

Electronic Records Planning in “Collecting” Repositories

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Abstract

The archival profession has paid a great deal of attention to electronic records management. Yet, from a professional perspective, archivists have not gathered adequate information regarding the readiness of repositories to acquire digital records created outside of their control, or to preserve and make such records accessible. The profession lacks baseline data regarding the state of electronic records planning within the community of repositories that acquire materials outside institutional recordkeeping programs, frequently labeled “collecting” repositories. This paper reports the results of a survey of academic libraries, historical societies, and libraries between 10 July and 12 August 2006. The author developed the survey to determine the level to which these repositories are working with born-digital records. The data indicate that repositories are indeed acquiring born-digital materials, but are proceeding on a case-by-case basis rather than developing specific policies for their acquisition, access, and preservation.

Background

Archivists are charged with selecting, appraising, preserving, and providing access to records of continuing value created by organizations and individuals in the course of ongoing activity. This mandate expands as records creators adopt increasingly diverse technologies for records creation, storage, and access. Different types of organizations and individuals produce different types of records, and archivists adjust their practices to accommodate the range of subjects and formats they acquire, based on institutional missions and resources.

Technology has dramatically altered the ways in which archivists accomplish their work, and in the past twenty-five years the profession has faced cumulative changes affecting both the nature of archival holdings and the tools used to manage them. It quickly adopted new technologies to describe archival

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holdings and share information about them. In the mid-1980s, archivists first embraced descriptive standards when they adopted Machine Readable Cataloging Archives and Manuscripts Control (MARC AMC) format and began entering collection-level descriptions into online library catalogs. A decade later, Encoded Archival Description (EAD) and the dominance of the Internet enabled archivists to mount entire finding aids on repository websites, frequently linking those finding aids to catalog entries. Digitized versions of collections or portions of collections also began to appear with increasing frequency.

The past two decades have seen an increasing emphasis on records that are “born digital,” that is, created and maintained electronically, such as word processed documents, databases, spreadsheets, email, and websites, all of which have become accepted recordkeeping practice across a wide spectrum of repositories.¹ Archivists quickly recognized the complexities of adapting to changes in the nature of records. Archival series may consist of traditional paper documents until a certain point in time and then shift to a combination of analog and digital forms before shifting entirely to electronic forms, frequently with duplication between the two record types. In addition, technology facilitates the creation of new modes of recordkeeping, and in some cases, several traditional record series formerly in paper have been merged into digital relational databases combining several kinds of information. The need to manage these electronic records raises fundamental questions about both the applicability of traditional archival theory and the ability of archives to take on the challenges of their long-term preservation and access.²

Electronic records research focuses mainly on government and other large institutions, which work with records creators to develop systems that incorporate persistence, authenticity, and accountability.³ The profession urges

¹ For the sake of style, born-digital records are sometimes referred to in this paper as “records and papers” and sometimes as “digital materials.”

² Archivists have argued how such principles as provenance and original order, for example, apply to electronic records and whether a record, as traditionally defined, still exists. See, for example, Linda J. Henry, “Schellenberg in Cyberspace,” *American Archivist* 61 (Fall 1998): 309–27; Terry Cook, “Electronic Records, Paper Minds: The Revolution in Information Management and Archives in the Post-Custodial and Post-Modernist Era,” *Archives and Manuscripts* 22 (November 1994): 300–28; and *New Skills for a Digital Era: Proceedings of a Colloquium Sponsored by the National Archives and Records Administration, Society of American Archivists and Arizona State Library, Archives and Public Records, 31 May–2 June 2006*, available at <http://www.archivists.org/news/NewSkillsForADigitalEra.pdf>, accessed 29 February 2008.

³ The NHPRC funded a large number of projects in the past twenty-five years, most of which focused on institutional records in state and local governments or universities. For example, from 1993 to 1996, the NHPRC supported a project at the University of Pittsburgh called Functional Requirements for Evidence in Recordkeeping, commonly known as the Pittsburgh Project, aimed at examining functional recordkeeping requirements in electronic information systems. See Richard J. Cox, “Electronic Systems and Records Management in the Information Age: An Introduction,” *Bulletin of the American Society for Information Science*, June 1997, at <http://www.asis.org/Bulletin/Jun-97/cox.html>, accessed 27 November 2007. Two articles by Philip C. Bantin document the application of this approach at Indiana University: “Developing a Strategy for Managing Electronic Records: The Findings of the Indiana University Electronic Records Project,” *American Archivist* 61 (Fall 1998): 328–64 and “The Indiana

government agencies, corporations, and other institutions to consider archival requirements when developing and maintaining recordkeeping systems to ensure long-term access to the information. The literature emphasizes the critical importance of early intervention in the records creation process. In contrast, the customary role of archival involvement at the end of the records cycle leaves records vulnerable to inadvertent alteration or destruction. Archivists are warned that, if they do not involve themselves in the records creation process for electronic systems, they run the risk that these systems will not provide adequate and authentic records to serve long-term institutional and societal purposes.⁴ Involvement in records scheduling can mitigate against future problems; however, that avenue is not open to all archivists or all institutions.

Archives that acquire collections from outside donors, often called "collecting repositories," are generally more detached from the records creation process. Lack of continuity complicates documenting how the records were created and maintained prior to transfer to the archives. Frequently archivists in collecting repositories have little control over the form in which they receive these records, or whether essential metadata accompanies them.

In addition, records management within many organizations is uneven, preventing archivists from working effectively with records creators across the institution. Ongoing activities within offices do not consistently support continued preservation and access to records; in some cases, dealing with an organizational office is akin to dealing with an outside donor. Archivists have little assurance that offices responsible for records creation and active records maintenance are concerned with long-term preservation and access to their records.⁵

A handful of articles address issues involved in managing personal papers in electronic form. In 1994, Adrian Cunningham recommended actions for

University Electronic Records Project Revisited," *American Archivist* 62 (Spring 1999): 153–63. At the same time, the University of British Columbia embarked upon a similar project, using diplomatics to create new definitions of records and recordkeeping in an electronic age. Retitled InterPARES (International Research on Permanent Authentic Records in Electronic Systems), it began in 1999 with a focus on the long-term preservation of the authenticity of records created in electronic systems. This project has now concluded its second phase. See <http://www.interpares.org/>, accessed 27 November 2007. Currently, the National Archives is grappling with these issues through its Electronic Records Archives (ERA) <http://www.archives.gov/era/>, accessed 27 November 2007.

⁴ For example, see Luciana Duranti, "Reliability and Authenticity: The Concepts and Their Implications," *Archivaria* 39 (1995): 5–10; InterPares. "Authenticity Task Force Report," [2002], <http://www.interpares.org/book/index.cfm>, accessed 27 November 2007; Bruce I. Ambacher, ed., *Thirty Years of Electronic Records* (Lanham, Md.: Scarecrow Press, 2003); Charles M. Dollar, *Authentic Electronic Records: Strategies for Long-Term Access* (Chicago: Cohasset, 2000); Luciana Duranti, Terence M. Eastwood, and Heather MacNeil, *Preservation of the Integrity of Electronic Records* (Dordrecht, Netherlands: Kluwer Academic Publishers, 2002); Margaret Hedstrom, ed., "Electronic Records Management Program Strategies," *Archives and Museum Informatics Technical Report*, no. 18 (1993).

⁵ Lisl Zach and Marcia Peri's NHPRC funded study, "Determining Current Practices for College and University Electronic Records Management Programs," found that in 2005 less than 8% of the respondents to their institutional survey had a formal electronic records management program; another 46% planned to implement such a program.

tackling this problem and five years later wrote a follow-up article lamenting a lack of response to his ideas.⁶ Lucie Paquet described the approach taken by the National Archives of Canada, analyzing the types of records archivists there encounter and the strategies and work methods they've found to be successful.⁷ The James J. Duderstadt papers at the University of Michigan were the subject of a case study (1997–1998) for transferring the mixed analog and digital collection of a university president to the University Archives and treating it as a personal manuscript collection.⁸ And Tom Hyry and Rachel Onuf took the issue of born-digital personal papers one step further, examining what personal papers might contain in the digital era, pointing out that “archivists will need to consider broader societal implications of these innovations before collecting these materials.”⁹

The larger library world faces similar challenges, and digital libraries actively conduct and publish research on their endeavors.¹⁰ Institutions have begun to establish digital repositories of materials ranging from faculty publications and course materials to digitized versions of significant holdings. In some cases, the same forces drive these efforts as drive other electronic records initiatives—to move documents into secure storage for long-term preservation. In other cases, archivists and librarians respond to public clamor for online access to holdings. Creating a digital repository within an institution assumes a level of information technology expertise and often institutional support that facilitates electronic records work.

⁶ Adrian Cunningham, “The Archival Management of Personal Records in Electronic Form: Some Suggestions,” *Archives and Manuscripts* 22 (May 1994): 94–105; “Waiting for the Ghost Train: Strategies for Managing Electronic Personal Records Before It Is Too Late,” *Archival Issues* 24 (1999): 55–64. Cunningham argues for precustodial intervention with personal papers, targeting potential donors early in their careers and agreeing upon hardware and software standards.

⁷ Lucie Paquet, “Appraisal, Acquisition and Control of Personal Electronic Records: From Myth to Reality,” *Archives and Manuscripts* 28 (November 2000): 71–91. Paquet describes her process of interviewing donors about their computer history and practices, bringing with her an external hard drive with which to copy files.

⁸ Nancy Deromedi, “Case 1: Accessing, Processing, and Making Available a Born-Digital Personal Records Collection at the University of Michigan,” <http://bentley.umich.edu/academic/france/inp/docs/case1.pdf>, accessed 27 November 2007.

⁹ Tom Hyry and Rachel Onuf, “The Personality of Electronic Records: The Impact of New Information Technology on Personal Papers,” *Archival Issues* 22 (1997): 37.

¹⁰ The Digital Library Federation, a “consortium of libraries and related agencies that are pioneering the use of electronic-information technologies to extend their collections and services” (www.diglib.org), operates under the administrative umbrella of the Council on Library and Information Resources (CLIR). Both organizations produce reports, newsletters, and other publications. Examples of articles on specific initiatives include Robin L. Chandler, “Building Digital Collections at the OAC: Current Strategies with a View to Future Uses,” *Journal of Archival Organization* 1, no. 1 (2002): 93–103; Steven L. Hensen, “Primary Sources, Research, and the Internet: The Digital Scriptorium at Duke,” *First Monday* (1997), http://www.firstmonday.org/issues/issue2_9/hensen/, accessed 27 November 2007; and Peter B. Hirtle, “The Impact of Digitization on Special Collections in Libraries,” *Libraries and Culture* 37, no. 1 (2002): 42–52.

However, some argue that building digital repositories often does not translate directly into traditional archival functions of authenticity, provenance, appraisal, and access. Digital library initiatives are not electronic records initiatives, as Bradley Westbrook emphasizes when he distinguishes between "archival collections" and "digital collections," the former based on provenance and the latter merely digital surrogates often accompanied by a finding aid.¹¹ And according to both a recent CLIR study and an article by Douglas Bicknese, "institutions frequently set up digital repositories without any input from archivists within the institutions."¹²

Digital libraries and archivists in collecting repositories encounter similar technological challenges. Daniel Greenstein points out the inconsistencies in both data creation practices and the implementation of any single format or scheme:

Data resources are typically developed to meet the very specific needs and interests of particular end-users (one is all too familiar with the diversity borne of the phrase "fitness for purpose"). They rarely take into account the library's needs as an organization responsible for layering services across a cacophony of electronic content.¹³

A number of colleges and universities are attempting to overcome these hurdles by establishing digital institutional repositories that would incorporate "digital objects" from a variety of sources.¹⁴

The archival profession has initiated efforts to educate its members about electronic records in an effort to compensate for the dearth in relevant published guidance, publicize successful initiatives, and promulgate best practices. SAA began offering continuing education workshops on electronic records topics in 1979 and currently offers over a dozen different IT-related workshops, ranging from Basic and Advanced Electronic Records Management to Networking and Telecommunications for Archivists and Digital Libraries and Digital Archives.¹⁵ Many other professional and governmental organizations

¹¹ Bradley Westbrook, "Prospecting Virtual Collections," *Journal of Archival Organization* 1, no. 1 (2002): 73–79.

¹² Karen Markey, Soo Young Rieh, Beth St. Jean, Jihyun Kim, and Elizabeth Yakel, "Census of Institutional Repositories in the United States: MIRACLE Project Research Findings," *CLIR* (February 2007), Discussion of Census Findings 9.3, <http://www.clir.org/pubs/reports/pub140/contents.html>, accessed 27 November 2007; Douglas Bicknese, "Institutional Repositories and the Institution's Repository: What Is the Role of University Archives with an Institution's On-Line Digital Repository?" *Archival Issues* 28 (2003–2004): 81–93.

¹³ Daniel Greenstein, "Digital Libraries and Their Challenges," *Library Trends* 49, no. 2 (Fall 2000): 294.

¹⁴ One example is "The Eyes of Texas," which is using DSpace repository software to preserve papers and publications from the University of Texas-Austin School of Information, <http://www.archivists.org/news/NewSkillsForADigitalEra.pdf>, accessed 29 February 2008.

¹⁵ Information supplied by Solveig De Sutter, SAA Education Director, 28 November 2007. For example, SAA has offered Basic Electronic Records Management nine times since January 1998, with an average

provide relevant educational opportunities. Sessions at national and regional professional meetings abound, and SAA's 2006 Publication Catalog lists eight monographs under the keyword "electronic records." By late 1999, Richard Cox found sixty-one articles on electronic records management topics in North American archival journals, together citing a total of 1,170 sources.¹⁶

Perhaps the most influential electronic records educational activity of the late 1980s and early 1990s was "Archival Administration in the Electronic Information Age: An Advanced Institute for Government Archivists," fondly known as "Camp Pitt." Funded first by the Council on Library Resources and then by the National Historical Publications and Records Commission (NHPRC), Camp Pitt took place on the University of Pittsburgh campus every June from 1989 to 1994 and then again in 1996 and 1997. Consisting of four institutes, each taking place over two consecutive years, Camp Pitt "attempted to assist state archivists and assistant state archivists in developing programs to deal with records in electronic form."¹⁷ While Camp Pitt had considerable influence over electronic records program planning in state archives, its influence did not spread to other types of repositories.

Current Environment

In many respects, these efforts have all but excluded a large percentage of the archival profession at a time when all archivists face the challenges brought about by electronic records. Archivists in academic institutions, historical societies, and public libraries increasingly face pressure to accept born-digital records, but have neither the preparation nor the resources to preserve them or provide access to them. In most cases, these archivists have little or no role in the creation of these records, rendering their situation quite similar to their colleagues in collecting repositories. The early advice to convert these records to paper is inadequate, although still continues in many cases. The current objectives are to maintain the viability of the electronic versions from creation,

attendance of twenty-five. A Basic Electronic Records Management Web Seminar, Preservation of PDF, drew over 1,000 attendees at 181 sites. SAA offered Advanced Electronic Records: Design, Implementation, and Evaluation six times since February 1998, with an average attendance of eighteen, and a new workshop, Advanced Electronic Records Management, drew forty attendees the first time it was offered (8/07). An Electronic Records Summer Camp (8/07) attracted twenty-five attendees. SAA began offering several different digitization workshops in 2003, all with high attendance. A Digitization Matters Symposium (8/07) drew 200 participants. The first machine-readable records workshop was offered at the SAA meeting in Nashville, Tennessee, in 1978.

¹⁶ Richard J. Cox, "Searching for Authority: Archives and Electronic Records in the New World at the Fin-de-Siecle," *First Monday* 5 (3 January 2000), http://www.firstmonday.org/issues/issue5_1/cox/index.html, accessed 27 November 2007.

¹⁷ David J. Olson, "'Camp Pitt' and the Continuing Education of Government Archivists: 1989-1996," *American Archivist* 60 (Spring 1997): 202-14.

preserve the continuous chain of custody, and provide access. This Jenkinsonian approach is no more satisfactory now than it was when Theodore Schellenberg first critiqued it in the 1950s.¹⁸

The profession now recognizes that archivists, librarians, and other information professionals require a combination of new and adapted skills to meet the challenges of an electronic environment. The SAA workshops and those sponsored by other organizations are an important step. Since 1992, the National Historic Publications and Records Commission (NHPRC) has actively solicited and funded grant proposals for both research and practical applications on electronic records.¹⁹ Online Computer Library Center (OCLC) and Research Libraries Group (RLG) jointly sponsored a Working Group, Preservation Metadata Implementation Strategies to study planned and existing digital materials repositories. They surveyed seven archives and published their findings in 2004, finding that the "cultural heritage community has very little experience with digital preservation."²⁰

In June 2006, the National Archives, and Records Administration (NARA), the Society of American Archivists, and the Arizona State Library and Archives jointly sponsored a colloquium entitled "New Skills for a Digital Era." Over sixty participants spent a day and a half discussing eleven case studies, focusing on archival functions including acquisition, processing, storage, preservation, reference, and access and management. This colloquium distinguished itself from previous initiatives in two ways. First, the planning group represented a broad range of stakeholders from the library, archival, and records management communities. Second, the participants and projects represented archival education programs and academic institutions, as well as federal and state archives. The proceedings from this meeting outline the kinds of archival, technical, communications, and management expertise archivists currently need to build competence in managing electronic records.²¹

The Survey

Little summary or analytical data exists concerning the policies and practices of "collecting repositories" for incorporating born-digital records and

¹⁸ Hilary Jenkinson, *A Manual of Archival Administration* (London: Percy Lund, Humphries & Co., 1966), 8–9, 11; T. R. Schellenberg, "The Appraisal of Modern Records," *Bulletin No. 8*, 1956, available at <http://www.archives.gov/research/alic/reference/archives-resources/appraisal-of-records.html>, accessed 27 November 2007.

¹⁹ Mark Conrad, "Early Intervention: The NHPRC's Electronic Records Program," in *Thirty Years of Electronic Records*, ed. Bruce I. Ambacher (Lanham, Md.: Scarecrow Press, 2003).

²⁰ "Implementing Preservation Policies for Digital Materials: Current Practices and Emerging Trends in the Cultural Heritage Community," OCLC and RLG, 2004, <http://www.oclc.org/research/projects/pmwg/surveyreport.pdf>, accessed 27 November 2007.

²¹ <http://www.archivists.org/news/NewSkillsForADigitalEra.pdf>, accessed 29 February 2008.

papers into their holdings. This research sought to identify and explore current practices and policies for incorporating born-digital records into collections of academic archives, historical societies, and public libraries with archival units. Understanding the concerns of these repositories is crucial if the archival profession is to identify and preserve electronic records comprehensively.

The initial intent of the survey was to elicit information on collecting records and papers from outside sources. However, the survey responses make it abundantly clear that for academic archivists, working with academic units is very similar to negotiating with external donors. Academic archivists report little involvement with recordkeeping initiatives on campus and tend to conflate their responses about institutional records and collections from other sources. Thus, the survey data does not differentiate between the two types of collections.

I sent an explanatory email containing a link to an electronic survey instrument to 302 institutions, selected from the online directory, "Repositories of Primary Sources."²² Inclusion in this directory indicates that an institution maintains an actual (not merely virtual) collection of primary sources. I did not attempt to make the sample specifically either random or scientific, and I had no way of knowing who would respond. I tried, however, to create a balanced sample from the pool of public and private academic institutions, historical societies, and, wherever possible, public libraries across the United States. All fifty states, plus the District of Columbia, were represented in the initial survey.

Academic archives represent the majority of programs listed in "Repositories of Primary Sources" and also constituted the majority of institutions solicited. The initial invitation to participate in the survey went to 145 public colleges or universities (48%), 126 private colleges or universities (41.7%), 26 historical societies (8.7%), and 5 public libraries (1.6%).

In almost all cases, the survey was addressed to an individual, based on the Repositories of Primary Sources listing. When no name was obvious, or when the initial email bounced back, I attempted to locate names in the SAA membership directory. If a survey bounced back as undeliverable, I looked for another potential recipient from that institution, or in a few cases substituted a different repository from the same state and, whenever possible, category of institution to reach the desired total of approximately 300 repositories. Each survey invitation appeared eventually to reach a destination. Occasionally, the respondent passed along the survey to a colleague or asked that I forward the survey to another individual. In some cases, the respondent and I exchanged additional clarifying emails before the respondent completed the survey.²³ I sent

²² <http://www.uidaho.edu/special-collections/Other.Repositories.htm>, accessed 27 November 2007.

²³ Some recipients were concerned about replying if they are not yet engaged in acquiring born-digital records. I assured them that the point was to determine the current environment, making their feedback important. In almost all cases, the recipients then completed the survey as requested. The archivist/records manager from one private university sent an email with the cryptic reply, "We don't do digital."

one email reminder to nonrespondents approximately ten days after the initial contact. A total of 126 archivists responded to the survey, for a response rate of almost 42%, from forty-three states plus Washington, D.C.²⁴

Only one survey was returned anonymously. In two cases, I received two responses from the same academic institution. In one instance (a public university) the responses represented separate archives and special collections units, so both responses were retained. In the other case, further communication determined that one person responded for a unit within the archives and the other more generally, so the general response for that private university was retained. Thus, the general data analysis reflects 125 repositories, while the percentage for type of institution eliminates the anonymous response, for a total of 124 repositories.

These surveys represent a broad cross-section of collecting repositories. Colleges and universities predominate, which is not surprising as they are considered the most common category of archives.²⁵ Responses were received from 60 public academic institutions (48.4%), 47 private academic institutions (37.9%), 14 historical societies (11.3%), and 3 public libraries (2.4%). The greatest number of responses came from the Northeast and Midwest, also not surprising. However, both number of repositories and type of repository were fairly well distributed, with the exception of historical societies predominating on the East Coast. (See Figure 1.)

The survey document contained fourteen questions. Not every respondent answered each question, and some answers called for the respondent to skip questions.²⁶ Questions related to both policy and practice to explore whether differences existed between actual practice and existing policies underlying that activity. One goal of this study was to determine how many repositories accept born-digital records; whether this decision was conscious and guided by policy; and whether born-digital policies and procedures differ from policies and procedures for collecting, preserving, and making accessible analog materials.

²⁴ There were no responses from Alabama, Colorado, Missouri, Montana, Nevada, North Dakota, and South Dakota.

²⁵ We do not have an accurate count of repositories in various categories. A* Census focused on individuals and not repositories, with academic archivists accounting for the largest percentage (35.8%). In his article on the 1985 Census of Archival Institutions, carried out by the SAA Task Force on Institutional Evaluation, *American Archivist* 50 (Spring 1987): 174–91, Paul Conway reported that 38% of the responding institutions were academic archives; federal, state, and local government archives combined amounted to 21%. The Council on State Archives conducted a repository survey in the late 1990s, resulting in *Where History Begins*, Council of State Historical Records Coordinators (1998), <http://www.statearchivists.org/reports/HRRS/HRRSALL.pdf>, accessed 27 November 2007. But that report looked only at nongovernment repositories. It is often difficult to characterize types of institutions, and the various surveys have created contradictory categories. For example, historical societies may fall into categories of government, nonprofit, or special subject. Nonprofit repositories can be historical societies or institutional archives. Historical societies can range from large government-funded operations to small institutions staffed by volunteers.

²⁶ See appendix A for the complete survey.



FIGURE 1. Location of respondents.

Repositories responding that they currently refuse or plan to refuse born-digital records were asked to explain why. One question sought to determine the level and location of technology support within the repository. Another asked the respondent to evaluate the importance of electronic records planning for the archival profession.

The survey questions took a variety of forms. Some questions required a yes/no response; some offered several choices but the respondent had to choose one; some allowed the respondent to check all that applied; and one question asked for a rating of importance, with 1 being the lowest value and 5 the highest. Some questions sought an open-ended response. Unfortunately, the survey instrument did not allow sufficient space for some respondents to answer as they wished.

Some questions were mandatory in that the respondent could not submit the survey without completing them. For example, the last question requested contact information in case questions arose, and it proved to be important as questions did arise. Both the cover email letter and the survey made it clear that this information would be kept confidential. Only one person chose anonymity, made possible by entering a series of Xs in the blanks. Contact information was also important to determine if the individual would be willing to participate in a follow-up telephone interview, and 69% of the respondents answered that question positively. This willingness to contribute to the discussion, along with

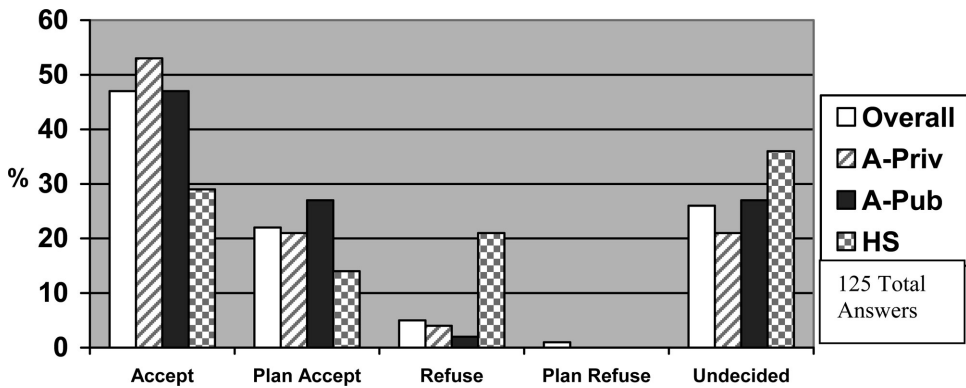


FIGURE 2. Current decision regarding accepting born-digital records and papers (Survey Question 1).

the fact that 82% of the respondents answered 4 or 5 (5 being the highest) on the question regarding the importance of this issue, underlines the significance of this problem to the profession.

Survey Findings

Rate of Acceptance

The first question asked for the repository's decision regarding acceptance of born-digital records and papers. Fifty-nine (47%) of the respondents reported that they currently accept such materials; another 28 (22%) plan to accept them. Thirty-two (26%) of the repositories have not yet decided. Only 6 repositories (5%) currently refuse born-digital materials, and only one repository planned to refuse them. (See Figure 2.)²⁷

Comments indicate that the stumbling blocks are resource related, including a lack of facilities, budget, staff, and technical support. As one person from a historical society responded, "We currently refuse because we do not have the technological infrastructure to maintain the files let alone make them available to researchers."

Private academic institutions are most likely to accept born-digital records (53%), slightly more than public academic institutions (47%). The percentage of historical societies and public libraries currently accepting born-digital records is 29% and 33% respectively. Historical societies are the only type of institution that shows a substantial refusal to collect (21%). A considerable percentage in each category (21% private academic, 27% public academic, 36% historical society, 33% public library) indicate that they have not yet made a decision.

²⁷ Because the total number of public libraries responding was so small, they have been eliminated as a separate category on the figures.

Policies for Acceptance

The high rate at which repositories already accept digital records or plan to do so contrasts sharply with the low rate of repositories having a policy governing this acquisition. Only 29 (24%) of the institutions responding report a policy in place; 93 repositories (76%) respond that they have no policy.²⁸ (See Figure 3a.) This response is fairly consistent across repository categories.

In addition, 17 (57%) of those reporting a policy also indicate that the policy does not differ from their policy for acquisition of traditional collections. (See Figure 3b.) Comments on this question suggest that repositories decide these issues on a case-by-case basis, as they do with paper-based collections, or that they believe their overall acquisition policy is broad enough to encompass some of the more specific issues regarding format.

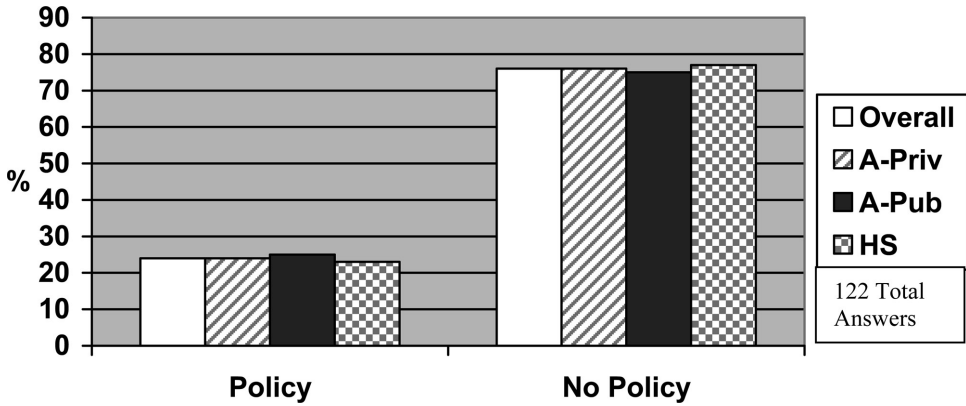


FIGURE 3a. Existence of a policy governing acquisition (Survey Question 3).

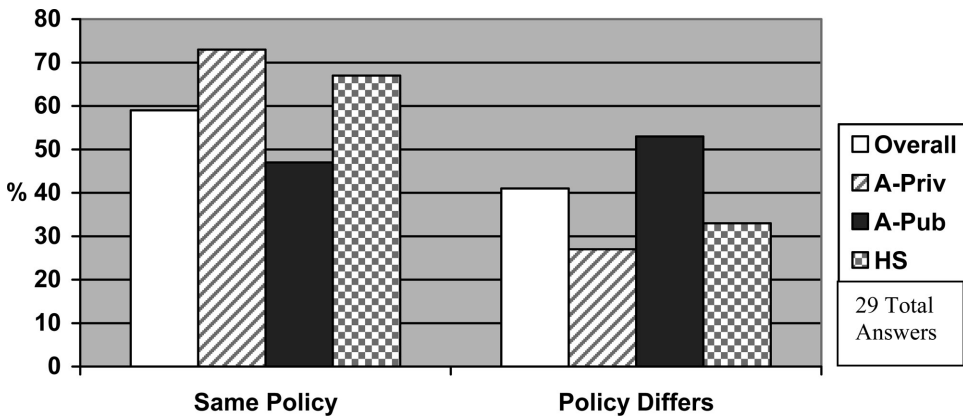


FIGURE 3b. If policy exists, does it differ from regular acquisition policies? (Survey Question 4).

²⁸ Note that since some questions were not required, results do not always total 125.

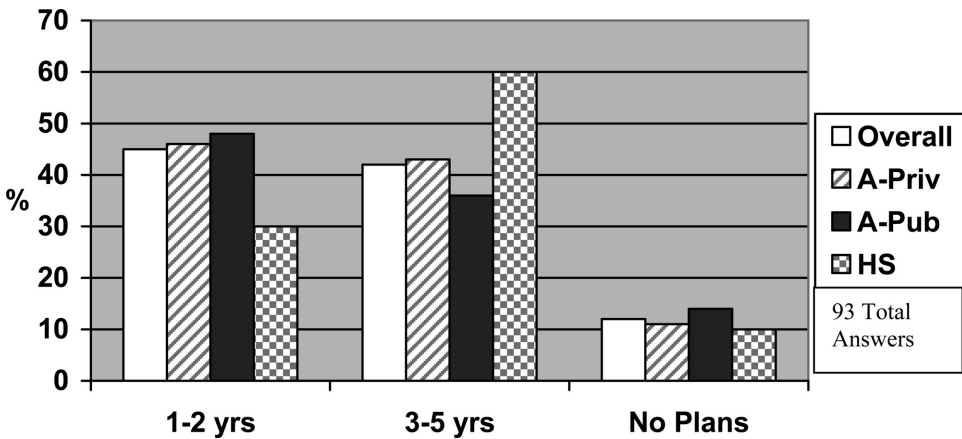


FIGURE 4. Plans for developing policy (Survey Question 5).

Those reporting no current policy for acquiring born-digital materials were asked if they planned to develop one in the future. Eighty-five of the 93 repositories (91%) with no policy indicated their intentions to develop one in the next five years. The results were fairly evenly split between timeframes of one to two years and three to five years, although historical societies are 30% more likely to anticipate the longer timeframe. (See Figure 4.) Some respondents suggest that acquisition policies should be subject- and not format-based; some indicate that they see no need for a separate policy; others are uncertain or spoke of lack of staff and expertise.

Policies for Preservation and Access

The survey contained additional questions for those who had developed an acquisition policy for born-digital records and papers. Respondents were asked if they have policies for preservation of (storage and migration) and access to such materials. The responses to both of these questions are somewhat problematic as the total number of responses exceeds the 29 who reported having a policy in question 3. This problem occurred because the survey instrument did not automatically jump to the next appropriate question, but rather asked the respondent to skip to a specific question based on a specific response. Of the 50 repositories who answered the question regarding their policy for preserving born-digital records and papers, 51% say they have no specific policy, 30% say they do, and 7% indicate that their policy is conversion to paper. (See Figure 5.) Again, open-ended comments reflect that repositories act on a case-by-case basis, follow informal policies, and work with others on campus to come up with better solutions for this challenge. As one respondent from a public university

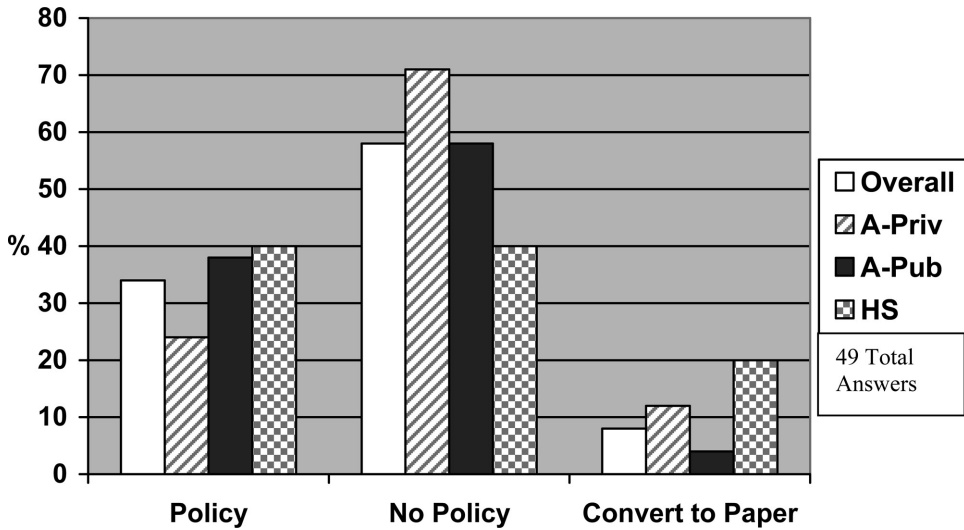


FIGURE 5. Policy for preservation (Survey Question 6).

put it, “We are passively accepting born-digital materials. We don’t even have a plan for preservation of the digital surrogates we are creating. We barely have enough staff to cover reference and manage limited processing. All planning, policy, etc. take a back seat to day-to-day efforts to keep up with basic activities.”

The access policy question asked respondents with an acquisition policy to specify if they have an access policy as well. The survey also asked them whether their policy is to provide electronic copies or paper copies of born-digital materials. Of the 40 repositories that have an access policy, 36% provide electronic copies and 18% provide paper copies, and 5 repositories supply both. Forty-eight percent say they do not have an access policy for born-digital materials. (See Figure 6.) Again, reasons for this are the classic archival, “it depends.” Whether archivists are deciding on a case-by-case basis, or dealing with an institutional digital repository that has its own policy for access, there appears to be no easily generalized trend toward a single approach to this issue.

Additional Differences

An open-ended question asked survey participants to specify what they require from donors when accepting born-digital records and papers. Sixty-one repositories responded variously. Many reiterated that they respond on a case-by-case basis. Some referred to standard procedures for transfer of ownership; others request as much documentation as possible. “Most of our current digital records are records that we (archivists) harvest from a variety of sources. We manage the formats and metadata. Otherwise, I take what info I can get” was a fairly representative comment.

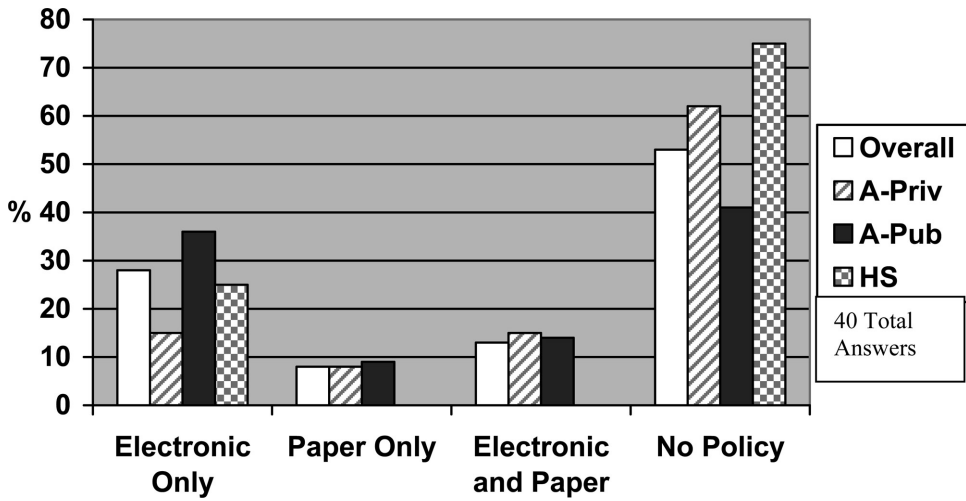


FIGURE 6. Policy for providing access (Survey Question 7).

The next question offered specific ways in which procedures for collecting born-digital materials might differ and asked respondents to check all that applied. Twenty-four percent of the respondents indicate no procedural differences, while 37 % report more extensive donor negotiations. More repositories list specific requirements, such as asking for additional documentation (40%), limitations on formats accepted (45%), and hardware requirements (44%). (See Figure 7.) Archivists seem to be aware of the differing needs of these records and act accordingly, even if they do so on a case-by-case basis without institutional policies governing those actions. Historical societies are most likely to engage in more extensive donor negotiations (50%) in contrast to both public and private academic institutions (32%).²⁹ In general, public academic institutions most frequently responded that their procedures differ for born-digital records.

Technical Support

The issue of technical support, or lack thereof, arose frequently. Working with born-digital materials imposes additional responsibilities on archivists, often without the corresponding resources. The survey asked respondents to identify the existing level of information technology support for the archives and to check all boxes that applied. Forty percent report having designated IT staff within the archival unit; private academic institutions report a slightly

²⁹ The small number of public libraries renders their responses to some of these questions less comparable.

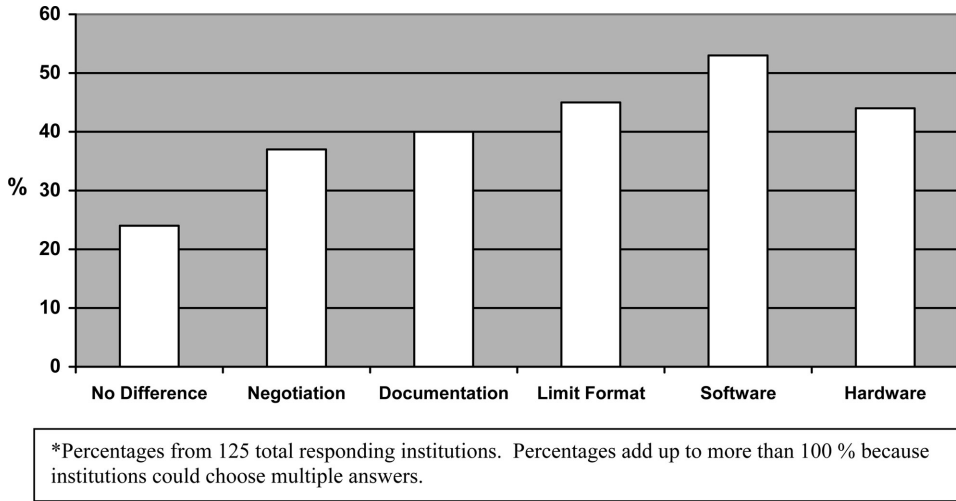
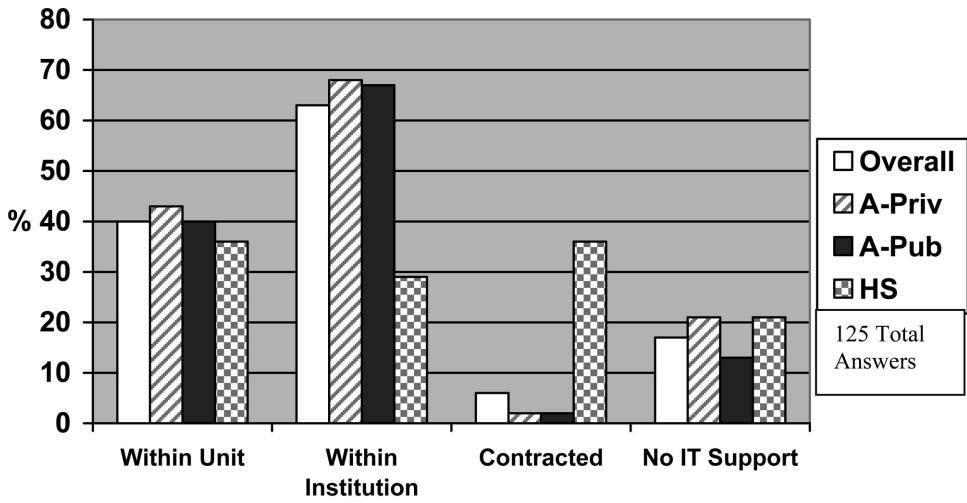


FIGURE 7. Different procedures for acquisition (Survey Question 9).

higher percentage, and historical societies and public libraries slightly lower. Of all respondents, 63% have IT support staff within the larger institution. Private and public academic institutions have more support within the institution (68% and 67%); historical societies report less institutional support (29%). Seventeen report no support at all, and another 6% contract out for technical assistance.³⁰ Historical societies (36%) are the only category with more than 2% reporting contracts with outside consultants. (See Figure 8.) The open-ended comments indicate that in many cases, the archives share support with others in the institution, especially with the library.

The data indicate that having IT support within the archival unit or even within the institution increases the chances that a repository accepts born-digital records. Sixty-six percent of repositories accepting such materials have designated IT staff within the archival unit; 51.9% of repositories have staff within the parent institution. Only 14% of those with IT staff within the archives and 19% of those with staff within the institution have not yet made a decision regarding acceptance of born-digital records. In contrast, 42.9% of those who contract out for IT support and 52.4% with no IT staff have not yet made a decision about acquiring born-digital materials. Overall, 25.6% of respondents have not made a decision. The survey data do not indicate how long a repository has had IT support, nor whether the IT support preceded the decision to accept born-digital materials.

³⁰ One of the three public libraries reported support within its archives; the other two have support within the institution.



*Percentages add up to more than 100% because institutions could choose multiple answers.

FIGURE 8. Location of IT support (Survey Question 10).

Significance of Issue

Respondents were asked how important they thought this issue is for the profession. All respondents answered this question. On a scale of 1 to 5, with 5 being the most important, 44% ranked the issue as 5, 38% as 4, and 14% as 3. Only six respondents gave that question a 1 or 2. (See Figure 9.) Private academic institutions were most likely (55%) to rank this issue as 5, followed by public academic archives (42%). Twenty-nine percent of historical societies ranked this issue as 5 and none of the public libraries did. Thirty-four percent of private academic respondents ranked the issue as 4, followed by 35% of public academic institutions, 57% of historical societies, and 67% of public libraries.

Following this ranking question, the last substantive question asked for any additional thoughts. Fifty-two respondents (42%) supplied comments, often lengthy, reflecting on both their institutional situation and the ramifications of those issues for the larger profession. The questionnaire ended with procedural questions about contact information and willingness to talk further.

Respondents clearly feel that this is an issue of major concern. One archivist from a private college wrote, "This is a huge issue, especially for small institutions. I see this issue as a black hole in the fabric of history." Another archivist from a private university said, "The appraisal, capture and preservation of born digital records is the future of the archival profession. If we do not solve the problems surrounding e-records, who will?"

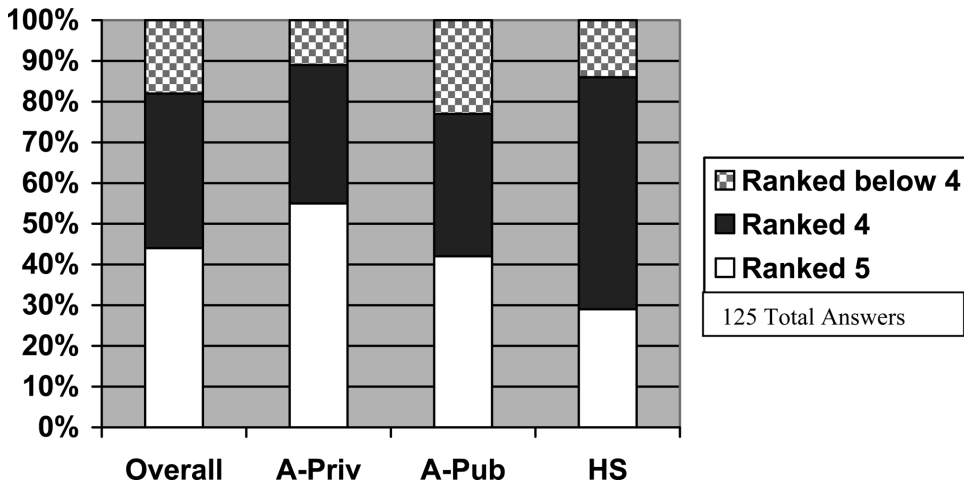


FIGURE 9. Importance of issue to profession (Survey Question 11).

Yet, these archivists do not see a clear path toward a solution. Some say they do not know where to start, in part, reflecting the fact that most archival repositories exist within larger institutions and have varying degrees of independence. Several respondents, who reported that their campuses are in the midst of discussions, hope that institutional reorganization will provide an improved approach to electronic records management and preservation.

Archival Authority

Archivists' frequent lack of authority to establish institutional policy is a related problem. One public university respondent reported that authority for university records is vested in the office that handles financial audits, and that they have been unable to convince senior university officials to take the larger issues of born-digital records seriously. Another respondent from a private college points out, "It is difficult getting to the table with senior staff and IT. They do not regard the library or Special Collections as a partner or important player in the issue of preservation of digital collections or an institutional repository." Others couched their concern in their institution's overall lack of interest in archives. As one individual from a public university wrote, "The 'born-digital' discussion has to be placed into the broader contextual discussion of 'does our institutional history matter?'"

Lack of authority and a seat at the table can lead to lack of funding. This issue surfaced both directly and indirectly. As one historical society respondent answered the last open-ended question, "I think many institutions with limited funds will fall way behind well-funded institutions when it comes to this issue. Since this is not merely a space and technical experience problem, but one of

hardware and software, the profession will see a large rift between those who can accommodate digital records and those who cannot." Some respondents were new to their jobs and not sure where to seek those funds. Others basically reported that they have trouble keeping up with their "regular" work.

Thus, it is not surprising that archivists are taking on born-digital records as they can, and as they are forced to, within the parameters of their responsibilities and resources. They recognize that one cannot necessarily delay and also that born-digital records can have added value. One public university archivist wrote, "I am inclined to accept some digital materials that I might be reluctant to accept in paper format. This is because ephemeral materials take on new value when they are part of a body of material that can be searched using full-text search engines."

Conclusions

The survey data provides a body of baseline information about the electronic records environment for collecting repositories, broadly defined. Those who responded indicate that they realize the magnitude of the issue and that they are making efforts to evolve their practices, and sometimes, policies. Obviously, we do not know why others did not respond, and whether their silence indicates a lack of interest. It is clear, however, that archivists are incorporating born-digital records and papers into their collections without necessarily altering existing policies to do so.

In some respects, the decision to treat situations on a case-by-case basis is not surprising. Archivists are accustomed to the fact that every acquisition has the potential of charting new territory. The range of possibilities with electronic records only exacerbates that challenge. Waiting until major policy decisions are made is perhaps not a realistic alternative, and one can hope that experiential data will lead to policy development.

Electronic records research emphasizes the need to be at the policy table and to work with records creators. The survey data reinforces the problematic nature of that dictum for many archivists. They are not involved at the records creation stage, nor are they necessarily consulted on the larger policy decisions within their institution, nor do they have opportunities for early involvement with outside donors. This lament has echoed within the profession for years.³¹ Given the diverse placement of archives within institutions, and their resulting absence from the policy table, it is not surprising that archivists have chosen to

³¹ For example, the oft-cited report by Sidney J. Levy and Albert G. Robles, *The Image of Archivists: Resource Allocators' Perceptions* (Chicago: Society of American Archivists, 1984) concludes that archivists have only an indirect influence on organizational policy, and that it is not part of their professional function.

proceed without that imprimatur. Some archivists appear to be satisfied with this approach, while others seem more troubled.

Archivists clearly recognize a problem, but do not yet see a clear solution. Lack of consistency among repositories and records has traditionally been an obstacle to standards development. The profession has overcome this hurdle in describing and sharing information through standards such as MARC and EAD. There appears to be some optimism, at least on the part of academic repositories, that institutional programs, especially digital library initiatives, will provide some remedy for managing digital records. The data from this survey does not indicate how many repositories are pursuing this option. But this is an “after-the-fact” solution and not one that addresses the shortcomings of academic records management, lack of control over records creation, or other forms of precustodial involvement.

It is not surprising that academic repositories feel the pressure so strongly. College and university archives are, by definition, part of larger institutions that have embraced technology on a large scale. Academic archivists exist within environments that create and manage large amounts of born-digital information, and at some level the archives must respond. Academic archivists are also more likely to have access to technical support. The scope of most academic repositories includes both records created by units of the larger institution and materials from a range of other records creators. The next phase of this research will focus on a selection of academic repositories, using semistructured telephone interviews to probe more deeply into these issues.

A few distinctions between privately and publicly funded academic institutions surfaced. Privately funded academic institutions are slightly more likely to accept born-digital materials (53% to 47%), and publicly funded institutions are slightly more likely to be undecided (27% to 21%). Privately funded academic institutions are more likely to rank this issue as a 5 (55% to 42%). In contrast, however, publicly funded academic archives are more likely to use the same policies for analog and born-digital materials (22% to 15%) and more likely to provide patrons with electronic copies of born-digital records (50% to 31%). But clearly a lack of coordination exists among academic units with responsibility for records and archives. The collection development and records management aspects of academic archives often have little connection to the digital efforts going on within the university library. Further research is necessary to identify specific situations and factors that lead to success (or failure).

Historical societies face a more difficult situation. One respondent lamented, “We as a historical repository are way behind the curve and are still grappling to preserve less current media, such as photographs. Currently we are extremely reluctant to accept any non-paper media, although this will necessarily change in the future.” Academic repositories may range in size and source of funding but have similar functions, as Helen Samuels

demonstrated.³² Historical societies are far more disparate, ranging from major government-funded institutions to small, largely volunteer organizations. Some may still be able to avoid acquiring born-digital materials. Of the fourteen historical societies responding to the survey, only four currently accept and two more plan to accept born-digital records and papers; the rest either refuse or have not decided. How long this decision remains realistic has yet to be seen.

The situation for public libraries is harder to discern, based on the small survey return. Public libraries vary in size and shape in ways similar to historical societies. A few major metropolitan libraries function like research libraries, but the majority includes archival holdings as part of special collections or local history units.

Additional in-depth research is needed to identify and examine cases where archivists are successfully navigating this terrain and developing integrated policies and procedures for managing born-digital records and papers. Case studies of successful programs may create models for others to follow. But it is incumbent upon those involved in electronic records research to consider the needs of noninstitutional archives and develop ways for the profession to design and implement adequate and appropriate measures for acquiring, preserving, and making accessible born-digital records and papers, regardless of source. This study demonstrates that a single homogeneous approach for all archives, based on institutional models, is not the solution.

³² Helen Willa Samuels, *Varsity Letters: Documenting Modern Colleges and Universities* (Lanham, Md.: Scarecrow Press, 1998).

APPENDIX A: E-mail Questionnaire

1. What is your institution's decision regarding accepting digital records and papers as part of your collections?
 - Currently accept
 - Currently refuse
 - Plan to accept
 - Plan to refuse any born digital records
 - Have not made a decision yet

2. If you currently refuse or plan to refuse, please explain why.
 Comments:
 (Please skip to Question 10)

3. Do you currently have a policy governing the acquisition of born digital records and papers?
 - Yes
 - No

4. If you answered Yes to Question 3, does that policy differ from your acquisition policy for collecting traditional paper materials? For example, are there requirements for documentation or limitation on formats accepted?
 - Yes (if yes, please explain how the policy differs)
 - No
 Comments:

5. If you answered No to Question 3, do you plan to develop such a policy?
 - Yes, within the 1–2 years
 - Yes, within the next 3–5 years
 - No (if No, please explain why)
 Comments:

6. If you answered Yes to Question 3, do you have a policy for preservation of born digital records and papers (i.e. storage and migration)
 - Yes
 - No
 - Policy is to convert to paper
 Comments:

7. If you answered Yes to Question 3, do you have a policy for providing access to born digital records and papers?
 - Yes, provide electronic copies
 - Yes, provide paper copies
 - No
 Comments:

8. If you currently accept born digital records and papers, what do you require from donors in terms of documentation or other resources?
9. If you received born digital records and papers today, would your procedures differ from those involved in acquiring paper materials?
Please check all that apply.
- No difference
 - More extensive negotiations with donor re: conditions of transfer
 - Requirements for additional documentation
 - Limitations on formats accepted
 - Software requirements
 - Hardware requirements
 - Other (please specify)
10. Who handles the archives' information technology needs?
Please check all that apply.
- Designated staff within archival unit
 - Designated staff within parent institution
 - Contract out
 - No designated IT support
 - Other (please specify)
11. On a scale of 1–5, with 5 being most important and 1 being least important, how important do you think this issue is for the archival profession?
- 1
 - 2
 - 3
 - 4
 - 5
12. Please add any additional comments you have on this issue.
Comments:
13. Would you be willing to participate in a follow-up telephone interview?
- Yes
 - No

Thank you.

Please supply contact information for individual completing this form in case questions arise. This information will be kept confidential.

Name:

Repository:

Address:

Email:

Telephone: