

Sharon O'Malley Oral History: An Examination

Chris Krause

San Jose State University School of Library and Information Science

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Nancy MacKay

### Abstract

In the fall of 2010 Sharon O'Malley, library patron and page from Long Island, New York, was interviewed by Chris Krause for a San Jose State University School of Library and Information Science oral history project. This paper is a companion to that oral history and provides commentary and academic treatment of the interview, social facets and methodology. An examination is produced in four parts: an introduction to the narrator, a historical statement intended to put the interview into context, a discussion of the process of conducting the interview and an assessment of oral history as a methodology.

## Sharon O'Malley Oral History: An Examination

In the fall of 2010 graduate students of LIBR 284 'Oral History' class at San Jose State University's School of Library and Information Science (SJSU SLIS) program were tasked with creating and executing an oral history project. In short, this process would involve creating a project design statement, a constitution of guiding principles, dimensions and goals for the work, field work in conducting formal interviews and historical research. The class was divided into teams; the author was part of team two. The project came to be titled *Evolution or Revolution: Reflecting on Public Librarianship, 1980-2010* and was outlined as endeavoring to chronicle the diverse experiences of public library staff and patrons from 1980 to 2010 by means of collecting personal narratives to demonstrate the changing nature of public libraries.

Each group member shared his or her thoughts on potential narrators via Google docs. Some group members listed more than one potential narrator and together, the group narrowed the selection based on the best sample to cover our topics regarding changes in public library services over the last thirty years. Once decided on our fourteen narrators, the group contacted their respective choices to secure his or her agreement to participate in this class project. In a few instances, narrators declined or were unavailable and a second choice was made.

The primary covering dimensions of the interviews focused on topics of the social role of public libraries in business and community, library patron expectations and experience, emerging technologies, library sciences education and economic challenges. These topics were selected on the basis of their gravity and relevance as applies to the transitioning nature of libraries in the contemporary age. The project also explores the personal experiences of library staff and patrons over the last three decades, posing several important queries: how have changes in library technology and demographics affected the way public libraries perform their basic

functions? How have budgetary challenges modified the way public libraries bring services to their communities?

This paper is tasked with examining one of the aforementioned interviews. The author interviewed Sharon O'Malley, a resident of Long Island, New York, an avid library patron and former page. Sharon would offer a unique insight to the project: as both a young person with cutting edge information retrieval expectations and as an insider to the library system.

### **The Narrator**

Sharon O'Malley was born in the late 1980s in Huntington Station, New York, eventually moving to Medford when she was thirteen years of age. O'Malley grew up in a festive, although economically austere environment to two liberal minded parents. Her parent's grew up in and embraced the culture of the 1970s, which accordingly influenced O'Malley in a significant way, instilling in her a self-professed tolerance and diversity of thought. O'Malley attended bible studies at St. Peter's Lutheran Church where she was further influenced by progressive pastors and church staff.

In her younger years O'Malley's family suffered notable economic hardships, but her father's work in technologies eventually stabilized the situation, enabling her to attend college, first Suffolk County Community College in Selden, New York, and now presently Saint Joseph's College in Patchogue, New York. Before college she graduated from Patchogue Medford High School, during which she worked for several years as a page at Patchogue Medford Library. During her time as a page she developed an expanded awareness of library services.

O'Malley works as a Teacher's Aide for special needs children at Eastern Suffolk Boces and currently lives in Medford, New York. She studies criminal justice and human relations at Saint Joseph's College.

The author intentionally selected Sharon for the interview, primarily because the other narrators selected by the team tended to be middle aged information professionals. This latter demographic represents perhaps the smallest percentage of those who frequently access a library, and would inevitably have a biased opinion on the changing nature of their workplaces. Indeed, perhaps the most relevant demographic for purposes of the project are the young: their demands and expectations inform the operation of not only public but all library systems. And no group holds more authority in this regard than the young twenty year olds, who having been consciously aware of the information age's emergence and impact and seen both card catalogs and Wikipedia, chose to reject traditional means of information retrieval and sided with Web 2.0 radical decentralization. This topic will be explored academically in the next section, but for now let it stand on its own that Sharon was selected in order to balance the findings of the project and represent the primary demographic of prolific information retriever.

The interview was conducted in four parts: 1. origins and character, 2. literacy, education and role of public libraries in upbringing, 3. experiences as a library page and 4. reflections on information retrieval.

The first part involves several colorful anecdotes concerning childhood memories, as well as basic biographical information concerning O'Malley's upbringing in and around Huntington Station and Medford, New York. She recalls early experiences with progressive influences including open-minded parents and pastors, as well as supportive teachers who were interested in ensuring her literacy. O'Malley speaks to economic hardships growing up, but her positive experiences with her parents, pets, family and places of learning. Part one also involves questions of character – how Sharon lives her life. A portrait is created of a passionate, self-motivated, independent and intellectually curious young woman.

Part two begins with an examination of Sharon's earliest experience with education, literacy and fundamental facets of information retrieval. Sharon reveals that she finds some aspects of education tedious (maths and dry academics for instance), but from her earliest years, had exposure to and enjoyed recreational learning and reading. Sharon reveals that her parents were critical in teaching her to read; while school was instructive of the fundamentals, the home life brought with it an impetus for the act. Also in this part Sharon discusses her work with special needs children, and how that compares to her own learning preferences. Finally this section concludes with a basic history of O'Malley's experiences with public libraries, from her earliest memories to the end of High School. She recalls visiting regularly to take out books and movies, as well as going there for recreational purposes.

Part three provides coverage of O'Malley's experiences as a library page at Patchogue Medford Public Library, ranging from the hiring process, to training, to methods, applied technologies, work experiences and social dimensions. Notably, Sharon recalls interactions with the town's homeless, violence and patron drug use. O'Malley offers an insightful portrait of a top-down corporate hierarchy in which she was not even aware of whom the head librarian was. Sharon was working at the library during a transitional phase in which digitization and online services were emerging and being put into practice, whilst the county budget was in flux. Accordingly Sharon provides a crucial perspective, reflecting on the changes she observed during practice.

Part four returns to information retrieval, but in much greater detail. Specifically, part four comprehensively covers Sharon's current means, tendencies, methods and trends in retrieving all forms of information. Coverage ranges from examining everyday queries to academic research during her college career. O'Malley's response reveals information retrieval

skills which are typical of her demographic, with several notable exceptions. While she primarily uses online search engines and popular sources such as Wikipedia to answer general queries, she also places special emphasis on the valuable input of friends and family to answer questions.

O'Malley reveals that she recently discovered the existence of online academic journals, and was introduced through Saint Joseph's College personnel.

So we see that the interview was constructed to focus on education, literacy, means of information retrieval and the information retrieval process. This was a deliberate decision. The author argues that it is these facets of libraries which fundamentally differ from the 1980s: end users no longer process information as they once did, and have radically different expectations on how it should be presented and queried. Sharon uses search engines and Wikified sources of information in lieu of the professional reference of a librarian to conduct queries. Even her personal, everyday information retrieval needs reflect this pattern: she related to the author that she often receives her news from friends on Twitter, and would more likely ask a friend for information rather than consult an academic source or librarian. She, like many of her generation, regards the everyman as an expert.

In some regard asking a friend is analogous to checking Wikipedia for guidance on a topic: both sources of information represent radical decentralization of authority, a pillar of the statistically preferred Web 2.0 mode of information retrieval. And while Sharon was instructed under a top-down hierarchy at her public library during her time as a page, she prefers the horizontal hierarchies of social relationships and Wikipedia; that is to say, she is more likely by her own admission to respond positively to expanded access and interactivity rather than information which is highly privileged, structured and in silo. The author again refers the reader to the next section, which will provide literary treatment on this topic.

### **Historical Statement**

While a great many things have changed since the 1980s in regards to public libraries, this paper will focus on the fundamental transformation of information retrieval and access. This change is not, as it were, applicable solely to libraries but rather to the basic nature of how users search for and process information in western society. It is an accident of this circumstance that public libraries are affected, no matter the extent they are challenged and shaped by it. Indeed, it can be nothing but an accident, as it was corporate internet culture, and not libraries, which propelled our society to these novel modes of inquiry. It is difficult or impossible to understand why Sharon O'Malley retrieves information as she does, and thus interprets and accesses the public library system, without examining the central mover behind such tumultuous changes: Web 2.0 web development.

The technologies behind Web 2.0, and the recently ascendant Web 3.0, have changed not only the internet but how users seek and access information in all means. Web 2.0 services have become so popular in the contemporary age that they have largely replaced traditional means of information retrieval: young people tend to consult Wikipedia and Google as a primary source for information queries, and news networks now hover over Tweets of various Washington politicians as they once did over news conferences. Web 2.0 is the reason why nowadays people tend to reference the rating of an item on Amazon before buying it and why the conventional encyclopedia is nearly extinct; "wikified" text is more robust, interactive and relevant than a printed monograph even a day old. Libraries, while initially resistant to change, have been forced to adapt to these new forms of social media and information retrieval or become obsolete, emerging as bastard "Library 2.0" organizations.



While a full examination of Web and Library 2.0 is outside the scope of this paper, a brief examination is called for, as is a summary of information retrieval trends in the contemporary age. For more complete treatment see the author's *The Web 2.0 Paradigm: Impacts on Library Science Methodology and Professionalism* (2010), to which portions of the following text have been paraphrased from.

Paul Miller of Talis summarized the basic qualities of Web 2.0 as follows.<sup>1</sup> Web 2.0 is a push for: the freeing of data, the building of virtual applications, participation, design around the end-user, modularity, ease of sharing, communication, remixing, intelligence in design, long tail design, and trust. Data is being freed, "allowing it to be exposed, discovered and manipulated in a variety of ways distinct from the purpose of the application originally used to gain access."<sup>2</sup> In this sense areas of information which were once exclusive to governments, powerful corporate entities and ivy league academic institutions is being data mined and offered freely or at greatly reduced expense to the greater end-user population. As an example: while in the past physical space was once a limitation on the amount of information a library could hold, Web 2.0 technology has made prominent and streamlined digital information systems so that they are prolific, opening up access to a virtually unlimited amount of information to those with basic internet access.<sup>3</sup> The author would also like to add to Miller's criteria here by also speaking to the capacity of Web 2.0's impetus for "radical decentralization." This ability can be observed most clearly in BitTorrent, a file sharing software in which users share data in a swarm of peers; there are no central servers to house the data. Accordingly content can be shared quicker and more effectively, as no one individual server can be bogged down due to saturated bandwidth or deny access on the event of its malfunction. In information retrieval radical decentralization is a

methodology for maintaining data systems ranging from websites to collection databases and involves standards of collaborative authorship and ownership similar to Wikipedia.<sup>4</sup>

While Web 1.0 tended to involve content flowing from provider to end-user, Web 2.0 is modeled upon participation. As of 2004 up to 44% of American internet users created or shared content online ranging from personal thoughts to files.<sup>5</sup> The percentage of users doing so today is undoubtedly even higher (with the popularity of services such as Twitter and Flickr), although data is not available. Users prefer and flourish under systems in which they can contribute, and prefer personalization over the sterile and impersonal portals of the past. Web 2.0 systems allow for users to generate, police and sort their own content, through cloud tags, folksonomies, and other democratic design motifs.

Web 2.0 has fundamentally changed the way users retrieve information, and accordingly changed the ways in which they perceive and utilize library resources. Consider one facet of information retrieval: journals. With the introduction of online journals and plaintext databases, the printing of journals has vastly declined.<sup>6</sup> This is of no surprise, considering that since 1999 the online journal has replaced the print journal as a desired means of accessing the information contained within even when both alternatives are offered, with one minority exception being academic faculty, who still slightly prefer print journals.<sup>7</sup> The Web 2.0 technologies behind the online plaintext databases, not to mention the various individual subscriptions, package subscriptions and aggregators, is preferred over physical plant access and loaning.

Statistics indicate a preference for online information retrieval. Between 2002 and 2004 alone the average number of transactions at American libraries declined 2.2%.<sup>8</sup> The University of California Library system saw a decline of 54% in circulation through the 1990s to 2000s of 8,377,000 to 3,832,00 books.<sup>9</sup> Libraries have attempted to cope with these changes by digitizing

their collections and contributing to OPAC, but as usage continues to decline so does funding. Cornell University, facing budget cuts to library funding, recently sold off 95,000 print duplicates to Tsinghua University in Beijing. Doing so freed up space, stabilized the funding crisis and expanded access to digital collections.<sup>10</sup> Other libraries have redistributed their resources to become completely digital in hopes of cutting losses, doing away with their physical collections entirely.<sup>11</sup> In many ways the days of print appear numbered, a situation only exacerbated by the looming economic crisis which falls the hardest on educational institutions. Libraries are finding a compromise between losing their collections entirely or keeping them and cutting other portions of the budget: digitizing. The future of our discipline may involve adopting the interactive technologies and “findability” (to mime Morville) of a Wikipedia with the wisdom and professionalism of librarianship.

One 2006 study indicated that 70% of college freshmen, 60% of sophomores, 72% of juniors 63% of seniors and 75% of graduate students conducted a remote search (Google, Wikipedia etc) rather than go to a physical place (library) or ask a person for assistance in answering a research question. Subsequent attempts at information retrieval were even less likely to involve a visit to a library with the exception of graduate students: while 19% preferred a library as their first place to go for information retrieval, 21% preferred a library for a subsequent attempt.<sup>12</sup> A 2007 study indicated that only 2% of students surveyed visited a library for research, although 23% did visit a library website.<sup>13</sup> Other resources filling the gap included asking professors, consulting course materials, using Wikipedia and search engines. These trends are even more pronounced when referring to the general end-user population not involved in academia, who tend to be outdated, negative or confusing perceptions of the “library,” ignorant to the vast electronic and multimedia resources many libraries now offer.<sup>14</sup> This demonstrates a

general disenchantment and uncertainty about using library resources, as well as a general disinterest in visiting physical plants. The convenience of online research prevails over whatever expertise could be offered locally as it lies outside of the realm of perception.

While libraries had in previous decades met the local needs of the community with excellence, today they struggle to adapt to our new Web 2.0 world. Herein is a story of many libraries across the nation, who waylaid by the lightning tempo of technological trends, must offer new services on increasingly limited budgets, and adapt traditional methodologies to new norms or else lose their utility altogether.<sup>15</sup> It is not enough in our day, as we will see, to perform the legacy functions of a library: house and maintain physical collections of records. These anachronistic institutions are dissolving, changing their fundamental nature or closing their doors to the public. The story of the local library is a story of our times, a reflection on how changing technology has possessed and manacled our actions to novel expectations.<sup>16</sup>

A solution this influx of new data may not be found in librarians, or other professionals, but instead in gamers and voluntary user collaboration. Take the GWAP/ESP game, pet project of computer scientist Luis von Ahn, a simple multiplayer experience in which players have to describe an image using metadata (descriptors) while also matching what the other player picks. This game is behind the recent vast improvement in Google Image Search queries (which, as you may have noticed, now allows you to do all sorts of advanced searches), as the logoi derived from the game play has been imported into the search engine.<sup>17</sup> The task of cataloging millions of images based on verbose descriptors would have proved impossible for a professional team, not to mention economically impractical. Yet, give the users of the internet a fun game where they have to guess what other people are thinking in describing an image, and you can catalog vast amounts of information for free.

Herein the author think claims the most compelling prospects for integrating new technologies into libraries. As the digital age has brought an influx of new information to bear, a colossal task for small groups of professional librarians to manage and catalog, we must create a forum or capacity for visitors to join a community and engage in a collaborative work at the benefit of our objectives. This may only be implemented by posing some fundamental questions about the nature, function and “good” of libraries. We cannot envision what technologies to create or adopt if we are mute to the ultimate overarching goals of our enterprise. This might sound as a pedantic point, but under close scrutiny the author does not believe that it is when considering the vast wealth of technological resources. As public funding dwindles under economic woes, we must have the wisdom and foresight to pick our projects carefully. Essentially, what is the central mission of the library? That question lies outside the scope of this paper.

As Rubin points out, libraries have historically acted as patrons of new technologies, most notably for purposes of this discussion being the internet.<sup>18</sup> But simply providing internet access is not enough in this new age of Web 2.0, where creation, personalization and collaboration have infiltrated every aspect of the user experience. Static knowledge is a thing of the past, and will soon only be useful as historical documents or cultural treasures. Libraries have to cope with this or will default as “archives” rather than as places of learning.

Wikipedia poses a significant threat to traditional librarianship: in the world of Wiki all users are potential librarians, and while many lack the technical expertise of a master of library and information science, Wikipedia contributors have become expert archivists, catalogers and information retrieval specialists. The fundamental difference between the old guard and Wiki is that the latter does not have a top down hierarchy but a horizontal hierarchy: collaboration and

deliberation is used to produce and maintain content, to make executive decisions, in contrast to the professionalism of traditional librarianship. Herein is the pinnacle of web 2.0 genius making a play of classical technology: Wikipedia is the next generation library, putting everything we know about the discipline into question, including the necessity and utility of the job. If the majority of users are skilled at information retrieval then of what use is our kind?<sup>19</sup>

Returning to Sharon, we find that her responses are typical of her demographic: she rarely uses the library physical plant, prefers online search engines and Wikipedia, just recently learned about the existence of academic journals (and even then, only searchable online plaintext databases) and feels perfectly at home reading books from her computer screen. She was not aware that librarians could answer reference questions, even after her time as a page at an active public library. In sum, she had little experience with librarians, other than receiving orders in the workplace. While she admits that her time as a page exposed her to facets of the public library she did not previously know of, in the time following her employment she only rarely utilizes library resources. This is a portrait of a typical case, but is made more immediate by the exploration of her education, character and history. It was the interviewer's intent to explore the links behind the current trends in information retrieval by examining the narrator's past.

Strangely Sharon has little awareness of this huge shift in society's information patterns and when asked about major changes she has observed in her lifetime does not mention the rapid proliferation of computer and information technologies. This hints at a familiarity with the machines so intimate that it is as if they were never a part of her life. At least one study suggests that this may not be the case with preceding generations, who are more prone to having difficulties with information networks.<sup>20</sup> When asked about a major technological shift since the time of her birth she cites the popularity and widespread adoption of cellular mobile devices,

although she makes note of how her peers seem obsessed with the web services of the machines. She informs the interviewer that she is content merely to use her mobile as a phone.

### **The Process**

After the Project Design Statement was developed (overviewed in the introduction) the author conducted a brief query on a social network in order to see who was applicable to be interviewed. Sharon O'Malley volunteered, stating that she had experience in public libraries as both a patron and a page. Formal communications began through email, and included a pre-interview, during which time O'Malley confirmed her willingness to be interviewed. Initially the interview was scheduled for Patchogue-Medford Public Library, where she was a page for several years, but due to unexpected construction the interview was rescheduled at the last minute to Saint Joseph's College. The author is an alumnus and O'Malley is a current student, so accommodations were generous: the interview took place in Conference Room D of the Callahan Library on October 25<sup>th</sup>, 2010. The interview was conducted in about an hour and forty five minutes, was prefaced by a brief explanation of the interviewing process and concluded with a signing of a legal consent form. The post-interview involved a final consent from the narrator, including the sending of the interview and transcript for approval, and a concluding correspondence.

A Samson Zoom H2 device was purchased by the author to conduct the interview. This remarkable device allows for a wide range of recording settings, including 2 and 4 channel stereo and is able to capture high quality audio in virtually any space, at high qualities. It is compact enough not to be a burden on the interviewer, nor intimidate the narrator. The interview was recorded as Stereo 2 Channel Mode at 256 kbps Mpeg Layer 3 so as to maintain portability, to avoid issues of digital obsolescence thanks to the proliferation of the format, and to maintain a

high sound quality. The final product is a high quality audio recording less than one hundred megabytes in file size. The interview was recorded using the organic microphones of the device and the process was without issue. Noise was removed from the .mp3 and the audio normalized using Audacity, a free sound editing software analogous in features to industry standard Sound Forge. Audio was selected as a medium over video due to the prohibitive cost of video equipment, digital video file size, encoding requirements and processing time. Video also offers some further challenges to avoid digital obsolescence, as changing operating systems and video players make experimental (but commonly utilized due to their effectiveness in compression) codecs obsolete.

Digital preservation is a concern for the author, so a dark archive was constructed on the author's personal website and the master files FTPed to a secure, private location. The author's web space is automatically backed up on a weekly basis, and thus bit-level preservation is ensured. Other plans for preserving the interview include a temporary, intra-institutional archive for purposes of the class with no public access.

It was the author's intent to maintain the standards of oral history interviewing and not for the interview to degenerate into a conversation. Accordingly the interview format was controlled and remained impersonal, probing and professional in nature, tasked with retrieving information for purposes of the project design statement. In all, the interview adhered to the Oral History's Association's principles and practices in order to uphold an academic quality. In fact, the Association's principles guided all the processes and operations of the interviewing process, including social dimensions, technology and procedure of manufacture. The narrator responded positively to these practices, and was amenable throughout.



The social dimensions of the interview were seamless. The interviewer knew the narrator briefly from grade school, and although the pair were not friends by definition, this familiarity helped prevent any customary awkwardness, enriching the interview. The interviewing experience was enjoyable, consisting of a series of probing questions occasionally relieved in tension by laughter. This atmosphere allowed for serious evaluation of the topics to be possible without mentally draining either party; while the interview was intended to be at least forty five minutes, the final recording time was well over an hour and forty five minutes, so was the easy passage of time.

After the interview care was taken to transcribe the entire session following archival standards. The value of transcription is principally in expanding access in a variety of ways: it is now text searchable, accessible to the deaf, plaintext database friendly, and able to be quickly scanned and compressed. Audio files are tedious to scan and manipulate, and are also much more prone to digital obsolescence, while plain text has remained essentially unchanged for decades. Of course, the downside to text is that the interview loses its social nuances. Accordingly, a transcription is an ideal companion to, but should not be considered a substitute of, an interview. The amount of time available also must be considered when considering transcription: transcription of long interviews is a tedious and time consuming process, and if access is expected to be limited, transcription may not be worth the resources required.

Finally, the interview was carefully cataloged in accordance with AACR2, archival and MARC conventions. Inputting the record metadata into a database like OCLC greatly increases “findability” amongst professionals and libraries and helps to establish an authority record for the involved parties and institutions. Without metadata, a record is bare and without context, and

cannot be properly accessed by point of entry. Cataloging offers controlled vocabulary to ensure viability of the record across institutions, using a common terminology and standards of sorting.

### **Oral History as a Methodology**

Oral history begs a contrast to more conventional modes of inquiry. Historicism, while the prevailing historical method, cannot easily capture the intimate details of a case. Oral histories, while perhaps not as exhaustive in precision of fact, and while prone to historical fallacies from an academic perspective, are powerful tools in portraying the social dimensions of a circumstance or individual. They are not, as if it were, sufficient alone in explaining all of the actions of a period, but nevertheless are invaluable in providing detailed primary source materials for consideration.

Oral histories also evoke memories of an earlier style of history writing, a more literary, relevant and character-based study: the way of the ancient historians. These latter men tended to focus on questions of lineage, character and the experiences of notable individuals, and thus the histories they constructed were altogether more relevant to the layman, more compelling, and more literary. But as the proponents of historicism rejected Herodotus, so spurned by his storytelling liberties, they also lost a compelling aspect of good history writing. Oral history, the author contends, returns in some regard to this more natural, ancient and relevant form of storytelling - although as the reader should recall, perhaps a less exhaustive and systematic one in approach. Oral histories are powerful in their ability to capture the raw, unfiltered human experience, but must be accompanied by critical, traditional history writing or exist without context. The critical literature and professional principles guiding the construction of oral histories are what differentiate them from mere conversations.

Regardless of oral history's effectiveness as a mode of inquiry it can be of no surprise that such works are the prevailing popular form. Ken Burns has become well known in the public eye for creating documentaries which focus around historical interviews, to say nothing of the History Channel's tendency to do the same. These popular history works may lack the systematic rigor and pretentious sophistication of a Toynbee tome, but they are more immediate to the layman. In critical studies the interviews also provide excellent first hand records.

### **Conclusion**

The author would like to thank Sharon O'Malley for helping to corroborate and enrich *Evolution or Revolution: Reflecting on Public Librarianship, 1980-2010*. Through oral history reporting the author's team has been able to add important perspectives on the very important topic of the changing nature of society's library systems. Sharon was instrumental in adding the crucial perspective of a young college student who had lived through the rise and impact of the digital age. While it is clear that new information technologies have fundamentally changed the way users search for and retrieve data, librarians need not dread the situation. It is possible to embrace and adopt these new Web 2.0 technologies whilst also buttressing service with professional aptitudes. While Web 2.0 has led to a complete revolution in information system design, in a world where everyone is a potential expert, serious information queries and the design and management of these new systems will still benefit from the services of librarians. Digital preservation is the fore of this field, wherein librarians are most necessary; too often the rapidly changing information systems of the contemporary age are not designed with permanence in mind, and important cultural heritage is lost through a combination of benign neglect and technological obsolescence. Librarians might serve as the guardians against such threats.

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## Endnotes

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<sup>1</sup> Miller.

<sup>2</sup> Ibid.

<sup>3</sup> King et al. (2003); King & Montgomery (2002).

<sup>4</sup> Coombs.

<sup>5</sup> Leanhart.

<sup>6</sup> De Groote & Dorsch.

<sup>7</sup> Sathe et al.

<sup>8</sup> Applegate.

<sup>9</sup> University of California Library Statistics 1991-2001.

<sup>10</sup> Willner.

<sup>11</sup> Abel.

<sup>12</sup> Foudy et al.

<sup>13</sup> Head.

<sup>14</sup> De Rosa.

<sup>15</sup> Holt.

<sup>16</sup> Krause & Matei.

<sup>17</sup> Saini.

<sup>18</sup> Rubin.

<sup>19</sup> Sanger.

<sup>20</sup> Westerman et al.