious, and dedicated to the library mission and expansion. Unfortunately, their talents were often limited by the male library leaders and the continued gender discrimination in the field, and so women librarians were often considered “active partners,” not “equal partners” (Hansen, Gracy, & Irvin, 1999, p. 312). Men entering librarianship were often fast-tracked toward leadership roles, over equally qualified and successful woman employees. In some cases, “even the most successful woman professional could find herself removed from her administrative post or demoted to a less responsible position” (Hansen, Gracy, & Irvin, 1999, p. 312). In the twenty-first century, there are fewer extreme cases of this outright gender discrimination. Yet, men continue to disproportionately represent library leaders, and the wage gap continues. Both issues are legacies of nineteenth century discrimination and social inequalities.

Gender Stereotypes in Librarianship

Feminization of the library field affected salaries and career mobility, but it also affected the reputation of librarians themselves. “Garrison (1972-1973) suggested that the feminization of public librarianship in the nineteenth century created an inferior image for the profession that it might not have had if it remained the domain of male scholars” (Rubin, 2016, p. 287). Librarianship was thus perceived as “women’s work”; the image of the field no longer had the prestige it once did when men were the primary librarians. In her review of Roma M. Harris’ *Librarianship: The Erosion of a Woman’s Profession*, Ellen Crosby (1993) further explains, “the work is not seen to be professional simply *because* it is being done by women” (p. 147). As this perceived “masculine” scholarly prestige fell away, so did the number of men who became librarians, further contributing to the process of feminization and perpetuating the stereotype that

library work was womanly. Women continued to enter the library field, while men were less inclined to do so.

This decreased professional prestige is particularly jarring because nineteenth century female librarians were dedicated, competent professionals. American women librarians in 1891 frequently needed to “write steadily six or seven hours a day, know half a dozen languages, be absolutely accurate in copying; understand the relation of all arts and sciences to each other and have an intimate acquaintance with geography, history, art, and literature. A successful librarian worked 8 to 10 hours a day...” (Simon, 1994, p. 259). Despite these rigorous librarian requirements of the nineteenth century, and the rigorous modern requirements of twenty-first century librarians (not the least of which is a Master’s degree), the profession still does not merit the same respect as the fields that remained dominated by men.

Woman have pushed to break the glass ceiling throughout the twentieth and twenty-first centuries, and woman today have opportunities to pursue careers in many fields that were formerly reserved for men. Interestingly though, “men are less likely to enter female sex-typed occupations than women are to enter male-dominated jobs” (Hickey, 2006, para. 4). Because librarianship is viewed as feminine, men are less likely to join the field, which then continues to increase the female majority creating a cyclical stereotype about librarianship as a feminine profession. The reasoning behind why men may be less likely to join “feminine” careers than women are to join “masculine” careers is complex, and largely outside the scope of this paper. The psychology behind male and female career choices as a whole rests, among other things, with essentially arbitrarily assigned sexual characteristics and social pressures. The gender demographic in librarianship is related to this psychology, but can be considered independently

because of its unique situation with the many pervasive stereotypes that are associated with libraries and librarians.

Rubin (2016) describes the stereotypical librarian; “they are spinsters, wear their hair in a bun, buy sensible shoes and glasses, look stern, act like policeman—authoritarian and controlling—and are quick to say ‘shhush’ at the slightest disturbance” (p. 284). Not only is this stereotype of a woman, it is a particular kind of woman. This image of a shrewish, unpleasant woman is alienating both to library patrons, and to potential future librarians. This stereotype might cause men not to consider librarianship at all, as they might not feel as though they are the “type.” Hickey’s (2006) articles suggests that men in the library field “are ‘doubly stigmatized’ due to stereotypes of librarianship as women’s work and a ‘traditional negative image of librarians’” (para. 7).

Beyond this negative female image that is the stereotypical librarian, Rubin (2016) mentions that some male librarians also “feared being seen as ineffectual or effeminate” (p. 284). Hickey (2016) also points out an assumed association with male librarians and homosexuality (para. 7). This fear of appearing effeminate relates back to the larger psychological issues at play, and to the societal pressures that people feel. Many feel pressure to conform to certain traits that have been traditionally labeled feminine and masculine, and pursue careers that fit those labels.

This “double stigma,” and effeminate stereotype, however, may be somewhat exaggerated. In fact, data in Hickey’s (2016) research shows that “‘the male librarian sees himself in a worse light than the general population actually pictures him’, prompting [the conclusion] that male librarians ‘are fighting an image that does not exist’” (para. 7). Men in the library field feel these stereotypes more acutely than people outside the field. Unfortunately, the

fact that most people do not entertain a negative stereotype around male librarians is almost irrelevant considering that male librarians do perceive it and thus inadvertently perpetuate it. The stereotype lives on, and continues to discourage men from joining the profession. Heidi Blackburn (2015) succinctly describes this pattern, stating “men assume the stereotypes are valid, they avoid taking the jobs, and the profession continues to see fewer males entering the workforce, creating a self-fulfilling prophecy of low employment rates” (para. 1).

Current Trends

The historic development of library staffs and the subsequent stereotyping of librarians have influenced the demographic make-up of the modern library profession. Women remain the majority of librarians, and continue to face economic inequality in the field and underrepresentation in leadership roles. The American Library Association (ALA) provides data regarding these leadership roles and the respective salaries from 1999. In academic libraries, men occupied 43% of all library director roles, and in public libraries, men occupied 35% of library director roles (ALA, 1999). This data appears confusing, because it seems to suggest that women actually do make up the majority of library directors. However, these percentages are somewhat misleading. In 1999, women made up 78% of librarians (Hansen, Gracy, & Irvin, 1999, p. 312). Thus, men made up 22% of librarians. In both academic libraries and public libraries, men held a disproportionate number of leadership roles compared to women in 1999. Additionally, male library directors made more than their female counterparts in both academic and public library settings. Particularly in the case of public libraries, men, on average, were making \$10, 834 more than women (ALA, 1999).

In 2010, the ALA released another demographic analysis that proved these trends continued into the second decade of the twenty-first century. In 2010, 81% of MLS students were women, and 82.8% of all working librarians were women (ALA, 2011, p. 2). The percentage of male librarians had dropped to 17.2% in 2010, and yet men still accounted for 40% of academic library directors (ALA, 2011, p. 3). Unsurprisingly, the wage gap continues in the library field as well. In libraries, women's weekly earnings averaged just 81% of men's weekly earnings (ALA, 2011, p. 3). Perhaps even more troubling, "on average, women have more years of experience than men, but men's salaries are still higher in nearly all 10 experience cohorts" (ALA, 2011, p. 3). The gender wage gap is even more significant for women of color (Patten, 2016, para. 4).

Conclusion

The "feminization" of the library field, based on both the actual female majority and the unfortunate stereotypes, affected the salaries and career potential of women librarians. Feminization depresses wages and caps advancement. The process also has an unfortunate effect of limiting gender diversity in librarianship. There is no doubt that the American workforce still faces gender inequalities, and the library field is no exception. The library field is unique from other professions because it is associated with a history of deliberate financial moves and "feminization." Women came to dominate the library field in the nineteenth century, when library directors and other leaders realized the need for more library staff but had limited funds. Because women were just beginning to leave the home and join the workforce, they were willing to work for low pay. Hiring women was a good financial choice for the survival of libraries. This novel situation in which women dominated a profession allowed women to engage with

library missions and influence the direction of future libraries. This unique opportunity continues to this day, and librarianship remains a field in which women are the driving workforce. However, social mores in the nineteenth century continued to limit female advancement in the workplace, as women were viewed as gentle caretakers, excellent in nurturing librarian roles, but unfit for management.

Women were not frequently given leadership roles or empowered within the system. Instead, librarianship developed the unpleasant stereotype of being “women’s work,” and additional stereotypes emerged as well, painting female librarians as dull, strict spinsters. The stereotype influenced the growth of an already female majority profession, and men still do not become librarians at nearly the same rate as women to this day.

The situation in modern libraries owes much to this historic development and stereotyping. Wage and leadership inequalities still exist, and women remain the majority of the workforce. The task of these libraries today is to begin eliminating wage injustice and the bias in leadership decisions. Additionally, libraries must work to reverse the feminization of the field to banish stereotypes, allow for upward mobility, and increase gender diversity of librarians.

So how can librarians and information professionals begin to reverse the negative effects of feminization without sacrificing the strengths of the pioneering feminine influence on the field? How can librarians foster increased gender diversity in the profession and cultivate a positive image for professional librarianship? The process begins in the graduate degree programs. Masters of Library and Information Science programs need to incorporate courses in leadership and business management. Library students should be trained to recognize wage inequality and leadership bias in the field, and more importantly, should be trained to advocate for themselves and for their colleagues. Many MBA programs have focus areas for women’s

leadership programs, and this model could be adapted to suit the needs of a female majority graduate student population at risk of leadership bias in their future work environments.

The Tepper School of Business at Carnegie Mellon University serves as an exemplar model of a program that markets extensively to female applicants, and focuses on the improved workplace outcomes for women who participate in leadership training. The school also hosts other executive education opportunities, such as the Carnegie Mellon Leadership and Negotiation Academy for Women, which trains the participants in “strategic visioning, leadership branding, expanding networks of influence, and navigating barriers” (Carnegie Mellon Leadership and Negotiation Academy for Women, 2017). This specific training when applied to library science students could give graduates the skills needed to combat pay inequality and leadership bias. The Simmons College MBA program provides another example of a business program that prepares students to tackle gender inequality in the workforce. The faculty in the School of Management is over 70% female, with professors and scholars who have practical experience as leaders and executives (Why Gender Diversity Matters in BusinessMBA@Simmons, 2017). Future generations of librarians could benefit from training under accomplished female faculty who focus on gender equity in the workplace and on the reversal of the negative consequences of feminization.

Additionally, library degree programs need to advertise the technical skills, data management, and information science aspects of the graduate curriculum. The emphasis on science and scholarship increases the professional image of librarians, which has a two-fold advantage in increasing gender diversity and increasing pay. Computer science degree programs are male-dominated and yield high paying jobs (Saujani & Sweet, 2016, para. 3). While librarians may not have the in-depth training of a true computer science degree, library graduate

work does include coursework in digital content creation and management, in web design, and in information architecture and data science. Awareness of this technical training can positively affect the professional reputation of librarians and create conditions to successfully justify increased pay. These technological skills and focus areas can also help to abate the stereotypes surrounding librarianship, which suggest that library work exists exclusively in a perceived “feminine” sphere of subdued caretaking and nurturing. Emphasis on scientific skill and scholarship could combat existing negative stereotypes and consequently attract a more gender-diverse student population. Library graduate programs are already teaching these skills. The mission for these schools now is to advertise these features and demonstrate the varied abilities of their graduates.

Outside of degree programs, the existing female majority of professional librarians has the power to advocate for progressive changes. Professional organizations like the American Library Association can lend organizational structure for women’s movements to fight for equal pay for equal work. Advocacy groups and committees can unite women despite geographic differences, and these groups can work to implement protective policies like gender-neutral standard pay scales based on experience level. Professional organization committees would also provide a resource for women who feel they have experienced unfair treatment in the workplace. The ALA currently does have a Committee on the Status of Women in Librarianship (COSWL) dedicated to the concerns of women in the field (ALA, 2017). Involvement in this committee and others at the local level can empower women to speak out against wage inequality and leadership bias, and provide support when combatting gender-based injustice.

Women librarians today have unprecedented opportunities and role models; for the first time in history the Librarian of Congress is a woman. Dr. Carla Hayden is the first woman, the

first person of color, and the first professional librarian in over sixty years to hold the title (ALA, 2016, para. 1). Her ascent offers hope that the landscape of librarianship is changing, and that women can overcome the hurdles of feminization and leadership bias. However, Dr. Hayden is the exception that proves the rule. After over a century of a female majority in the library field, it is only now, in the second decade of the twenty-first century, that a woman serves in the highest leadership position in the American library realm. Librarians must pursue concrete strategies to improve the situation for ambitious women, and invest in research on the effects of negative gender perceptions. Such research has the potential to motivate internal action and mobilize the majority to create a more equitable environment for librarians of any gender.

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