THE MILLENNIALS: ASSESSING THE NEXT GENERATION OF ACADEMIC LIBRARIANS

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by

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THE MILLENNIALS: ASSESSING THE NEXT GENERATION OF ACADEMIC LIBRARIANS

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ABSTRACT

Academic librarianship is a career punctuated in recent years by the growth of new technologies used in creating, organizing, and retrieving information. Many academic librarians are struggling to keep up to date with these technology changes. The profession itself is evolving and reaching out to a new generation of student that is increasingly dependent on these recent technologies, members of the Millennial Generation. However, Millennials are not only students; they are becoming academic librarians who believe they can work with new technologies and evolve libraries in new and exciting ways to meet the needs of students today and into the future. However, there is not a clear understanding of why this generation chose librarianship as a career, what path they desire to take, and their demographics, although the profession is eager to learn about them. These newer and younger librarians are also seeking to have the professionals understand them.

A two part multiple methods (qualitative and quantitative) approach was undertaken for this study. For the quantitative part the researcher surveyed currently employed academic librarians and library school students desiring an academic library career who were born in 1982 to 2000. The survey was designed to gather demographic

information and reasons for career choice, examine generational attitudes and job satisfaction, and measure technology skills. The qualitative part of this study involved surveying 20 respondents, a sample of those who completed the survey and volunteered to be interviewed. A semi structured interview protocol was used to guide further examination of career selection, generational attitudes, technology skills, and the role technology plays within their career.

The findings reveal that Millennial librarians are not drawn to the profession for its technical nature, and many do not have advanced technical skills, though they desire to learn. Many became academic librarians citing a love of research and a desire to work in the higher education environment. They also want to take a leadership role in shaping libraries for the future, but many are frustrated that they may not get a chance.

CHAPTER ONE

INTRODUCTION TO THE STUDY

Librarianship is a career field that has been punctuated in recent years by the growth of new technologies used in creating, organizing, and retrieving information. Many academic librarians are struggling to keep up to date with these technology changes. The profession itself is evolving and reaching out to a new generation of students who are increasingly dependent on these recent technologies. Older librarians who are not digital natives are concerned that their professional skills will quickly be outdated as college students believe they can find whatever information they need on the Internet without the aid of a librarian. Therefore, librarians are forced to find new ways to reach out to student populations (Gordon, 2006).

A new type of librarian is beginning to enter the workplace. These librarians are generally under age 30, have a more diverse background, and are more technically savvy compared to their older colleagues (Eschavarria, 2001; Gordon, 2006). Though Millennials may not be literate in all aspects of technology, technologies have always been a major part of their lives since birth and throughout their education. Therefore, they have always seamlessly integrated technology into their daily lives, both professional and personal, unlike other librarians who are not digital natives. Millennial librarians also carry the traits of being more flexible and assertive in their workplaces than those of past generations (Gordon, 2006). They refuse to fit into the traditional "bookish" stereotype of a librarian. Millennials are poised to take over a graying occupation in the near future while staying determined to revolutionize the career as they advance. These librarians,

commonly called “NextGen” or Millennial librarians, are determined to redefine academic librarianship in the 21st century (Gordon, 2006).

It is important for any organization or profession to be mindful about the different generations that make up the workforce because, “any organization that is not tolerant of the different generations making up its workforce is likely to suffer through high turnover and suboptimal performance” (Greenberg-Walt & Robertson, 2001, p. 161). For this reason, it is necessary for academic librarians to understand those who are younger and just starting their professional careers because they are the future of the profession and will take over as leaders in the future.

Conceptual Underpinnings of the Study

Generational theory is a somewhat controversial theory developed by historians Williams Strauss and Neil Howe. Their theory, which is outlined in their 1991 book *Generations: The History of America’s Future, 1584 to 2069,* depicts their belief that each generation within American history has a set of characteristics that is easy to identify and understand. Strauss and Howe (1991) also suggest that these characteristics repeat themselves within a predetermined cycle. In developing their generational theory, Strauss and Howe examined important individuals from the early colonial era of United States history through the 1980s and paralleled individual characteristics with historical events of the same time periods. Their research led to the production of generational theory because they easily recognized particular defined age groups as sharing distinct behaviors and attitudes due to the time period in which they grew up. Strauss and Howe also applied their theory to other nations and cultures finding although the timeline and events that influence such generations are different, the same basic theory applies.

Strauss and Howe (1991) define a social generation as one phase of an individual's life, and they rationalize as a new generation about every 20 years. Each generation is delineated by individuals whose birth dates fall within this 20 year time span, which Strauss and Howe refer to as an individual generational cohort. They define each 20 year time span as a "turning", and there are four turnings, or 80 years, in a full life cycle. Each turning has distinct characteristics and as one turning evolves into the next, societal behavior and attitudes fundamentally change, shaped by major historical events that occurred when individuals are young. As individuals age and mature, they shape the historical events that have an influence on future turnings and generations.

Four turnings follow patterns in American history and are determined by generational changes. The four turnings that Strauss and Howe (1991) define are *high*, *awakening*, *unraveling*, and *crisis*. The *high turning* follows a crisis period and generally institutions are strong and individuals weak. The *high turning* is a period of conformity in which society wants to do everything as a whole and there is little dissent or there are few examples of nonconformity. The *awaking turning* is a time in which individuals seek to reclaim their uniqueness through attacking institutions and bringing back individual authenticity and autonomy, bringing in a period of self expression. *Unraveling* is the third turning and it is defined by weak and distrusted institutions with strong individualism. Finally, the *crisis turning* is a time where institutions are destroyed and rebuilt, civic authority is revived, and people forsake individuality for purposes on community and institutions. The crisis turning then ultimately turns back to a high turning with social conformity and strong institutions.

Strauss and Howe believe that generations are patterned into archetypes, which parallel the four turnings. They have named the generations or archetypes and believe that they repeat themselves in the cycle of history. Their four generations are hero/civic, artist/adaptive, prophet/idealist, and nomad/reactive. Strauss and Howe have developed two names for each archetype and use them interchangeably in many of their publications (Strauss & Howe, 1991 & 1997). The hero/civic generation is born after an awakening turning, the artist/adaptive generation is born after a crisis, the prophet/idealist comes after a crisis, and the nomad/reactive generation comes during an awakening. The individual traits of generations reflect the strong or weak institutional and individual roles that represent individual turnings (Strauss & Howe, 1991).

For Americans today, there are four apparent generations. The first is referred to as the Silent Generation, individuals born from 1925 to 1942 who came of age during the Great Depression and World War II, which are crisis periods in American history. The Silent Generation is referred to as an artist or adaptive generation. The following generation, the Baby Boomer Generation, born from 1943 until 1960, is a prophet or idealist generation that grew up when the United States was defining itself as a global superpower and superior society compared to those influenced by war or Communism. Following the Baby Boomers, Generation X was a nomad or reflective generation, living during an awakening period through which individuals asserted themselves at a cost to institutions. The current generation, the Millennial Generation, is a hero or civic generation born from 1982 to 2001, which Strauss and Howe argue is unraveling and is asserting itself among culture wars, postmodernism, and technology. After the Millennials, Strauss and Howe see the next generation, born after 2001, as the New Silent

Generation. They view it as the artist/adaptive type during an age of crisis due to the War on Terror, the Great Recession, and globalization (Strauss & Howe, 1991 & 1997). Table 1 depicts Strauss and Howe's generation dating, archetypes, turnings, and saeculums, which are natural and human centuries (Strauss & Howe, 1991 & 2000).

Table 1

Generations, Dates, Turnings, and Saecula

Generation	Archetype (Turning)	Birth Years
New World Saeculum		
Puritan Generation	Prophet (Idealist)	1588-1617
Cavalier Generation	Nomad (Reactive)	1618-1647
Glorious Generation	Hero (Civic)	1648-1673
Enlightenment Generation	Artist (Adaptive)	1674-1700
Revolutionary Saeculum		
Awakening Generation	Prophet (Idealist)	1701-1723
Liberty Generation	Nomad (Reactive)	1724-1741
Republican Generation	Hero (Civic)	1742-1766
Compromise Generation	Artist (Adaptive)	1767-1791

Civil War Saeculum		
Transcendental Generation	Prophet (Idealist)	1792-1821
Gilded Generation	Nomad (Reactive)	1822-1842
Progressive Generation	Artist (Adaptive)	1843-1959
Great Power Saeculum		
Missionary Generation	Prophet (Idealist)	1860-1882
Lost Generation	Nomad (Reactive)	1883-1900
G. I. Generation	Hero (Civic)	1901-1924
Silent Generation	Artist (Adaptive)	1925-1942
Millennial Saeculum		
Baby Boomer Generation	Prophet (Idealist)	1943-1960
Generation X	Nomad (Reactive)	1961-1981
Millennial Generation	Hero (Civic)	1982-2001
New Silent Generation (?)	Artist (Adaptive)	2002-

Nearly all generational research in the United States utilizes Strauss and Howe's (1991, 1997) theory as their conceptual underpinning. However, others believe that Strauss and Howe are too quick to place artificial generation groupings into categories

and define them only by their group characteristics and attitudes. As Vaccaro (2009) pointed out, there are often large outliers in any generational grouping who do not fit into a designated generation, trait, or attitude. Others, such as Twenge (2006), believe the increased discussion of generational characteristics brought to the forefront of American society by the Millennial generation in order to define themselves as unique, has been detrimental to society. Twenge argues that members of the Millennial generation are using generational theory to define themselves and exemplify their positive contributions to society while ignoring their negative traits and perceptions, which they think society is overemphasizing. The Strauss and Howe (1991) generational theory appears to influence the Millennial generation because they can make themselves look better while comparing themselves to previous, generations such as the Silent Generation. Twenge argues that future generations are likely to pigeonhole themselves into Strauss and Howe's definitions rather than create their own unique identity.

Statement of the Problem

Academic librarians have held discussions in recent years about Millennial students and how they are transforming the way academic librarians serve students. However, Millennials are beginning to enter the workforce, and some are choosing to become academic librarians. Since Millennial students are changing libraries through their use of technology and reference materials, Millennials as librarians will inevitably bring more change to academic libraries as they influence the profession with their practices, beliefs, and technological knowledge (Becker, 2009). Although there has been discussion about vaguely defined "NextGen" librarians and their impact on the workforce, no academic publication has specifically studied the Millennial generation of

librarians. The goal of this research is to examine the impact Millennials have on academic librarianship, including why Millennials are choosing academic librarianship as a career, how their use of technology influences their career choice, and what their future impact may be on the profession. As Millennial students have forced libraries and librarianship to evolve to meet their needs, when they chose to become academic librarians, will they continue to force the evolution of the institutions and individuals that make up their profession? Millennial students have brought new skills that have forced libraries to change, so what skills, attitudes, and backgrounds do Millennial librarians bring to the career and academic libraries? No study has yet looked at Millennial librarians as a group and what they add to the academic librarianship career.

Purpose of the Study

The Millennial academic librarian has many reasons for becoming a librarian, but their career paths do not always fit neatly into the typical career paths that other librarians took. In the past, many librarians chose the career because it was one of the few options available to women (Dewey, 1985), but this image has changed over time. Many older librarians state that they entered the career after taking another unfulfilling career path (Bosseau & Martin, 1995). Previous research studies of current librarians show a steady pattern of influences to become a librarian, including previous work in libraries, influence by a librarian, a love of reading, interest in research, and intellectual stimulation (Ard et al., 2006; Bosseau & Martin, 1995; Dewey, 1985; Weihs, 1999). However, despite the plethora of conversation about Millennial librarians, evidence as to why they entered the career has been mostly anecdotal (Ard et al., 2006; Gordon, 2006). In casual conversation and within the popular library press, librarians frequently discuss their observations of

this new generation of librarians, but there is no scholarly research of the traits they bring to librarianship or why they chose librarianship as their initial career choice.

Examining why this generation of librarians chose to enter the career has important implications. The first implication is to examine the factors that attracted the population studied in order to determine what is appealing about librarianship for the Millennial generation. A related implication is that studying this group of librarians will aid current library recruiting efforts to attract more Millennial librarians to the profession. Finally, studying the factors that brought these librarians to the career will help the profession see where it will go in the future as these librarians advance through the ranks of academic libraries.

This study will attempt to determine the reasons Millennial academic librarians born between the years 1982 and 2001, as defined by Strauss and Howe (1991), are entering the career. Areas covered include individual motivations for attending library school, the choice of academic librarianship over other areas of library work, and particular reasons for selecting a specific position within the library. Demographic information about this new cohort of librarians will also be gathered in an effort to discern both the characteristics and motivations of the Millennial generation.

Autobiography of the Author's Experience

The author chose to write about Millennials and career entry to academic librarianship because she is a librarian whose year of birth (1979) puts her on the edge of the Millennial generation and she relates to many of the traits of the generation. Although very eager to make an impact on her library and the career as a whole, she often believed that she was held back by constraints placed against her by colleagues and institutions

who come from a different generation, often before she was born. Through networking with other academic librarians nationwide who were similar in age, the author came to believe she was not the only younger librarian who thought this way. As a result, she has dedicated her research and professional experience to helping newer librarians understand how older generations work within libraries. This in turn helps older librarians understand the younger generation. The author believes the first way to start working on a dialogue between generations to improve libraries and the profession is to begin by assessing who the Millennial librarians are, because there is no current understanding of them.

Research Questions

The following research questions are focused on determining not only the characteristics of Millennial academic librarians, but also examining the reasons they decided to enter the profession. To address the purposes of the study, the following research questions will be investigated:

1. What factors influence why Millennials choose academic librarianship as their first career?
2. What influence does technology have on librarianship as a career choice?
3. What motivates younger librarians to choose a specific concentration or position type within the library they are working?
4. What are the demographics/characteristics of the Millennial librarians?

Significance

Currently, there are no specific studies within the scholarly library literature that deal with the Millennial generation as librarians or their possible influences on the career

itself. There has been discussions about how “NextGen” librarians are influencing the profession and how their professional needs are different from those of previous generations (Gordon, 2004). In the library literature, “NextGen” is the favorable term for newer and younger librarians, with no defined age range, generation, or characteristics. This is unlike the Millennials who have been thoroughly defined in scholarly and popular literature. Several issues surround the NextGen discussion within libraries. The first issue is that no one has created a definition of a NextGen librarian. There is no timeframe in which a NextGen librarian was born or who decided upon librarianship as a career, nor is there a clear way to define the traits of NextGen librarianship. Those who are members of and support the NextGen movement state that it is “a new way of thinking about librarianship and libraries” (Gordon, p. 51), but they do not attempt to define or even critically examine the traits inherent in NextGen librarianship. This study attempts to create literature that can help define the characteristics of younger librarians within librarianship as well as attempts to define the new librarians in terms of a defined age range (the Millennials).

The second issue is that the original NextGen librarians are now mature in their career. The term of the “next generation” librarian originated in a 1999 article by Rachel Singer Gordon. Nothing substantive or new has been published about NextGen librarianship since Ard et al. (2006). Librarians who initially defined themselves as NextGen are now five to ten years into their career, are assimilated into librarianship, and do not need the same mentoring or career guidance they needed several years ago. Now that NextGen librarianship has matured, members of a new generation of Millennials are starting to become librarians. Literature is just starting to emerge in the library literature

that critically examines the traits of the Millennials, offering strategies to recruit and retain them into the profession, and descriptions of the characteristics they are bringing to librarianship.

Academic librarians have discussed the Millennial generation as students for several years now. However, the same students are now choosing careers and some are choosing academic librarianship. Librarians can better understand their younger current and future employees by no longer looking at the Millennials as their students and start seeing them as potential career entrants to librarianship. The library profession should examine how the current culture can accept and nurture librarians who are members of the Millennial generation and stop looking at them only as students who consume library services and resources.

Limitation and Assumptions of the Study

This study had a significant limitation in the determination of the sample that meets the characteristics of the researched population. The researcher wanted to gather data from the American Library Association (ALA) that met the population requirement of participants born 1982 or later, but ALA does not gather statistics of its members based upon date of birth. Therefore, the researcher had to use a sample of the population participants, gathering participants through a variety of mechanisms, including soliciting participants through electronic mailing lists, professional affiliations, and personal contact. A self selected sample is not ideal because it has the potential to introduce bias and make causation difficult to determine, creating issues with the external validity of the test, and the generalization of the study (Heppner & Heppner, 2004; Herr & Anderson, 2005). The validity deals with “the extent the indicator captures the concept of interest”

(Weiss, 1998, p. 33) and if a sample of the target population is difficult to attain, validity becomes a concern to the researcher.

The researcher assumes that new librarians are technologically savvy. The popular library literature about NextGen librarians generally refers to these librarians as being confident, interested in, and users of current technology trends (Gordon, 2006). The literature on the characteristics of the Millennial generation also refers to the generation as having strong technical skills (Allerton, 2001; Barna, 1995; Clausing et al., 2003; Eisner, 2005; Strauss & Howe, 2000; Tapscott, 1998; Zemke et al., 2000). No scholarly literature describes Millennial librarians as being technically savvy. Based on these descriptions of the generation, the researcher therefore assumes that this group brings technology skills into the librarian profession.

As the researcher is a younger, but not a Millennial, librarian who works with both Millennial librarians and library school students, she observes some of these assumptions on a daily basis. Observations include that Millennials, because they grew up with technology as a part of their daily lives, are generally more technically savvy than older librarians. The researcher has also observed younger librarians' information seeking habits and identified differences from the habits of older librarians. Although the researcher is not Millennial herself, she is only a couple of years older than they, and shares many of the same traits such as being technically savvy and being eager to make a positive impact on her institution and profession. For these reasons, the researcher will take steps to minimize personal bias in the study.

Delimitation of the Study

It was difficult for the researcher to determine the exact characteristics of the researched population. The library profession generally uses the term "NextGen" to describe newer librarians who are more technologically savvy and grew up with the Internet (Gordon, 2006), but nowhere was a definition of exactly who this population is or what comprises a "newer" librarian. Therefore, the researcher determined that the term "Millennial" was easier to define because demographers and social scientists have studied the group and determined the approximate years of birth for Millennials. After researching literature pertaining to the Millennial population, the researcher determined that librarians born from 1982 through 2001 fit into the Millennial category and would be the primary indicator of a participant. Therefore, rather than selecting participants based on characteristics parallel to those of NextGen librarians, they are chosen based upon year of birth and then their characteristics are determined based upon the literature review sources.

Definitions of Key Terms

The following key terms were identified by the researcher as important to the understanding of the study. They are:

Academic Librarian. An individual with, or is working on, an American Library Association accredited Masters of Library Science (MLS) or equivalent degree who is working, or desires to work in, a two or four year institution of higher learning. These institutions can include, but are not limited to, institutions such as community colleges, liberal arts colleges, universities, trade schools, and research institutions. Not included are librarians who work in K-12 schools.

Academic Library. An institutional library affiliated with a two or four year colleges, universities, or other secondary educational institutions. It is maintained by librarians credentialed with the MLS degree. Academic libraries provide a number of services for members of the institution's community, including, but not limited to, supporting the curriculum and research goals of faculty, staff, and students. In this study, academic library refers to a specific type of library as a subset of libraries in general.

American Library Association (ALA). A not for profit membership association representing libraries in the United States. It is the primary nonprofit organization concerning libraries in the United States and includes among its key action areas education and lifelong learning of all library staff members and advocacy for the librarian profession (American Library Association, 2009). ALA has an interest in recruiting and retaining younger librarians because they are the future of the profession and the Association's membership base (Decision Demographics, 2009).

Association of Research Libraries (ARL). A not for profit membership association comprised of 124 North American single institution libraries that share a group of common goals, interests, values, and needs seeking to influence

> The changing environment of scholarly communication and the public policies that affect research libraries and the diverse communities they serve. ARL pursues this mission by advancing the goals of its member research libraries, providing leadership in public and information policy to the scholarly and higher education communities, fostering the exchange of ideas and expertise, and shaping a future environment that leverages its interests with those of allied organizations. (ARL Board, 2007, ¶ 1)

Digital Native. Members of American society who grew up with the Internet. Digital technologies have been a part of their lives since birth. The term originated with Marc Prensky in his 2001 work, *Digital Natives, Digital Immigrants*, and it is frequently

used among multidisciplinary researchers to describe youth who have always lived around technology. The term digital native is not specifically tied to a generation, but it is frequently associated with Millennials.

Generation X. Generation X is the generation following the Baby Boomer and preceding the Millennial generation. It is roughly defined as Americans born between the early 1960s and around 1980 and is also referred to as the "13th Generation" after the creation of the United States. Generation X is credited with the growth of technology, including the creation of the Internet and growth of personal computing (Strauss & Howe, 1991). Although not the basis of this study, it is important to understand Generation X as the precursor generation to the Millennials, who grew out of the ideals and framework created for them.

Generation Y. After Generation X, Generation Y is another name for the Millennial generation. Born starting around 1982 and continuing through the year 2001, First used by Strauss and Howe's *Generations* (1991), Generation Y follows Generation X. The term first appeared in 1993 when demographers realized there was a successor in characteristics separate from Generation X. This study will use the terms Millennials for this generation because Strauss and Howe (2000) are the preeminent authors of generational theory and they refer to this generation as the Millennials in most of their publications following their 1991 publication.

Informatics. A synonym for information science, Informatics is the academic multidisciplinary field of information, which includes aspects of library science, computer science, information processing, and systems.

Information Literacy. Information Literacy is "a set of abilities requiring individuals to recognize when information is needed and to have the ability to locate, evaluate, and use effectively the needed information" (Association of College and Research Libraries, 2000, ¶ 3). Librarians generally assume information literacy is the basis for lifelong learning and, therefore, it is a core value of librarianship. Academic librarians have contributed research pertaining to teaching the Millennial generation information literacy skills (Kipnis & Childs, 2004; Manuel, 2002).

Librarianship. Librarianship is the practice of a librarian or the running of a library. In its most generic form, librarianship is the practice and study of a professional with a MLS degree. Librarianship covers many different areas and job descriptions, not limited to public services, reference, technical services, cataloging, systems, archives, and collection development (Bureau of Labor Statistics, 2007).

Library. The term library, or in plural form, libraries, is used throughout this study to refer to a library institution in its most generic form as a collection of resources and services and the building that contains the collections. A more specific type of library includes an academic library, public library, or school library.

Library Science. Often referred to as LIS, or library and information science, library science is the interdisciplinary field focused on the academic study of various aspects of librarianship. These aspects can include, but are not limited to, management of libraries and library services, information technology, library education, library collections, organization of information, utilization of information preservation, and archives. Library science is the field of study that is required of all practicing librarians (Bureau of Labor Statistics, 2007).

Millennial. Millennial is used interchangeably with Generation Y in the literature, and is the term used throughout this paper. The term was developed in research conducted by Strauss and Howe (2000), who are the preeminent generational researchers and therefore it is often referred to as the standard name for the generation. The definition for Millennial is presented in greater detail in the Review of Literature section of this dissertation.

MLS. The Master's Degree in Library Science, abbreviated MLS, is the standard degree to be a librarian. The American Library Association (ALA) offers accreditation to library schools in the United States and Canada. An ALA accredited MLS degree is a requirement for academic librarians. Although the MLS is the standard professional degree, some institutions refer to their library degree as a Master of Arts, Master of Science, Master of Librarianship, Master of Library and Information Studies (MLIS), and Master of Information Science or Studies (MIS) (Office of Accreditation, 2008).

NextGen. Rachel Singer Gordon first wrote about the term NextGen librarian in 1999. It refers to a new generation of librarians who grew up with digital technologies and have a different viewpoint towards dealing with information resources (Gordon, 1999 & 2006). NextGen librarianship is not tied to a generational definition, age range, or date of birth, and its members include both Generation X and Millennial librarians. NextGen librarianship was the first term used to describe digitally oriented librarians and has been a starting point for researchers looking at traits of younger librarians.

Summary

Research relating to Millennial librarians is not common and this study aims to create new knowledge related to this generation. A plan to examine various aspects of the

research area, namely why Millennials choose librarianship as a career, what role technology has in the decision, and why librarians should examine Millennial librarians, was included in Chapter One. Also provided in this chapter are the conceptual underpinnings of the study, limitations and assumptions, design controls, and key terms that are important to understanding the topic. Chapter two presents an in-depth review of the literature about members of the Millennial generation and their impact on libraries while Chapter Three will include an outline of the study methodologies. The study findings will be presented in Chapter Four, while conclusions and answers to research questions will be presented in Chapter Five.

CHAPTER TWO

REVIEW OF THE LITERATURE

As the median age of librarians continues to increase (American Library Association, 2012) and technology becomes more pervasive throughout American society (Allerton, 2001), the question becomes why younger people might choose to enter into librarianship as a career (Taylor et al., 2010). Every year it is observed by practitioners that hundreds of librarians graduate with their Master of Library Science (MLS) degree who are young, generally under 30 years of age, and are entering librarianship as their first professional career. Gordon (2006) described this population of librarians as the next generation or "NextGen" (Gordon, 2006), what various authors have labeled them a part of Generation Y, or the Millennial Generation. This new generation is revolutionizing how organizations are managed. The Millennials bring new ways of conducting business, excellent technology skills, and other values into the workplace. In turn, libraries and librarians see a change in how NextGen librarians conduct themselves within the library workplace, which is also affecting how libraries are managed and how they promote services to the clientele.

There is little scholarly research in the library literature that directly discusses NextGen librarians and how they are changing library management and services (Beaubien, 2006; Clausing et al, 2003; Del Bosque & Lanpert, 2009; Freestone & Mitchell, 2004; Jennings & Markgraf, 2010; Manuel, 2002; Merritt & Neville, 2002; Oud, 2008). However, there are several different patterns of literature from library science and other fields that allow an examination of Millennial characteristics, traits of NextGen librarians, as well as current students who fall into this demographic soon to

enter the professional workplace. Additionally, a thorough literature review is incomplete without examining various issues related to change in libraries; these include demographics, new technological changes, recruitment, and issues surrounding how new librarians adjust to the profession.

General Characteristics of the Millennials

The Millennials are perhaps the most researched generation in the history of the United States (Strauss & Howe, 2000). Defining them as a unit is difficult, as there is no set definition of when they were born, what to call them, or exactly how many they are, but American members of this generation tend to share some common characteristics. It is important to recognize the Millennials because "just as history produces generations, so too do generations produce history" (Strauss & Howe, 1991, p. 184). With a total population of 72.9 million, Millennials may number as many as the Baby Boomer. They comprise nearly a third of the population of the United States (Zemke, et al., 2000).

Strauss and Howe (1991) categorized the various generations throughout United States history in cycles in order to disseminate patterns. Looking at demographic trends dating back as far as to the 16th century, Strauss and Howe viewed the Millennial generation as a part of the Millennial cycle, which includes all generations alive in America at the turn of the 21st century. The author then grouped the generations into a pattern that they believe roughly corresponds to periods of every four generations throughout American history. They then grouped these individual generations into the traits of idealist, reactive, civic, or adaptive according to events occurring during the lifespan of the respective generation. More recent generations that Strauss and Howe define are the "G. I." Generation born 1901 to 1924 who became adults during World

War II; the "Silent" Generation (born 1925 to 1942) who were children of the Great Depression; the "Baby Boomer" Generation (born 1943 to 1960) who were born following World War II; the "13th" Generation or "Generation X" (1961 to 1981) who came of age during the late Cold War. Strauss and Howe view the Millennial generation as being civic in their beliefs and nearly parallel to the beliefs of the "G.I." generation that came of age during World War II. The Civic cycle in America, according to Strauss and Howe (1991) has traits that are similar to those of the Millennials, including a strong adherence to government, conformism, and teamwork. In turn, this makes the sense of being a part of a community and serving within it by volunteering very important values for Millennials (Johnson, 2006; Strauss & Howe, 2000). See Table 1 for generations, dates, and traits.

Many important historical events and cultural attitudes in both the United States and the rest of the world help to shape the Millennial generation and have "helped [to] forge a sensibility that will last a lifetime in shaping expectations and entitlement, in determining what one will give to and take from society, work, one's community, etc." (Weiss, 2003, p. 30). Events such as the Oklahoma City bombing, the Columbine shootings, 9/11, the impeachment of President Clinton, and the dotcom bust are examples of events that had profound impact in shaping the characteristics and values of the Millennials (Weiss, 2003). Events that are considered formative experiences are important because they mold a generation's preferences and beliefs (Paul, 2001). Overall, Millennials tend to be more conservative and conventional than their parents, and support social issues such as school prayer, federal aid to faith based charities, the War on Terror, and opposition to abortion (Sanchez, 2003; Strauss & Howe, 2000).

The Oklahoma City Federal Building bombing in 1995 and the Columbine shootings in 1999 made the Millennials much more attuned to their personal safety. These events also raised their awareness of the news media's interpretation and intrusion into their personal sphere because they believed the media represented their generation as violent perpetrators of crime (Paul, 2001; Zemke et al., 2000). The Columbine High School shootings also made families realize that violence, which was at one time something foreign to Americans, could occur at the local level and outside of urban areas (Morton, 2002; Paul, 2000; Zemke et al., 2000) and made society more concerned about individual safety (Strauss & Howe, 2006). The events of 9/11 brought great amounts of patriotism to the Millennial generation and, as a result, they are less likely to challenge authority and create dramatic political upheaval (Morton, 2002; Sanchez, 2003; Weiss, 2003).

Even though the after the Oklahoma City Bombing and Columbine shooting the media portrayed the Millennials as being more violent than past generations, society as a whole is showing that Millennials are actually less violent than the negative youth culture adults have created about them (Strauss & Howe, 2000). Zemke et al. (2000) argue that the Oklahoma City bombings and Columbine shootings, along with the 9/11 terrorist attack, will become the Millennials' cause célèbre and will bring them together in a way unseen since World War II united the G.I. generation. Combine this united belief with the Millennial talent at communicating with others through the Internet, and a formula is created to seek societal change (Tapscott, 1998; Zemke, 2000). However, Twenge (2006) warns that Millennials could become violent, because the violence around them causes

everyone to trust no one, which may lead to a culture of disconnection away from tight communities.

Scandals also have greatly impacted the Millennials' worldview since they show differing reactions to them and generally carry more conservative viewpoints than those of their parents. The media started paying more attention to celebrity sex scandals in the 1990s, which resulted in Millennials looking at celebrities as more fallible and not as leaders as society has traditionally looked upon them. This view makes Millennials examine celebrities more realistically and thereby look up to them on a level different than previous generations (Paul, 2001).

An example is the scandal caused by the Clinton impeachment, about which Millennials tended to be more judgmental towards the President than the general public and were dismayed at how Clinton did not uphold his own word (Paul, 2001; Strauss & Howe, 2000; Zemke et al., 2000). Since Millennials followed the Clinton scandal so closely and they witnessed the 2000 presidential election crisis, analysts believe that Millennials are taking an interest in politices and will be more willing participants within the political process in the future (Paul, 2001; Behnke & Oberwetter, 2008; Strauss & Howe, 2000; Verhaagen, 2005; Zemke et al., 2000).

As a result of scandals, such as President Clinton's sex scandal, Millennials are showing that they are more conservative and generally subscribe to a stricter moral code than their parents (Zemke et al., 2000). However, that moral code is frequently defined differently due to the Clinton scandal realignment of moral values (Twenge, 2006). Millennials were very offended by the Clinton sex scandal, which can be seen in the fact that they are less sexually promiscuous and more concerned about sexually transmitted

diseases than previous generations, as seen by a lower teen pregnancy rate (Zemke et al., 2000). They also tend to be more religious and place an emphasis on conservative evangelical principals such as no sex before marriage and performing community service (Barna, 1995; Twenge, 2006). They also tend to be more polite, and manners are increasingly emphasized more among the Millennial generation. One study of Millennial teenagers found that they would rather find a niche within conventional society than to turn it upside down (Zemke, 2000). These traits show that the Millennial generation is attempting to fill the more traditional social role that the Veteran generation fulfilled. As the Veterans pass away, the Millennials are filling in the vacuum of the more traditional and moralistic society of this previous generation (Allerton, 2001; Eisner, 2005; Strauss & Howe, 1991; Tooker, 2006).

One of the foremost changes that affected the Millennials as a generation was a societal change to appreciate and nurture children more than occurred throughout Generation X (Twenge, 2006). Generation X was a relatively small generation because their parents often did not want children, instead catering to their own needs. They were born during the age after the creation of the birth control pill, which allowed women to suppress pregnancy and not have as many children. During the 1980s, children were often ignored as a barrier to adult fulfillment and enjoyment and were often left to their own devices, giving rise to the term “latchkey child” (Verhaagen, 2005). However, during the 1980s, society realized that children deserved to be wanted and needed. The February 22, 1982, cover of *Time* magazine showcased an article about how Baby Boomer mothers were finally starting to have children after waiting until they were much older than previous generations for motherhood (Strauss & Howe, 2006). Several other

events, including the 1982 case of cyanide tainted Tylenol, led to fears that Halloween candy could also be tainted and prominent cases of child sexual abuse had the effect of causing societal outrage about how children were not being protected. This led to a series of books and media reports about how children could be saved from the scourge of a violent American society and what parents and schools could do to protect children (Strauss & Howe, 2000). These changes worked to put children at the highest place that American society could give to them; suddenly child safety, child friendly legislation, and family values became the buzzwords (Strauss & Howe, 2000; Verhaagen, 2005).

Overall, members of the Millennial generation admire and respect their parents (Strauss & Howe, 2000; Weiss, 2003), with Verhaagen (2005) reporting that three quarters of them state they get along well with their parents, while only 3% do not, with the rest describing their relationship as neutral. They are also very close to their parents both geographically and emotionally (New Strategist, 2006; Strauss & Howe, 2000; Weiss, 2003) and usually share similar values and beliefs (Barna, 1995). Frequently, they move back in with their parents after college, as they want to regain the sense of closeness to their families (Tooker, 2006). They often refer to their families "as a sanctuary against the difficulties of life" (Clausing et al., 2003, p. 374). In the past, "quality time" with children was stressed, but the Millennials grew up under the belief that quality time is not enough and they need to have their parents' unconditional attention (Strauss & Howe, 2000; Zemke et al., 2000). However, some do not view this relationship as vital in the workplace, stating, "Only your parents love you unconditionally, everyone else expects you to perform" (Hill, 2002, p. 62).

Even though families with Millennial children are generally very child centered, they experienced stark changes in the family structure as compared to previous generations. Only 50% of families included a father in the 1990s and it is estimated that by 2010, fewer than 30% of children will live in two parent homes (Strauss & Howe, 2000; Zemke, 2000). Nearly all mothers of Millennials, both single and married, have jobs outside of the home. Millennial children today do not have the expectation that any member of their generation will grow up in the traditional two parent home, and therefore, they seek to establish close bonds with not only their parents, but also other family members and friends in order to gain security in an uncertain world (Zemke et al., 2000). Additionally, there is a widening gap in society between the "haves" and "have nots" with 16 to 25% of children living under the poverty level (Eisner, 2005; Verhaagen, 2005), though, in 2000, the actual raw numbers of children in poverty were at the lowest levels in history (Strauss & Howe, 2000). This income division often has profound effects, as poorer children have less access to the technologies that are changing Millennial society (Merritt & Neville, 2002; Tapscott, 1998).

Because they are emotionally close to their parents, Millennials have always been somewhat coddled by overprotecting parents who have always given them their own way (Hill, 2002; Sanchez, 2003; Strauss & Howe, 2000; Zemke, et al. 2000). Their parents, the majority being from the Baby Boomer generation, also have a history of getting whatever they want, and are passing this trait on to their children (Zemke, et al., 2000). As a result, Millennials want information and products to be customized (Tapscott, 1998) to suit their "own tastes and whims" (Weiss, 2003, p. 35). Millennials are frequently given an equal role in making family decisions such as large purchases and vacation

destinations (Twenge, 2006). They are used to information being handed to them on a level that has already been processed by their elders and they expect this tailored information to continue throughout adulthood (Weiss, 2003).

Diversity is also an important trait of the Millennials as 39% of them are minorities and 7% are immigrants themselves, compared to 27% minorities within the total U.S. population (Allerton, 2001; Morton, 2002; Strauss & Howe, 2000; New Strategist, 2006; Verhaagen, 2005). American society of the 2010s is one in which diversity prevails and is usually accepted because children are exposed to a wide range of global viewpoints, untraditional families, and sexual views from a very young age through their families and the media (Strauss & Howe, 2000; Tapscott, 1998; Tooker, 2006). Millennials take little bits and pieces from all the different aspects of diversity and makes them their own (Strauss & Howe, 2000). As a result, the Millennials tend to have an interest in and acceptance of all types of diversity and are already questioning most traditional racial categories (Strauss & Howe, 2006; Twenge, 2006; Zemke et al., 2000). Many have adopted broader definitions of families, more tolerance of cohabitation, and single parenting (Allerton, 2001; Barna, 1995; Morton, 2002; Paul, 2001; Tapscott, 1998) and even though they are generally more conservative to politics and religion, they value a diverse opinion set and take a more populist attitude concerning social issues (Brownstein & Freedman, 2010; Sanchez, 2003). Along with diversity, they are a more global generation than any in the past, linked to their peers in the United States through diversity initiatives and technology connectivity (Clausing et al., 2003).

The parents of Millennials have told them since childhood that they are capable of accomplishing anything they put their mind to, which has led to an unbounded amount of

enthusiasm (Barna, 1995; Straus & Howe, 2000; Sujansky, 2002; Tapscott, 1998; Zemke, 2000). Although they have generally been protected by their parents (Tapscott, 1998), Millennials overall are very self reliant and are eager to take responsibility for their own successes, independent of others' responsibilities towards a project (Clausing et al., 2003; Strauss & Howe, 2000; Twenge, 2006). Millennials have very high self esteem, with scores on the Coopersmith Self-Esteem Inventory among teenagers in the mid 1990s at their highest levels since the creation of the test in the 1970s. Twenge examined the Marlowe-Crowne-Social Desirability Scale studies over time and found that Millennials do not see a need to conform to societal norms that previous generations embraced (Twenge, 2006). However, Twenge believes that society should interpret the Millennial ideas of self esteem, the ability to do anything, and a lack of societal norms as a danger to society as a whole as it may lead to "training an army of little narcissists instead of raising kids' self esteem" (p. 70). Twenge goes on to argue that these traits are leading to a rise in depression among Millennials. However, Neil and Strauss (2000) argue that these problems are, while recognized, increasingly solved with antidepressant medication and therapy, which the Millennial generation is increasingly utilizing.

Millennials are increasingly known as the generation that came of age during the Great Recession, starting in 2008. As unemployment has grown in the United States, Millennials have received the brunt of the bad job market, with the unemployment rate for 20 to 24 year olds in March 2010 at nearly 16%, and for minorities in this age group, unemployment was at nearly 28% (Brownstein et al., 2010). Only one sixth of Millennials think they are earning enough money to live comfortably (Brownstein & Freedman, 2010). Few jobs are being created at the entry level that Millennials desire and

entry level jobs are often the first to be downsized among large companies. The result is that many well-educated Millennial are underemployed or self employed in somewhat risky work from home or entrepreneurial ventures. They also volunteer in low or no pay internships or with public service organizations. Among those without college degrees, the job market is even more difficult as blue collar jobs increasingly need advanced skills (Brownstein et al., 2010; Harder, 2010) Although Millennials are still aspiring to lofty career goals, many of them have been forced to live with their parents or use creative methods to earn money while still pursuing their employment dreams (Thompson, 2010). Many students are also pursuing graduate education in hopes that once they finish a higher degree, the economy will improve and they will get their dream job. However, there is a fear among Millennials that the down economy will cause them to have less earning and buying power throughout their adult life and that the student loan debt held by two thirds of Millennials will be with them throughout their lives. Despite the down economy, Millennials remain optimistic that their economics will improve and still want careers that use their collaboration and technology skills that have made them distinctive (Brownstein et al.).

Naming the Generation

There are many different titles used to refer to the generation described. The most common titles are Generation Y and the Millennials as depicted in Table 2. Strauss and Howe (2000, 2006), leaders in generation based research, label the generation the Millennials. Strauss and Howe believe that Millennial is a fitting name because its members started to turn 18 in the year 2000. They do not think they should be called Generation Y, which is what the media most commonly calls the generation, because that

is not a distinctive enough name from the previous generation, Generation X. The Millennials are very different in both trends and attitudes compared to Generation X and therefore, deserve to have a unique name (Strauss & Howe, 2000). The majority of the literature refers to the generation as Generation Y, as can be seen in Table 2. Because of the developmental work of Strauss and Howe, the researcher has chosen to use the term Millennials in this dissertation.

Another title that is sometimes given to the Millennial generation is that of "Echo Boomers" for the primary reason that their basic characteristics sometimes mimic those of their Baby Boomer parents and because they are physically and emotionally close to their parents. In turn, the Echo Boomers also influence the tastes of their parents, creating a marketing tool called the "Boom Boom" effect. Millennials are also sometimes labeled Echo Boomers because more than half of them either still live at home or moved back home again after college (Weiss, 2003). Other names that occur frequently in the literature include the Net Generation, the Next Generation, and Generation Me, which parallel other traits that have been assigned to the group as a whole.

Table 2

Terms Used to Describe Generation

Term	Authors
Baby Boom Echo	Tapscott (1998)
Echo Boom	Hill (2003)
Generation Me	Twenge (2006)
Generation Next	Clausing et al. (2003)
Generation Y	Allerton (2001); Behnke & Oberwetter (2008) Blashki et al. (2007); Clausing et al. (2003); Eisner (2005); Hill (2002); Johnson (2006); Kipnis & Childs (2004); Manuel (2002); Merritt & Neville (2002); Montana & Lenaghan (1999); Morton (2002); Paul (2001); Sampath (2008); Sujansky (2002); Weiss (2003); Wolburg & Pokrywczynski (2001); Yuva (2007)
Millennials	Clausing et al. (2003); DeGilio et al. (2004); McGlynn (2005); New Strategist (2006); Sanchez (2003); Strauss & Howe (1991, 2000); Verhaagen (2005); Walker et al. (2006)
Net Generation	Gibbons (2007), Tapscott (1998)
Nexters	Clausing et al. (2003); Zemke et al. (2000)

Dating the Generation

As Eisner (2005) stated, "despite some variations in the way the literature names these generations and classifies start and end dates, there is a general descriptive consensus among academics and practitioners regarding these generations" (p. 4). Wolburg and Pokrywczynski (2001) additionally state the differences in dating the Millennials as "the research shows disagreement with the generation…labels and the composition of the age range...[and] does not take into consideration that there may be subgroups within [the Millennials]" (p. 35). The lack of a formal definition to what years comprise the generation cause extreme confusion to both researchers and demographers. The diversity of date ranges for the Millennial births across multiple authors can be seen in Table 3. For purposes of this dissertation Millennials are defined as being born between 1982 and 2001, as explained in Strauss and Howe's 2000 book *Millennials Rising: The Next Great Generation*. Additionally, 1982 is a good starting year to the generation because this means that they were 18 in the year 2000, when they were graduating high school and entering college for the first time.

Table 3

Dates of the Millennial Generation

Years	Authors
1977-1994	Allerton (2001); Morton (2002); New Strategist (2006); Weiss (2003),
1977-1997	Tapscott (1998)
1979-2000	Blashki et al. (2007); Paul (2001); Singer Gordon (2006); Sujansky (2002)
1980-2000	Clausing et al. (2003); Zemke et al. (2000)
1981-2000	Verhaagen (2005)
1981-2003	Sanchez (2003)
1982-1993	Sampath (2008)
1982-2001	Strauss & Howe (2000)
1982-2003	Strauss & Howe (1991)

Technology and the Millennial Generation

Perhaps the biggest trait that defines the Millennials is their lifetime attachment to technology (Allerton, 2001; Barna, 1995; Eisner, 2005; Tapscott, 1998). They understand technology better than any previous generation, even if their parents invented most of the current technologies (Zemke et al., 2000). Technology has also allowed the Millennials to be a more "curious generation" (Tapscott, p. 86). The majority grew up in homes with computers (Strauss & Howe, 2000; Verhaagen, 2005) and learned about them from birth,

not adopting them later in life as did previous generations (Zemke et al., 2000). To them, technology is an "assimilation, as for everyone else it is an accommodation" (Clausing et al., 2003, p. 374). Millennials will not tolerate the status quo previous generations had in their daily lives using technology as a supplement; they want technology to be ubiquitous in their daily lives (Fenich et al., 2011).

Technology is so ubiquitous to the members of the Millennial generation that they are able to move from one type of technology to another, such as watching television while surfing the Internet, and often consume several types of media simultaneously (Fenich et al., 2011; Weiss, 2003). Multitasking is "second nature to them" (Sujansky, 2002, p. 80). There is even a new word coined to describe this phenomenon, "connexity" (Weiss, p. 32). This is the ability to do many things at once. This may be a detriment, as Millennials may develop a short attention span and an inability to focus on one task or item for any notable length of time (Tapscott, 1998). Weiss found that Millennials were able to consume 31 hours of media in one 24 hour period through multitasking (Weiss, 2003).

To Millennials, technology is a part of their popular culture and brings forth a center of the new digital lifestyle they are creating for themselves (Strauss & Howe, 2006). They are embracing this technology because they can control it; it is something that is not controlled by adults, and Millennials can use it to construct their own forms of expression, personalities, and identities online. They can even have multiple personas in the online world. Additionally, technology has been shown to raise the self esteem of Millennials as they reach out to find people around the world who share similar traits, such as a physical limitations or an interesting hobby (Tapscott, 1998).

Millennials are using technology to create new ways of doing things, such as creating a term project as a digital video, playing video games instead of traditional board games, connecting with friends and extended family worldwide through email, instant messaging, and social networking (Johnson, 2006; Strauss & Howe, 2000; Tapscott, 1998; Zemke et al., 2000). They use technology to create new social and familial networks with friends based upon the music they listen to, the books they read, the pictures they take, and the products they consume (Johnson, 2006; Tapscott, 1998). Technology has become a group and shared experience through not only social networking, but also through sites to share links, photos, other media and information with online users (Johnson, 2006). With technology at their fingertips on a nearly constant basis, Millennials have gained an expectation of instant gratification for all of their wants and needs. Through technology and video games, they are able to advance their motor, spatial, and strategy skills in ways never before thought possible (Tapscott, 1998; Zemke et al., 2000). They believe that their relationship with technology will change the way society views and relates to technology (Strauss & Howe, 2006). With technology at their fingertips on a nearly constant basis, Millennials have gained an expectation of instant gratification for all of their wants and needs (Zemke et al., 2000).

Millennials believe that technology is not a passive experience as it was for previous generations (Tapscott, 1998). To them, technology is active and an experience by which they live their lives within (Strauss & Howe, 2006; Tapscott, 1998). They have grown up with reality television, which means anyone can have their 15 minutes of fame. In turn, this means being heard, having their say, and becoming famous online are all natural experiences that can be shared by anyone (Morton, 2002; Paul, 2001). Because

they can create their own customized media and make media consumption an interactive, as opposed to a passive and hierarchical, experience, they believe that everyone's opinion counts and deserves to be heard (Paul, 2001; Tapscott, 1998).

Millennials shape and create new forms of media. In turn, the media helps redefine the culture to be centered on Millennials and how they view the world (Tapscott, 1998). This is nearly always done online, which is how they deliver self made content to the wider world. The content they create becomes a shared group experience through social networking components of the Internet (Strauss & Howe, 2006). Examples of the new active and participatory media that Millennials are creating include the collaborative nature of Wikipedia, online blogging, sharing videos though YouTube, and expressing opinions online with sites such as Epinions (Johnson, 2006). Online content is also increasingly open to editing and peer review, so other users can state whether the information provided by someone else is useful, relevant, and accurate (Johnson, 2006)

An increasing amount of the technology used by Millennials is mobile (Clausing et al., 2003). While previous generations use cell phones as a tool, most Millennials seamlessly integrate the phones into their social lives (Fenich et al., 2011; Weiss, 2003), using them for not only voice calls, but for sending text messages and accessing the Internet. They also want traditionally analog forms of media, such as movies and music, to be digitized and available in any medium on a constant basis, whether through their iPods, cell phones, or streaming through the Internet. This is causing Millennials to rebel on their own terms against traditional purveyors of media, and it appears they will not settle until they get what they want (Strauss & Howe, 2006).

Technology is also influencing the careers that Millennials want to pursue (Twenge, 2006). A full 95% of them believe that their generation will have a life long ability to improve technology (Strauss & Howe, 2000). As stated by Verhaagen (2005), half of millennial teens surveyed in 2003 stated they are interested in pursuing a technology related career. Thanks to technology, the workforce is changing from one that is skills based to one that is knowledge based; employees in modern industries work with their minds rather than their hands. As of 1998, nearly 60% of the American workforce was considered to be knowledge based and 8 in 10 new jobs were in information intensive sectors, a percentage that is expected to grow in the future (Tapscott, 1998).

Information

Millennials process information very differently from previous generations. A 2002 survey found that media consumption in the form of television and radio is very similar between Millennials and other generations. However, the Millennial ways of behavior online and how they respond to media offline are drastically different from previous generations. Older Americans are more likely to passively surf websites for information, whereas Millennials are much more interactive in their web habits. To Millennials, information is interactively streamed at them in a near constant state (Eisner, 2005). This generation is able to process large amounts of information in parallel with other information or while conducting other tasks (Zemke et al., 2000). Millennials like the “intersection of information and entertainment” (Weiss, 2003, p. 34) and are much more likely to conduct generation specific activities such as play games, instant messaging, and downloading media while online.

Due to their abilities to multitask in many different environments, the Millennial thought process involves a mosaic of different points that get integrated into a coherent pattern in order to draw a conclusion on a topic. This thought process allows for a greater absorption of information and sets them apart from previous generations who tend to think and process information in a more linear fashion. These differences in information processing cause conflict between generations both in the workforce and socially (Clausing et al., 2003).

Technology has also played a role in giving young people instant access to information. It is a part of the daily lives of Millennials, while for everyone else it is a more difficult learning process (Clausing et al., 2003). They also share information as never before as online influence can come from sharing, rather than hoarding information (Johnson, 2006). For the most part, Millennials believe information available to them is accurate and that they are good judges of determining what information is not trustworthy or needs further verification. Millennials have an attitude that the more they use an online service, the more they are able to trust its authenticity (Tapscott, 1998). Millennials also want their information customized to their way of doing things and will either manipulate information to their needs or demand it from service providers (Weiss, 2003).

Privacy Concerns

Privacy is not as much of a concern to Millennials as it is to older generations. Millennials are redefining privacy issues on their terms and are not settling for traditional definitions of privacy their increasingly digital world (Strauss & Howe, 2006). There are several examples of this change in privacy concerns. In the online world, more and more products and services are customized to fit individual wants and needs. Commonly, users

must give up at least some personal information in order to obtain this type of customization (Barna, 1995; Weiss, 2003). Part of the reason Millennials are driven towards virtual communities is because there is an element of trust involved with all participants. Millennials tend to believe that others online are being their true authentic selves (whether or not this differs from their actual selves) and there is a sense of trust that information will be kept private (Tapscott, 1998). Millennials also tend to be more comfortable sharing their true personalities online rather than in person (DeRosa et al., 2007).

Paul (2001) however, disagrees, stating that the celebrity scandals Millennials grew up with may, in the long run, create a heightened awareness about privacy. Having grown up seeing celebrities' private lives in the mainstream, youth today may become more conscious about their own privacy and protection of personal information. Paul cited a poll in which four out of ten Millennials were "extremely or very concerned about the safety and security of transmitting personal information online; only 8% were not at all concerned" (p. 48) about celebrity scandals.

DeRosa et al. (2007) show that 23% of Internet users aged 14 to 21 believed that their online data is more private than it was two years before, which is a very different percent compared to users aged 50 or more, of whom 35% believe their online information became less private during the same time period (p. 3-3). Similar percentages (24% and 31%, respectively) occur when asked about how people think their data were secured online. However, when asked to rate the privacy of various activities such as banking, reading email, and using a phone, users aged 14 to 21 believed that those activities were less private than did older users. Concerning trust, the study showed that

users aged 14 to 21 were generally more trusting than the rest of the population toward people they met online through both social networking and social media websites. Those aged 14 to 21 were initially willing to provide less personal information to register for a website than do older users, but they are more likely to provide more information in order to receive personal services or free goods or services.

Technology and Ethics

Freestone and Mitchell (2004), two business researchers in the United Kingdom, noted that Millennials who grew up with the Internet have very different social and consumer traits compared to older generations. While looking at research related to Millennials' consumer habits online as well as their social habits, the authors noted that because the Internet "transcends physical barriers like no other interactive medium before it, aberrant behaviours (sic) are multinational" (p. 121-122). They note that "the Internet offers the 'advantages' of anonymity" (p. 122) and that users of the Internet have a reduced chance of being detected due to the difficulty of obtaining tangible evidence, the convenience, and the ability to remain faceless lead to inappropriate behavior online. Freestone and Mitchell found notable differences between the online behavior of older generations and the Millennials, who generally engaged in what the authors deemed "unethical online behavior" (p. 121). The authors noted that some activities generally considered illegal, such as impersonating someone else online, hacking, downloading copyrighted music and movie files (Freestone and Mitchell, 2004; Strauss & Howe, 2006), software piracy, and gambling were considered to be less wrong by Millennials than did members of older generations. This is in stark contrast to other authors' beliefs

that the Millennials are more morally conscious and more conservative than are previous generations (Paul, 2001).

Freestone and Mitchell (2004) conclude that the Internet "represents a new environment for unethical behaviour (sic), and should perhaps be treated as distinct to the physical world in terms of understanding of ethical issues" (2004, p. 126). They also believe that Millennials see "that cyberspace exists as a separate realm to the physical world, and may have developed an ethical culture of its own" (p.126) and that "crime within I[nformation] T[echnology] is looked upon in a less serious manner, both from an ethical and legal perspective, than other crimes" (p. 126). The Freestone and Mitchell study highlights the profound differences between Millennials and older generation concerning how they look at technology and its ethical implications. This study is important because it not only highlights these differences, but also indicates the differing attitudes technology brings to the typical characteristics of the Millennial employee.

Consumer Behavior

As stated by Weiss (2003), the Millennial characteristics of being wired, resourceful, worldly, and demanding equate to future consumer behaviors considered "highly acquisitive" (p. 31). Morton (2002) described Millennial consumer habits as "notoriously fickle…demanding the latest trends in record time" (p. 47). Sampath (2008) phrases these consumer habits from the business side, stating companies "must emphasize quality and competence…[and] the need for greater efficiencies and technical aptitude" (p. 4). However, because there are over 70 million Millennials worldwide, they have the buying power of $100 million a year, and account for 20% of consumer

spending in the United States, they are an important market segment to study (Fenich, et al., 2011; Rajamma et al. 2010).

Millennials are also very skeptical consumers because they have always been connected to a continuous stream of marketing from many different media (Barna, 1995; Clausing et al., 2003; Strauss & Howe, 2006). As a result, they are much less susceptible to conventional forms of advertising (Wolburg & Pokrywczynski, 2001) and tend to "value substance over labels" (Sampath, 2008, p. 9). Millennials may not be as brand loyal as previous generations and are generally more accepting of generic brands (Tapscott, 1998; Weiss, 2003), though they still are fashion conscious (Morton, 2003). They also want products that have a strong sense of design, or that fit into their self perceived images of themselves. Design, not advertising, is what differentiates products in the marketplace for Millennials. Therefore products with a sense of design or color, such as Apple computers or Motorola cell phones, are very appealing (Johnson, 2006).

Since they are more resourceful and technically savvy compared to previous generations, Millennials are strong influences on their parents' spending habits (Sampath, 2008; Tapscott, 1998). They have been raised to make family decisions alongside their parents, and are given equal status in large family purchases such as technology. Parents tend to believe that all family purchases are made with the children in mind, so it is only natural the Millennials play a role as an economic influence on their parents. These purchases are not always technology related products, but also include non tangibles such as leisure activities, work hours, job locations, and career paths (Strauss & Howe, 2000).

Because they are generally immune to traditional marketing formats, utilizing Millennials' connections to technology is often the best type of marketing. Often, the best

form of marketing to reach Millennials is not through word of mouth (Morton, 2002), but through the use of more modern technology tools (Sampath, 2008) such as text or instant messaging and email (Weiss, 2003) or through self created gatherings called meetups in support of products they want to celebrate (Johnson, 2006). In other words, the act of building relationships among Millennials and between themselves and a brand is very important (Tapscott, 1998). Another aspect of successful marketing to Millennials involves integrating products into their culture, such as having a popular singer refer to a product in their song lyrics (Weiss, 2003). The Internet, though a major source of information for Millennials, does not register as a place to market products, but rather as a tool for "building a broad lifestyle brand" (Morton, p. 47). Millennials also want to be able to try before they buy a product, which relates to how they want to be hands on and create their own shopping experiences (Tapscott, 1998).

Customization also plays a profound role in Millennial consumerism. Millennials are frequently choosing products with less variety, but with more options to customize a product and tailor it to their needs (Strauss & Howe, 2000). The act of customizing products to suit individual needs and desire is termed "creative choice counter-conformity," which reflects that Millennials view conformity as being creative and unique while avoiding similarity between products and brands among their peers (Rajamma et al., 2010, p. 391-2). Millennials desire customization in seemingly everything they consume (Tapscott, 1998), such as custom tennis shoe colors or a product named after a favorite pet (Weiss, 2003). Companies and analysts are planning for a future with even more customized products (Johnson, 2006; Weiss, 2003), especially customized to the Millennial generation (Strauss & Howe, 2000). However, there is a

paradox at play because customized products generally take longer to produce, which goes against the Millennial need for instant gratification (Weiss, 2003).

Management

Millennials are a very large generation, especially compared to the smaller Generation X, and therefore they believe they are able to be very particular about their individual work environment. They tend to believe they are entitled to a job because they have always been told they need to be needed and valued in other aspects of their lives (Zemke et al., 2000). Sampath (2008) states, "In order to fully benefit from the skills and perspectives of the new workforce, companies must incorporate a [Millennial] outlook into their cultures and fabric" (p. 5). Millennials demand employers respect them as persons and not just as employees (Montana & Lenaghan, 1999). Since they are accustomed to having their expectations met, Millennials in the workplace will not stay in a job that is not fulfilling to them (Eisner, 2005; Sujansky, 2002; Zemke et al., 2000). Much of this attitude comes from Millennials looking at their parents' experience with corporate downsizing and a decrease in employment benefits that make them want to attempt to personally control their employment outlook (Fenich et al., 2011; Ferri-Reed, 2010; Montana & Lenaghan, 1999; Yuva, 2007). They believe that there is a sense of entitlement to get a good job upon graduation from college and analysts fear that Millennials may be too demanding if their job does not meet their expectations (Sanchez, 2003). However, in recent years, the myth of Millennials switching jobs until they find the perfect fit has been confirmed to be only a myth. Since the economic decline starting in 2008 has increased unemployment and the number of entry level jobs, any job now

looks appealing to the Millennial generation, and a survey of them said they prefer to have long term employment with a single employer (Brownstein & Freedman, 2010).

Millennials do not want to dedicate their entire lives to work, only to be downsized by their organization (Yuva, 2007). Thus, Millennials strive for flexibility between work and their personal lives (Hill, 2002; Sampath, 2008; Zemke et al., 2000). They feel they do not have long term job security and do not expect to be with any one employer for a great amount of time, and Millennials want immediate payoffs from employers (Eisner, 2005). Millennials value honesty and respect between themselves and their employers (Morton, 2002; Sampath, 2008). In these respects, some consider the Millennials to be the "perfect workforce" (Clausing et al., 2003, p. 374) because they have the work ethic of the Baby Boomers, the can do attitudes of the Veterans, and the technology knowledge of Generation X (Clausing, 2003). Since the start of the Great Recession in 2008, Millennials have proven to be hard workers and willing to take on extra hours or responsibilities in order to retain their job in an environment with few entry level jobs or jobs that are easily downsized (Laff, 2008).

Having grown up in a team environment in which everyone played a role that contributed to the end goal, Millennials work best in a similar professional environment (Fenich et al., 2011; Sujansky, 2002; Strauss & Howe, 2000; Tapscott, 1998; Zemke et al., 2000). Collaboration and support between coworkers in the workplace is very important (Clausing et al., 2003; Tapscott, 1998; Twenge, 2006; Zemke et al., 2000). They have been attuned to their individual learning differences since they were young children and have adapted work and learning methods suited for their individual needs (Hill, 2002). Eisner (2005) believes that corporate teams should be created across

generations and include employees with complementary skill sets in order to engage Millennial employees. Millennials expect to be treated professionally, and in return they will act professionally in the workplace (Ferri-Reed, 2010; Eisner, 2005). Flexibility is another trait that Millennials value within their work environment (Sampath, 2008; Tapscott, 1998). However, even though this collaborative environment has been stressed throughout their lives, Millennials are so confident in their own abilities (Barna, 1995; Twenge, 2006), they think they do not need to benchmark themselves against others (Hill, 2002). Due to their attachment to teamwork, at least one researcher has dubbed the Millennials "a highly nationalist and communitarian generation" (Sanchez, 2003, p. 21).

The Millennial generation values and enjoys being mentored and trained (Eisner, 2005; Montana & Lenaghan, 2002; Morton, 2002; Sampath, 2008; Sujansky, 2002; Zemke et al., 2000). Yuva (2007) states that there needs to "be a teaching relationship, a relationship where the manager, as a good coach, knows the team, identifies with the strengths and skill gaps, puts people in proper roles, develops the bench strength, lays out the game plan, and gives feedback constantly and consistently for improvement" (p. 23). They also strive for "long-term career development and multiple experiences within a single organization" (Hill, 2002; Sampath, 2008). Therefore, placing an emphasis on training in many different specialties and allowing individuals to assess their long term values allows Millennials to work toward becoming the professionals they aspire to be (Ferri-Reed, 2010; Hill, 2002). They grew up with active learning opportunities in schools, and they expect this style of professional development to be provided to them in the workplace (Sampath, 2008).

Millennials are easily bored in the workplace due to their constant use of media and multitasking abilities (Fenich et al., 2011; DiGilio et al., 2004; Weiss, 2003,) so they want to have a flexible work environment (Allerton, 2001; Twenge, 2006) and strongly dislike slowness on the job (Eisner, 2005). They want interesting work and a belief that what they do in the workplace is relevant to the organization (Allerton, 2001; Montana & Lenaghan, 1999). Therefore, employers must find ways to engage them in the workplace (Sujansky, 2002), often through the development of social networks embracing open communication (Sampath, 2008) and developing meetings and events (Fenich et al., 2011). It is best to give them action tasks and allow them to learn on the job through active and interactive learning and not force them to sit passively in a meeting (Eisner, 2005; Twenge, 2006). Related to this, many Millennials have a sense of impatience to get things done, due to their instantaneous methods of living out their lives (Yuva, 2007), especially since their parents raised them in a very active manner (Sanchez, 2003). As noted by Hill (2002), Millennials saw their parents' lives get more complicated as they added more tasks to their agendas without pulling back from tasks that are no longer relevant. Millennials wish to avoid being overwhelmed in the workplace.

The Millennials also want to be involved in decision making in the workplace, so it is important to solicit and respect their ideas and opinions (Sampath, 2008; Strauss & Howe, 2000; Sujansky, 2002; Walker et al., 2006; Yuva, 2007; Zemke et al., 2000). They have been involved in making decisions within their families growing up (Sanchez, 2003; Weiss, 2003), so it is only natural for them to want to play an active role in the workplace. Workplace rank is not important to Millennials, and they think that they are equally capable of decision making with those above them (Eisner, 2005; Walker et al.,

2006). As Yuva stated, Millennial "employees often feel entitled to reward and advancement opportunities far beyond what is achievable at the beginning of a career" (p. 22). As a result, Millennials may appear to be more demanding of their employer as compared to previous generations (Strauss & Howe, 2000; Tapscott, 1998; Zemke et al., 2000). Similarly, Millennials want to know how their work fits into the organization's big picture (Sujansky, 2002). In order to do this, companies are adopting more personal and hands on styles of management and communication methods to reach out to the Millennial worker (Yuva, 2007).

Rewards, in the form of being singled out and recognized for their achievement, are very important for the Millennials (Allerton, 2001; Eisner, 2005; Montana & Lenaghan, 1999; Twenge, 2006). However, as Hill (2002) notes, this sense of entitlement in being given a professional voice causes Millennials to "confuse input (what they do) with output (what they achieve)" (p. 62),and they believe everything they do should be a profound achievement within an organization. This can also lead to Millennials not being able to handle criticism of their job performances and an impatience to rise to decision making positions leading to higher job dissatisfaction (Twenge, 2006). As part of a large scale study of U.S. workers, Kowske et al. (2010) noted that Millennials want recognition in the job and are often the top recipients of new pay for performance reward systems.

The work environment for Millennials should be fun and exciting because they believe enjoying work gives them a reason to be there (Twenge, 2006). Millennials have developed a "work to live rather than a live to work mindset that spills over into valuing the quality of the work environment as well as work life balance" (Eisner, 2005, p. 13). They believe they should be able to have a life outside of work, and therefore value

flexible schedules and the independence to choose the tasks they wish to complete (Eisner, 2005; Strauss & Howe, 2001; Twenge, 2006; Zemke, 2000). They want to be able to build personal relationships both with and within their work environment (Allerton, 2001). Rather than being successful in a career, more Millennials state a balance between work and pleasure is what they want to get most out of their adult lives (Eisner, 2005; Strauss & Howe, 2006). Millennials also appreciate work environments that allow them to have fun, dress casually, play a diverse format of music, have food provided, and work with a diverse set of coworkers and clients (Twenge, 2006; Wolburg & Pokrywczynski, 2001). However, so far, Millennials may not be finding work environments that meet their ideals. Eisner (2005) states that the Millennials "tend to be less satisfied than Gen[eration] X with their jobs and employers," and they are "more open than Gen[eration] X to leave for something better" (p.10).

Many Millennials also want to work in organizations that are socially responsible and give them a greater sense of purpose within their daily jobs (Eisner, 2005; Sampath, 2008; Yuva, 2007). Verhaagen (2005) polled 1,000 Millennial youths in 2003 and found that two of the top five definitions of success for them include having personal satisfaction in what they are doing and making a valuable contribution to society. Environmentally friendly organizations with a strong public service orientation find it easier to attract Millennial workers and retain employees who have a passion for their positions (Hill, 2002). Millennials believe that working for such organizations will give them valuable leadership opportunities, allow them to communicate with a variety of ages and ethnicities, and improve their problem solving skills (Hill, 2002; Yuva, 2007). These socially responsible organizations grow employees through personal fulfillment

rather than from external rewards, fulfilling a key link between personal and professional rewards that Millennial employees tend to emphasize (Hill, 2002). However, many Millennials are caught in a "value gap" between their need for socially responsible employment and the capitalist, big business supporters who were their parents' generation (Behnke & Oberwetter, 2008).

A study of more than 20,000 Millennial students in the United States and Canada about job attitudes attempted to approve or refute much of the anecdotal and observational evidence that is described above. The study, by Ng et al., (2010) utilized consulting firms to recruit Millennial students and surveyed them on their expectations about their career, advancement, pay, and desired work attributes. The results show that Millennials are not as picky about career choice and environments as other authors have speculated. More than 70% of Millennials are willing to take a job that is not ideal, and the majority would like to spend their entire career at one organization. However, over two thirds expect to be promoted within the first 18 months of employment and expect regular, certain, opportunities of advancement. The top work attributes in their place of employment are advancement opportunities, good colleagues, good supervisors, and training opportunities as being the most important characteristics. The study also emphasize that the work life balance is very important to Millennials, as well as social responsibilities and a commitment to diversity.

A 2010 study of Millennial attitudes in the workplace found similarities with previous generations as they were first entering the workplace. Kowske, Rasch, and Wiley determined that no one generation could understand the others' choices. Through a literature review, they determined that generations are more similar than different at work

and that generational differences are minimized in the workplace. After surveying more than 100,000 employees in the United States, they determined there were no statistically significant differences between generations with the work itself, pay satisfaction, and turnover. The survey did, however show Millennials had higher job satisfaction rates than other generations and were more concerned about job security (Kowske et al., 2010).

Meriac et al. (2010), looked at nearly 1,000 Baby Boomers, Generation X members, and Millennials and their work ethic by using the Multidimensional Work Ethic Profile (MWEP). The authors wanted to supplement the existing literature on generational differences with something more empirical and found that Generation X had the lowest level of work ethic across the generations and the greatest level of leisure time. However, the differences across all generations were not statistically significant and the authors believe some of the differences they did note in the study results can be partially attributed to the age differences and work experiences of the individuals completing the profile.

Millennials in Other Careers

There has been research on Millennials working in careers other than libraries. Abaffy and Rubin (2011) surveyed 25 Millennials working in construction related fields including architecture, engineering, and crafting fields and found their working characteristics are similar to the literature about the generations as previously described. The three main categories that the survey highlighted were a desire for more sustainability in building projects and careers, high ethical standards among individuals in the career, and personal fulfillment within individual jobs. The Millennials in building careers believe hard work is secondary to other skills they bring to their workplace, citing

collaboration and communication skills, technical knowledge, and new perspectives as more important. They are also concerned about the poor economy and what its long term effects will be on both their careers and the building industry.

Real et al. (2010) also looked at 2,500 individuals in the building trades, surveying them about ethics, job values, and gender attitudes, as well as facilitating focus groups. Concerning ethics, the researchers found Millennials believed more in hard work than members of Generation X and the Baby Boomers. They also found both Millennials and Generation X scored higher in the importance of leisure activities, self reliance, and delay of gratification than the Baby Boomers. It also showed Baby Boomers perceived Millennials as being lazier than they actually are. As far as job values, Millennials place a greater emphasis on the social aspects of the work environment than other generations, and they had similar attitudes about specific features of their jobs. Results about gender were harder for the researchers to determine, as all generations have similar attitudes towards gender equality both at home and work.

A final research study focuses on Millennials in the fisheries professions and in conservation and focuses on the characteristics they can bring to the workplace including confidence, collaborative, high achieving, and conformance. The authors think that, based upon their literature review, Millennials may not be well suited for careers in fisheries and conservation because they over estimate their skills and may take too many risks that the profession cannot handle. The authors think fisheries management is too complex to be undertaken by individuals with Millennial traits, and they believe the career can be too complex and ambiguous for them. The article also stresses that Millennials are so technology focused they are likely to be underwhelmed by the amount

of technology actually needed to perform jobs in the industry. Even though the authors do not think Millennials will add anything to fishery and conservation fields, they do recognize the fields will have to adjust and rapidly change for the Millennials (Millenbah et al., 2011).

Millennials as College Students

As the Millennials started going to college around the year 2000, they quickly became one of the most researched cohorts in higher education history (Strauss & Howe, 2000). Although still limited as far as scholarly publishing, a genre of research is beginning to emerge concerning the effects Millennials have on higher education (Walker, et al., 2006). Most of the literature elaborates on how they are using their traits to transform the traditional education setting into one that is more centered around technology, interactive learning, and customized to their lifestyles and ways of doing things (DiGilio et al., 2004). However, it is difficult to pin down exactly the effect of the traits Millennials bring to higher education because publications focus on anecdotal data by applying the definition of Millennials to a higher education setting. Hoover (2007) is quick to point out there is not yet any longitudinal data about the Millennial student in the college setting and there is little concrete data in the literature to back up on the generalizations often presented as scholarly research. Even in 2012, there are still few research studies about Millennial as students.

Millennials are studying at higher education institutions in record numbers (Strauss & Howe, 2006) because they know higher learning is necessary for them to learn and succeed in the knowledge workforce of the 21st century (DiGilio et al., 2004). Parents who believe higher education is imperative to be successful have pushed their

children to succeed and see college as a necessary step towards adulthood (Merritt & Neville, 2002) and they are expected to excel. They are extremely close to their parents and maintain this relationship while in college. Therefore, their parents have a profound influence on their educational experiences (McGlynn, 2005). Millennials see the college admissions process as extremely competitive and something they have been prepared for by their parents for their entire lives; therefore, they generally come well prepared for college with many advanced classes and college credits (Merritt & Neville, 2002).

The generalized literature of Millennials in higher education shows they want education to be more hands on and be actively engaged, minimizing time spent sitting in a lecture passively listening and taking notes (McGlynn, 2005; Werth & Werth, 2011). They want everything they learn to be practical and relevant to them every day on the job. In summary, they want just the necessary information and would rather be spared anything extraneous, which often puts them at odds of their instructors, who traditionally provide background information and theory in a lecture setting. It is not surprising Millennials question the established format of lecture and discussion in the higher education setting (DeGilio et al., 2004). They appear to want more information presented to them in different formats, especially Internet based instruction (Merritt & Neville, 2002). Due to these changes in learning styles, professors believe they are a more demanding generation to educate and they are forcing professors to reevaluate how they teach, creating challenges never imagined for college and university faculty (Tooker, 2006).

Higher education literature focuses on new instruction techniques that are being developed to meet the learning needs of Millennials. Research shows Millennial college

students need more interaction and customized learning (DeGilio et al., 2004) in order to engage a variety of student learning styles. Active learning is stressed in the educational literature; it promotes "deeper levels of processing and learning because it creates stronger connections" (McGlynn, 2005, p. 15), with connections creating more methods of retrieving learned information. Group work has been given to Millennials throughout their education growing up and they continue to expect it as a part of their higher education (McGlynn, 2005, 13). Blashki et al. (2007) refer to this hands on approach to learning as immersive learning because it is a distinctively learner centered approach that focuses on the learners and the tasks to learn, while utilizing technologies and other assistive tools.

Millennials prefer to learn at their own pace and are constantly working to update their skills; in response, educators create plans that give students large projects with open ended goals, giving students the independence to determine how the work gets done. Students also want to have a variety of activities that move at a fast pace (DeGilio et al., 2004 and provide "value added courses and experiences" (Merritt & Neville, 2002, p. 49). Instructors must also be able to grasp the learning styles of their students and nearly instantly change their teaching style to reflect them (McGlynn, 2005).

Technology is playing a larger role in learning, as Millennials are increasingly demanding multimedia in the classroom in the form of presentations and supplementary virtual class materials (Walker et al., 2006; Werth & Werth, 2011). They want more immersive technological learning environments such as online communities and virtual classrooms (Blashki et al., 2007). Learning in the 21st century needs to be in a "multi dimensional environment" that utilizes some traditional instruction but has larger

components of interactive learning and virtual learning to develop a sociocultural understanding of the learning experience. Blashki et al. define technology in the higher education setting as offering a role "to support the learners' construction of knowledge, structure their own learning processes, and offer tools that stimulate students to make maximum use of their own cognitive potential" (p. 412). The Blashki study looked at assessment tools of several engineering classes as well as student feedback to back up their claims that Millennials want and need technology in an immersive education environment (2007).

A 2010 study of 100 health sciences graduate students had participants take several tests related to internal control and digital nativism. The results show Baby Boomers are more likely to utilize social reliance in their coursework as compared to the Millennials and members of Generation X (Ransdell, et al., 2010), which differs from other research that states Millennials are more social in their work environment due to their familiarity to social networking (Real, et al., 2010). The Ransdell study does state that Millennials, who are predominantly digital natives compared to Baby Boomers who are largely digital immigrants, are much more active in learning online and are more likely to use web resources in their coursework. In summary, the Ransdell survey specified Baby Boomers were the highest among the three generations on social reliance and that they connect with others online, which is counter to the expected result that Millennials would rank highest on social reliance.

Walker, et al. (2006) came to very different conclusions in their research on Generation X and Millennial learning styles. In their study of nursing students, they found the two generations show remarkably similar methods of learning and that research

into how Millennials learn differently based on their personal characteristics is not always based upon actual students in the classroom environment. Their study showed there was no statistical difference between the two generations' learning styles, with both groups preferring lecture to group activities. They also prefer (90%) in person instruction rather than just web based instruction, which shows they do not want technology completely taking over higher education. Despite the fact that other authors believe Millennials only want the information necessary to complete a job. Walker et al. indicate every surveyed student wants to know not only the facts and their relevancy, but also why they are learning the material. This study also shows Millennials had a "strong preference for faculty to structure the classroom and provide guidance, while indicated significant levels in trust in faculty to tell them what to do" (p. 218), which is in direct conflict with what other educators state about the Millennials and their need to learn on their own with a project based curriculum.

Millennials also want to be graded differently. Peer evaluation is important, as is structured grading so they can complete assignments based upon how they will be graded. They expect to receive high grades and will tailor their responses in order to receive high grades. They want constant feedback and strive for rewards (Eisner, 2005) such as unrestricted free time and candy (DiGilio et al., 2004). These rewards are similar to what students have received growing up in the education setting and what they expect to receive on the job.

They also have very high expectations of the entire college experience, not just academics. Students understand they can easily transfer to another institution, so they expect clear outcomes from their higher education investment. This notion of getting

what they pay for has a profound effect on higher education institutions, which are developing more and more support and physical structures to meet the demands of the Millennial college student. Among the things Millennials are demanding from their colleges include upgraded housing, personal athletic resources, professional advising and counseling, and state of the art technology infused into every aspect of their lives (Merritt & Neville, 2002).

One research study has been published focusing on the differences between Generation X and Millennial medical students. The study, by Borges et al. (2010), utilized a Thematic Apperception Test (TAT) in which cards with images were shown to medical students from both generations. They were asked to make up a story related to the cards within ten minutes. Nearly 400 students participated and their stories were analyzed for different motives related to achievement, affiliation, and power. The statistical results stated Millennials scored higher for needs of affiliation and achievement, while members of Generation X scored higher on the need for power. However, the authors do not consider the results reliable because many believe the assessment tool is flawed and they only had a single reviewer examine each story.

Millennials and the Academic Library

A few studies apply the research of Millennials to the academic library environment (Gardner & Eng, 2005; Kipnis & Childs, 2005; Manuel, 2002). These studies include how Millennial students are utilizing and wanting library services and amenities and to how they are learning about use and dissemination of information. Librarians are very interested in reaching out to Millennial students and developing

library services tailored to their needs, but at the current time, much of the work in this area is anecdotal and has not been published in scholarly journals.

One line of research concerns information literacy, which is teaching students how to find and disseminate information. Similar in style to literature looking at how Millennials learn in the higher education setting, two studies look at learning styles to find the best ways to reach out to students in the classroom and teach them library skills. Kipnis and Childs (2004) provide an in depth look at the literature about Millennial characteristics and reflect on their own experiences teaching college students to come up with a list of 10 teaching tips for information literacy. They recommend the following: make the session personable so the students can relate to the instructor, use humor, be flexible, be fair and equitable to all students, and state the authority of the librarian so students understand the librarian has more knowledge about the library. Other more tangible suggestions include making the instruction session real world relevant instead of just something tailored to a specific assignment, having visually appealing handouts and parallel online modules, emphasizing ways to customize the students' library experiences, design team exercises, and offer as many different formats as possible through which students can obtain extra help as possible (Kipnis & Childs, 2004).

Manuel (2002) emphasized the learning styles of Millennials, how they utilize technologies, and how these elements can be used to improve the teaching skills of librarians. The article is a follow up to an earlier article using the same techniques to instruct students from Generation X, so some comparisons are made across both generations. Manuel examined students at California State University at Haywood and found students have grown up with technology and are self proclaimed experts in using

it, but this attitude usually hinders their information literacy skills. They are over confident in their abilities to find and evaluate online information, which is what information literacy sessions are designed to improve. Manuel concluded many students do not believe information literacy is necessary for them to learn, but many of them actually have much to learn. As a result, Manuel suggests librarians should embrace students' information seeking habits they believe they have while using instruction to add skills so students think they learned higher level skills designed to make them expert information seekers. Manuel provides practical teaching tips to reach out to Millennials, including conducting group activities, using visuals and hands on demonstrations, showing all the possibilities for customizing library resources, providing other multimedia options for learning outside of the classroom, making the sessions as fun as possible, and recognizing most Millennials have short attention spans and are easily bored by traditional lecture instruction.

A second area of research related to Millennials and the academic library involves what students are looking for from their library and what libraries can do to respond to these demands while making their services more interesting to Millennials. The primary study in this area is by Gardner and Eng (2005) who surveyed undergraduates at the University of Southern California to determine what students want from their campus library. They aligned their results with Strauss and Howe (2001). They found students have high expectations for the physical library. Millennials expect library services to be customized to them, they believe they are very comfortable with technology, and they daily use new methods of communication that were unknown to previous generations.

Gardner and Eng (2005) found students value the library as a physical space, even though most of the resources are now digital and accessed online. Students want a place to study and they want to be as comfortable as possible. They also want to have access around the clock to all the tools necessary to accomplish their school work, including group study rooms, comfortable furniture, modern technology, and physical access to the library. Gardner and Eng also found they want services customized to them, which is something they have grown accustomed to throughout their lives. They want services customized to their individual selves, but also want services for certain user groups, such as undergraduates, or related to a particular major or academic program.

Gardner and Eng (2005) also investigated how connected technologically Millennial students are. They have grown up with technology and believe their skills are much better than the skills of their professors or librarians. They are unimpressed by the level of technology available to them in college and believe more and newer technologies should be provided, especially in the classroom setting. They want information, specifically scholarly information from the library, to be available to them all the time and be fast and easy to find. To Millennials, information should not be a passive medium, but instead an active experience involving multimedia and interactivity. The authors express these desires as the "new ATM attitude" (p. 415). Millennials did not believe the library was meeting this need. Additionally, the survey found Millennial students communicate nearly nonstop, value both peer and familial relationships, and see their families as authority figures who garner respect.

Gibbons (2007), of the University of Rochester in New York, is a librarian who has undertaken both anthropological studies of student use of academic libraries as well

as usability testing about how they search for information. Her observations back up many of the claims made about Millennials from the generational literature, including that they are technically savvy, demand personalized services, and have a belief that they are special and deserve everything.

Gibbons (2007) uses the principals of "Web 2.0" as a background to how libraries can provide new services that meet the needs of students' online lives. These services included increased interactivity, better communication methods, feeding information directly to them, and having everything easily accessible with improved online indexing through tagging and social bookmarking. Communication is stressed because Millennials no longer communicate through previous generations' more traditional analog means, but instead use mobile devices, instant messaging, or online social networks. Gibbons studied gaming in relation to libraries and found students are comfortable in virtual worlds and may benefit from libraries using them as areas for instruction, communication, and collection development. In all, the author recommends her observations and research be used to not only understand users of an academic library, but also to improve library services to Millennials and further to develop the physical library as a place to complement online services.

NextGen Librarians

Although not scholarly, there has been much written and discussed about "NextGen" librarians in recent years. The term NextGen, coined by Gordon (2006), does not specifically reflect a Millennial demographic, but rather all younger librarians, with no age group identified. Gordon points out NextGen librarians share many characteristics with both the Millennial generation and Generation X, including the heavy influence

technology has on their personal relationships and their career choices. Gordon points out that

> Technological change brings a need for new skills and a new way of looking at library services. Technological savvy is often people's first gut impression when thinking about NextGen's qualities, and while technological expertise and interest necessarily vary by the individual, this is an important perception for a reason. Growing up with technology affects NextGen's perspective on a comfort with its use. While technical skills are by no means unique to younger librarians, the way they integrate technology into their lives, in general, often differs. (p. 1-2)

Gordon also discusses other decidedly Millennial characteristics of NextGen librarians, including superb Internet searching skills, flattening workplace hierarchies, a desire for younger librarians to have decision making powers, and concerns about privacy and intellectual freedom. NextGen librarians work to redefine the stereotype of the profession of librarian. Rather than being a career for middle aged women who work with books, NextGen librarians emphasize both print and digital information (Guevara, 2007; Gordon, 2006; Zabel, 2005).

It is interesting to note the term NextGen has fallen out of favor with librarians. After increasing mentions following Gordon's book, *The NextGen Librarian's Survival Guide*, there has been only one scholarly mention of the term related to librarians, a 2011 article discussing mentoring roles between Baby Boomers and NextGen librarians among Pennsylvania Academic Librarians (Neyer & Yelinek, 2011). Additionally, some librarians have openly complained about the attention NextGen or younger librarians are getting, as some believe more attention should be paid to older librarians who need to

retire in order to allow younger people with MLS degrees the opportunity to move into professional librarian positions (Fiakloff, 2010; Guise, 2011).

New Librarians

There is only one contemporary article concerns workplace transitions faced by new academic librarians. Faced with an aging and retiring workforce, Oud (2008) argues librarians need to start paying attention to the needs of new librarians in order to facilitate a smooth transition to a new generation, which Oud describes as "organizational socialization" (p. 252). Oud points out the term organizational socialization has been used for some time by other industries but needs to be applied to libraries in order to facilitate a better transition period for new librarians. Oud studied new librarians and their socialization into their first academic library job at Association of Research Libraries (ARL) institutions in Canada. New librarians had a wide variety of expectations beginning their jobs, and usually these expectations were not actually met on the job, which made the transition more difficult than expected. New librarians want to have more feedback on the job, a result that parallels how Millennials want both more and regular job feedback. New librarians also appreciated the high levels of flexibility, independence, and task diversity their jobs entail.

Oud (2008) discussed how new librarians were highly motivated to do a professional job and were often dismayed at the lack of motivation and teamwork among their older colleagues, once again showing several Millennial traits. In summary, Oud suggested new librarians are coming in with many of the same expectations Millennials have shown throughout their lives and that libraries need to develop new strategies to both transition to their first job and retain them in the academic library workplace. These

strategies include better practical training while in library school, mentoring opportunities, regular meetings with supervisors and peers for evaluative purposes, and fostering an environment that is open and comfortable for new librarians to express themselves and ask questions.

Technology skills related to new librarians have been studied by Del Bosque and Lampert (2008), who surveyed librarians from a variety of library settings with less than nine years experience working as professional librarians. The survey found the majority (55%) understood that technology played a large part of their library education, but a similar percent (57%) did not expect to work in a technical position upon graduation. Respondents also thought there was a disconnect between the technology skills taught in library school and what was needed on the job, with job responsibilities being much more technical than they expected. Thus, even though more experienced librarians expected recent graduates to fill highly technical roles, library school did not prepare them for these roles and students did not opt to go to library school in order to gain strong technology skills. Based on survey comments, the researchers noted two categories of new librarians: those who have a high level of technical experience, usually from a previous job in a technology related industry, and those who struggle with technology. For those who struggle with technology, technology was not the reason they decided to become a librarian and they wish their library school had more hands on opportunities for technology instruction, instead of teaching theoretical applications.

There is some literature related to mentoring programs and new librarians, particularly in relation to the workplace needs that the Millennial generation requires (Hicks, 2008). As there has been discussion among librarians about the skills new

librarians need to navigate the work environment and profession (Gordon, 2006), mentoring programs can be valuable in acculturating new librarians. Having a mentoring relationship can be helpful to Millennials because they develop a relationship with an experienced colleague whom they can ask questions and get professional advice. Mentoring relationships can also be beneficial to the mentor aiding them in developing an understanding of new and younger librarians (Hicks). One research study was conducted in Pennsylvania academic libraries with these ideas. This study focused on NextGen librarians because only a few of the librarians in the participant pool matched the age definition of Millennial. The study found NextGen librarians were more likely to have a mentor relationship than Baby Boomer librarians have at any point in their career. It also found NextGen librarians are less comfortable asking for help at work outside of a mentor relationship, and younger librarians want to make a positive impact on their workplace and career (Neyer & Yelinek, 2011).

Academic Libraries and Change

The idea of change is beginning to appear in library literature since there is an increased emphasis placed on both new librarians and how technology is changing libraries. Librarians want libraries to continue to be relevant into the 21st century, and to do so, they must adapt to the needs of both younger librarians and Millennial students (Lewis, 2007). Pugh (2007) examines management literature in relationship to libraries and stated that libraries are changing rapidly due to "the technologists…[who are] taking information services into what can be considered the second stage of technologically based change" (p. 1-2). Gordon (2004) pointed out libraries need to respond to these external pressures in a proactive rather than reactive manner, and that change occurs

within all levels of the library, both among new and more experienced professionals. The notion of librarians as agents of change was first and most profoundly described by the Dewey in her classic 1996 chapter discussing how technology would force librarians to change and adapt to both different ways of doing things and meeting the different needs of patrons.

Dewey (1996) believed "the future of librarianship is indeed at risk if we are unable to refocus our energies and primary activities from those related to storage and retrieval of information to more proactive user-based activities" (p. 144). She further explained libraries and librarians must work to respond to user needs and develop a complementary skill set, which is particularly important in a time of technological change. Dewey believed this new attitude is found most in library school students, who are generally younger, have grown up with technology, are not set in their ways, and are eager to learn new skills. Even though she does not discuss generations and the article was written before most Millennial traits were first reported, most of her reasons and skills needed for change are seen within the Millennial generation (Dewey, 1996; Strauss & Howe, 2000).

Pugh (2007) points out users are changing and, therefore, librarians need to change as well. Users' "information handling skills are increasingly sophisticated…[and] so their demands will become more sophisticated and less predictable" (p.13). Pugh recognizes librarians must change due to both the technological changes in libraries and changes in user behavior. The new skills needed by librarians include "new information management skills, networking and collaboration skills, flexibility, teamwork skills,

motivational skills, an ability to use and engage technology, negotiating skills, and knowledge of student learning" (p. 16-17).

Recruitment

As libraries and librarians undergo dramatic changes and a new generation enters the workforce, librarians are investigating how to bring new librarians into the profession. Recruitment efforts will ensure a continuation of skills in the workplace in spite of due to retirements, and new employees help keep libraries relevant into the future. Ard et al. (2006) predicted that in 2009, nearly 25% of librarians will be at least 65 years old and it is forecast that nearly two out of three current librarians will retire by the year 2017. ALA has a strong interest in librarian recruitment because more professional librarians mean more dues paying members for ALA, and steady or increased revenues. In a 2012 report on 2011 membership levels, ALA noted that the fastest growing group of members is the free membership category that is granted after being an ALA member for 25 years and retiring from library work, and nearly half of ALA members are aged 55 to 64. The report also states that members aged 25 to 34 years of age retain their ALA membership from year to year at a lower percentage than any other age group (American Library Association, 2012).

Some library literature discusses the types of librarians that need to be recruited into the profession. Many current librarians are disappointed about new graduates of library schools because they believe they do not have much or enough energy, nor do they have the basic qualifications a new librarian should have (Bosseau & Martin, 1995; Dewey, 1996). Bosseau and Martin argued librarians and library schools should work to attract librarians who are younger and are of "the highest possible caliber" (p. 198). They

warn new librarians that library jobs are no longer stereotypical librarian positions but emphasize being an information professional, which shows how libraries are changing in the information age. Therefore, computer skills as well as online searching skills are extremely important and need to be required of anyone who decides to become a librarian (Eschavarria, 2001) These are skills Millennials have obtained by growing up in a digitized world. These skills and the environment will transform libraries, and current librarians need to work hard to recruit individuals meeting these skills (Beaubien, 2006; Eschavarria, 2001).

Other recruitment literature focuses on how individuals decided to make librarianship a career. The information as to why an individual chooses to become a librarian can be used to recruit individuals with similar traits. Dewey (1995) explains this information will encourage perspective students to pursue a similar career path towards becoming a librarian; Dewey also found that a student's perception of a career has a major impact on career choice. Weihs (1999) interviewed 62 librarians to find out why they entered the career, and found most described a combination of many different factors that encouraged them to become librarians. Among the most popular reasons were being influenced by another librarian, previous library work, a love of reading, the career matched their abilities and interest, intellectual stimulation, and some always wanted to be a librarian. There was also a commonality that many librarians were former teachers, but there were no commonalities as to why they made such a career change (Weihs, 1999).

Ard et al. (2006) surveyed 96 library school students and found that contact with a current librarian is the single largest factor in people deciding to become librarians;

previous library experience was also a strong influence. Unfortunately, only a small number of librarians entered the profession because they enjoyed technology. Gordon and Nesbeitt (1999) also found librarians took many different paths into the career, with the majority coming to librarianship as a second career or starting out as a paraprofessional. This survey also showed newer librarians saw technology skills as a necessity to enter the profession, but technology was not a primary draw into librarianship. However, newer graduates were more likely to say technology, rather than a love of books, is what led to them becoming librarians. A 2009 study of new librarians found technology was not a motivating factor to become a librarian and new librarians weighted elements such as the work environment and job satisfaction more important than technology skills in determining their career. The study also specified librarians did not expect the high level of technological skill that was expected of them in their first job, and that library school did not prepare them well for that role (Del Bosque & Lampert, 2009). A University of Alabama study revealed new librarians acknowledge technology knowledge is important for librarians, but did not address if it was a factor in selecting librarianship as a career (Taylor, et al., 2010)

A final aspect of the librarian recruitment literature is practical methods of recruiting new librarians to the profession. Ard et al. (2006) offer practical suggestions for recruitment based upon what they learned about librarianship career entry by current library school students. Their suggestions include setting an example by being a great librarian, encouraging student workers and paraprofessionals to look to librarianship as a career, talking about librarianship in daily interactions with undergraduate students, targeting students in disciplines that do not have many jobs open to them, and having an

active presence at job fairs on campus. Beaubien (2006) focused on recruiting science librarians by encouraging Millennials with science degrees, noting that librarianship combines into a career their subject expertise with other interests in scholarly communications and open access, research, and technology. She also looked at recruiting Millennials using techniques that draw upon their unique interests and skills such as their curiosity, technological skills, skills gained while gaming, and online information searching skills (Beaubien, 2006).

Gresko (2003) found personal contact with a librarian is the best way to recruit undergraduates. Gresko surveyed undergraduate student library workers at Duke University and found most never would have thought about being a librarian before working in a library and that student library jobs could potentially interest them in a library career. The thesis offered practical tips to recruit students, including giving student workers a wide variety of work experiences, having social time with professional librarians, and giving students a librarian mentor.

Career Choice

Several studies focus on why individuals pursue a career in library science. A study of library and information science students in Greece highlighted the factors that influence entry to library careers, including educational experiences, family background, social class, and gender. Students also make "judgments of economic, social, cultural and symbolic capital" (Moniarou- Papaconstantiunou et al, 2010) and study how education success, field of study, and social class interrelate. Although the Moniarou-Papaconstantiunou study focuses on Greek students who have drastically different backgrounds in these areas compared to students in the United States, it did highlight

basic characteristics of career choice that can be applicable to all nationalities and backgrounds. A similar study performed by researchers at the University of Alabama noted most students made the decision to become a librarian after finishing their undergraduate degree, a pattern that has not changed between studies conducted in 2004 and 2009. Most (76%) chose a career in libraries because they enjoyed the job function and skills, with personal contact with a librarian and compensation being minimal contributors, with less than 30% indicating these factors. The study did ask if technology was a factor in career choice, and the authors determined that although students found technology an important skill, it was inconclusive if technology skills played a role in career choice. The University of Alabama study only looked at individual factors in career choice and did not examine other sociological characteristics that could play a role (Taylor et al., 2010).

Other studies focused on what students selected as a specific specialty within library science. Hines and Baker (2008) surveyed business librarian in a variety of settings, including academic, corporate, and public libraries, and highlighted the importance of previous experience in career choice. The survey that the researchers conducted found that for the majority of respondents, librarianship was a second career, and the majority of these previous careers were related to business. However, most people who chose to switch careers came to librarianship because of the nature of the work and a love of libraries, and became business specialists because of interest in it as a subject (50%). Other factors included that business librarianship was the only job that was open, and only 15% indicated that previous employment or skills factored into their decision.

Two studies focused on the decision to become a school librarian. Both cited a love of the K-12 classroom environment, but love of libraries even more, with a strong desire to unite these two characteristics. One study (Shannon, 2008) focused more on demographics of recent library school graduates desiring a school library career and found the two largest factors were experience in classroom teaching and previous experience with the school library environment as a student, parent, or educator. The other study focused more on the personal factors that influenced the career choice, which included the desire to work in the K-12 education environment, vocational personality, librarian mentors, previous library work experience, a love of reading, a desire of service, a desire to work with children, and the flexibility of the work schedule (Jones, 2010).

Demographics

There have only been a few in depth demographic studies of librarians conducted. Two have relevancy to this project and influence the design of this study. The first is a 1989 American Library Association (ALA) study on occupational entry that looked at students of library science and their demographics, attitudes, and aspirations at the time (Heim & Moen, 1989). Regretfully, this survey was only undertaken once so there is no longitudinal data available to see how these characteristics changed for library students over time due to the influence of technology (Wilder, 2003). The second study is a 2003 study by Wilder describing demographic change occurring within academic librarianship conducted by the Association of Research Libraries (ARL). This study examined traits of academic librarians and how their demographics are changing.

The American Library Association does not collect detailed demographic data on their members, and only began voluntarily asking for year of birth information in 2010, in

order to examine retention rates across age groups. This data for August is shown in Table 4 and is depicted to gain insight as to how many members fall into which age groups.

Table 4

August 2011 Reported ALA Personal Membership Data by Age

Age Range	Percent
Over 75	.1%
65-74	7.7%
55-64	30.1%
45-54	21.5%
35-44	20.1%
25-34	18.9%
Under 25	.7%

The Heim and Moen (1989) study is significant because it surveyed library school students, who are usually younger than the librarian population as a whole. It examined reasons why students decided to attend library school, how satisfied they were with library education, and their views towards librarianship. The study contains demographic data from when students decided they wanted to become a librarian; the majority (60%) of study participants came to the career after working in another job, either library related

or not and only 16% declared they wanted to be a librarian by the time they finished their undergraduate degrees. The majority stated that another librarian was their most influential reason to enter the profession. The survey asked students what was the primary title for the professional working in libraries; nearly 60% called themselves librarian, and the remainder used more media neutral titles like information professional, media specialist, and information specialist. The study also showed that technology may be an interest to librarians, with nearly 60% believing that the library field was highly technical and that they liked this type of work. However, technology was not asked as a reason one decided to enter library school, though 16% indicated they wanted to go into a computer systems or a library automation position upon graduation.

A more recent study, conducted in 2008 among library science graduate students at the University of Alabama collected some demographic information, though it is impossible to compare it to previous demographic studies. The study found the majority of students were female (72%) and 52% of students were in their twenties and 24% were in their thirties, coming from a wide variety of backgrounds, though primarily in the humanities and social sciences. The majority of students have an additional graduate degree, with 2% of respondents having a law degree. They come from a wide variety of work experiences, though the largest numbers had previous library experience (23%) or teaching experience (12%).

Wilder (2003) details the aging of the librarian population as well as some demographics related to new librarians. This study points out the average age of academic librarians is considerably older than similar professions, such as nurses or teachers. The age distribution of librarians show that 63% are age 45 or older, compared

to just 40% of nurses and 42% of teachers. However, Wilder pointed out that "librarians have been relatively old since at least 1970" (p. 4) when he compared the data to earlier *Current Population Survey* data. He suggested these data show that people enter academic librarianship as a second career and also reflects upon the smaller population size of Generation X. Wilder believed this trend toward an older average age will continue because younger women who have traditionally filled library jobs have more career options open to them and are entering careers in law, medicine, and engineering at larger rates. Interestingly, he does not make mention of men entering librarianship. Wilder noted that between 1998 and 2000 new hires increased by 35% and the 2000 librarian population numbered 124 more librarians under age 35 than it did in 1998.

Conclusion

The Millennial generation has some parallels to previous generations, but new technologies and media are shaping the Millennials into a very different generation compared to generations before it. These generational changes have many impacts on society in general, which means profound changes occurring in the job market. Within librarianship, Millennials are causing a dramatic change in how librarians deal with new technologies, which will have a future profound effect on the profession and will change how libraries reflect societal needs for information in the future.

CHAPTER THREE

PROCEDURES AND METHODOLOGY

Researching a group of librarians for their shared characteristics in an effort to determine their impact on the profession has been and can be done through a variety of qualitative and quantitative methods (Dinerman, 2002; Grover & Fowler, 1993; Haricombe, 1993; Kuhlthau, 1989; Westbrook, 1994). This study utilized a mixed method design, using surveys and interviews within a naturalistic framework to gather data. Naturalistic design allows the researcher to conduct basic research to add to the general knowledge of the field as well as determine new knowledge to aid in solving a particular problem (Westbrook, 1994). Mellon (1990) stated, "Observing real people in everyday situations brings a living dimension to research that challenges and fascinates the researcher" (p. 17). Surveys and interviews are among several methods that can be utilized to conduct naturalistic research and are explained in detail in this methodology section.

The multiple methods approach to research allows for each method to contribute "its own facet of information and each has its own peculiar irrelevancies" (Weiss, 1998, p. 136). It can also help to "form one or more composite measures of…success" (p. 136). Using both qualitative and quantitative data helps the researcher study the same phenomena through multiple methods and corroborate the data, thereby increasing the validity of the data. Mixed methods also aid in the interpretation of the results, giving the researcher a large picture of the overall study and helping to answer questions that one method may not fully be able to answer (Grover & Fowler, 1993; Rossman & Wilson,

1985; Weiss, 1998). Quantitative and qualitative data collection have different goals; qualitative research is important in order to understand the experiences of others, while quantitative research seeks to establish generalizations across situations and regularities in data (Bradley, 1993; Westbrook 1994).

Included in this chapter are the research problem, research questions, and a detailed description of the research design and data collection. This design, utilizing survey and interview methods to obtain both qualitative and quantitative data, seeks to gain a knowledge of Millennial librarians through examining their demographics, their characteristics, their personal attitudes as they relate to academic librarianship, and the reasons they decided to become academic librarians. Further, this section will include the methods applied to analyze the gathered data, including coding and triangulation. Additionally, the population and sample will be defined and specified. Finally, a discussion will occur about the trustworthiness of the study and data, which will be utilized throughout the study analysis.

Statement of the Problem

Academic librarians have held many discussions about the Millennial student and how they are transforming services to these students. As Millennials enter the workforce, some are choosing to become academic librarians. Just as Millennial students have changed libraries, Millennial librarians inevitably will bring about more change to academic libraries. Although there has been much discussion about “next generation” librarians and their impact on the workforce, no academic publication has looked specifically at the Millennial generation of librarians. The goal of this dissertation is to explore the impact Millennials have on academic librarianship, including why

Millennials are choosing academic librarianship as a career, how their use of technology influences their career choice, and what their future impact may be on the profession.

Research Questions

The following research questions are focused on determining not only the characteristics of Millennial academic librarians, but also explaining the reasons they decided to enter the profession. To address the purposes of the study, the following research questions will be investigated:

1. What factors influence why Millennials choose academic librarianship as their first career?
2. What influence does technology have on librarianship as a career choice?
3. What motivates younger librarians to choose a specific concentration or position type within the library they are working?
4. What are the demographics/characteristics of the Millennial librarians?

Research Design

This study primarily utilized a mixed method design with both an online survey and a semi structured interview. The survey was used to gather initial data to answer the research questions. This was followed by an interview that was conducted with interested survey participants and was used to delve deeper into inquiry as to generational attitudes towards librarianship and how they chose the career. The qualitative method, using both open ended survey questions as well as detailed interviews with individual librarians, was necessary to understand the contextualization of the personal influences that motivated career choice as well as the role technology played in that choice (Sutton, 1993). Since the research questions asked for demographic information, job satisfaction, and

generational characteristics about new librarians, a limited amount of quantitative data was collected, giving the study some mixed method characteristics (Dinerman, 2002).

The research questions and study design were based upon the naturalist paradigm, which as Westbrook (1994) explained, "is an approach that posts reality as holistic and continually changing so that theory formation becomes an ongoing process designed to understand phenomena" (p. 242). Westbrook also explained that naturalistic inquiry seeks out aspects of "complexity on the grounds that they are essential for understanding the behavior of which they are a part" (p. 241). Bradley (1993) stated that an emphasis on naturalistic inquiry helps the researcher to understand reality as the study participants see it. This paradigm provided insights into the experiences of the research study pool and show if their career choices came out of the digital environment, of which they have been a part since birth (Grover & Fowler, 1993).

Although naturalism is a paradigm most often used in the social sciences, it is applicable to library science as well and is playing an increasingly important role in library science research (Grover & Fowler, 1993; Tesch, 1990; Westbrook, 1994). Westbrook argues that when an area of library research is not well known and does not lend itself to simple identification, then the naturalistic approach is a valid research mode. She also explained that this approach works well when the research environment calls for using multiple data gathering methods in order to provide the most "complete or insightful understanding" (Westbrook, p. 242). Using naturalism to examine the demographics and characteristics of Millennial librarians to examine areas which are not currently understood, such as why they entered the profession, provides a beneficial research study to supplement the professional literature (Mellon, 1990).

Many researchers support the use of the mixed method design within library science literature. Grover and Fowler (1993), in their discussion of trends in library research, pointed to the use of multiple methodologies as a positive indication that research in library science is getting stronger. They view multiple methodologies as an indication that a shift to more qualitative methods is occurring, rather than a simple quantitative questionnaire, which means more quality research within the profession. Researchers also believed that the two approaches are highly complementary to one another and aid in the thoroughness of the evaluation (Weiss, 1998). Kuhlthau (1989) also reviewed various library science studies over time and argued that combinations of qualitative and quantitative methods are the best in order "to study many aspects of a problem over an extended period of time" (p. 22). Kuhlthau believed that early research and demographic surveys are best done through quantitative methods, while follow up qualitative research addresses the why of an issue and bring further insight to the earlier findings. Rossman and Wilson (1985) analyzed various mixed method studies and found that using both quantitative and qualitative methods brought richness to the data and each method helped to corroborate and elaborate the other data to "enhance the understanding of complex social phenomena" (p. 640).

The quantitative aspect of research is important because it is an effective way to show demographic data, generational characteristics, technical skills, and job satisfaction, even though it may not bring detailed insight into why the hypothesis was either proven or disproven (Kuhlthau, 1989). Quantitative data provides a background and corroborates the qualitative data (Rossman & Wilson, 1985). Powell (2006) sees quantitative data as "assigning numbers to data in accordance with some rule" (p. 115) that can be tied to

characteristics, effectiveness, and measurements. As long as the quantitative measurement process can be "reasonably high in reliability and validity" (p. 115), Powell explained that data can be combined to "create one or more composite measures" (p. 115) to aid in data collection and answering the research questions. Using quantitative data to back up qualitative methods increases reliability because there is an additional mechanism providing similar data that states similar results in a different format (Weiss, 1998).

Quantitative and qualitative data collection have different goals within research, as qualitative research aids in understanding the experiences of others, while quantitative research seeks to establish generalizations across situations and seeks regularities in data (Bradley, 1993; Westbrook 1994). Qualitative research seeks to establish and understand the relationships between specific situations and then use the relationships to "guide inquiry into other situations" (Bradley, p. 438). Additionally, qualitative methods are best used to provide a richness of detail to quantitative findings and provide a contextual background to the quantitative data (Haricombe, 1993; Rossman & Wilson, 1985; Weiss, 1998). Powell (2006) argues that survey methods are "often quantitative in nature but lack the experiment's ability to rigorously test the relationship" (p. 110). He asserts that quantitative surveys should not be the sole method of data collection and should be supplemented by questionnaires, interviews, and observations.

This study is a mixed method design utilizing a quantitative survey along with qualitative survey questions and interviews with a naturalistic paradigm approach. This model provides demographic information about Millennial librarians while also

determining why they entered the career. Without limiting inquiry, this paradigm and methods will act as a guide during the data collection and analysis processes.

Population

The population of this study draws upon all academic librarians born in the years 1982 through 2001 in the United States. It is assumed that participants who are old enough to be in graduate school are old enough to be considered members of the Millennial generation. This population also includes students currently meeting the age requirements and pursuing a master's degree in library science from an American Library Association (ALA) accredited library school who intend to enter a career in academic libraries. Since this population is limited by high education requirements and low age, it is assumed that librarianship is the primary first career for all respondents.

Sample

The primary sample was comprised of self selected participants who met the overall population criteria (Weiss, 1998). An online survey was posted and the link was disseminated in target areas that include librarians and library school students born after 1982. A link to the online survey was provided through as many electronic means as possible, including direct electronic mail, postings to library listervs, postings to other online librarian networks, and word of mouth. The qualifications for participating were stated in the introduction as well as in the consent from the Institutional Review Board (Appendix A). Once the respondent went to the online survey, the initial demographic questions verified they were eligible for the study. Identifying information in the form of an electronic mail address was only collected for the purpose of a reward and was

removed from all data collected. The rewards for participation were two $50 Visa check cards that were drawn at random from all participants.

After confirming that the American Library Association does not require date of birth and age information from its membership, the researcher developed a strategy for building a sample of participants. Many librarians subscribe to at least one electronic mail discussion list, a technology that allows participants to send one email message that is then forwarded to a large number of people (Evans & Mathur, 2005). Discussion lists targeted towards academic librarians, such as col-lib (College Librarians), uls-lib (University librarians) and ACRL (Association of College and Research Libraries), were collected as distribution tools. Several more discussion lists, including Nextgen-l (Next Generation Librarians) and NMRT-l (New Members Round Table), target new librarians. Additionally, most library schools have their own discussion lists to communicate with students, and a these lists were gathered from library school websites. All of these lists were used to recruit participants. The researcher sent an email to each list explaining the goals of the study and providing a link to the online survey (Appendix B).

Additionally, other online means were used to distribute the link to the survey whenever possible, as many Millennial librarians are utilizing various online methods to communicate. The most prolific online communication method is the (we)blog, which is an online journal that many librarians write to discuss issues facing the profession. Many younger librarians have their own blogs, which are connected through online networking and several bloggers who were personal friends of the researcher were asked to post a description of and a link to the online survey. One additional online mechanism that was used was Facebook, which is a popular social networking environment that many

librarians have accounts in, including the American Library Association. Facebook has several groups for new librarians and the researcher posted information about the study to the ALA Emerging Leaders participants and the ALA Think Tank.

Because there is no direct communication between the researcher and the initial survey participants, all participation was voluntary. Since the study information was distributed through a wide network of channels, a valid sample is assumed (Westbrook, 1994). After a period of approximately two weeks, the researcher determined that no new responses were necessary for validity of the data due to saturation, so the survey was closed and no longer advertised.

The sample of participants for the interview portion of the study were chosen at random from survey participants who indicated they were interested in being interviewed to provide a more detailed account of their career. A total of 161 participants were identified for possible participation in an interview. After removing personally identifiable information, the researcher analyzed survey data. Based on their survey responses, the researcher selected 40 participants for follow up interviews, of which 20 volunteered to participate. Interview participants were chosen randomly by inputting email addresses into a spreadsheet and selecting row numbers from a random number generator. Due to the voluntary nature and the amount of time required to conduct an interview, the sample size was small but participants were interviewed until the researcher believed data saturation where a consistency in interview responses was reached (Bradley, 1993).

Data Collection

As this study utilized a mixed method design, two different datasets were compiled. This included survey data, both in the form of quantitative data and qualitative data gathered in response to open-ended questions. The second type of data was online interviews utilizing the conferencing software, Skype, with the audio recorded by the Mp3 Skye Recorder software sound editor with willing participants who were selected based on their willingness to be interviewed. Both aspects of the data collection took place virtually as a convenience to both the researcher and the participants. Online studies tend to gather a larger percentage of participants from the potential population (Dinerman, 2002; Evans & Mathur, 2005; Meho, 2006). Online conferencing interviews allowed the researcher to conduct interviews without travel expenses, allowed flexibility in location and time, and enabled the researcher to interview participants throughout the nation (Evans & Mathur, 2005; Meho, 2006; Smith, 1997).

The initial online survey was created using the online survey software, SurveyMonkey, and was hosted by the vendor on a secured server. SurveyMonkey allowed for a variety of question and response formats and allowed for participation of all users with an Internet connection. SurveyMonkey also allowed security functions such as only allowing one survey to be completed from a single internet protocol (IP) address to ensure that individuals did not take the survey more than one time. The primary reason SurveyMonkey was utilized over other online survey options was the lack of university branding so that it did not appear to be applied to a particular institution and because of its features to allow only one survey completion per participant.

The interviews were conducted through virtual exchanges between the researcher and the interviewee (Meho, 2006). The interviews were semi structured, with the researcher guiding discussion between prewritten questions. Initial questions were followed up with additional questions based upon the answers that the participant provided. The virtual interviews were conducted with the videoconferencing tool, Skype, or over the phone, depending on the participant's available software.

Survey

To gather basic demographic information and provide an overview for the research data, the researcher created a survey with the purpose of developing a demographic report and to clarify the experiences of the sample population (Haricombe, 1993) (Appendix C). Prior to completing the survey, participants were provided an informed consent statement. The survey was composed of multiple sections, each designed with a particular purpose, using closed questions in order to frame the evaluators goal of comprehending the participant's own personal situation (Weiss, 1998). The first section contained basic categorical demographic information, with a goal of determining if the participant met all the eligibility requirements to participate in the study. This section included questions such as the type of library where the participant works or desires to work, the age of the participant, the specific type of library jobs held, and professional affiliations. This initial section also stated the purpose of the study and the research questions (Dinerman, 2002). Some of the questions were adapted from a 1989 survey on occupational entry of library school students conducted by Heim and Moen (1989).

The second part of the survey asked questions specific to generational characteristics and opinions about generations in a library setting. These questions included asking participants to identify what they call themselves professionally (i.e. librarian, information specialist, etc.) and their opinions about a generational divide in libraries. They also ranked their personal beliefs concerning ageism in libraries. The third survey section asked questions relating to career choice and again drew heavily on the Heim and Moen (1989) survey. These questions asked participants when they determined librarianship was to be their career, their academic background, and what other non librarian work experiences in libraries the participants may have had. This third section also asked participants about their library school program, other career choices, career satisfaction, and attitudes towards the future of the profession. The fourth section of the survey asked participants to specify, on a rank scale, their attitudes towards the satisfaction concerning a career in libraries and their satisfaction with the workplace. A fifth section of the survey asked about technological understanding, with a goal of gauging technology comfort levels before and after library school, as well as determining how important technology is to current Millennial librarians. The technologies listed in the survey were taken from other technology use assessment studies the researcher has conducted.

The final survey section asked participants if they were willing to participate in a follow up interview. This section also asked for contact information from the participant, which was separated from the respondent's survey results once they were selected for an interview. If a person volunteered for an interview and provided their contact information, he or she may have been contacted at random for a more in-depth interview

about their specific reasons for becoming a librarian (Appendix E). Interview participants were chosen first by their willingness to be interviewed. Survey questions are lined up with the study's research questions in Appendix E.

Interview

Once all the surveys were collected, a second round of data collection began. This process involved contacting participants who were willing to be interviewed and obtaining their thoughts about why they entered librarianship. The interview used open ended questions to gather the most complete report possible with individual stories and offer support to details gathered using the quantitative demographic and qualitative survey questions (Haricombe, 1993; Weiss, 1998) with detailed accounts as to why younger librarians chose to enter the career (see questions in Appendix D). Westbrook (1994) believed that the interviewers must choose their own point "along the continuum between structured and unstructured interviews" (p. 244), and the interviews for this study generally contained open-ended questions with room to expand into further unstructured questions as the interviewer saw necessary, allowing participants to reply in their own words (Weiss).

Interview participants were chosen because of their willingness to be interviewed. A total of 161 participants volunteered for the interviews. The email addresses of the volunteers were inputted into a spreadsheet and row numbers were drawn using a random number generator. A total of 40 possible interview candidates were contacted to participate, and 20 followed through and signed up for an interview time. After 20 interviews were conducted, the researcher felt the interview reached a saturation point.

Due to logistical reasons and the diverse geographical dispersion of the study population, interviews occurred in a semi structured manner using the Skype software which as Meho (2006) and Smith (1997) stated can increase the comfort level of the participant by allowing them to choose the environment in which they reply to the interview questions and also empower them to control the flow of the interview. Conducting interviews via virtual means also allowed participation by members of the sample who may otherwise be too shy to participate in a face to face interview (Meho, 2006; Smith, 1997).

The interviews began with consent that the interviews were recorded, and then followed with an open ended question about why each individual librarian chose their particular careers and their background with technology. Participants were asked what motivated them to become a librarian and what factors had the greatest effect upon them making a career decision. They were asked to give an account of the personal process that led them to choose to go to library school and ultimately gain their current job or specialty within academic librarianship. Interviewees were able to respond in whatever way they were most comfortable and no leading of the participant or extraneous information was given.

Once the open ended questions were asked, the interviewer concluded by asking additional questions based upon responses to the earlier questions. These questions were designed by the interviewer during the course of the interview to get more information out of the interview participant as was relevant to the study. At the end of these follow up questions, the interviewer gave a summary of what was discussed during the interview and explained that if the participant had more information, they are welcome to contact

the interviewer at a later date using the contact information on the consent form (Appendix B). Although attempts were used to transcribe the interviews with the voice dictation Dragon Naturally Speaking, the researcher transcribed interviews by hand.

Pilot Survey and Interview

Before conducting any surveys or interviews with any member of the study sample, a pilot survey and interview were conducted with four members of the sample population. The pilot participants used the actual preliminary survey and interview instruments in an attempt to determine if the instruments were reliable to obtain the study data the researcher aimed to collect (Dinerman, 2002). Additionally, the pilot aided the researcher's attempt to eliminate personal bias by having the opinions of multiple members of the survey population (Weiss, 1998).

First, the pilot survey was reviewed for any ambiguity and lack of clarity in wording and the possible omission of any key lines of questioning. It also gave the researcher an estimate of how much time participants needed to complete the survey (Dinerman, 2002). The same participants were then granted an interview using the same guided interview instrument that actual participants used. This trial interview utilized Skype and Mp32 Skype Recorder software and aided the researcher in determining potential problems with the lines of questioning and the use of technology. Minor modifications in both the survey and interview instruments were made based upon the pilot surveys.

Data Analysis

The data, including survey results and interview transcripts, were examined using the grounded theory approach of analysis (Ellis, 1993), which helped the researcher

understand, rather than predict, the outcome (Westbrook, 1994). The research questions, including the overarching question as to why young librarians entered the profession, were answered through this analysis of data.

Data gathered with the survey was compiled and organized based upon themes and examined alongside data gathered from the follow up interviews to capture the "essence of the meaning" (Weiss, 1998, p. 168) as well as examining correlations between the different research questions. Survey data were analyzed using descriptive statistics, including the use of tag clouds to visualize free form fields. Tag clouds analyze work occurrences in a block of text, count of each word, and scale the words logarithmically by size according to their count so that the largest word has the highest count and the smallest word has the least count (Lamantia, 2008). Tag clouds were chosen as a form of data analysis because there was a long tail of responses to open ended questions, and display in a table format would be lengthy.

The interview data was transcribed to create an audit to show the actual data upon which the researcher made her conclusions (Shenton, 2004) The data was then identified by a coded notation and through content analysis and then further analyzed to identify traits and influences (Haricombe, 1993; Shenton, 2004; Weiss, 1998) that affected why young librarians entered the career. Bradley (1993) stressed that qualitative interview data needed to be "broken down into smaller units and then reassembled to call attention to patterns, themes, and concepts" (p. 443) as well as creating a "collection of insightful quotations (Shenton, 2004, p. 146). Patterns of reported influence (Ellis, 1993) were identified by and through counting specific references within each interview to look for patterns across all participants (Shenton, 2004; Westbrook, 1994). Following this

analysis, transcripts were coded to identify themes and "produce concepts that seem to fit the data" (p. 248). This review was completed for each line of data, looking for specific references and groupings that suggest answers to the research questions and to look for similarities within the different personal accounts. Shenton, Westbrook, and Bradley all explain that this line by line coding can then be arranged into one of many groupings, which they agree is the best by clustering data into categories of observed categories. A grouping can be as small as one segment of text that contains one idea, episode, or piece of information (Weiss, 1998).

Once categories were identified, the survey data and transcripts were analyzed a second time to make sure all of the data fit into each of the categories determined through the earlier data coding (Bradley, 1993). From here, the categories were grouped to reveal a "framework of patterns and contrasts from which…theory can be developed" (Westbrook, 1994, p. 248). Shenton (2004) sees this additional review as a chance to create concept webs using the data, to make an attempt to resolve any anomalies that may have arisen in the first round of analysis, and to identify the implications of the data analysis. This second review also provided an additional review so that no additional patterns or themes were overlooked within the interview data. The ultimate goal of the review of data was to attempt to compare and construct stories that answer the research questions (Weiss, 1998).

Trustworthiness of Data

It is impossible in any study, especially studies with qualitative elements in its methodologies, to have complete objectivity (Strauss & Corbin, 2008). Since qualitative methods are subject to researcher bias, it is difficult to interpret without some degree of

subjectivity (Bradley, 1993). In response to this problem, efforts were undertaken to increase trustworthiness in data collected throughout the study, such as including both qualitative and quantitative demographic data and to triangulate data across two different data collection methods. Interviews themselves are, according to Bradley, beginning to arise as a way of trustworthy inquiry in a "world of complex and interwoven constructed realities" (p. 432). Data can only be trustworthy if it meets four criteria: it is credible, transferable, dependable, and confirmable. These four criteria were kept in mind as trustworthiness was determined through several methods, including the use of a pilot survey and interview, member checks, peer review of data, and the triangulation of data.

Peer Review of Data

Westbrook (1994) also advocates for a peer review of data as another way to contribute to the trustworthiness of data. Peer reviewing involves providing randomly selected interview transcripts to a peer who is also aware of the study purpose and the research questions. Using the transcripts, the peer reviewer is asked to identify common themes among the transcripts. Even though the themes may be different in vocabulary and semantics from those as determined by the researcher, there should be enough similarities to show agreement between them. Additionally, a peer reviewer may be able to determine additional themes that the researcher did not initially identify and, therefore, assist with the data analysis and increase the thoroughness of the research. This study utilized peer review of data with two peers chosen from among librarians at the researchers institution of employment.

Triangulation of Data

The triangulation of data is a way of gathering data from different views as a way to obtain multiple measurements of the same activity (Westbrook, 1994) and strengthen the overall data collected (Grover & Fowler, 1993). In this study, triangulation was achieved primarily through the use of both a survey instrument and personal interviews, member checking, and peer review of data. These different frames of data analysis helped to gather multiple perspectives of the research and help to increase the validity of the study conclusions (Patton, 2001; Weiss, 1998; Westbrook). Even though the methods created different types of data, the data showed similarities in content and provide the same information through the triangulation process (Rossman & Wilson, 1985).

Institutional Review Board

This study adhered to all University of Missouri Columbia Institutional Review Board (IRB) guidelines. The project proposal, research questions, a form, and other relevant documents were submitted to the IRB for review. Following approval by the IRB, participants were asked to view a waiver prior to participation in the study. Per IRB guidelines, participation in this study was voluntary and no one was forced to participate for any reason. The participants did not benefit or suffer consequences by choosing to participate or not in this study; this study was voluntary and had no apparent psychological risk. Unless the participants volunteered their names and contact information within the study for interview participation, anonymity was preserved and maintained throughout the study because no identifying information was available. Additionally, names and contact information were removed from survey answers and interview transcripts so that they are not connected and no identifying information

including email addresses (Meho, 2006) were contained within the interview transcript. All names and contact information were deleted as soon as they were no longer necessary for the completion of the study. Pseudonyms were assigned to each interview participant.

Researcher Bias

Careful consideration was given to researcher bias. The researcher was born in 1979 and expected that she had similar opinions and experiences as many of the participants in the study. This could have been an impediment in the collection of trustworthy data, which the researcher acknowledged and, therefore, could not completely prevent the introduction of bias into the study (Shenton & Dixon, 2004; Westbrook, 1994). When the data were collected and analyzed, it could have been easy for the researcher to look for the opinions and experiences that she has within the data. Bias could have been within the study because the researcher has not personally conducted a large scale mixed methods research project in the past (Bradley, 1993).

To help eliminate bias, the previously mentioned means for ensuring trustworthiness of data were utilized. Utilizing both quantitative demographic data and qualitative survey and interview data aids in the triangulation of data as analyzed. Additionally, demographic information is less likely to incorporate bias as compared to a single qualitative data set analyzed by the researcher (Weiss, 1998). Additionally, member checks of research tools and the peer evaluation of data allowed an outside observer to provide a less biased opinion of the study tools and data results.

Summary

This section described the research methods for this study. Information was provided about the research problem, the purposes, the research questions, design,

population, studied sample, data collection and analysis, as well as issues related to the trustworthiness of data. Coding of interview data and statistical survey analysis provided emergent themes required for further analysis.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

The purpose of this study was to examine new academic librarians and library school students who are members of the Millennial generation and were born between 1982 and 2001. Through this study, demographics of Millennial librarians were collected, as well as the reasons and stories as to why they chose to become academic librarians, their backgrounds and attitudes about technology relating to libraries, and their thoughts about being a newer and younger librarian in a multigenerational and increasingly technical career.

This study was conducted though multiple methods to obtain both quantitative and qualitative data utilizing a survey instrument and a semi structured interview. The survey data were analyzed using descriptive statistics in an effort to collect information on a large sample of librarians, while the interviews were used to add depth and further description to the survey data in a qualitative manner. Together, the methods gathered information as to why Millennials chose academic librarianship as a career, their experiences with technology, their opinions about technology skills within libraries and generational attitudes within the workplace. Both the quantitative and qualitative data findings sections that follow contain a synthesis of the data revealed through both methods.

Research Questions

The following research questions guided data collection through both the survey and interview aspects of the research process. The following sections report data that is framed by these questions:

1. What factors influence why Millennials choose academic librarianship as their first career?
2. What influence does technology have on librarianship as a career choice?
3. What motivates younger librarians to choose a specific concentration or position type within the library they are working?
4. What are the demographics/characteristics of the Millennial librarians?

Quantitative Findings

In order to collect quantitative data, a survey was sent out to online sources that are geared towards new and younger librarians and library school students. A total of 50 ALA accredited library schools were contacted through their dean or director of student services (or similar title), with an email message asking them to forward a call for participants on to their students and alumni. Five school representatives responded that they forwarded the email on, but through an examination of geography in survey respondents, it appears that the survey was forwarded by most of the contacted schools. Additionally, a message was posted to the listserv for ALA's New Members Roundtable (NMRT) listserv and for the ACRL's New Member Discussion group, as well as the Facebook page for the ALA Emerging Leader's program and the ALA Think Tank, which is a group of progressive thinking, mostly younger librarians. Survey recruitment began on May 4, 2012, and the survey closed two weeks later on May 18.

There were a total of 466 responses to the survey. However, there were 99 responses from people who stated that their birth year was before 1982, and these responses were filtered out of the results using the survey tool. An additional 52 individuals who responded to the question “What is the primary type of library work in which are you currently or wish to be employed?” responded with answers outside of the academic environment including government, corporate, museum, school, or public libraries, so these responses were also filtered. This left 315 valid surveys from which to examine data using the analysis tools built into Survey Monkey.Demographics

The birth years of participants ranged from 1982 to 1990 (see Figure 1). The largest number of participants (64) born in 1984, and is fairly evenly distributed with most years having around 15% of total participants. There are fewer participants at the later end of the range, as those born in 1989 and 1990 are currently at the traditional age to finish up an undergraduate degree, rather than enrolled in or finished with, a master’s degree. The survey also indicated that women are the dominant gender choosing academic librarianship, at 89.3% of the population.

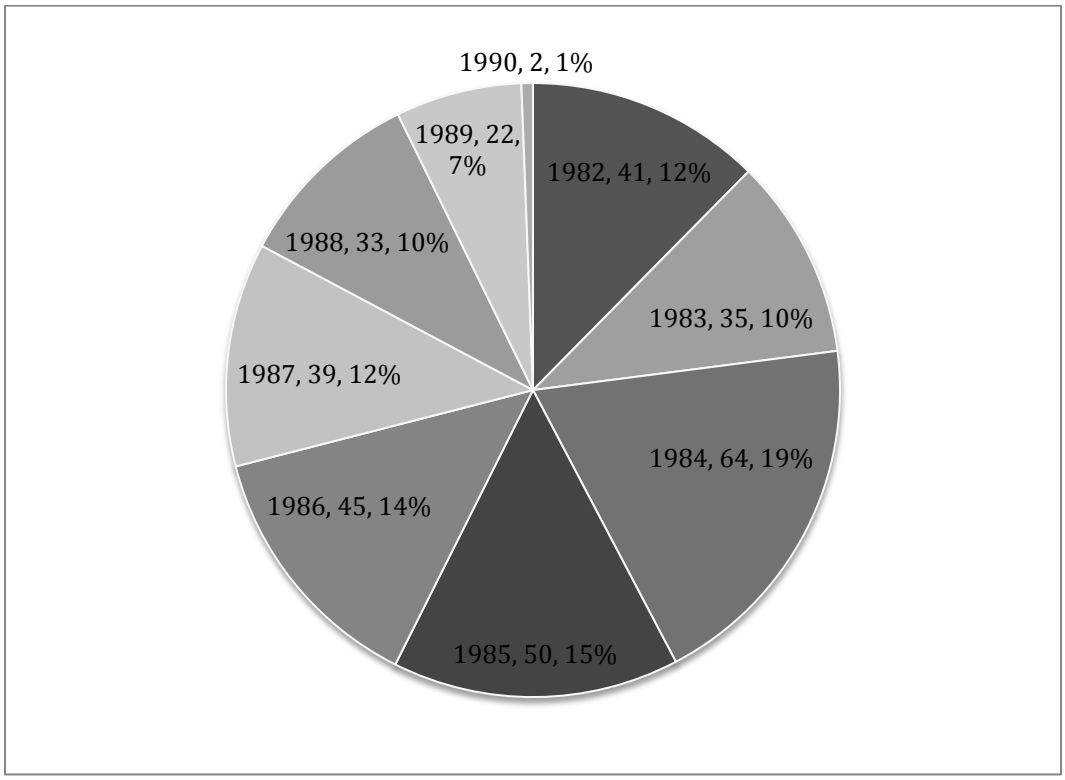

Figure 1. Birth year, number, and percentages among survey participants

The profession is also overwhelmingly white (90.5%), with minorities make up only 13% of respondents, with respondents identifying as multiple races (3.6%), other/Asian (4.0%), Hispanic (3.0%), and American Indian (2.4%) (Figure 2). Respondents call 40 states home, with the top five states being New York, Pennsylvania, Kentucky, Ohio, and Virginia.

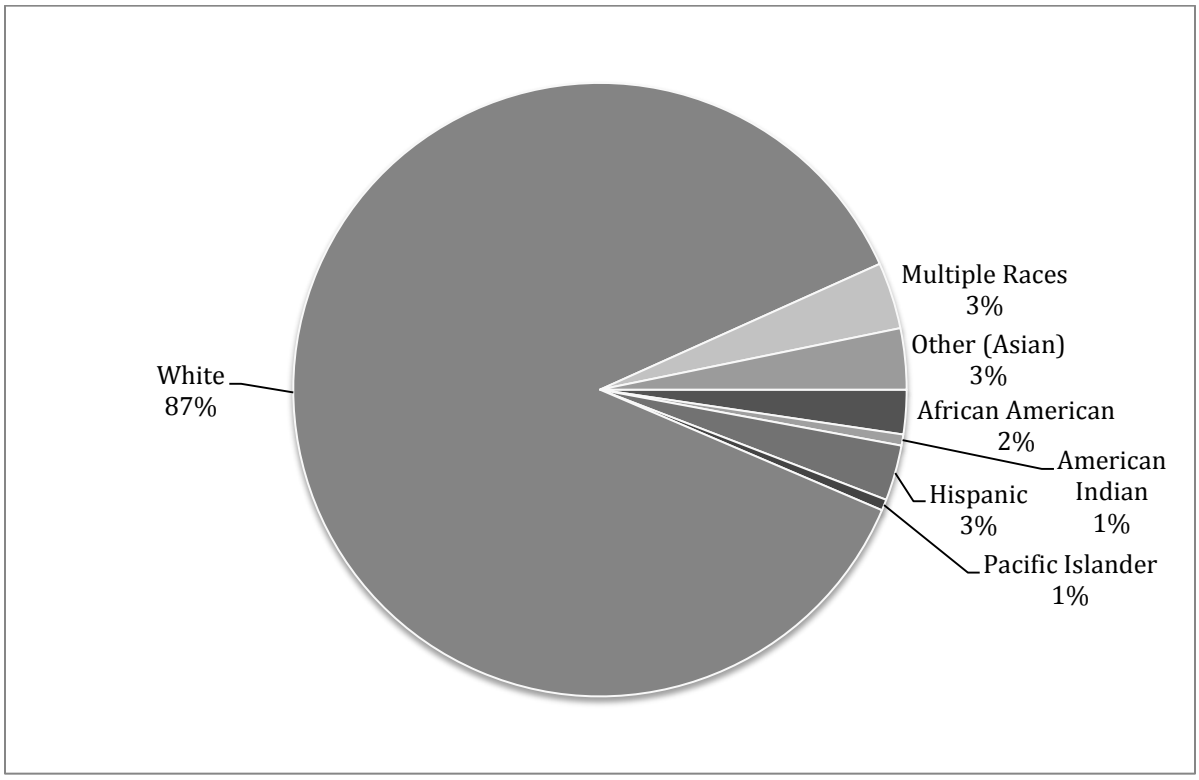

Figure 2. Races of survey participants

The respondents also were nearly evenly divided between library school students (45.5%) and individuals having already obtained a MLS degree (52.1%). Concerning the format of their library school program, 38.4% earned the degree at an institution entirely in person, 19.6% completed the degree entirely online, and 42.0% went to a program that was a mix of in person and online courses. Concerning what area of academic librarianship in which they worked or wished to work, there was a diverse set of responses, with the most popular areas being generic public services, reference, instruction, and archives (Figure 3). Other responses included a combination of multiple areas including digital librarianship, access services/interlibrary loan, rare books, and medical librarianship. A wide variety of workplace environments was also included in the results, though the most popular institution types were baccalaureate colleges (20.2%),

master's college or university (26.9%), or a doctoral granting university (29.1%). Nearly 6% of respondents worked in an associate's college and 11.3% worked in a special focus institution.

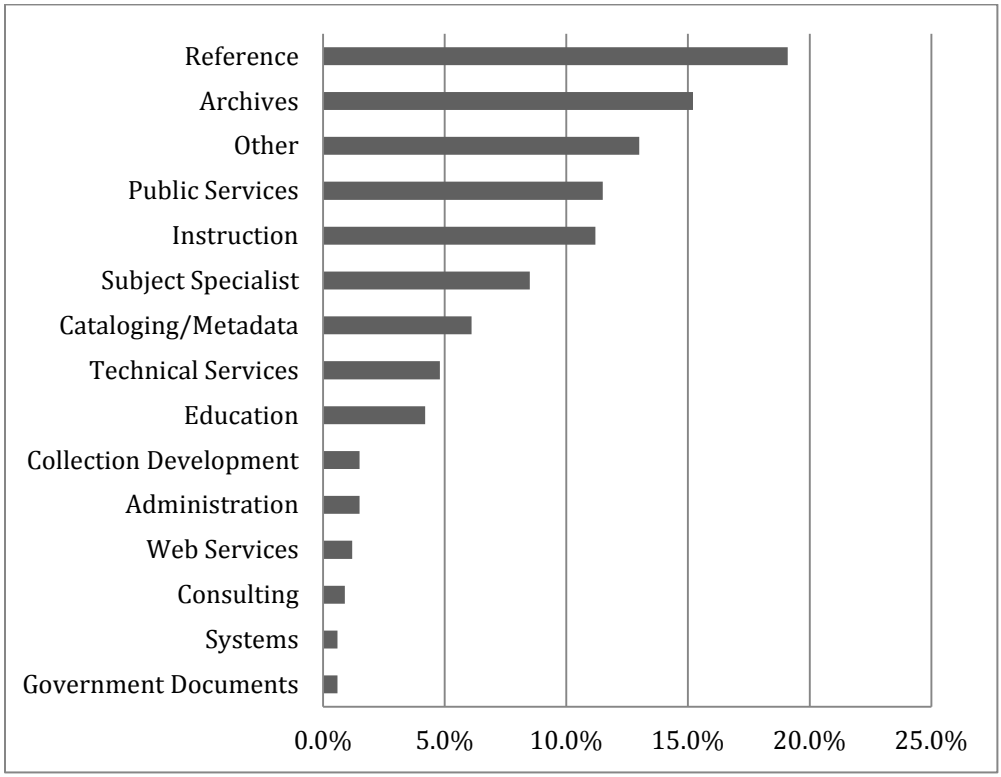

Figure 3. Respondents' areas of specialty within academic librarianship

Membership in professional associations was varied, and it was clear that many respondents did not understand the relationship the professional associations had to one another, often listing multiple areas within the same subdivision. In total, 73.4% of respondents did list membership in at least one professional association. A total of 57.6% listed ALA membership, and 4.6% were members of the American Society for Information Science and Technology (ASIS&T), which is known to be a more technical and digital library association that includes both professional librarians and researchers from related disciplines such as informatics and computer science. Survey results indicate

individuals are joining their state library association (29.7%) and some join associations that may be related to their professional interests such as the Medical Library Association (MLA) (3.1%) and the Society of American Archivists (SAA) (9.0%). If individuals are members of a special organization, then they tend to not be a member of ALA. As for ALA members, most (76.9%) are also members of the Association of College and Research Libraries (ACRL), with smaller numbers being members of the Reference and User Services Association (RUSA) (25.0%) the Library and Information Technology Association (LITA) (12.0%), the Association for Library Collections and Technical Services (ALCTS) (10.2%), and the Library Leadership and Management Association (LLAMA) (8.3%). Roundtable membership with ALA was smaller, though most (66.0%) were members of NMRT, which is often provided free to library school students by their school. Other popular roundtables are Library Instruction (LIRT) (27.7%), Library Research (LRRT) (14.9%), Social Responsibilities (SRRT) (8.5%), and Intellectual Freedom (IFRT) (8.5%). According to the results of this study, younger librarians are less likely to participate in a roundtable than an ALA division.

Overall, two thirds of respondents preferred their job title to be “librarian”, with smaller percentages referring to themselves as information professionals and information specialists (see Table 5).

Table 5

Preferred professional title

Title	Percent
Information Professional	11.7%
Information Specialist	11.1%
Librarian	68.4%
Media Specialist	1.6%

Respondents also viewed library work as a profession 68.6% of the time, with 18.4% referring to the career as a calling. Smaller percentages stated library work was an occupation or vocation (see Table 6). When asked about the likelihood that library work would be their primary occupation, 69.2% of respondents were optimistic that library work would be their primary profession, while 10.2% indicated it probably will not be their primary work, and 20.7% were uncertain. (see Table 7).

Table 6

Overall personal description of library work

Description	Percent
Occupation	3.8%
Vocation	5.4%
Job	3.8%
Profession	68.8%
Calling	18.4%

Table 7

Likelihood of library work to be primary occupation

Likelihood	Percent
Definitely	15.9%
Probably	30.2%
Hopefully	23.1%
Unlikely	7.1%
No	3.1%
Uncertain	20.7%

Generational Characteristics and Opinions

Several questions focused on generational perspectives about the academic library profession. The first question asked individuals to state what their preferred job title would be. This question was asked because there is a perception that the term "librarian" may be dated as the career becomes increasingly technical and less focused on printed materials. However, over two thirds (68.4%) saw their title as "librarian," while 11.7% stated "information professional," and 11.1% as "information specialist". The other responses were mostly "archivist". Most librarians see the job as a profession (68.6%), though 18.4% see it as a calling. Only 3.8% see academic librarianship as only a job.

Respondents tended to believe there were some generational differences in the workplace. On a ranked scale of one to five with one being no generational issues and five being "a great deal" the score was 3.19, with 43.6% selecting a three for "some differences" and 22.4% selecting "a lot". People were generally neutral in their belief that

generational issues come up in the workplace. Asked about attitudes relating to technology use and different generations, respondents generally agree that there are differences in use and attitudes about technology between generations in their workplace. However, respondents tended to have neutral thoughts concerning if the strengths that younger librarians brought to the workplace were better than workplace strengths of older colleagues. Full information about generational attitudes is in Table 8.

Table 8

Rankings and modes relating to Millennial generational attitudes

Statement	Ranking (1=Strongly Disagree; 5=Strongly Agree)	Mode
Age is a factor with an individual's technology skill set	3.44	Agree
Younger people are naturally better at technology	3.10	Agree
Those that grew up with technology are more inclined to use it in the workplace	4.08	Agree
Older employees are less likely to use social media in the workplace	3.52	Agree
In my library, it is the younger librarians utilizing technology more	3.52	Agree
Growing up with technology makes individuals more likely to use technology in their professional life	4.04	Agree
The library workforce will fare better in the future when current younger librarians become administrators	3.26	Neutral
Younger librarians have to adjust their communication styles in working with older librarians	3.53	Agree
Technology makes workers more productive	3.24	Neutral
Generational issues commonly come up in my workplace	2.78	Neutral
There are no generational conflicts in my workplace	2.82	Neutral

Career Choice

Most respondents were always avid library users throughout their lives. More than 88% of respondents used a library at least once a month through high school and 40.4% used the library at least once a week. In college, they were even more avid users, with 56.6% using the library physically and 63.5% using it virtually on at least a weekly basis.

Most individuals had previous work experience in a library before deciding to pursue a library degree (56%) and 58.1% state that their work experience directly influenced their decision to go to library school. Other possible influences, including family members, teachers, or other librarians did not have a notable impact on respondents' decisions to become librarians. Respondents thought more strongly about certain job aspects influencing them into becoming librarians. Given a list of librarian job characteristics, all characteristics were rated at least neutral as reasons for career choice, with the "opportunity to serve others and the community" being the strongest motivator for career decision. The full, ranked data is in Table 9.

Table 9

Rankings and modes for reasons individuals chose a career in academic librarianship

Reason	Ranking (1=Not Important; 5=Very Important)	Mode
Access to the world's knowledge	4.09	Very important
Alternative to teaching	3.15	Important
Availability of jobs	3.23	Important
Do research with and for others	4.21	Very important
Geographical mobility	3.18	Important
Importance of information in society	4.33	Very important
Job market	3.15	Neutral
Need for a marketable skill	3.56	Important
Numerous and diverse areas of specialization	3.94	Important
Opportunities for advancement	3.57	Important

Opportunities to serve others and the community	4.26	Very important
Opportunities to use technology	3.71	Important
Personal skills that could be used	4.10	Important
Previous library use/experience	3.77	Important
Previous library work	3.28	Very important
Teaching others how to access information	4.14	Very important
To earn a living	4.13	Important
To supplement/complement another degree	3.05	Important
Variety of career opportunities	3.66	Important
Utilize technology skills/interests	3.77	Important

As previous library work was an important reason as to why individuals opted to go to library school, there were free form questions relating to what type of library work was accomplished before pursuing the degree and the contribution that work experience gave to career selection. Of the 100 responses for the type of library work performed, 39 worked in a library as an undergraduate student and 31 had positions that were paraprofessional jobs outside of the university setting. Five individuals volunteered in a library. The positions worked included circulation/access services (36), reference (10), technical services (7), and archives (5). How those jobs influenced the decision to go to library school was fairly straightforward. Individuals liked the atmosphere of higher education, the nature of the work, and found it to be a good fit for their interests and skills. They made statements such as “Loved it and all it stood for and wanted to do more

with it than I was allowed"; "I loved the work I did, it was one of the most fulfilling things I had done, and nothing else had grabbed me like the work I did in the library"; and "I feel as though I found my people". Others liked the work and realized that an MLS degree would be necessary to advance; "The work made me more interested in working in archives, so I ultimately decided that the degree was necessary to my career" and "I was doing the same work as librarians and getting paid significantly less". A few people "fell into" a library job while doing work study in college and after college turned it into a career for the same reasons.

Individuals attended a variety of undergraduate institutions, including baccalaureate colleges (35.7%), master's college or universities (24.6%), and doctoral granting institutions (38%). Correlated with other responses, the type of college one attended tended to influence the type of institution where they were or wanted to be a librarian. Almost everyone attended college in person (92.6%), while one person completed an undergraduate degree entirely online.

Individuals made the decision to become a librarian at different times in their academic career: when undergraduates 38.7%; 9.4% while completing a graduate degree; 11.8% while working in a library after school; and 30.6% decided after finishing their undergraduate degree and without library work experience. Many respondents also commented that they made the decision after they could not get a job in their field or were underemployed. There were 366 majors listed by 296 respondents. The most common majors were English, history, art history, communications, and anthropology. The majors can be clustered into subject groups as arts and humanities (56.8%), social sciences (35.8%), education (3.6%), life sciences (3.8%), and physical science, math and

computer science (.05%). Only three respondents had majors that would be considered technical, with two people indicating multimedia communications and one indicating computer science. Graduate degrees completed or not were named by 49 individuals, with all but three being master's degrees; two had PhDs and one had a law degree. Of the other graduate degrees, 21 (42.9%) were in the humanities and were primarily focused within English and art history, 13 (26.5%) were in the social sciences, dominated by history (6), and education (3). Other master's degrees claimed include divinity, an advanced certificate in library and information sciences, computer science, public administration, and master's in business administration (MBA). Still, among all degrees, the humanities are most popular among participants followed by the social sciences, with few having any background in a predominantly technology degree program.

Individuals provided a variety of other career choices were given as possible alternatives considered to becoming a librarian, as 270 respondents listed a total of 374 careers other than academic librarianship. Other careers falling under library and information science accounted for 22.2% of responses. Sixty eight (18.2%) indicated teaching as an alternative, 66 (17.6%) listed careers in higher education, especially faculty positions and 43 (11.5%) listed careers in publishing, editing, journalism, and writing. A total of 81 (30.5%) indicated a variety of other career considerations with the most popular careers being in the public sector, non-profit organizations, law, and social work, with diverse careers including a funeral director and bee keeper. Only eight individuals mentioned a career that would be considered high tech, including computer programmer (4), IT specialist (1), intelligence analyst (1), user experience specialist (1), and engineer (1).

Asked why they became academic librarians, coded answers revealed several patterns. Personal fit, the academic environment, working with students, opportunities for research, and the ability to teach were the major trends. Many people believed that the skills of academic librarians have fit well with their personal skills, as several responses simply said, “It fit my skills and personality”. Others responded with a bit more detail, such as “fit my skill set and was an opportunity to help students thrive in higher education.” The academic environment was also a motivator, as many students liked the environment while working on other degrees and wanted to stay. One person commented, “I consider myself to be a ‘professional student’ and am very happy in academia. I would love to stay involved in universities and the academic library profession can help me accomplish this.” The category for higher education environment was strong, with the ability to assist and conduct research a major benefit for some, who stated “I love researching and helping people do research” and “I would like to contribute to medical research and engage users about their information needs”. Finally, teaching was a category that kept occurring, with some comments such as “I love teaching students how to research” and the alternative, “I love the university, but I do not want to teach”. A desire to work with college students was also often noted. A tag cloud of the coded responses is in Figure 4. Words that appeared most frequently are in larger type, with words less commonly used in decreasingly smaller type. Respondents only note illegible terms one or two times.

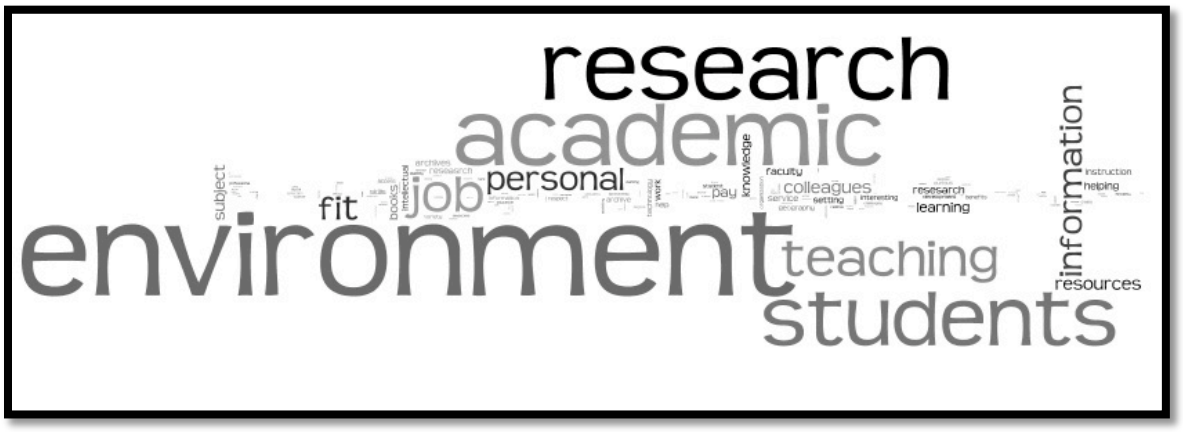

Figure 4. Tag cloud of coded responses to "Why did you choose academic librarianship as a field of work?" Respondents were asked to check all that applied.

There were several questions related to decisions about library school. The decision about where to go to library school was influenced by a variety of factors, including family (21.4%), friends (21.1%), library school publicity (20.4%), and the courses available at a particular school (17.9%). Geographical location (70%) was the biggest influence, followed by the curriculum (51.2%), cost (50.5%), and reputation (47.8%). Other responses included availability of a distance or online program and tuition assistance available. For full information regarding influence, see Figure 5. Overall, students and alumni are happy with their choice, with satisfactory ratings for the quality of the school of their choice, faculty, the curriculum, personal attention, and technology emphasis. They also consider library school to be not very challenging with 74.5% rating the difficulty level neutral, easy, or very easy. Individuals are also generally satisfied with the opportunities to learn about technology provided by their school.

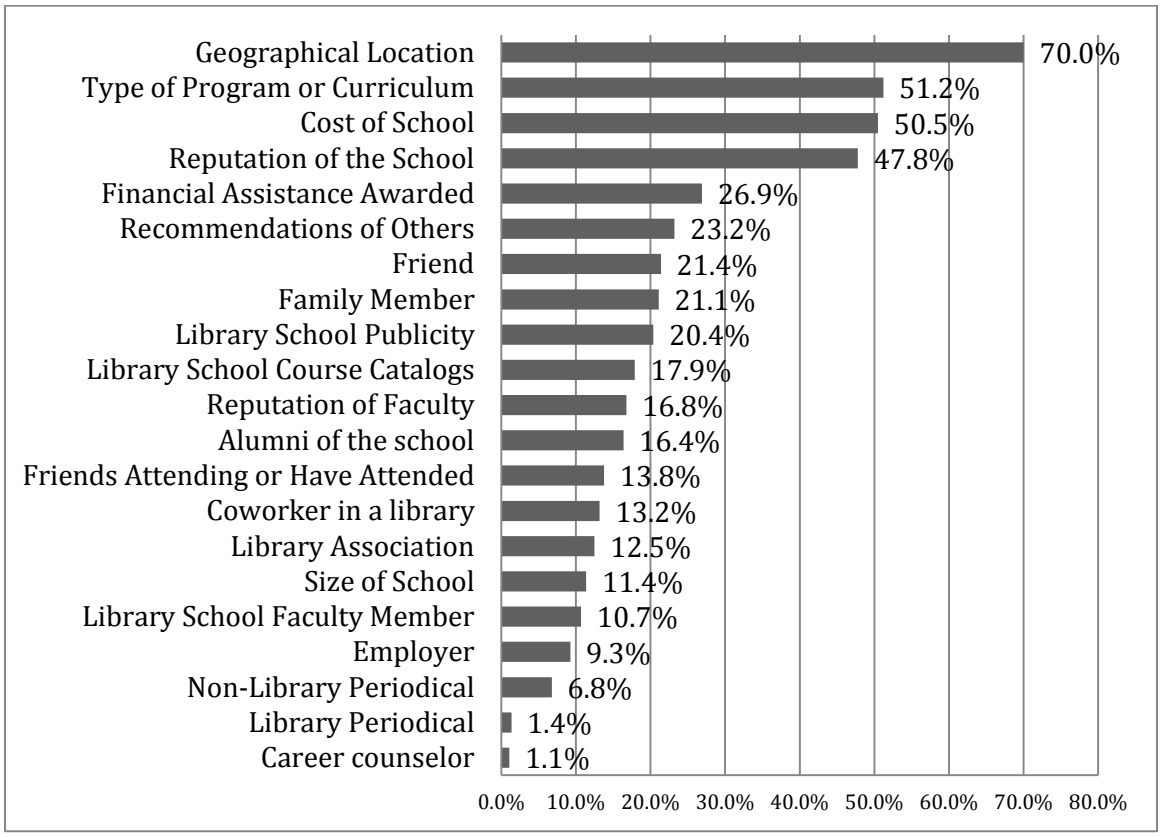

Figure 5. Influences for choosing a particular library school.

Individuals expect to stay in the library field, with 48.2% expecting to stay in it for their entire career, though 20.7% are uncertain. Overall, participants believe that, the future of academic librarianship is positive. When asked for three reasons they would give to influence others to choose academic librarianship as a career, survey respondents had many different answers, which were coded into categories. Taken together, the ability to conduct and assist with research ("ability to do challenging & scholarly research and work with highly educated faculty/staff"), the work environment, working with students ("helping students is so rewarding"), the ability to teach, and having a variety of work types and responsibilities ("no two days are ever the same") were the

most common answers. Making the assumption that respondents listed their top reason first, and then went down in importance in subsequent entries, it is interesting to note how the statements change Three tag clouds have been created to depict the first, second, and third responses listed by participants. Included in Figure 6 are the reasons given first to persuade others to become academic librarians.

Illustrated in Figure 7 is a tag cloud of the second reasons listed for persuading others to be academic librarians. The focus was similar to the answers given in the first position, but with more attention paid to helping others, working with information, teaching, technology ("opportunities to stay current with technology"), change ("they are interested in where this field is going to"), and advancement. The final tag cloud (Figure 8) focused on the work environment, change ("the new school year always brings a sense of new beginnings"), technology, benefits ("work/life balance is good and the benefits are nice"), and colleagues ("academic librarians are awesome coworkers"). Other interesting quotes include "the users smell better than in public libraries" and about resources with "spend others money for items you cannot afford and want to play with".

Figure 6. Coded answers for first entry to "three reasons you would give to others to persuade them to choose the academic librarian profession?"

Figure 7. Coded answers for second entry to "three reasons you would give to others to persuade them to choose the academic librarian profession?"

Figure 8. Coded answers for third entry to "three reasons you would give to others to persuade them to choose the academic librarian profession?"

Asked to specify negatives about academic librarianship as a career, there were clear trends (see the tag cloud in Figure 9). The poor job market, low salary, and degree requirements were the major negative aspects. Many participants thought that there were too many qualified librarians and too few jobs, the economy took jobs away, or the only available jobs require specialized skills or experience that new librarians do not have. There was also a perception that "no one is retiring", leaving few jobs to be filled by new librarians. Salary concerns were also common in that "librarianship will not make you rich." Respondents believe low salaries match the lack of respect that is given to the profession, do not match the required workload, and do not match the amount of education required to get a job. There was a fear that since the MLS degree is expensive

with little graduate funding available compared to other fields, that “your debt load will be so high that you will never be able to pay it back with your salary”. The education required was the third largest area of complaint, with respondents believing that it was a barrier. Beliefs that the MLS degree is “too theoretical” and “does not actually teach you skills needed on the job” were common, as well as the need for other advanced degrees, such as a subject masters degree for some institutions and a doctorate to advance into library administration. Many people believed that time and money invested in getting graduate degrees were not enough for the lack of respect and low pay. One participant wrote, “The second master’s degree is not likely an excellent economic decision given the amount of time it takes and the salary of academic librarians.” Several respondents expressed a concern that librarians will not get respect on campus unless they have a PhD like teaching faculty, but the monetary reward is not enough to justify a PhD.

Figure 9. Coded answers for “three reasons you would give to others to persuade them not to choose the academic librarian profession”

Other negatives that came up repeatedly in the comments include the lack of respect by others for the job. Many people believed that students and faculty did not respect everything that academic librarians do. Quotes related to this are “students do not always want to learn” and “faculty are stubborn and condescending towards librarians”. The believe that to those outside of the profession including higher education administrators, do not understand what academic librarians do and has the attitude that “the profession wastes money” or is “digitizing itself into obsolescence”. They also thought that university bureaucracy, politics, poor management, budget constraints, and colleagues and institutions are reluctant to change handicap academic library work. Technology came up several times, indicating that keeping up with technology can be a downside to librarianship and that some Millennial librarians are still interested in the career in order to work with books,; one respondent wrote, “It’s not really for people who want to interact with monographs [books] exclusively” and “it requires a constant eye towards technology”.

Job Satisfaction

A ranking section within the survey provided statements related to work satisfaction and asked respondents to agree or disagree with each. For the 20 statements, respondents were mostly in agreement, indicating that they are generally happy with their work environment, their colleagues, and their profession. When answers were ranked on a five point scale with one being “strongly disagree” and five being “strongly agree”, the highest ranked statements were “academic library work is a profession” (4.68), “I respect the work of my peers” (4.33), and “academic library work offers a wide variety of positions” (4.31). The statements that had the lowest scores were “I intend on spending

my entire working life in academic librarianship" (3.40), "I am happy with the level of mentoring I receive in my workplace" (3.66), and "I feel free to do things the way I want to at work" (3.66). In general, statements about the respect level and generational characteristics, such as "I am free to do things the way I want to at work" (3.68) and "creativity and innovation are encouraged in my workplace" (3.75) rated lower than statements related to the work environment. For a complete listing of rankings statement averages, see Table 7 and for individual responses, Figure 10.

Table 10

Ranked averages and modes for statements related to job satisfaction

Reason	Ranking (1=Not Important; 5=Very Important)	Mode
Academic library work offers a wide variety of positions	4.31	Strongly Agree
Academic library work offers a wide choice of work environments	3.92	Strongly Agree
Academic library work is a profession	4.68	Strongly Agree
I intend on spending my entire working life in academic librarianship	3.40	Agree
I am happy with my career choice in academic libraries	4.07	Strongly Agree
I am happy with my specialization within academic librarianship	4.14	Agree
I enjoy going to work	4.19	Agree

I have good friends at work	3.97	Agree
I respect the work of my peers	4.22	Strongly Agree
My peers respect the work that I do	4.23	Agree
I am engaged in meaningful work	4.24	Strongly Agree
I am free to do things the way I want to at work	3.68	Agree
Creativity and innovation are encouraged at my workplace	3.75	Agree/Strongly Agree (tie)
My opinions count in my workplace	3.81	Agree
I am free to be who I am at work	3.92	Agree
My values fit with the workplace	4.03	Agree
I am happy with the feedback I receive from my superior(s)	4.01	Strongly Agree
I am happy with the level of mentoring I receive in my workplace	3.66	Agree
I have opportunities to learn what I want to learn	4.00	Agree
I like the increasingly hi technolog character of library work	4.13	Strongly Agree

Technology

Millennials believe it is very important for librarians to understand technology, with 99% reporting that it is important or very important. Data on skills related to technology were gathered through several questions, notably by using a list of technologies commonly used in academic libraries and asking respondents to rate their

comfort level before starting library school, after library school, and at the present time. The results are illustrated in Table 8.

This list can be split into categories based on the level of technical skill required. Individuals were most comfortable with technologies that are used rather than technologies that enable people to create content, which generally requires a higher level of skill. For example, people were comfortable with using content management systems (CMS) and software used to create webpages including Dreamweaver, but not comfortable with the information architecture skills, CSS, and HTML needed to create more complex websites. There was also a lack of understanding about relational databases, which are the back end architecture of many online library resources that all librarians use to accomplish most reference work. Other deficiencies include Linux, which is an operating system commonly used to run servers, as well as server set up and administration, which run all web based library resources and services. There is also a strong lack of computer programming understanding and skills including C++ and .Net, as well as web programming languages such as PHP, ASP, and Perl. However, asked what technologies they would like to learn, respondents listed computer and web programming languages the most often, along with other high level technology skills including XML, database software and vocabularies, GIS, Photoshop, and statistical software including SPSS.

Data from the technology questions also show that although people are learning about technology in library school, they are learning more about technology they already know how to use rather than technologies that are new to them. There are a couple of exceptions, including content management systems, course management systems, HTML

and screen casting software, with which respondents grew notably more comfortable while in library school (Table 8). Over 84% of respondents were required to take a technology course in library school and they generally believed library school prepared them well to deal with the technological side of librarianship, rating 3.23 on a scale of one to five. However, respondents did note that most of their technology skill was self taught (81.7%), with only 47.5% stating that coursework contributed to their skills.

Table 11

Average comfort level with technologies before and after library school and at the current time. Scale: 1 = very uncomfortable to 5 = very comfortable

Technology	Before Starting Library School	After Library School	At the Present Time
Adobe Dreamweaver	1.93	2.50	2.46
Adobe Flash	2.28	2.61	2.66
Adobe Photoshop	2.66	3.15	3.22
Computer Hardware	3.03	3.27	3.32
Computer Networking	2.54	2.85	2.83
Computer Security	2.56	2.96	2.91
Content Management Systems (CMS)	2.34	3.32	3.29
Course Management Systems (Blackboard, Moodle, etc.)	3.37	4.22	4.22
File Management Issues	3.00	3.72	3.67
HTML	2.56	3.56	3.48
Image Editing/Scanning	3.47	3.87	N/A
Information Architecture	1.86	2.67	2.58

Integrated Library Systems – Back End	N/A	3.05	2.93
Integrated Library Systems – Front End	N/A	3.53	3.39
Linux/Unix	1.58	1.83	1.86
Mac OS X	2.92	3.31	3.45
Microsoft Access	2.55	3.19	3.26
Microsoft Excel	3.94	4.37	4.40
Microsoft Windows	4.57	4.67	4.71
Microsoft Word	4.66	4.76	4.79
Mobile Devices	4.27	4.51	4.60
PowerPoint	4.43	4.62	4.65
Programming Languages (C++, .Net, etc.)	1.53	1.94	1.84
Relational Databases	1.87	2.66	2.66
Screen Capture Software (Camtasia, Captivate, etc.)	2.10	3.26	3.32
Server Set Up/Maintenance	1.56	1.85	1.84
Video Conferencing	2.61	3.36	3.54
Video Editing	2.28	2.90	2.94
Web 2.0 (RSS, Blogs, Social Networking, Wikis, etc.)	3.79	4.54	4.49
Web Programming Languages	1.55	1.99	1.92
XML	1.60	2.40	N/A

An open ended question asked what specific technology skills individuals wanted to learn. The results indicate that Millennial librarians desire to learn more of the higher level technology skills, especially programming, which was indicated in 28 of the 97

responses. Other skills that were frequently noted include various elements of web programming including scripting, XML, HTML, Photoshop, Microsoft Access, SPSS, and GIS. All of these skills either involve content creation as with scripting, XML and HTML, or are complicated software that can require a great deal of training to master. See Figure 10 for a tag cloud of technologies respondents want to learn.

Figure 10. Coded tag cloud for "Are there any other technologies you want to learn?"

Asked about the technologies that will be most important to libraries in five years, there were clear trends. Mobile devices, including ereaders (such as the Amazon Kindle), apps, and tablet computers were the most common category of responses, followed by social media and social applications aimed at libraries. Content management systems for managing website content was also very popular, and website design was also common. Advanced knowledge of database design, including relational database design, the storage of library data frequently were mentioned, skills that were in a higher level than simply using databases to retrieve information online. Web 2.0 applications were also commonly mentioned, but it is unknown if these were overlapped with social media. Ebooks, not unexpectedly, were very popular. The most popular technology individuals wanted to learn was programming, which came up 25 times, indicating there may be a

gap in the technical skills that librarians know as to the need. See Figure 11 for a visualization of coded responses.

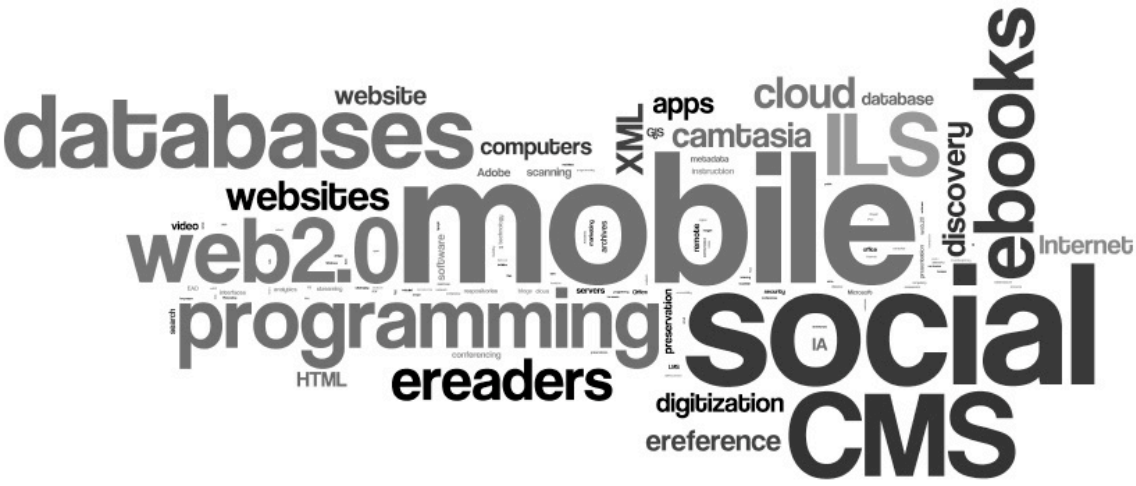

Figure 11. Coded responses to "what three technologies will be most important to libraries in five years?"

Qualitative Findings

Following the survey, one on one interviews were conducted with 20 librarians who fit the population description and either had their MLS degree or were working on the degree. The purpose of the interview was to enrich the survey data with specific stories and anecdotes.

Data were collected through 20 interviews with young librarians and library students. The interviews were conducted between May 24 and June 6, 2012. The participants were drawn from survey respondents who indicated they would be willing to participate in a follow up interview. The interview sample started out as purposeful to obtain participants who met specific demographic areas as indicated in the survey results, but lack of response required the sample to be chosen at random. In total, 50 participants were invited to participate in an interview, and 20 followed through to participate.

Interview participants exhibited a wide variety of diversity and roughly matched to the demographics of the survey participants. Demographic information for survey participants was gathered from their survey responses. Ten of the interviewees were born in 1984 or 1985, with the remaining ten born during the remaining years between 1982 and 1989. Three participants were male, one did not indicate sex on the survey, and the remaining 16 participants were female. Fifteen identified their race as white, two African American, one Middle Eastern, one Hispanic, and one from multiple races. Interview participants were from 14 different states. Pseudonyms and demographic characteristics of interview participants are noted in Table 9.

Table 12

Pseudonyms and demographics of interview participants

Pseudonym	Birth Year	Gender	Race	Employment Status
Abby	1987	Did Not State	White	Student
Betty	1983	Female	White	Librarian
Catherine	1986	Female	White	Librarian
Diana	1984	Female	White	Librarian
Edward	1986	Male	White	Librarian
Francis	1982	Female	White	Librarian
Gabby	1989	Female	White	Student
Heather	1984	Female	White	Student
Ian	1985	Male	African American	Librarian
Jan	1984	Female	White	Librarian
Kelly	1984	Female	White	Librarian
Laura	1984	Female	White	Librarian
Madison	1987	Female	White	Librarian
Nathan	1985	Male	White	Unemployed
Olivia	1985	Female	White	Librarian
Patricia	1988	Female	Middle Eastern	Librarian
Quinn	1986	Female	White	Student
Rachel	1982	Female	African American	Student
Samantha	1985	Female	Multiple Races	Librarian
Taylor	1984	Female	Hispanic	Student

Interviews were scheduled via email and a Doodle scheduling poll. Once the interviews were scheduled, participants were emailed a copy of the study's institutional review board (IRB) statement and were asked to provide their consent to participate in an email response. At the beginning of each interview, the researcher asked each individual orally if they consented to participate. Verbal and written consent was received from all 20 interview participants.

The interviews were conducted virtually using the Skype conferencing software and were recorded using the MP3 Skype Recorder software. The researcher attempted to transcribe the audio files using Dragon Naturally Speaking software, but the transcription quality was poor, so the researcher transcribed the audio files manually using the Start Stop Universal software. The resulting text was put into Microsoft Word for analysis and were stored on a hard drive that was in the care of the researcher at all times. Although attempts were made to use Nvivo software for data coding and analysis, the data coding was ultimately done by hand.

The interviews were guided by a semi structured interview protocol (Appendix D). The interview questions were guided by the need to collect rich data about career choice and specialization, technology skills, and experiences working with different generations with the academic library setting. The researcher's goal was to obtain personal stories and anecdotes related to the research that could not be obtained solely through using the survey method. Since the interview was semi structured, the researcher did not restrict participants from deviating from the questions asked, and many

participants did have additional comments and personal stories related to the interview topics.

Data Coding and Analysis

Coding the data revealed several emerging themes of information that were combined into six major categories: (a) career choice, (b) specialization, (c) digital natives, (d) technology skills, (e) generational attitudes, and (f) the job market. The first five categories were initially coded together, and the sixth category, the job market, emerged while coding the other categories. The details by category and connections made by each category are reported as follows.

Career Choice There were many reasons participants became academic librarians, but a few reasons stood out. The vast majority decided to become a librarian because they enjoyed conducting research and they liked the academic environment within higher education. They also tended to have positive experiences using libraries within their own lives, had an interest and background in certain subject areas, and believed their personal values fit well with librarianship. No interview participants mentioned technology.

Research process. Half of all interview participants stated they liked participating in the research process and desired a career that allowed them to be a part of it. Several wanted to go to graduate school for a specific concentration, but thought they were either not ready to do a PhD, were not accepted into a program, or were interested in a particular area in which it would be hard to find work. One saw academic librarianship as perfect for “a lot of academics who did it as a sort of fall back”. Catharine thought she could be happy getting a doctorate in English, but wanted to just do the

"research part…without having to teach." A health sciences librarian talked about how she was going to get a PhD in the sciences, and found it too stressful:

> So I used to be a technician in a research lab. And I was going to go get a PhD. And then I started working in a lab and decided I didn't want to do that any more because it is really stressful. And I sorta wandered around for a year wondering what I'm going to do with the rest of my life. And I had a friend who was in a similar situation who decided that she was going to become a librarian and said I should become a librarian too. And then I spent a couple of weeks talking to some of the librarians at the institution I was working at and then I decided that was what I wanted to do, so I did it.

Another participant talked about how she was an English major who did not like writing, but did like the research process. Olivia said:

> While I was an English major in college, I didn't actually enjoy the actual writing of the papers so much as I enjoyed finding out about the background material. So I actually had a professor who somewhat pushed me in the direction of librarianship and particularly academic librarianship because I really do enjoy that process and she was always pointing out that I always had something weird that I was currently interested in. And that kept changing over time, so she thought it would be a great fit because it would always give me something new to entertain myself.

Kelly talked extensively about the research process and how she enjoyed teaching it to undergraduate students:

> And I think it is a really important skill that we're teaching. Its not just a skill that was in the hallowed halls of university and I think we reach so much farther teaching students how to utilize information and evaluate it critically is an important part of our daily lives whether we think about it or not. And so getting that into their [students] heads makes me think that is more important to me.

Individuals also enjoyed the academic environment and many desired to stay within it even though they were no longer a student. As Abby stated, "I wanted to stay in college for the rest of my life because it was so much fun." Francis said:

> After I graduated [from undergrad] I was looking into going into a master's program because I loved learning and higher ed was so enjoyable to me so I just wanted to continue with that…I think that because of my love of learning, I was interested in becoming part of that, the scholarly aspect of it. The sharing

> knowledge, just everything that occurs on an academic campus and the library seems to be the hub of all that knowledge, though that may be because I went to the library a lot.

Kelly stated, "so academic appealed to me, I love the environment, I love working with faculty, and I love doing something different every day." Rachel commented:

> I liked the academic setting. I've always seen myself as someone who could just always go to school, just always be in school. I just like being around the environment where there is always something new to learn, the students are always having different projects to work on, I just like the young atmosphere of being in college. And I had such a great college experience myself, so I just like being in that environment.

Interdisciplinary. Many participants stated that they liked the interdisciplinary nature of academic librarianship or they had degrees in the humanities that did not have many employment options such as "I was looking into getting a master's in English literature and I just didn't know how to justify getting another degree that didn't prepare me for anything" (Francis), or "I was majoring in international studies and I had no idea what I was going to do once I graduated college (Patricia). Jan stated,

> I had gotten a master's in religious studies and was thinking about getting a PhD in that also. So I was on that track. But I left after the master's degree because I personally did not want to have to deal with the tough job market of being a PhD in religious studies. And I also wasn't sure I wanted to teach that field over and over for the rest of my life. And so academic librarianship seemed like a very good alternative because I would still get to teach, I would still be involved with the academic community, but I would get to have broader interests.

Heather stated, "I was a psychology undergrad and I had decided…that I really didn't want to pursue that at a graduate level." Abby stated, "It was kinda hard to decide what career path to take because I feel like I'm such a generalist…I think another reason I was drawn to libraries is because they cover a wide variety of participants." Diana reflected on this with a bit of humor:

> My undergrad was a double major in Russian and anthropology and the spring of my senior year rolled around and I had not applied to any grad schools and I thought, "oh dear God, what am I going to do with my life?" You can't really do much with a bachelor's in anthropology and Russian unless I wanted to go work for the State Department.

Others had a difficult time deciding on a college degree, such as Abby who took five years of college to settle on a major, or Catherine who "settled" on English and German, but admitted she really liked math as well, or Francis who delayed going to college because she had no idea what she wanted to do.

Referring to the interdisciplinary nature of academic library work, several participants talked about how they liked trivia (Kelly) or "always had something weird they were interested in [learning]" (Nathan), and thought that those characteristics fit well into the profession. Quinn commented, "It clicked to me that it was a career that all types of people went into with all types of skill sets."

Prior library use. Several participants mentioned their frequent library use prior to making a career decision. Several participants used the library extensively as children and even thought at the time it would be a fun job. Gabby told a similar story:

> It is a funny little story but when I was little I would set up miniature libraries in the living room of my house. That was like, I loved doing it. I would catalog it, it was serious business…my mom bought me the little card holders and I put those in there and my grandparents would come over and check out books. But I was organizing it.

Diana talked about his mother being a librarian and she "started training me on searching since I was little." Other childhood experiences included Heather whose mother "always took me to the library [as a kid] and the librarians were always very helpful in finding something for me to read," and as a college student she still enjoyed reading, so it was suggested she become a librarian.

Personal Beliefs. Several people believed that their personal beliefs paralleled those within librarianship and that they wanted to make an impact on others. Francis said:

> As I looked into the library program, I was like wow, a lot of my personal viewpoints really line up with the tenets of librarianship. So I decided to apply and go for it. I felt it was something that I'd never been satisfied with a job for just a paycheck. I wanted to feel like I was doing something meaningful, contributing in some way. And with librarianship I thought could fulfill that.

Gabby talked about how her experiences working in Appalachia with AmeriCorps enforced her belief that

> Education and literacy is a way out of poverty and I think education really improves communities as a whole and creates better places for people to live and happier lives. I think its really important for me to do something that helps people also. And to provide people with resources are a big part of my life too. So, I think it is my love for humanities and literature and my love to help other people. And I think being a librarian, I'll have access to both these things.

Heather, currently working in a public library, dreams of getting a job in an academic institution because,

> …I feel like I'd be actually helping someone like achieve their dreams and goals. Right now I'm helping the retirement community find the latest James Patterson. And you know, I don't feel very rewarded at the end of the day. Not that those undergrads make a huge difference or anything, but I know I love the librarianship aspect. I love seeing the people, its not that I don't like the public [libraries], its just that I want to make an impact on somebody's life in the way that the [academic] librarians have impacted my life.

Personal contact. Personal contact from another librarian had an impact on career choice for a few participants including Ian. Catherine enjoyed using the library as a child, but it was not until her junior year of college that a relative with an MLS talked to her about the graduate program and they thought it would be a good fit. Madison talked to the librarian wife of her undergraduate advisor who thought she was a good personality fit for the profession. Edward, who panicked about what to do upon his undergraduate graduation, fell into librarianship as his mother was a librarian. Two other participants

had a parent who was a librarian and Samantha had a grandfather who was "an academic library director for 20 years" and instilled in her an appreciation of academic libraries having "literally grown up in academic libraries my entire life."

Work experience. Many individuals had already had some library work experience when they decided to go to library school. Taylor worked at her undergraduate institution's "library café" which was a coffee shop/computer commons, and she loved "the reference work associated with the job." Betty had an archives internship related to her first master's degree where she learned she needed an MLS to move forward with archives work. Diana switched career paths after thinking that the career options her communications degree gave her were too stressful, so she reflected on her undergraduate library work experience as a positive environment, and she decided to launch a career from it. Olivia fought the idea that she would become a librarian even though she worked in several libraries:

> When I was an undergrad, I was working on my bachelor's in comparative literature and had no intention of becoming a librarian, which was really odd because my first job was in a library and even in undergrad I worked in the library. But I got a tip from a friend that there was a job opening at a law library for a research assistant and it pays really well and is flexible with your school schedule so I took him up on it and got the job. I started working in this law library setting and I stayed there after I graduated from undergrad. I got close to a research librarian and decided I want to pursue my master's degree in library and information science.

Rachel was working on a master's degree in counseling while working in her college's library and found library work much less emotionally draining and found that she loved working with patrons and the belief that once an interaction was finished, it was done and the patron no longer needed assistance, unlike with counseling. As a result, she went to

library school. Alyssa thought she might go into the ministry, but after spending a summer organizing her church's library, she was called to librarianship instead:

> I happened to have been that summer in an internship in church because I felt I was going to be called into ministry. But while I was at that church, they asked me to do little tasks like organize the craft closet and organize their library. So I spent hours and hours trying to figure out how to organize this library and going through and putting this data into an Excel spreadsheet for this library. And I loved it. And I was like, this is cool, I just organized this library, I like books. It was like the dumb stuff. But what made the difference was that after I finished the project, I made an announcement in the church and said that I had done this and after the service, people came up to me asking if we had any books on this particular topic….So it was my first reference interview, really. I didn't know what that was at the time but I thrived on that….I was so excited.…So I went back to college in the fall, it was my senior year, and I still had no idea what I wanted to do with my life. I talked to the librarians at the college about how I had a good time at this internship, I want to know more about what librarians do here. So they let me intern…and that's when I fell in love with the real librarianship and the academic atmosphere of an academic library. I immediately applied to grad school.

Specialization

Participants did not have as much to say about how they decided on a specialization within academic libraries. This was due to the high number of library school students interviewed who still had not decided on a specific specialization or they indicated a willingness to take any job they could get. Others were underemployed or employed in an area they did not want to work in. The most commonly noted specializations in both the survey and interviews were reference and instruction, with individuals citing their enjoyment of research and teaching. Additionally, there was a pattern in both the survey and interviews of specialization in archives/special collections.

Availability. Most often, the participants who are employed as professional librarians chose the job they had based on its availability rather than it being what specifically they wanted to do. Catharine stated,

> I think it is because of the job, really. But, like I said, I pretty much like everything, so in grad school, I kinda touched upon a little bit of everything. My main focus in grad school was actually children's and teen librarianship, but I didn't have enough experience to go into the field right away.

Jan had the same experience as she got a job doing "a little bit of everything" at a branch of a campus where her husband is a tenure track faculty member.

Ian wanted to be a public librarian, but found no jobs, so he took an academic job as a subject specialist for his undergraduate major (psychology). Although he would like to eventually get a job in a public library, he is content for now with his academic library job as he enjoys the work.

Archives. Several participants were interested in archives or special collections work for different reasons. Betty talked at length about how an internship related to her master's degree in Hebrew Language and ancient Semitic languages made her interested and "opened her eyes up" to this track of librarianship. Gabby thought that the "preservation of special collections is important because you want to maintain that cultural perspective." A couple of participants noted an interest in history as being the catalyst for their wanting to go into archives, such as Madison, who states, "That's the track I chose because I thought it meshed the best with my history major." Taylor talked about how she discovered her history major would work with library science:

> When I was an undergraduate I was an American history major and I was always in the history department and there was a sign for the minor, which was in community documentation and archival management. And I was like, I never thought of it that way at all. I didn't realize that that was so associated with library science. I did sense that I would do it because I remember, I was always at the library, I worked a the library, I loved researching…So I think I would want to be in a situation like that where I could be able to work with research in academic libraries and help out with the special collections if they needed someone with that background.

Kelly, on the other hand, started out in library school wanting to be in archives, but desired more human interaction working with the public, so switched to reference.

Technical Services. There were some individuals interested in technical services work. Abby, a current student, talked about her desire do work in collections:

> I think I might want to focus on collection development, though I'm not quite sure yet….I think that I like lists of books and I like the technical aspects of it—dealing with MARC records and filling that stuff in and all, so I look at things like *Books In Print* and find summaries about books and figure out what books are excellent in particular subjects.

Catherine fell into a job with considerable cataloging duties and found she really enjoyed it "because it is like a puzzle to me…and I really enjoy having things very organized."

Access services. A couple of individuals talked about access services or circulation work, because they preferred working with print materials and access services was often the first librarian students interact with. Rachel, who admitted she was not knowledgeable about online resources and preferred to work with printed materials, talked about this choice:

> So I definitely want to stick with public services. Actually, specifically access services, so circulation or being the first contact that students see. They associate people behind the desk as those people they have the most interaction with. So I want to create a positive atmosphere when they come in the library, and be really open to what they need. Really, circulation, but a lot of libraries are combining reference and circulation, so I'm open to having that really dynamic sort of information services desk and being a part of that.

Samantha also talked about this:

> Now I really like managing and being in access services, like a circulation department, working with people. I'm very customer service oriented….I want that interaction with customers, patrons, and students. It keeps me focused on why we're here. If I'm working in the back in serials or cataloging, you don't see anybody that actually uses your services, so how do you really reminder yourself that that's the goal you have to it….I need that interaction with the front end.

Digital Natives

Issues related to being digital natives came up often when Millennial librarians were asked to talk about their experiences using technology, both before they became librarians, in library school, and on the job. However, not all considered themselves a digital native, very tech savvy, or able to pinpoint exactly what their tech skills are. Most, however, did believe that there were differences in technology use and attitudes between librarians who were younger versus older librarians.

Childhood technology. Most remember when they first had a computer in their home as a child, so it was not a part of their lives from birth, just from a young age. Betty and Diana recall always having technology in their homes growing up because their parents worked in technology careers or had an interest in it as a hobby. As Diana stated, "Both [parents] worked in the IT field, so when I was really little, they spent an astronomical amount of money on a computer back in the mid to late 1980s, so I've always grown up with technology." Others remember first being exposed to computers in school, with Catharine saying, "I can remember being in elementary school and being on a computer and having specialized training. Not just in typing but they even pulled people out of class to learn how computers work." Heather vividly remembers her family getting their first computer: "We got one in my house when I was like in the sixth grade and that was a huge thing." Participants also remember having Internet access as a child. Betsy noted, "I had a Prodigy (online service) account when I was seven, when most people did not even know what the Internet was at that point." Gabby said, "I think they call people between 21 and 30 the in between, because they knew what it was like before

technology, but they also know how to use technology…because I remember before computers." Kelly talked extensively about how she grew up with technology:

> I think we got our first computer when I was in the fifth grade. I definitely grew up with it. I used it in school. I remember what life was like before computers, though. I have that little bit of perspective there. But it was definitely part of my daily life. And in college I joined Facebook back when it was only for college students and now people cannot remember that now. But I used email, was one of the first users of Gmail. I got a little more into it in college.

Olivia also talked about her use of technology as a child:

> We had a computer in my house. We were very fortunate because my dad was on top of that. So we had a computer since I was a little kid. So I would play around on that a lot, like AOL and Prodigy. I had the basic skills. And in high school we were taught basic word processing and Excel. So I've always been in front of a computer.

Digital natives. Most people believed they are digital natives because they have been working with technology for a long time, which sets them apart from older generations who they thought did not work extensively with technology until they were adults. Catharine stated, "I know it has been a part of my life forever so probably my age does have something to do with it." Catharine talked about the differences in technology skill between herself and her older colleagues, but added, "I don't feel there is an unwillingness for them to learn technology. I just don't think they had experiences at the time, where maybe we're just afforded more opportunities."

However, when pressed, not all considered themselves a digital native. Abby recalls a class discussion about the idea of digital natives and how younger people may not be as good with technology as they perceive. Because of this, she was hesitant to refer to herself as a digital native, even though growing up she believed technology was a part of her life. Others, such as Betsy, are reluctant to call themselves digital natives because they remember when their family first got a computer and it was not always in their

household. There were also a couple of outliers who were reluctant to call themselves digital natives because they did not grow up with technology in the same ways as did many of their peers. Rachel grew up in a poorer home that always got technology second hand, and she always thought they were behind others. Although her family first had an Apple Computer in the 1980s, she did not recall using it, and just thought of it as a sort of "new appliance" in her house. Her family did not emphasize technology use, and saw it as something not worth investing in until they had to, which gave her a different perspective of using technology only as necessary and as "one of those things that sometimes I just don't want to deal with." Samantha grew up in a rural area that only had dial up internet, which embarrassed her and did not work as well as she thought it should, so she did not use it, leading to a belief that she did not grow up on the Internet in the same way as her peers. Due to this, she did not consider herself a digital native:

> I'm still able to relate to those in a different generation who I have no idea where to start [with technology], because I was at that state recently….I'm at the in between stage, so I can handle both ends of the [technology use] spectrum. But yeah, I'm not a digital native.

Technology reaction. Participants inferred that, because of their age, they were not as scared or intimidated by technology as they thought some of their colleagues were. Heather talked about how learning new things would initially make her nervous, but then excited about what the new program or application can do for herself or her work. Francis stated, "I'm not afraid of the technology." She also talked about the differences between herself and her older colleagues:

> If you ask them something different or to learn something new, they will make it more complicated. I'm so used to exploring my options, I don't think about it. Those 20-30 years older than me are comfortable knowing what they know how to do but not necessarily exploring new ways of doing something that they already know how to do. They feel pretty comfortable and confident in their skills

> but aren't really looking to test the waters to see if there is a different way to do something.…I'm willing to try. I see a lot of people that are afraid they are going to break something and don't want to click on it. And I have the confidence that if click on something, then I can pretty much undo whatever that does. So not necessarily skills, but a different mindset or something.

As Francis inferred above, younger librarians, because they have always used technology, believe they can quickly learn new technologies.

Quinn, a current student, also talked extensively about this:

> I definitely think my age has a lot to do with how comfortable I am with it. Because there are various ages within [my library school] and I have definitely noticed that older people fear it a bit more. I guess I can attribute my age to being embedded in technology. Because I've always had it, well I haven't always had it, but I had it young enough to feel like it is a part of me, as opposed to new fangled and wasn't with it in the beginning….I'm not afraid of it, I'm not afraid to mess around with it and mess things up. Because you can always reboot or start over. I think that's the biggest thing, like I will work on something and mess around with it until I figure it out as opposed to someone who is older who wants to know something exactly the right way so they don't want to do anything bad to it.

Heather stated:

> I think I'm a bit more open to new technologies than some of my older colleagues.…I have the feeling I know a little bit more.…I'm not sure it is just because my comfort level was higher or maybe their experiences make them more cautious about new things, but I think the younger librarians are more quick to latch on to new things.

Other participants inferred this same belief when talking about the difference in work styles and technology use among different ages in their workplace, which is a management issue and is described later.

Skills. The individual tech skills individuals described are centered on the use of technology, not the creation of it. Francis described this:

> I don't have any programming or coding or building physical computers or anything like that, but just general using a variety of devices like the iPad, iPhone, everything is all integrated. I like being able to use technology in my personal life.

No one responded that they knew how to program and work with servers, though Edward said he had "fiddled with Linux as a server" but did not spend a lot of time with it. Olivia and Quinn, however, did express interest in learning how to program, understand the back end, and create emerging technologies. Betty mentioned using SQL and XML in her workplace, and aired her frustrations that people just expect to be able to use technology without learning how it actually works and what went into making that device or service. Several people mentioned working in web design, but only a couple people motioned creating web pages with HTML and CSS, though several had experience using tools such as Dreamweaver or FrontPage. Participant 9 mentioned that it was part of her public library job to assist patrons with using their personal devices, while others, stated that when they have technology problems, they do not mess with it and instead contact their IT department. Many participants mentioned using social media and various web 2.0 applications such as Facebook and Twitter, both personally and professionally.

When asked to compare their tech skills from before they became librarians to after, some described minor changes in skills, such as learning HTML, but others mostly indicated that library school helped them learn new applications, existing technologies, or new technology resources, most without going into detail. Quinn talked about her tech skills in relation to what she is learning in library school:

> I think they [technology skills] are actually above average. I've taken a few of the courses that are offered in terms of tech, and they are totally below what I already know. But other classmates have thought it was really hard. But I've had prior knowledge of it.

Patricia stated she started using online tools more extensively after learning about them in library school. One talked extensively about using webinar software and LibGuides to deliver instruction online, while another stated library school inspired her to start a blog

that she did not keep up, and another became an extensive Twitter user. Jan focused on digital librarianship while in library school because she saw it as the future of libraries. She thought that library school helped her do some "encoding on some projects and how to do webpages," but it barely touched upon the skills needed to actually perform a job within digital librarianship. She would like to get more into the development side of library technology, but in her current job there is not the time or support to further advance those skills. A couple of participants talked about learning about usability and the evaluation of technologies.

A few interview participants mentioned the tech skills of people even younger than they are, or current college students they work with. Betty did not see younger coworkers understanding what is needed to develop or understand the back end of technology and believed younger workers do not use technology to communicate as effectively as they could. Edward, who works at a for profit career college that has many poorer and non traditional students, stated, it is "not just the 50 year olds, but the 18 year olds who don't know how to attach a documents to an email." When pressed as to why she thinks young students struggle with basic technology tasks, he stated, "At times I think that has a lot more to do with their K-12 experience and if they had access to computers and stuff. I don't know. It just blows me away sometimes." Gabby, currently working in Appalachia, said, "Not everyone here has computer skills, not everyone has access to it at home or maybe can't make it to the library.…I think it is awesome to have those things at your fingertips, but not everyone does." On the other hand, Diana believed that he does not "have the same relationship with technology like I'm seeing some of the college students now where they are hooked in all the time and they are just going for it".

He also said that he “wouldn’t call myself a digital immigrant, but I’m very comfortable using technology but not to the extent I’m seeing many people I see now.”

Print tools. There was some frustration with older, print library resources and tools. As Betty stated about an early library job, “I spent this summer working in a microfilm library, and if you ever used microfilm, it is frustrating when you are of my age”. Others pointed out that younger librarians always first look to online resources to answer reference questions, while older librarians will typically use the print first. Younger librarians generally looked down on older librarians who do not see the added value that online resources can have over the print, especially when they only do so because they are insecure about using a new online resource.

Tech Skills Related to Career Choice

The researcher sought to determine the role of technology in determining the career choice of librarianship. Those interview participants who talked about using technology did not mention it as a reason they became a librarian. Survey responses indicated, opportunities to use technology were an important reason to become a librarian, but then participants did not stress technology during the interviews. Participants were much more likely to specify their love of the academic atmosphere or their general interest in research first and then maybe think of technology as an afterthought. Gabby mentioned, after a long list of things that influenced her career choice, “and technology and stuff.”

Only Taylor talked extensively about how technology influenced her choice. A current library school student, she wanted to go into archives and is really excited about how much information is being digitized and put online:

> You know, how everything on microfiche is now digital. Everything seems to be digitized as well, you know books and eBooks and journals. Being able to take something and scan it and put it online for users to access. It is definitely an important thing. So yeah, that definitely influenced me on becoming a librarian.

Jan decided to specialize in digital librarianship while in library school because she saw it was the future of library work. Rachel, who has observed similar attitudes among her classmates, shared this thinking as well. However, Heather admitted she did not have a lot of technology experience before going to library school and did not believe that her master's program prepared her to go into the technology oriented digital librarianship.

Several participants talked about how their background using search engines such as Google and doing research online would make them a better librarian, but none talked about these as factors related to choosing librarianship as a career. Abby talked about how she always uses Google to look things up, and that it is nice to have found a career that rewards such use. Diana discussed how she had always been good at finding information online since she was a child, which helped her narrow her career choice to academic librarianship, as she believed it was the best match for these skills.

Instead of talking about how technology influenced their career choice, participants were more likely to talk about the fact that technology did not influence them. Abby stated, "I don't think [technology influenced] because I didn't really know that librarians needed a lot of technology skill." Edward stated he, "didn't do any technology in library school because I didn't want to go in that direction," reiterated this. Rachel, who strongly did not consider herself a digital native, stated she was drawn to librarianship, specifically access services, because she liked working with print books rather than using online resources to find information. She commented,

> I really liked looking for books and I used the card catalog when I was a kid, but I can use a computer to help people find things, but it was like, I really just liked finding the books rather than electronic information. I guess I feel like it feels comfortable and safe, like books. And you can hold them and you can touch them. And sometimes I feel like they should always be a part of the library. I took a digital libraries course this past semester and I felt like I was the only one being like, "No, we still need physical books," so I was actually realizing how intimidated I am with technology. I'm totally willing to adapt, and I'm willing to work on these issues, but I do feel like I want the library to still be a place that has the traditional feel.

Samantha also did not feel like a digital native, as she grew up in a rural area that only had access to dialup Internet. She went on to describe how she did not work with online tools until college and she was relieved when she did not have to use such tools during a year off between college and graduate school. Although she recognized technology use by librarians is helping libraries not becoming obsolete, she only learned what she needed to learn in order to complete library school, so it did not influence her career choice.

Generations Working Together

Most interview participants did notice there are generational differences at work, mostly relating to technology skills and attitudes. Participants frequently talked about how they are the youngest librarian in their library or that there are large differences in age among librarians. As stated by Olivia, "Occasionally, it would be nicer to have someone at least somewhat close to my age, partially because there is such a gap in experience and education." Only Taylor said the majority of the staff in her library is younger, which made it difficult to observe generational differences in the workplace because everyone seemed "about the same par."

Work styles. Some participants pointed out differences in how older and younger librarians do their work. For instance, Heather stated, "I feel like there are more diverse

styles of work between the older librarians and the younger librarians. But I'm not sure if work styles are related to age or just different personalities." Additionally, Kelly stated,

> I'm used to multitasking and I need to have a lot of different things going on…. I like for things to go along a lot more quickly, I don't like sitting in hour long meetings talking about the same thing over and over. I just want to get it over with and move on. I think there's also that they [older librarians] think about things a bit more. They talk about all possible scenarios that can happen as a result of this one action. And I just want to try it out and see what happens.…I'm like, um, just go out there and do it.

Laura also believed that older librarians spent too much time investigating things, did not have as much of a work/life balance as the younger librarians:

> I would think the biggest differences might be…..the amount of time they spent investigating things. I think they investigate more than would be expected here. And there was this girl that will do above and beyond. Like I feel my personal life is more important. I'll get them done, but I'll get them done between 9 and 5 on Monday through Friday. I refuse to send emails from home on Saturday or something like that.

Technology use. Referring to how older librarians work with technology, many participants believed "there is more hesitance with trying something out on the computer; they are afraid something is going to go wrong" (Kelly). Patricia said older librarians do not see the importance of new tools that come out, especially related to social networking and blogging or other technologies that are commonly used by the students at the university. Older librarians also tend to be grounded in traditional library functions that do not necessarily include technology. Edward commented:

> Those people that have been librarians for a long time are grounded in tradition and they always say "well, we've always done it that way" as opposed to thinking about different ways to change things up. But I think that might be true across librarianship. There is an attitude of traditionally this is how it is done, so we are set in a reference tradition.…I think there is a difference between working alongside tradition and maybe asking more questions and thinking of new ways to do things.

Others attempted to explain the differences in technology usage between older and younger librarians, such as the comment from Francis:

> But I think that general mindset to just try new technologies or might think of a new technology to do something that they've (Millennials) always done in different ways versus older colleagues that wouldn't think of technology as the first way of doing something different. They might use a preexisting technology versus trying to use a technology in a different way. So I've noticed that there is more flexibility with younger people and just being able to be more innovative in how to use the existing technologies.

Madison talked about how the workflow is different for someone younger who is more attuned to technology:

> I think, well, my director is really excited when I show her a new skill, but it does not occur to her to start randomly clicking on things to see what happens, which in some ways is a blessing. But basically a few of my colleagues are very focused on the current workflow and until something happens to disrupt that workflow, they're going to stick to what they know.

Others described the differences in terms of the format of resources librarians used to answer reference questions. Diana talked about how younger librarians tended to first use online resources, while older librarians preferred to use print resources. As said by Quinn,

> There's a few [older librarians] in particular who are reference librarians who lean toward the book. They will search and search for the answers in the reference books. And if I can find it online using the reference tools online, I'm not going to go to the books because it is quicker this way. But they are so used to finding what they need to find in print that they don't use a more effective tool first. I feel like it's what they're used to.

Related to this, Rachel thought that older librarians spent too much time figuring out the answer to reference questions, as she believed she wanted to give the patron the answer as quickly as possible.

Younger librarians appreciated the attempts made by their older colleagues to learn technology, as Heather described tech skills and use among different generations at her workplace:

> There are three folks older than us [Millennials]. They're all the way up to the 70s. And the 70 year old is more willing to learn than the two middle age people, which I find interesting. Yeah, she's more willing to sit down and troubleshoot and try it because she wants to learn. She doesn't want this job taken from her because of her lack of technical skills.

Attitudes. Several participants believed their older colleagues assume that, because they are younger, they understand technology and are the technology experts in the library. As stated by Jan, "I think the other librarians do assume that the younger librarians know more about the technology than they do and they understand it." Madison stated,

> I'm generally known as the tech person…in addition to the 80 year old librarian [who doesn't use technology], I'm the only member of the staff not collecting Social Security. So there is a fairly extreme age gap between myself and my colleagues….It has come out that I'm extremely techie compared to my colleagues,…and I'm kind of the person that when things break, I'm the first to call before we call campus IT.

Gabby believes that her supervisor, a woman in her 60s, often passes technological things on to her because the supervisor does not have time for it or is intimidated by it. Heather elucidated the idea that technology gets given to her due to her age:

> At both libraries, I've been the youngest employee. I feel like it was mostly because they assumed that I'm comfortable with it [technology] so they'd give it to me. But it was also because the older staff.…But yeah, I guess they assume that the younger you are, the more comfortable and knowledgeable you are.

Heather continued:

> And the manager was in her 50s and she absolutely thinks that technology is going to ruin libraries and that they won't exist and everything's going to be online. She's one of those people that does not want to adapt, she does not want to learn, she does not want to be a part of the learning process and teaching it. So by default, that left me. But I also think where I am now, the girl that does this [technology] is two years older than me, so again they assumed she knows it…

Madison, who worked in an environment where everyone was at least 40 years older than she, thought all projects, particularly technology projects, were handed to her because she is the new person and manages the student workers. Madison commented,

> My director expects me to be the one to go forth and figure it out and bring back a product to her. Sometimes she is very focused on special collections…and we're talking about creating a digitized version of our special collections. It would be easier if they were a little bit focused. It would be easier if my position wasn't the catch all position. When I'm spending half of my job description that is "other duties as assigned," it seems like maybe we need to do some reprioritizing.

Others see older librarians as dismissive or condescending about technology. Ian said,

> But they don't always value that [technology] as much as I think they should or they could. They can be dismissive of that because they don't think it is as important. They will complain that so much of the collection development budget is being spent on online resources and they feel like that is taking away from the things they are more interested in. So they seem somewhat more resentful of technology in the library.

Jan also mentioned her manager's lack of willingness to embrace technology:

> Like the branch librarian, the manager, I feel like she is still stuck in the 1980s. She still uses the old catalog on the index cards. I mean, I don't hardly remember those. She doesn't even use the online catalog system available in the library because she feels like nobody will know how to use it. So there is not actually an online catalog in the library that people can use on their own.

Kelly thought that, although older librarians tend to come to the younger librarians with technology problems, the younger librarians seek out more technology programs due to their age. Others stated they believed the younger librarians are more interested in technology anyway, so they often worked on technology projects.

Understanding. Some participants wished their older colleagues took the time to understand younger librarians and what their background is. Jan talked extensively about her multigenerational workplace and how her colleagues can treat her in a condescending manner:

> Yeah, in my work place, there is me and one other young woman who are under 30. And everybody else is pretty much well into their 40s or older. And it comes up in meetings a lot. You'll hear the older librarian talk about "kids these days" kind of thing, like these Millennials say "they want everything to be online." To me, I'm thinking, "Well, yeah," you know people in my generation do want that. And that's not necessarily a bad thing. And I don't see that much difference between me and the students that I teach.

Kelly also wanted older librarians to understand,

> We're not this other species. We're just like you and you think of us like an entirely different culture. You just have to understand our relationship with technology and online resources is much different. We're much more used to it and expect different things than you do online. So I guess I would tell them not to think of younger librarians as another species.

Kelly continued,

> One thing that I find a little bit frustrating is that I feel like there are ways my colleagues could take advantage of me that they are not doing. They could take advantage of the fact that I am close in age to the students and understand their technological needs better. That could be exploited in a positive sense much more than they are doing.

Participants also tended to view older librarians as set in their ways and attached to older ways of doing things. Abby explained how librarians at her institution reacted to a new catalog interface:

> Well, some of the older librarians have strong opinions about certain things like how to search certain ways. I was just at a training session for library staff this week for the new catalog. And some of the older librarians were arguing over like how to use Boolean the correct way and which way is more efficient. So maybe they have more established ideas about how things should go and I'm just open to everything. They argue for one certain way.

Some librarians know they will soon age as well and have some of the same complaints about the younger generation as they hear now from their colleagues. Ian said, "I'm sure I'll get to that age anyway, so I'm not worried." Francis talked about how one day

younger librarians will say that about the Millennial generation, just as the Millennials do now:

> I'm sure that as a natural progression of knowing that you have a lot of experience and a lot of value, but those that are coming up underneath you may not value it, so maybe you feel the need to assert the expertise that you have and sometimes that means putting down the expertise that others have. It's not over bearing, but it just kind of seems to happen.

Patricia already sees herself sometimes not wanting to learn new technology:

> But I think there are definitely lots of cases where older people are tired of learning new things. And I get there sometimes. I definitely am like that too, where I'm like, "Ugh, a new thing." I like my old thing and it's nice and I'm tired of learning new things. I just gotta step beyond that and realize that the world is not going to stop just because I want it to.

Respect. Many people had, despite generational differences, a lot of respect for older librarians, their history, and the skills they do have. As a current student, Abby stated she is still an observer in the workplace and she "just listens to everyone at this point" and was reluctant to make generalizations. Heather had a lot of respect for her colleagues, despite any possible differences, and struggles with the idea that she is a professional on equal footing to "someone who may have been a librarian for 20 or 30 years." Acknowledged by Francis, "They're the experts because they've been doing this for many years, and just because I have some knowledge in one area that may or may not be useful,…I sometimes feel on edge." She went on to talk about the idea that older librarians are just reacting to new librarians and the new ways they go about their work. Taylor stated,

> I have a lot of respect for older and traditional librarians. I just hope they don't think I'm making a mockery of their occupation. Sometimes I think that…It seems like they might want to encourage the stereotype, but I'm really passionate about this.

Another participant, Kelly, thought that younger and older librarians need to work together to find a common ground:

> So I've done a lot of research on generations in the workplace and libraries and I think it is really important to examine the common ground instead of what makes you so vastly different. And try to see what they [older librarians] have that can help you. For example, we were talking about the Generation X, which is kinda in the middle. They are good bridges between you and the older people that have been there forever, a sort of mediator between the two groups. And I really value that some of my coworkers have been here for 30 years and I value their opinions a lot, particularly because they've seen so many changes. So I try not to be quick to judge that they've been here forever, so they're not going to try this. Maybe they did try it. Maybe before I do this I should go talk to them and see if they've tried something like this before and how did it work. Taking advantage of the value of having colleagues that have been around for a while.

The same goes for older librarians and how they view younger librarians as colleagues. Jan, despite believing that the older librarians she works with may have a condescending attitude, believes they do value her professionally and treat her with respect despite her differences. Madison thought sometimes those older than she can be intimidating:

> Just like the water cooler that can be intimidating. I'll mention something that might not affect my work at all, but sometimes it can be discouraging when they're like "you're only 23.. And it's like "ouch." And then I'll try and explain something to them and they'll go "Oh, well, you weren't around that time, because we're 40." And sometimes I feel like that is a relationship barrier, but I don't know if it affects my work very much.

Samantha thought older librarians got much more respect from younger students:

> Some library patrons respond better to the seasoned person talking to them. And often times they have a more stern, and I used that term loosely, an older person speaking to them, they generally have more respect. So if we're telling them to go in and pay your fines, generally they respond better to that if someone older was speaking to them.

A few people had not thought about generational differences at work. Betty viewed herself as an "old soul" and believed that, despite differences, she could relate to

older generations and did not like to think about differences among colleagues of different ages. Others, such as Laura and Quinn, believed they were too new to their workplace to examine their colleagues critically and did not want to make sweeping generalizations. Madison feared doing just that: "So I don't want to go too far into the old and young because it can be over exaggerated." Others, such as Olivia thought because her library had librarians working across multiple campuses, people she did not work regularly, it was harder to tell if there were generational differences she believed it was related more to personality. However, Olivia did close the interview with this comment:

> I think personally, I think that those people who aren't on board with moving forward [with technology] will slowly start retiring.

Job Market

Although this study did not specifically look at the job market for newer librarians, it was mentioned repeatedly during the course of the interviews. Survey results indicated the job market was one of the lowest reasons for choosing to become a librarian. Several interview participants stated they are underemployed and not working as a professional librarian, they had a difficult time getting their first professional job, they took whatever job they could get regardless of the specialty, or they were not in the setting that they wished to be in. Several current students expressed anxiety at the job market, commenting it was hard to get internships. They felt a sense of entitlement that if they had the degree, they should be able to get a job. Several also experienced frustration with not having the library experience that is necessary to get an entry level position. Edward had difficulties getting his first job, stating,

> I graduated with my degree in May 2009 and there were no jobs. And so my background was mostly in archives and special collections.…So this position [in a career college] opened up in early 2011....It was for profit, which my fiancé was

> kinda against. But you have to have a job. So I applied to it and I fell into it. And I'm pretty happy here. And it was cool getting to set up a library from scratch. That was definitely an attractor. And myself, early in my career, it would be pretty good to say that I've done a little bit of everything.…So I thought it would give me a well rounded experience. So it turned out to be good.

Nathan just wanted a library to give him a chance:

> I would have [worked in a library] in undergrad, but they were only for work study students and my parents made too much money. I didn't have that opportunity, which really hurt because everyone now wants me to have library experience and I've gone through all these library science classes, but it doesn't mean enough, they take the person who has the experience. That's frustrating, because how can I get experience if I can't be accepted into an entry level job.…I just haven't had that opportunity yet.

Ian was working in an academic library as a specialist for his undergraduate degree (psychology). He went through library school taking classes towards a career in public libraries, but found no jobs. Ian perceived jobs in academic libraries were more plentiful and stated,

> There were a lot more academic jobs that were available and I sorta compromised what I liked about librarianship at the university setting. It would be perfect right out of school, but not something I want to continue doing, I would think. So, I'll see how I like that and maybe do that for a few years. And so that's kinda where I am now. I'm at an academic library and I'm enjoying it but still in the back of my mind I'm thinking I'll switch to a public library if there is ever a job in that area I want to work in. Academic librarianship is something that was a second choice.

Jan had the opposite experience, as she was working in a public library, while waiting for an academic library to open up in her geographical area:

> Well, I'm currently actually in a public library, but I really want to be in an academic library. And I've applied. We have tons of colleges, both tons of community and four year colleges here. And I'm just waiting for somebody to give up their spot which seems to be few and far between.

Others explained they had to take a certain job because of geographical constraints. Kelly took a job at a branch campus, as her husband has a job at the main campus. She stated that she ended up really liking the job, even though it was not what

she thought she wanted. However, she still hopes a job will open up at the main campus. Heather talked about the job market when she said, “When I graduated, the job market was extremely tight. It actually took 3 months to find a part time job at a university as a reference librarian. I did that job for a year and a half before I found the job where I currently work.”

Rachel, an outlier because she did not consider herself a digital native, observed that many of her classmates perceive there are no jobs in traditional librarianship, so they are specializing in digital librarianship to make themselves more marketable. However, she thought they were not going into this area because they had a strong interest in technology; rather they see digital librarianship as the sole growth area to get a job.

Summary

The purpose of this study was to investigate how newer and younger academic librarians chose librarianship as a career, their backgrounds and attitudes about technology relating to libraries, and their thoughts about working in environments with multiple generations present. By applying both survey and interview methods, this study obtained basic demographic information about this group of librarians, as well as personal stories and anecdotes that provided a deeper understanding of the study topics. Themes were found relating to the reasons individuals decided to become academic librarians, their attitudes and skills relating to technology use, both personally and on the job, and frustrations relating to finding a job. Chapter Five includes the discussion of findings, answers to the research questions, implications for practice, and recommendations for further research.

CHAPTER FIVE

SUMMARY OF FINDINGS AND RECOMMENDATIONS

Discussion of Findings

As described in Chapter Two, the Millennial generation is the most studied generation in American history (Strauss & Howe, 2000). Comprising nearly a third of the population of the United States (Zemke, et al, 2000), they are difficult to define. The Millennials share certain characteristics because they grew up during the same time frame, have been shaped by overprotected parents wanting to shield their children from societal problems, and have been taughta belief that they can accomplish anything they set their mind to (Strauss & Howe). They have grown up surrounded by electronic gadgets and have been able to search for information on the Internet from a young age. They are used to instant gratification of information and can handle multiple information streams simultaneously while constantly being connected to mobile devices (Zemke, et al.).

This study applied multiple methods to look at one subset of the Millennial population: those who are either academic librarians, or in graduate school with a goal of becoming one. Library research on this topic often focuses on management of younger librarians (Oud, 2008) and the realization that newer and younger librarians called "digital natives", come from an increasingly technological background (Del Bosque & Lampert, 2008). Newer and younger librarians have also written about their desire to make a positive impact on the profession (Neyer & Yelinek, 2011). However, library researchers have struggled to pinpoint why Millennials are choosing the career (Taylor et

al., 2010) and have only attempted to pinpoint that a relationship with a librarian could be a possible motivation to becomming a librarian (Ard et al, 2006; Gresko, 2003). The book on NextGen librarianship by Rachel Singer Gordon (2006) spurned much anecdotal discussion about the technology and information skills being brought into the library profession by newer and younger librarians who grew up as digital natives, as well as discussing the different work and managerial styles of younger librarians. However, Gordon's book was not grounded in research data, nor did it talk about why individuals would want to become librarians, a career that is having a difficult transition from print to electronic resources. This study attempted to research these newer and younger librarians to see not only what skills they are bringing to academic librarianship specifically, but why they are attracted to the field, and any observations they have while being a younger librarian in a field that still has deep roots in a print tradition.

Technology Skills

Millennials are very savvy with technology, though there are limitations to their skill. For the most part, they do have a lifetime attachment to technology (Allerton, 2001; Barna, 1995; Eisner, 2005; Tapscott, 1998), but they do remember a time without having a computer in their homes or when computers were something only used at school and for basic instruction. As interview participant Frances put it, "nothing like how students get to use them now." Millennials grew up with computers, but early on, they were not advanced enough to do the multimedia creation and application building that is done now, and they mostly use resources that were developed by others. However, Millennial librarians in this study do see the utility that computers have in everyday life and by high school, many stated that computer use was required for them to go about their academic

and personal lives, but they thought that technology in its current state with online research resources and social networking did not come about until they were in college. Additionally, most interview respondents said that library school helped acculturate them into using technology more, both within their lives and for academic purposes than did their previous experience with technology.

Many participants stated that by college, technology was a part of their life and was so integrated in both their personal and academic lives that it was influential in everything they did, even though they did not consider that when making the decision to pursue a career. Multitasking, which many researchers believe is second nature to the Millennial generation (Sujansky, 2002; Weiss, 2003), does occur. Millennials get frustrated with older colleagues who do not have the same ability to multitask and understand several streams of media at the same time, as stated by Zemke et al (2003) and comments made during the interviews.

However, not everyone in the study grew up with a computer or Internet access in their home. Two interview respondents refused to call themselves digital natives. One said she grew up in an environment without much money, and the only technology her family had access to was often second hand and several years behind. The other participant grew up in a rural area that did not have access to high speed Internet, and as a result, she was rarely online until college. Both individuals believed that technology was definitely not a factor in them being drawn to librarianship, and they were more interested in the circulation and the print resources than in specializations that require a high level of technical knowledge. Other participants were quick to acknowledge that there are many members of their generation who, for one reason or another, do not have

an interest in technology and may not have had the resources growing up to have incorporated it into their daily lives. Some participants noted there was some computer instruction starting in elementary school, but it was very basic computer literacy and most of their technology learning occurred at home, when there was the time to focus on more complicated tasks.

Even though study participants remember a time without technology in their homes and they believe that technology did not mature to its current state until they were in college, they have used it for a much larger percentage of their lives than other older generations. For that reason, they are quick to learn new technologies as they become available or are required based upon professional needs. They also believe that because computers had matured alongside them, they are not afraid to break them. Interview participant Abby states, “I have a lot of faith in technology.” Millennials believe that they can experiment with technology without fear that it will become inoperable or cause additional headaches in the future. They are also not wedded to particular technologies and do not get frustrated by current things because they think something newer and better is always around the corner. Millennials observe their older colleagues struggling with technology and believe they can attribute these struggles with the idea that technology is newer to their older colleagues and is not as ingrained in every aspect of their lives as it was by the time Millennials were in college. Some study participants also indicated the older generations helped shaped technology as we know it today, and often had a frustrating process working with technical solutions that may not have been well thought out, extremely buggy, or only complicated existing processes by augmenting, but not replacing, previous workflows.

The literature review focused on technologies used by the Millennial generation. Study results indicated technologies are indeed important to Millennial librarians. Digital media is expected by Millennials, who have no history of working with analog music formats, writing letters by hand, or typing papers on a typewriter (Tapscott, 1998). This was true for all study participants, some of whom specifically mentioned how Microsoft Office is so engrained in their lives that they could never work by hand. The literature also indicated that mobile devices are becoming the primary mode of media access by Millennials (Clausing et al, 2003), with many librarians believing that mobile will be the most disruptive technology to libraries in the next five years. Together, digital media and mobile devices combine into the new area of electronic books and electronic book readers, which Millennial librarians see as a new area within librarianship, but do not believe it will be very disruptive. Because of prior shifts, they have expected a shift towards these technologies and welcome it as an additional service they must provide as the format of information shifts. However, Millennial librarians still have much respect for printed materials and for libraries to maintain some print archives, but desire to help put many of these analog materials online so they are accessible by individuals unable to physically come to a library.

To Millennial librarians, it is expected that information be online and accessible to anyone at any time. They are used to having multiple information streams at once and can search for information online using multiple resources at the same time in a way that they believe is much more efficient than their older colleagues. They also are used to creating information, be it through repositories hosted at their libraries, using HTML or CMS systems to create web content, or using software such as Camtasia to create

multimedia video and audio presentations and tutorials for students. They acknowledge that most academic library users want to find information and assistance online, and they are ready to meet those needs through multiple information streams and formats.

One disconnect in the technology skills of Millennials is that most of them are accustomed to using technology, not creating it or understanding the back end infrastructure. As one interview participant said “they expect everything to be easy, but they don’t understand what went into trying to make it easy.” Although many librarians indicated they use tools such as Camtasia to create multimedia projects, many thought they had weak skills in this area and desired to learn more. They are also most likely to edit content on webpages using a CMS system such as Drupal or LibGuides instead of creating more elaborate websites utilizing information architecture principles or more complex web programming languages (such as PHP) or relational databases (such as MySQL). They rely on dedicated tech people to set these up and maintain the servers that house these services, but they desire to learn more about these technologies themselves. There is also a strong desire to learn more traditional computer programming languages such as C++, .Net, and Perl. Many participants thought library school only impacted their technology skills marginally and they desire to learn higher order skills that can be applied to their job. Millennials are comfortable learning front end technologies on their own, but they need help understanding the technology behind the tools they use in their daily lives.

Management

There were many parallels between the collected data and the literature concerning Millennials on the job and how they desire to be managed. Although the

study data show that Millennial academic librarians have much respect for older librarians and traditional library work, they are eager to take over the profession and shape it in their own unique way. Many Millennial librarians have strong opinions about different generations working together in a single work environment, opinions that the literature shows are generally true for Millennials in other work environments as well. The desire to think they are needed, a sense of entitlement, a commitment to a work/life balance are all important to Millennials. They also want to be involved in workplace decision making and are easily bored in the current work environment. They also want to work in an environment that matches their social beliefs (Sanchez, 2003; Weiss, 2003).

A recurrent theme in talking to Millennial librarians through the interviews was a desire to be needed in their workplace. There is a fear that older librarians may be dismissive of Millennials' new ways of doing things and their commitment to using technology in the workplace. Almost always, participants talked about how those older than they valued their new skills of incorporating technology into librarianship as well as being able to act as a technology troubleshooter when things went wrong. Millennial librarians want to be able to incorporate their new skills into a new culture of academic librarianship, similar to what Sampath (2008) recommended organizations should do to benefit from the skills and perspectives of the Millennial generation. Millennial librarians know their technology skills fit a niche that is necessary in academic libraries and believe all librarians should have the tech skills they do. This, along with a belief by some that older and not technically savvy librarians should retire now and allow the new generation to take over librarianship, has Millennial librarians believing that getting a job makes their skills and degree valuable, as stated by Zemke, et al. (2000). Zemke discussed that

Millennials believe that they are entitled to a job because they have always believed they were needed and valued in other aspects of their lives.

A sense of entitlement came out for many as a frustration with their job hunt and sometimes with their colleagues, though generally Millennial librarians were more forgiving when referring to their older colleagues. Many study participants did not want to come out and say it, but there was a general thinking that the profession is graying and people are not retiring and allowing new librarians to take over. The overall frustration about the lack of jobs follows the notion that the Millennial generation contains a sense of entitlement to expect a good job upon graduation and can be demanding if this expectation is not met (Sanchez, 2003). Although more recent literature since the economic crisis that started in 2008 shows that Millennials are cognizant of the reduced number of entry level jobs (Brownstein & Freedman, 2010), Millennial librarians still believe they were lured to library school with the belief that there would be a large number of retiring librarians in the near future and entry level jobs would be plentiful. However, many older librarians are choosing not to retire due to the economy and many of their jobs are being replaced by less expensive paraprofessional positions that are being filled by library school graduates who are overqualified. This sense of entitlement is causing a growing sense of resentment towards library schools and older librarians, as was stated many times in the survey and several interviews.

The sense of entitlement also reflects the belief of Millennials that they should be involved in decision making in their workplace (Sampath, 2000; Strauss & Howe, 2000; Sujansky, 2002), just as they have been in their families growing up (Weiss, 2003). Millennial librarians want to be given leadership opportunities and do not want to wait

until they advance into leadership positions within their workplace, which they see as happening once the older generations of librarians retire (which they want to happen soon). This makes Millennial librarians appear that they are more demanding of their employer, as compared to previous generations (Strauss & Howe; Tapscott, 1998). A couple of interview participants talked about their frustration with work environments that do not value their opinions and do not give them an opportunity to lead in areas that are of interest (Ian, Jan, Kelly, & Quinn). Others talked about how they were able to be a leader in their work environment because they have a new set of skills that sets them apart from their colleagues (Francis, Lauran, & Nathan), a status that they enjoyed and frequently sought out situations in which they can use their skills to stand out from others in their workplace.

The literature also talks extensively about how Millennials like having multiple streams of information going on at the same time (Allerton, 2001; Twenge, 2006), how they are easily bored in the workplace (DiGilio et al, 2004; Fenich et al, 2011), and how they like to get things done instantaneously (Yuva, 2007). These characteristics showed up in many ways while interviewing librarians. Several librarians talked about how colleagues are very focused on one workflow and will not change workflows unless they absolutely have to. The Millennial librarians believe that they could improve upon these workflows using new technologies and resources and believed their colleagues could do more things at once, in line with having multiple streams of information going on simultaneously. Madison mentioned that she was in charge of the student workers because she was “more tolerant of noise” and can have more things going on at once compared to her much older colleagues. Interview participants Jan and Kelly talked about

how they are used to multitasking and must have a number of different things going on. They also talked about how their libraries make decisions very slowly and with careful planning, when they would like to make a decision, try it out, and tweak it later if necessary. During this long planning and decision making process, the Millennial librarians tended to get bored and just wanted a decision to be made.

Yuva (2007) discussed the work styles of Millennial librarians and noted the desire for a work/life balance. Only Laura talked extensively about this as she believed that she would complete her work, but only Monday through Friday nine to five, whereas her colleagues regularly answer email in the evenings and weekends. The same librarian thought that her older colleagues will often go above and beyond what was necessary, which makes it harder to achieve a suitable work/life balance. The work/life balance was mentioned numerous times in the survey as a positive attribute related to librarianship. Others enjoyed that librarianship did not require taking home any emotional baggage that a teacher or counselor does.

Finally, a trait of Millennials that was apparent from the literature concerned how they desire to work in environments that are socially responsible, matched their beliefs, and gave them a sense of purpose (Eisner, 2005; Sampath, 2000; Yuva, 2007). Many participants agreed with this sentiment, and talked about how rewarding they found academic librarianship because it enabled them to do something meaningful. Study results also reflected the personal values related to freedom of information, information access, literacy, and education. Since the dominant reasons for choosing an academic librarianship career was a love of the academic atmosphere and an appreciation of the

research process, people are drawn to librarianship because it was an environment that matched their beliefs and gave them a sense of purpose.

Millennial Librarians

Although this research has focused on the "Millennial librarian", it is not as simple as giving a group of people a name. The term "Millennial" was used in order to have a one word description, as well as strictly define a research pool. This research is better described as technology use, generational attitudes, and career choice among newer and younger librarians. In describing this research to others, the researcher more often referred to the pool as "librarians under age 30" or "newer and younger librarians". Although many demographers have strictly defined the age range of the Millennial generation (see Table 1), the researcher believes this generation's age is more fluid. The researcher believes that librarianship is being transformed by youth and newer librarians who have a different set of research and technology skills as compared to individuals who received their MLS degree before technology was ubiquitous to everyday life and within libraries.

Younger librarians have mostly grown up with technology as a part of their daily lives, but many participants remembered a time when computers were not in most homes. Unlike today's young children, Millennials did not start playing with touchscreens such as smartphones and tablets as infants or toddlers. Since computers and Internet connectivity were expensive and not ubiquitous, factors such as geography or income level created access issues with technology, whereas today even rural communities and schools have some access to technology and the Internet, which would have been much more difficult to obtain even ten years ago. Additionally, individuals who are newer to

librarianship but are older than the definition of Millennial similarly remember when they first had a computer or got online. Those librarians who are older than Millennials, but younger in age when compared to many older librarians, had to learn basic technology, Internet search skills, and library technologies in library school. For these reasons, pigeonholing individuals into the title "Millennial" is very difficult, and the researcher came to appreciate the broader term of "NextGen" that does not limit its definition to a specific age group, as Rachel Singer Gordon outlined in several publications (2006, 2007).

One item that unites all newer librarians is the struggle to get a professional job. The ratio of library school students and graduates to available professional jobs appears to be lopsided and everyone is challenged to get the job that is perfect for them, as stated by Fiakloff (2010) and Guise (2011). Millennial librarians are frustrated about this, and wish they could be given a chance. Some Millennials even believe older librarians are purposefully keeping them out of the profession by not retiring, as noted by Diana, Heather, Ian, and Jan. Even Millennial librarians who are fully employed had a considerable amount of difficulty breaking into the field, and many more think there are either not enough jobs, not enough retirements among older librarians, or the library schools admitted too many students. Many of the study participants were interested in reference, instruction, or archives positions, but there are more available jobs that utilize these skills but also require advanced skills in another area, such as programming or GIS, which many survey respondents wanted to learn more about but were not available in their library school curriculum, consistent with Del Bosque and Lampert (2008).

Career Choice

This study found that everyone has a story about how they decided to become an academic librarian. Most had some kind of background with libraries, whether it was from working there as a student in college (Betty, Edward, Olivia, & Talyor), a relative who was a librarian (Catharine, Diana, Jan, & Samantha), or they extensively use of the library as a child (Gabby, Ian, & Kelly). Survey data also indicated previous positive ties to libraries. For the majority, participants were drawn to academic librarianship because of a personal interest in research and they liked the atmosphere of higher education. Although most had some experience using technology before they became a librarian, technology had little to no impact on their decision to pursue librarianship. However, almost all participants recognize they are more technology savvy than older librarians and their technology skills are contributing to their career and making them stand out as the next generation of librarians.

Examining the results compared to other studies of career choice and librarians, there are some similarities. The 2010 Moniarou-Papaconstantiunou study of Greek librarian career decisions showed there are similarities to American librarians, as Americans also make judgments related to economic, social, cultural, and symbolic capital when deciding on a career. It was clear through both the survey and interviews that participants viewed librarianship as a steady job with a decent salary that would give them steady work. They also think they were very connected to the symbolism and culture of the library as a place to reinforce learning and to retain and make information accessible.

The University of Alabama study of library school students by Taylor et al. (2010) showed that students generally make the decision to become a librarian after completing their undergraduate degree. However, this current study found that younger librarians made their career decision while still in an undergraduate program or soon after. Since so many individuals made the decision while in the academic environment, it is clear there was an intention to stay in that environment, hence why academic librarianship was a good personal fit for them. The Alabama study also showed the majority of individuals chose a library career because they enjoyed the job function and skill set, they had personal contact with a librarian, and the pay. Although these three factors were examined throughout the course of this current study and they appeared in the results, they were not as strong as they were for the University of Alabama population. It appears that personal contact and pay, while factors, are secondary to the job function and skill set, which falls under individuals' love of the research process and the skills needed to conduct research. Taylor et al. (2010) were also inconclusive about technology playing a role in career choice, while the current study shows that technology was not a major factor in the career choice of academic librarians.

Other studies that have some parallels to this study include the Hines and Baker (2008) study of choosing a specialty within library science and the 2010 Jones study of school librarians. The Hines and Baker study of business librarians in a variety of libraries was dominated by participants who chose librarianship as a second career, not a first career as most Millennial librarians view it. However, Hines and Baker found the nature of the work and a love of libraries to be the biggest factor in career choice, which this study also showed as an important factor. The Jones (2010) study included a different

population, school librarians instead of academic, but its conclusions for why people chose that path included a desire to work in a particular environment, vocational personality, librarian mentors, previous library experience, a love of reading, a desire for service, a desire to work with a certain population, and the flexibility of schedule, are all themes that arose while studying Millennial academic librarians.

Demographic Characteristics

A 1989 American Library Association study conducted by Heim and Moen collected extensive demographic data related to library school students at that time. As several survey questions for this current research were similarly based upon questions in the Heim and Moen study, comparisons are made to depict some changes among library school students in 1989 compared to younger librarians in 2012. However, these comparisons are difficult to make at best, as the 1989 survey focused on all types of librarians, whereas this study focused solely on academic librarians. The 1989 study did not break respondents down by age group and included students of all ages, whereas this study examined a strict age range, which impacts aspects including when an individual made the decision to pursue an MLS. In 1989, only 13.8% of respondents decided to obtain the library degree as an undergraduate, while the 2012 study had 38.7% reporting they made the decision as undergraduates.

For basic demographics, the profession is even more female in 2012 than it was in 1989, when 80.9% were female. This study found 89.3% of participants were female. Race has changed a little. In 1989, Whites made up 93.7% of participants and African Americans were 3.7%. The 2012 results show that Whites are now 90.5%, a decrease, but African Americans also decreased, to 2.4%. The rates of American Indians are the same

at .6%, though the rates are up for Hispanics (.8% versus 3.0% in 2012) and Asian/Pacific Islander (1.1% in 1989 versus 4.0% in 2012). Multiple races, which was not a category in 1989, comprised 3.7% of responses in 2012.

The type of undergraduate degree that study participants obtained prior to going to library school has changed only slightly since 1989. The 1989 results, compared to the 2012 results outlined in Chapter Four have similar percentages of social sciences majors, life sciences, and math and computer science. The major difference is in education, which had 16.4% of responses in 1989 compared to just 3.6% in 2012. Both studies found their populations used the library as an undergraduate at about the same rate and just over 50% had previous library work experience, though the 1989 study broke out work experience to experience in and out of school, with the majority experience not occurring while an individual was in school. Both studies showed that previous library work experience was a large factor in the decision to become a librarian.

Related to choosing a library program, the differences can partially be attributed to the differences in the population age of the two studies. In 1989, the most helpful items in choosing a library school program were librarians, a library school course catalog, alumni of the school, coworkers in a library, and an employer. In 2012, the top reasons were friends, family members, library school publicity, library school course catalogs, and alumni of the school. Therefore, influence in library school choice only somewhat changed especially when it is considered that most 2012 respondents did not have library work experience outside of student jobs. In both 1989 and 2012, the most important factors in selecting a school were geographic location, curriculum, cost, reputation, and financial assistance offered.

The 1989 study asked participants to rank the importance of various statements related to their choice of becoming a librarian. The 2012 results are in Table 6, and while it is difficult to quantify the differences due to scoring differences, participants rated the importance of each statement in 2012 similarly to what they were scored in 1989. The only notable differences are that in 2012, participants thought of librarianship more as an alternative to teaching and emphasized geographical mobility more than in 1989. Both studies showed some anxiety about the job market for librarians.

When asked about preferred professional title, both studies' participants overwhelmingly selected librarian. It is interesting to note that that use of "information specialist" as a title is down (see Table 13). Describing the personal nature of their profession, most participants stated librarianship was a profession. However, the number that referred to librarianship as a calling was much greater in 2012, possibly indicating how the population was younger and librarianship was more likely to be a first career to them (see Table 14).

Table 13

Preferred professional title over time

Title	1989	2012
Information Professional	11.8%	11.7%
Information Specialist	21.2%	11.1%
Librarian	59.8%	68.4%
Media Specialist	7.1%	1.6%

Table 14

Overall personal description of library work

Description	1989	2012
Occupation	5.9%	3.8%
Vocation	4.2%	5.4%
Job	3.0%	3.8%
Profession	80.0%	68.6%
Calling	6.8%	18.4%

The younger population for this study also reflects a difference in individuals' uncertainty that librarianship will be their primary occupation for the rest of their lives, as shown in Table 15.

Table 15

Likelihood of library work to be primary occupation

Likelihood	1989	2012
Definitely	28.3%	15.9%
Probably	47.7%	30.2%
Hopefully	8.7%	23.1%
Unlikely	2.7%	7.1%
No	1.7%	3.1%
Uncertain	10.9%	20.7%

Theoretical Framework Applied to the Study

Throughout the course of this study, participants identified many of their generational characteristics and discussed many differences between themselves and their colleagues who are older and are considered members of other generations, most commonly the Baby Boomers. Analysis of these characteristics noted by individuals who participated in the study shows that they are clearly members of the Millennial generation. Additionally, their attitudes and the anecdotal comparisons of their personal beliefs, reasons for their career choice, technology habits and use, as well as attitudes towards those older than they are places them within the Millennial generation, which is one generation within a wider phenomenon, consistent with the generational theory of Strauss and Howe (1991, 1997).

However, the researcher notes that even though all participants fit within the Millennial generation by virtue of their birth year, the Millennial generation is somewhat more fluid, as stated by Vaccarro (2009). Vaccarro believed there are always outliers to any generational grouping because there are always exceptions in that some may not have had the same opportunities and experiences as others with similar birth years. This was found to be true in this study, as two interview participants were outliers and did not grow up with computers or Internet access at home because it was inaccessible due to income level and geography. Vaccarro was very cautious to make assumptions of an entire group of people based upon their generational birth year, and this was true within this study.

Consistent with Twenge (2006), the Millennial generation is using Strauss and Howe's (1991, 1997) theory to define themselves. Although Twenge disagrees that this is

a good thing, it does appear that Millennials are focusing on the good characteristics of their generation and minimizing the bad because they were raised to make themselves look as positive as possible while also comparing themselves to others, just as occurred in this study when participants compared themselves to their older colleagues. Although Twenge feels that generational theory is over emphasized, the Millennial generation has been so thoroughly researched, it is likely that generations occurring after them will also be defined.

Research Questions Answered

Question 1: What factors influence why Millennials choose academic librarianship as their first career?

It is clear the two primary factors related to career choice are an interest in the research process and the desire to work within the academic atmosphere of higher education. Many Millennial librarians made the decision to become a librarian while an undergraduate or graduate student, and had a strong desire to stay in that environment for their career. Another important factor was the interdisciplinary nature of librarianship, because no matter your major or academic background, academic libraries can use that knowledge. Millennial academic librarians come from many different subject backgrounds, though mostly in the humanities and social sciences, which can be otherwise hard to find a career within. Libraries, however, are welcoming environments for these subject backgrounds.

Other factors that influence career choice include work experience in an academic library, the use of libraries as a child and in college, contact with another librarian (either

as an employer or relative), a desire to work with people, and a desire for a meaningful career that lined up with personal beliefs and skills.

Question 2: What influence does technology have on librarianship as a career choice?

Technology does not appear to be a significant influence in career choice. Although most Millennial librarians are excited about using technology on the job and have integrated it into their daily lives, they were not drawn to academic librarianship due to its increasingly is highly technical nature before they started library school. Only when specifically asked did participants rate the use of technology within the career as a factor when choosing librarianship as a career. Participants did enjoy the technological nature of librarianship while in library school or on the job, and thought it was a minor influence they would mention in trying to recruit others to the profession, but it is still a lower variable than other professional characteristics.

Question 3: What motivates younger librarians to choose a specific concentration or position type within the library they are working?

The results of this question are inconclusive. While the most popular concentration or position types mentioned by participants were reference and/or instruction and archives/special collections, most participants recognized the job market was not in their favor and were willing to take any job that was available to them. Therefore, for most, the position type chosen was chosen for individuals, not by them.

Reference and instruction positions appeared to be the most desirable because they most closely aligned with the primary reasons that individuals chose to become

academic librarianship: interest in the research process and a love of the academic environment.

Question 4: What are the demographics/characteristics of the Millennial librarians?

Millennial librarians were born between 1982 and 1990, and 89.3% are women. The profession is also overwhelmingly white, with minorities making up only 10% of Millennial librarians. Most either worked in or desired to work in reference, instruction, or special collections/archives.

Although they remember a time in their lives without computers, most of them grew up with technology as an everyday part of their lives and expect the same in their work environments. For this reason, most Millennial librarians can be considered digital natives. They respect traditional librarianship, but recognize librarianship is evolving into something different due to the evolution of print resources to online resources. While they have a lot of respect for their older colleagues, study participants wish they would be more accepting of the digital shift, the new work styles of the Millennial generation, and would retire so that new librarians can have more professional job opportunities.

Implications for Practice

This study has many implications for practice relating to career recruitment, library school curriculum, retaining new librarians, management, and working with Millennial librarians. The first, career recruitment, concerns identifying the type of individual who would make a good academic librarian. A frequent topic in both the survey results and the interviews involved how many participants enjoyed the higher education environment and/or believed they could be lifelong students. Several participants indicated they would like to get a PhD, but could not choose just one area of

subject specialization, or their passion was in an area with a small job market. Therefore, recruiting new librarians from other graduate programs that either do not have much of a job market or are interdisciplinary in focus may be a good technique. Several participants thought that writing a thesis or dissertation was a good primer for research and library skills, and they believe that background would make them a better librarian. However, it should be stressed that everyone with the title "librarian" should have the MLS degree.

Library school curricula can also be influenced by the results of this study, because there appears to be a greater need for more higher level technology classes in library school. Asked to rank their comfort level with computer programming and web programming languages, respondents overwhelmingly (over 50%) said they were very uncomfortable with these technologies. On the same list of technology comfort levels, the areas that had the most comfort included applications that students would have to use in their academic life, and Microsoft Word, basic common computer hardware and operating software, as well as various Internet based tools. When asked what technologies they wanted to learn, almost all wanted higher level technologies, such as programming, scripting, website design, SPSS, and GIS. Several interview participants mentioned how they learned about technology (required or not) in library school; most believed it did not teach them any new skills, but only allowed them to learn about some Web 2.0 resources and social networking services. Since most participants indicated they learned the most about technology by teaching themselves instead of in the classroom, instruction in library school should focus on these more complex technology skills that people may not have extensive experience with or are unable to easily learn on their own.

Library schools, as well as individuals, have to be realistic about the job market for librarians. There appears to be a growing number of students who go to library school confident they will get a professional librarian position upon graduation, but this is not the reality. Not only should library schools be doing more to meet the advanced skills needed by academic librarians today, their enrollment numbers should reflect the availability of potential jobs. If the number of available jobs is low, then enrollment numbers should decrease as well. The researcher recognizes that this is a difficult idea in an era where academic programs are judged by the number of students who pay tuition first, not by student outcomes and job acceptance rates, but there are a growing number of individuals with library degrees who are essentially unemployable. These new graduates are growing very disenchanted with the library degree, and coupled by an increase in hiring non-MLS degree holders for librarian jobs, a "bubble" may be growing just as some speculate a similar bubble is occurring within higher education as a whole.

Regarding academic librarian positions in the era of technology, all newly created positions should have a technology integration component and even established positions should add such a component to their description. There is a sentiment among newer librarians that they were hired to be the "tech person" in their library, and a new class of librarian is being formed around technology. This is creating tension between younger librarians and their older colleagues because the younger librarians see that they are supposed to learn new things and adapt to changes in the profession, while older colleagues are allowed to continue doing the same job with the same skill set they have held for years. If older librarians are given the same expectation to learn new technologies and integrate them into their environment, this tension will be minimized.

There is a fear among some younger librarians that because they are given so many of the technology related projects in their organization with little input or buy in from their older colleagues, they will burn out and look for jobs in other libraries or other work environments. If academic libraries are not willing to adjust their culture for this new generation of librarian, then the new librarians will leave, which will make it difficult for libraries to adjust to the new attitudes and skills of the students and faculty they serve. Additionally, younger librarians should be given the time and resources to "play around" with new technologies as they relate to their library as well as allow them to learn new technology skills. The opportunity for play and to do research in new areas is an expectation among the Millennial generation, especially in high technology fields, and libraries should provide their librarians the same benefit.

Academic librarians as a whole can do a better job of respecting the new skill set that Millennial librarians are bringing to the occupation. All librarians should consider allowing room for experimentation, taking time to learn some of the skills they bring into the library, and encouraging Millennial librarians to integrate their skills into the established organization. It is important to note that Millennial librarians are not trying to take over and completely change academic libraries to their model. Rather, they want to work within existing structures to make positive change for the future and make libraries more relevant to the students who are closer in age to the Millennial librarians. Younger librarians do have a lot of respect for the more traditional skill set that their older colleagues have in the profession, and would like to work in tandem with those skills. However, they believe that often they are not given a chance.

Recommendations for Further Research

The results of this study contribute to the current body of research and literature on younger and newer academic librarians in the United States. However, there are several other studies that could be conducted to further add to the literature in this area. Most notably, it would be interesting to conduct a similar study of different generations of academic librarians in order to make a comparison. There is little research on how older librarians view the younger generation, though there has been some discussion about generational differences and attitudes in professional discussion forums and non peer reviewed publications. A comparison of generational attitudes within academic librarianship, or a study of what older librarians think of Millennial librarians would add to the body of knowledge. This study resulted in a great deal of content about how younger librarians think about older librarians, and a counterpoint would be beneficial to the literature.

A second form of research on Millennial academic librarians would be to specifically target minority librarians to investigate the factors that influence them to choose the librarianship career. Minorities only made up 10% of study participants and were not targeted in this study, though there may be some cultural differences for them related to career choice. Additionally, only 10% of study participants were male, and during data collection, another graduate student contacted the researcher to tell her that she planned to write a dissertation on why young men choose to become librarians, which is an interesting population to study. Additionally, similar studies could consider a unique smaller population including individuals with PhDs or a strong technology background, such as a degree in computer science.

Finally, the researcher is interested in conducting an observational study on how librarians who are digital natives search for information, as compared to librarians who are not digital natives. The researcher has had many conversations with younger librarians, both within the context of this project and in other venues, who believe that their search and information retrieval skills are fundamentally different because they have always been accustomed to finding information online and through using a simple search box such as Google.

Summary

This mixed methods study examined the choice of careers, technology skills, and generational characteristics of Millennial librarians. The findings indicate that technology does not play a major role in their decision to become an academic librarian. The two biggest factors in selecting academic librarianship are the love of the academic environment and an interest in the research process. The data also reveal that, although Millennial librarians mostly grew up with technology and believe this sets their skills apart from older librarians, their use of technology is mostly using technology tools and not creating them. They also believe their status as a digital native has allowed them to recognize that librarianship is changing as a career. However, Millennial librarians still respect their older colleagues and the skills associated with traditional librarianship and are firmly rooted in traditions. Millennial librarians just want to be able to shape the profession in their own way. Finally, the researcher also found that Millennial librarians are very discouraged with the job market for academic librarians and are very concerned about being fully employed in the field. Young librarians look forward to continuing the academic library field as a whole.

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APPENDIX A

CONSENT FORM TO PARTICIPATE IN A RESEARCH STUDY

Researcher's Name(s): Jenny Emanuel

Project Number: 1199739

Project Title: Career Entry and Millennial Academic Librarians

INTRODUCTION

This consent may contain words that you do not understand. Please ask the investigator or the study staff to explain any words or information that you do not clearly understand.

You are being asked to participate in a research study. This research is being conducted to examine why members of the Millennial generation chose academic librarianship as a career. When you are invited to participate in research, you have the right to be informed about the study procedures so that you can decide whether you want to consent to participation. This form may contain words that you do not know. Please ask the researcher to explain any words or information that you do not understand.

You have the right to know what you will be asked to do so that you can decide whether or not to be in the study. Your participation is voluntary. You do not have to be in the study if you do not want to. You may refuse to be in the study and nothing will happen. If

you do not want to continue to be in the study, you may stop at any time without penalty or loss of benefits to which you are otherwise entitled. There are mechanisms within the survey tool that prevent you from filling the survey out more than one time.

There are no penalties to withdraw from this research study at any time.

This research is not funded by any external organization and is the dissertation project of the primary investigator.

WHY IS THIS STUDY BEING DONE?

The purpose of this research is to examine why members of the Millennial generation chose academic librarianship as a career.

HOW MANY PEOPLE WILL BE IN THE STUDY?

About 250 people will take part in this study nationwide.

WHAT AM I BEING ASKED TO DO?

You will be asked to complete an online survey detailing your demographics and reasons why you chose academic librarianship as a career. The survey will take approximately 15 to 20 minutes. Participants of the survey also have the option to sign up for a follow up interview designed to obtain more detailed qualitative data about Millennial Librarians. This interview will take approximately 45 minutes to complete and will ask about your career entry, occupational experiences, and technology skills. The interview is semi-structured in format. The interview is being recorded and then transcribed. Original

recordings will be deleted and any identifying information in the transcription will be removed or changed to a generic psudonym. You will have the opportunity to check the accuracy of the transcript of your interview.

HOW LONG WILL I BE IN THE STUDY?

This survey will take approximately 15 to 20 minutes to complete. If you wish to participate in the follow up interview, it will take approximately 45 minutes and will be within 2 weeks of your survey participation.

WHAT ARE THE BENEFITS OF BEING IN THE STUDY?

Your participation will benefit you by contributing to a greater understanding of the demographics of Millennial generation librarians and increase knowledge as to why your generation chose academic librarianship as a first career.

WHAT ARE THE RISKS OF BEING IN THE STUDY?

There are no anticipated risks to your participation beyond those that exist in daily life.

WHAT ARE THE COSTS OF BEING IN THE STUDY?

There is no cost to you.

WHAT OTHER OPTIONS ARE THERE?

You also have the option of not participating in this study, and will not be penalized for your decision.

CONFIDENTIALITY

Information produced by this study will be stored in the investigator's file and identified by a code number only. The code key connecting your name to specific information about you will be kept in a separate, secure location. Information contained in your records may not be given to anyone unaffiliated with the study in a form that could identify you without your written consent, except as required by law. Although email addresses will be collected for reward purposes, attention is made to not collect email addresses coupled with survey data and will remain separate throughout data collection. As soon as the Visa check card is claimed, all email information will be discarded.

In addition, if audiotapes or videotapes were taken during the follow up interview that could identify you, then you must give special written permission for their use. In that case, you will be given the opportunity to view or listen, as applicable, to the photographs, audiotapes or videotapes before you give your permission for their use if you so request.

WILL I BE COMPENSATED FOR PARTICIPATING IN THE STUDY?

If you provide your email address, you will be entered into a drawing for one of two a $50 check cards for completion of the survey and $10 for completion of the interview.

WHAT ARE MY RIGHTS AS A PARTICIPANT?

Participation in this study is voluntary. You do not have to participate in this study.

WHO DO I CONTACT IF I HAVE QUESTIONS, CONCERNS, OR COMPLAINTS?

Please contact Jenny Emanuel at jeexc6@mizzou.edu or 217-781-1631 if you have questions about the research. Additionally, you may ask questions, voice concerns or complaints to the research team.

WHOM DO I CALL IF I HAVE QUESTIONS OR PROBLEMS?

If you have any questions regarding your rights as a participant in this research and/or concerns about the study, or if you feel under any pressure to enroll or to continue to participate in this study, you may contact the University of Missouri Campus Institutional Review Board (which is a group of people who review the research studies to protect participants' rights) at (573) 882-9585 or umcresearchcirb@missouri.edu.

You may ask more questions about the study at any time.\

A copy of this Informed Consent form will be displayed to you before you participate in the research. If you wish, you may print it out and retain it for your records. Additionally, a print or electronic copy is available on demand by contacting the primary investigator.

SIGNATURES

I have read this consent form and my questions have been answered. By clicking through this agreement means that I am at lest 18 years of age and I do want to be in the study. I know that I can remove myself from the study at any time without any problems.

APPENDIX B

RECRUITMENT LETTER

Hello!

I would like to invite you to participate in a study examining the reasons why the Millennial generation is choosing academic librarianship as a career. The study looks at demographic information, career choice, career satisfaction, and technology skills. The results will be used in the researcher's dissertation for a Doctorate in Educational Leadership as well as (an) article(s) and presentation(s) in the library literature.

The study involves filling out an online survey that takes approximately 30-40 minutes. Your participation will allow you to win one of two $50 Visa gift cards. Additionally, there is an optional interview that you can choose to take part in, with a $10 Visa gift card incentive to all participants.

The URL to participate is:

For more information, please contact the principal investigator at jeexc6@mizzou.edu.

Thanks!

Jenny Emanuel

Principal Investigator

APPENDIX C

SURVEY QUESTIONS

Section 1: Demographic Data

What year were you born?

Before 1982

1982

1983

1984

1985

1986

1987

1988

1989

1990

1991

1992

1993

1994

1995

after 1995

What is your sex?

Male

Female

Other

What is your race?

African American

American Indian

Hispanic

Pacific Islander

White

Multiple Races

Other (Specify)

Are you a U.S. Citizen?

Yes

No

What state do you consider home?

Do you have your MLS (or equivalent) degree?

Yes

No

Currently Enrolled

Was/is your library school coursework:

In person

Online

A mix of in person and online courses

What is the primary type of library work in which are you currently or wish to be employed?

Administration

Archives

Cataloging/Metadata

Collection Development

Consulting

Education

Government Documents

Indexing/Abstracting

Instruction

Public Services

Reference

Subject Specialist

Systems

Technical Services (General)

Web Services

Other (Specify)

For what type of institution do you currently or wish to work?

Associate's College

Baccalaureate College

Master's College or University

Doctorate-Granting Universities

Special Focus Institution

Tribal College

Of which of the following professional associations are you a member? Check all that apply.

American Association of Law Librarians (AALL)

American Library Association (ALA)

American Society for Information Science & Technology (ASIS&T)

Medical Libraries Association (MLA)

Society of American Archivists (SAA)

Special Libraries Association (SLA)

Any State Library Association

Any other Professional Associations (Please List)

None

To which Divisions of the American Library Association do you belong? Check all that apply.

American Association of School Librarians (AASL)

Association for Library Collections and Technical Services (ALCTS)

Association of College & Research Libraries (ACRL)

Association for Library Service to Children (ALSC)

Association of Library Trustees, Advocates, Friends, & Foundations (ALTAFF)

Association of Specialized & Cooperative Library Agencies (ASCLA)

Library and Information Technology Association (LITA)

Library Leadership & Management Association (LLAMA)

Public Library Association (PLA)

Reference & User Services Association (RUSA)

Young Adult Library Services Association (YALSA)

To which roundtables of the American Library Association do you belong? Check all that apply.

Ethnic and Multicultural Information Exchange (EMIERT)

Exhibits (ERT)

Federal and Armed Forces Libraries (FAFLRT)

Games and Gaming (GAMERT)

Gay, Lesbian, Bisexual, Transgendered (GLBTRT)

Government Documents (GODORT)

Intellectual Freedom (IFRT)

International Relations (IRRT)

Learning (LearnRT)

Library History (LHRT)

Library Instruction (LIRT)

Library Research (LRRT)

Library Support Staff Interests (LSSIRT)

Map and Geography (MAGERT)

New Members (NMRT)

Retired Members (RMRT)

Social Responsibilities (SRRT)

Staff Organizations (SORT)

Video (VRT)

Section 2: Generational Characteristics & Opinions

Which would you prefer to be called in your professional work? Check only 1.

Information Professional

Information Specialist

Librarian

Media Specialist

Other (Specify)

What best describes library work for you? Check only 1.

It’s an occupation

It’s a vocation

It’s a job

It’s a profession

It’s a calling

Do you feel there is a generational divide in your workplace? Rate 1-5 the amount of generational divide in your workplace with 1 being “none” and 5 being “a great deal”.

Do you agree with… (Rate 1-5 with 1 being strongly disagree and 5 being strongly agree)

Age is a factor with an individual’s technology skill set

Younger people are naturally better with technology

Those that grew up with technology are more inclined to use it in the workplace

Older employees are less likely to use social media in the workplace

In my library, it is the younger librarians utilizing technology more

Growing up with technology makes individuals more likely to use technology in their professional life

The library workforce will fare better in the future when current younger librarians become administrators

Younger librarians have to adjust their communication styles in working with older librarians

Technology makes workers more productive

Younger librarians are more productive than older librarians

Generational issues commonly come up in my workplace

There are no generational conflicts in my workplace

Section 3: Career Choice

To what extent did you (while you were growing up through high school) use any library?

One or more times a week

Two or three times a month

Once a month

Once every 2-3 months

Once a year

Less than once a year

When did you make the decision to pursue the graduate degree in library science?

Before completing high school

While completing an undergraduate degree

While completing other graduate work

After completing a degree and working in the library field

After completing a degree and not working in the library field

Other (specify)

What type of undergraduate institution did you primarily attend?

Baccalaureate College

Master's College or University

Doctorate-Granting Universities

Special Focus Institution

Tribal College

Was your undergraduate course experience:

In person

Online

A mix of in person and online courses

What was your undergraduate major? (short answer)

Do you have any other advanced degrees, other than the MLS? If so, please list:

Do you plan to do any additional graduate work in the future? If so, please list:

To what extent did you use any library **physically** during your previous college and university education?

One or more times a week

Two or three times a month

Once a month

Once every 2 to 3 months

Once a semester

Less than once a semester

To what extent did you use any library **virtually** during your previous college and university education?

One or more times a week

Two or three times a month

Once a month

Once every 2 to 3 months

Once a semester

Less than once a semester

Were you working in a library prior to beginning the masters program in library science?

Yes

No

If yes, please specify job role:

Did your previous library work experience contribute to your decision to pursue graduate study?

Yes

No

Indirectly

Uncertain

If so how?

To what extent did the following influence you to become a professional librarian? (Rate 1-5 with 1 being not influential and 5 being very influential)

Sibling(s)

Parent(s)

Spouse/Partner

Career Counselor

Friend

Media Article

Occupational Outlook

Public Librarian

K-12 School Librarian

College Librarian

Special Librarian

Teacher or Faculty Librarian

Other (Specify)

Please indicate to what extent the following reasons are important to your choice becoming a professional librarian: (Rate 1-5 with 1 being not important and 5 being very important)

Access to the world's knowledge

Alternative to teaching

Availability of jobs

Do research with and for others

Geographical mobility

Importance of information in society

Job market

Need for a marketable skill

Numerous and diverse areas of specialization

Opportunities for advancement

Opportunities to serve others and the community

Opportunities to use technology

Personal skills that could be used

Previous library use/experience

Previous library work

Teaching others how to access information

To earn a living

To supplement/complement another degree

Variety of career opportunities

Utilize technology skills/interests

Who influenced you to choose the school you went to for your library degree? (Select all that apply)

Alumni of the school

Career counselor

Coworker in a library

Employer

Family Member

Friend

Library Association

Library Periodical

Non-Library Periodical

Library School Faculty Member

Library School Publicity

Library School Course Catalogs

Other (Specify)

Which of the following influenced why you went to the library school attended:

Cost of School

Financial Assistance Awarded

Friends Attending or Have Attended

Geographical Location

Recommendations of Others

Reputation of Faculty

Reputation of the School

Size of School

Type of Program or Curriculum

Other (Specify)

How satisfied were you/ are you with the following aspects of your library school? (Rate 1-5 with 1 being not satisfied and 5 being very satisfied)

Quality of School in General

Faculty Members

Program & Curriculum

Amount of Personal Attention

Use of Technology

How difficult did you consider your library school?

Rate 1 being very difficult and 5 being very easy

Do you think your library school had many opportunities for technology training?

Rate 1 being no opportunities and 5 being many opportunities

Comments:

What other careers did you consider other than becoming an academic librarian? (Short answer)

Do you anticipate academic library work will be the primary occupational activity for the rest of your life?

Definitely

Probably

Hopefully

Unlikely

No

Uncertain at this Point

Why did you choose the academic library profession as a field of work? (Short Answer)

How would you describe the future of the academic library profession?

Rate 1 being very negative and 5 being very positive

Comments?

What are three reasons you would give to others to persuade them to choose the academic librarian profession? (Short Answer)

What are three reasons you would give to others to persuade them to **not** choose the academic librarian profession? (Short Answer)

Section 4: Job Satisfaction

Please rank all statements referring to the work you have done in an academic library (current or in the past) on a scale of: 1 being strongly disagree to 5 being strongly agree, or Not Applicable (N/A). If you are a student and/or cannot answer a statement, please mark N/A.

Academic library work offers a wide variety of positions.

Academic library work offers a wide choice of work environments.

Academic library work is a profession.

I intend on spending my entire working life in academic librarianship.

I am happy with my career choice in academic libraries.

I am happy with my specialization within academic librarianship.

I enjoy going to work.

I have good friends at work.

I respect the work of my peers.

My peers respect the work I do.

I am engaged in meaningful work.

I feel free to do things the way I want to at work.

Creativity and innovation are encouraged in my workplace.

My opinions count in my workplace.

I feel free to be who I am at work.

My values fit with my workplace.

I am happy with the feedback I receive from my superior(s).

I am happy with the level of mentoring I receive in my workplace.

I have opportunities to learn what I want to learn.

I like the increasingly hi-tech character of library work.

Section 5: Technology

Please rate your comfort level with the following technologies **before** you entered library school: (1 being very uncomfortable, 5 being very comfortable)

Adobe Dreamweaver

Adobe Flash

Adobe Photoshop

Computer Hardware

Computer Networking

Computer Security

Content Management Systems

Course Management Systems (Blackboard, Moodle, etc.)

File Management Issues

HTML

Image Editing/Scanning

Information Architecture Issues

Linux/Unix

Max OS X

Microsoft Access

Microsoft Excel

Microsoft Windows

Microsoft Word

Mobile Devices (Cell phones, PDAs)

PowerPoint

Programming Languages (C++, .Net, etc,),

Relational Databases

Screen Capture Software (Camtasia, Captivate, etc.)

Server Set Up/Maintenance

Video Conferencing

Video Editing

Web 2.0 (RSS, Blogs, Social Networking, Wikis, etc.)

Web Programming Languages (PHP, ASP, Perl, etc.)

XML

Please rate your comfort level with the following technologies **after** you finished library school: (1 being very uncomfortable, 5 being very comfortable):

I'm still in Library School/Not Applicable

Adobe Dreamweaver

Adobe Flash

Adobe Photoshop

Computer Hardware

Computer Networking

Computer Security

Content Management Systems

Course Management Systems (Blackboard, Moodle, etc.)

File Management

HTML

Integrated Library System (ILS) - Backend

Integrated Library System (ILS) - Interface

Information Architecture

Image Editing/Scanning

Linux/Unix

Max OS X

Microsoft Access

Microsoft Excel

Microsoft Windows

Microsoft Word

Mobile Devices (Cell phones, PDAs)

Presentation Software (Keynote, PowerPoint)

Programming Languages (C++, .Net, etc,),

Relational Databases

Screen Capture Software (Camtasia, Captivate, etc.)

Server Set Up/Maintenance

Video Conferencing

Video Editing

Web 2.0 (RSS, Blogs, Social Networking, Wikis, etc.)

Web Programming Languages (PHP, ASP, Perl, etc.)

XML

Please rate your comfort level with the following technologies at the **present** time:

Adobe Dreamweaver

Adobe Flash

Adobe Photoshop

Computer Hardware

Computer Networking

Computer Security

Content Management Systems

Course Management Systems (Blackboard, Moodle, etc.)

File Management

HTML

Information Architecture

Integrated Library System (ILS) - Backend

Integrated Library System (ILS) - Interface

Linux

Max OS X

Microsoft Access

Microsoft Excel

Microsoft Windows

Microsoft Word

Mobile Devices (Cell phones, PDAs)

Presentation Software (Keynote, PowerPoint)

Programming Languages (C++, .Net, etc,),

Relational Databases

Screen Capture Software (Camtasia, Captivate, etc.)

Server Set Up/Maintenance

Video Conferencing

Video Editing

Web 2.0 (RSS, Blogs, Social Networking, Wikis, etc.)

Web Programming Languages (PHP, ASP, Perl, etc.)

Are there any other technologies you are currently familiar with? (Please Specify)

Are there any other technologies you currently want to learn? (Please Specify)

In library school, were you required to take a course with a technology component?

On a scale of 1 (very uncomfortable) to 5 (very comfortable), please rate your overall comfort with technology.

On a scale of 1 (Not At All) to 5 (Very Much), to what extent do you feel your MLS degree prepared you to deal with the technological aspects of your job as a librarian?

How have you acquired most of your technological expertise?

- Coursework
- Workshops/training sessions (school sponsored)
- Workshops/training sessions (employer sponsored)
- Self-taught
- Other (Specify)

How important is it for librarians to understand technology? (1 Not important, 3 Neutral, 5 Very important)

What 3 technologies will be the most important to libraries in 5 years? (Short Answer)

Do you have current accounts with:

Blogger

Delicious

Diaspora

Digg

Facebook

Flickr

FriendFeed

Justin.tv

Google+

Google Docs

Google Reader

Instant Messaging (Any Service)

iRead

LastFM

LibraryThing

Meebo

Mendeley

MySpace

Pandora

PBworks

Picasa

Pinterest

Reddit

Second Life

Shelfari

Skype

SlideShare

Spotify

Twitter

TypePad

Ustream.tv

Vimeo

Wikipedia

WordPress

Yahoo Pipes

YouTube

Zotero

Anything Else?

Where did you hear about this survey? Select all that apply.

Listserv

Blog Post

Twitter

Facebook

Other (specify)

Section 6: Follow Up

Would you be interested in participating in a follow up interview designed to more closely examine career entry of Millennial Librarians? If so, please indicate your email address so I can follow up with you at a later date.

Additionally, if you would like to be entered in a drawing for a prize, please list your email below. Entering your email does NOT put you on a list for a follow up interview.

APPENDIX D

INTERVIEW QUESTIONS

Questions

1. Tell me in detail about your path to becoming an academic librarian. What drew you to academic librarianship at a young age?
2. Why did you choose your area of specialization within academic libraries (technical services, instruction, systems, etc)?
3. What experiences did you have with technology before you became a librarian?
4. How do you use technology in your current job? How do your technology skills compare to your colleagues?
5. Do you think there are generational differences among librarians? Why do you think that?

APPENDIX E

RESEARCH QUESTIONS VERSUS STUDY QUESTIONS

Research Questions	Survey Questions	Interview Questions
What factors influence why Millennials choose academic librarianship as their first career?	Sections 2 & 3	Question 1
Does technology influence and, if yes, what role does technology have on librarianship as a career choice?	Section 5	Questions 3 & 4
What motivates younger librarians to choose a specific concentration or position type within the library they are working in?	Section 4	Question 2
What are the demographics/characteristics of the Millennial librarians?	Section 1	

VITA

Jennifer (Jenny) Elizabeth Emanuel was born on November 15, 1979 in Newport News, Virginia, and was raised in nearby Williamsburg. She graduated from Bruton High School, York County, Virginia in 1998. In 2002, she received a bachelor's in arts degree in Politics and Foreign Affairs, concentrating on Western Europe and the Cold War from the University of Virginia, with a minor in history. After working for six years throughout high school and college at the Williamsburg Regional Library, Jenny went to the School of Librarian and Information Science at the University of North Carolina Chapel Hill, where she graduated with a Master's of Science in Information Science in 2004. Upon graduation, she accepted a job as the Electronic Services Librarian at Central Missouri State University (now University of Central Missouri), a work environment that led to her interest in the area of new and younger librarians in the workforce. There, she started course work for a Doctorate in Education (Ed.D) with an emphasis in Educational Leadership and Policy Analysis from the University of Missouri, which was completed in 2012. In 2008, she moved from Missouri to Urbana, Illinois, where she is currently the Digital Services and Reference Librarian, an Assistant Professor, in the University

Library at the University of Illinois.

Jenny Emanuel's professional affiliations include the American Library Association (ALA), where she is a member of the association's governing Council, as well as the policy monitoring committee and membership committee. She is formerly a leader and Councilor for ALA's New Members Round Table (NMRT), where she advocated for new and young librarian issues and still frequently talks on these subjects. She is also active in ALA's Library Information Technology Association (LITA), where she focuses on program planning and currently chairs the association's conference committee.

Her current job at the University of Illinois focuses on integrating technology into reference services and public services librarianship. She has conducted extensive research on information seeking habits of researchers as well as search interfaces. She frequently supervises and teaches independent study seminars on the user experience through the University of Illinois' Graduate School of Library and Information Science.

Jenny Emanuel currently lives in Urbana, Illinois, with her fiancé Joe and two cats, Clyde and Lucy.