

Archival Futures

The Future of Archives



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Abstract We are buried in documents, and more and more of these are digital. Concerns with the durability of digital documentation generate many fears about the future of archives. Despite the threats to this new documentary universe, this essay argues there are many potential futures for archives. In this transitional era from analog to digital, there is much to give us hope about the future for our documentary heritage. Given that documenting ourselves and our activities are essential aspects of our human nature, we can be sure that we will devise new ways of preserving our sources in a digital world. Archives will not disappear, nor will archivists, but they will be (have to be) different. Many of the current challenges are merely extensions of much older challenges, and history tells us that essential and varied archival materials will be preserved. However bleak they may sometimes see the future, archivists are needed now more than ever to engage with the issues related to an increasingly complicated documentary infrastructure. After all, we are not facing a documentary apocalypse, but just another challenging transitional era. And there are many reasons to be optimistic – generated from educating the next generation of archivists, successes in preserving records supported by a wide variety of technologies, and gaining new public support and understanding even if we need to be cautious as we peer into the future.

Most of us recognize that our lives are filled with documents, from the daily bills we wrestle with to the annual ritual of filing tax returns. This is not an overnight development, but the results of centuries of new information technologies, some quite primitive but all pervasive: paper, tattoos, seals, name registries, mail systems, letters of introduction and passports, coats of arms, and other documentary forms fill our lives and mark our life's passage.¹ As one scholar observes, "For the administrations of the Western world, a life without files, without any recording, a

life *off the record*, is simply unthinkable.”² This observation is now a half-dozen years old, and Facebook, Twitter, Instagram, and constantly emerging new social media have reinforced the impossibility of any of us being off the record. Now, we might add that a life off the record is “simply undoable.” Like it or not, we are immersed in a sea of records and information systems, much of it done voluntarily but increasingly done in a fashion giving us few options. In one brief week signs were posted throughout our classrooms in my school informing us that if you entered into the room you were agreeing to be recorded in a way that the university could determine its use (the signs were quickly removed, following complaints from both students and faculty, but the point was reinforced about how we live in a surveillance society, including the evidence we create. **add in) at end of sentence**

Nearly all also are aware that these documents are shifting from analog to digital formats. We don’t often, if at all, write letters any more, but we do juggle an avalanche of emails, Facebook postings, Instagrams, and Tweets—all at the risk of losing a crucial aspect of our humanity; Richard Harper argues, “Letters bring people together in a new way, a powerful, expressive and evocative way that is not possible without them. Letters also alter the participants involved. Letters are not an analogue of face to face communication; they create a new experience of human bonding.”³ We rarely walk out of a store with a handwritten receipt; now we acquire a foot-long, computer generated receipt with elaborate detail about the purchased item, coupons for a future visit, and a Web site where we can give feedback and register for a prize drawing. Every action leads to an avalanche of offers, promises, and sometimes threats, most of these clogging up our email boxes and leading to more spam mail than we ever thought possible or useful. I am of the generation that recalls Spam as a greasy meat product to be avoided if at all possible, but the new digital spam seems unavoidable (and my efforts to set up spam blockers usually results in my cutting off communication from my dean, not a particularly good idea).

We have been persuaded that all that we create in the digital realm is as safe and secure as if it were stored in a bank vault. Hardware and software vendors bombard us with advertisements suggesting that we can do magical things with our personal documents, all while guaranteeing their permanence. We are in awe of what is happening. In one recent history of the Internet, we read, “The world marveled when the iPhone was released on 9 January 2007. Unthreatening, instantly understandable and attractive, the graphical user interface (GUI) of the iPhone brought not just connectivity to the people but also usability. Yet only four decades earlier, computers had been limited, alien things, kept at many removes from the average worker in an organization.”⁴ There is no one out there, of course, who is so naïve to believe such claims. Is there? These devices may be quite easy to use, but can you remember your world before you had to manage dozens upon dozens of passwords? Make a single change to one of these or forget one for an instant and your life may unravel before your eyes. It is reassuring, after a struggle with a pass-

word issue, to read about someone else, far smarter than us, who has had similar problems: “When security experts insist that we all follow complex rules for the generation of passwords, often requiring that they be changed every few months, they do indeed make it more difficult for thieves, criminals, and mischief-makers to discover them, but they also make it make impossible for us to remember our own passwords. . . . As the numbers get large, life becomes complicated. I’ve tried to explain that too many of the requirements they impose on to increase security actually diminish it. My own university seems to have decided that I am a crackpot, best to be ignored.”⁵

Digital Promises and Perils

Despite these assurances, archivists have been watching with interest discussions about the future of the printed book, library cutbacks, the diminution of university presses, and the closing of many independent bookstores (at least in the United States). They are not optimistic in this restless and depressed culture, with some reasons based on their own experiences and now the complications of economic misery. Libraries, publishing, and bookstores (we can add to these, museums and historic sites) possess a kind of archival function. So, it seems as if many factors are conspiring to make the archival mission difficult to achieve. When archivists have written down their thoughts, they are usually not optimistic, but they have generally reserved their worst predictions for the digital challenges: “In the past,” write two archivists examining new recordkeeping, “ephemera such as playbills, advertisements, menus, theater tickets, broadsheets, etc., have survived, albeit sometimes rather haphazardly, and are now collected, stored, conserved, and valued as vital witnesses to political, economic, social, and private aspects of the past. Today, these artifacts appear on the web for a matter of days, to disappear from view as if they had never existed.”⁶ Now, however, we do not have to restrict our concerns to merely what is going on online. Archival staffs are being severely cut, other resources eliminated, and some archival repositories threatened with closure. Added to these calamities is the realization that digital preservation is a “young field,” and with immaturity comes uncertainty and fear.

Should we be so gloomy? As our attention is arrested on the rapid transformation of communication, we need to remind ourselves that we have lived through similar epochs. In the 1920s and 1930s, cinema, radio, and the phonograph challenged how we experienced the world, just as how the present blurring between movies, television, radio, and the Web, is generating new issues with how we live and then document our lives.⁸ In such transition periods, anxiety is always pronounced—and we must wonder if our present era is somehow different. With each new challenge come new opportunities, especially if the angst about preserving the documents of the past (whether that past is measured in centuries or seconds)

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enables the public to grasp more about the nature and importance of the archival mission. Reminders about such issues come from all directions. Wendy Richmond believes, “We are not in danger of losing *old* physical artifacts. Our society saves historical buildings, furniture, crafts, clothing, books, magazines, and posters. Instead, we are losing *new* artifacts. The contents of today’s DVDs, Web pages, and text messages will become inaccessible.”⁹ While some will scoff at such general assessments, research studies affirm them. A study by a non-profit research group, Ithaka S&R, on the sustainability of digital projects generates many questions, especially since the reasons for failure stems as much from financial rather than just technical reasons.¹⁰

This reminds me of my own perspective. Despite my position in a school of information sciences, I am a humanist, a historian by preference. Clive James provides a glimpse into what I am discussing, writing, “Science lives in a perpetual present,” James muses, “and must always discard its own past as it advances. . . . The humanities do not advance in that sense: they accumulate, and the past is always retained. The two forms of knowledge thus have fundamentally different kinds of history. A scientist can revisit the history of the humanities all the time, because it is always alive, and can’t be superseded.”¹¹ It is sometimes difficult to have useful, if civil, conversations in such an environment, especially about the need to take the long-term perspective. Many people absorbed by their work in the information sciences adopt short-term approaches, focused on creating tools to manage current data and ignoring why we need to preserve evidence for the long haul.

Such concerns are not new. Archivists have been wrestling with the digital realities for a couple of generations. Forty years ago they confidently predicted their ability to deal with the documentary universe created by computers, although it was a far simpler world than today. Within a decade or two, they worried about their ability to preserve the documents being generated by computers. This led to a professional crisis, but one that resulted in positive efforts to redefine mission, rethink practices, and redraft knowledge supporting practice. Conceptually, at least, we have a stronger archival community for the technical challenges we face. Have we solved all the problems? Not really, but at least now we recognize that the solutions to these challenges are not just professional issues; they are societal matters, requiring collaborative efforts and cooperative commitments from industry, government, and the public. What we now realize is that substantial changes are here, and we need to know how to respond to them. Historian Simon Schama observes,

For the scholarly community is surely at a crossroads in considering the forms by which history is communicated within and beyond the academy. The digital moment is no less pregnant with consequences for the survival of the interpreted past than was the transition from oral to written word in antiquity, and from written to print culture in the Renaissance. Whether we like it or not. . . we are unquestionably at

the beginning of the end of the long life of the paper-and-print history book. The exigencies of economic austerity are likely to only hasten a process that is already under way. Print books will of course survive their eventual demise in the marketplace of knowledge, and monographs custom-printed from digital sources will doubtless endure as physical objects, perhaps even on library shelves. But in shorter order than the profession has yet taken in, most history will be consumed, especially beyond the academy, in digital forms: on interactive websites; as uploadable films; from electronic museum sites, archives and libraries—a prospect toward which most university scholars seem (at best) cool, and to which we are taking precious few steps to acclimatize future generations of historians.¹²

Archivists need to adapt to these changes and, perhaps, to help others learn how to make this change.

The Challenge of Digital Archives

A significant part of meeting the archival mission in a digital culture is acknowledging the scope of the challenge. No one settled back and pretended that humanity was not heading into a digital era. Research projects emerged and tested various approaches for managing the digitally born record. Archivists enthusiastically embraced digitizing the paper documents in order to enhance access via the Web. New ideas such as digital curation and personal digital archiving have moved to center stage. Whether any of this is appreciated outside of the archival community may be debatable, and the understanding of archives in the public forum needs to be strengthened. In this sense, the real challenge is not a technical one but a policy and communications one. When organizations face budget crises, the archives are sometimes the first to go, seen as a luxury; of course, many organizations do not even have an archives program. Archivists need to get their message out in plain language, and they still struggle with this.

Archivists remain hopeful about their mission to preserve records of continuing value, even as predictions of a digital Dark Ages continue to be sounded. Of course, some archivists are hopeful because they have bought into the idea that everything created in a digital format can be saved, even though there is little evidence that such predictions are anything more than a digital utopianism (and why can such faith in technology persist when we are regularly reminded of what such blind faith can result in—Chernobyl, the space shuttle Challenger, the Concorde, and, more recently, the Japanese nuclear reactor calamity). Nevertheless, the pundits who see only the dark side are just as likely off base in their sense about where we are headed. While we might worry about how we can manage digital docu-

ments, we also must admit how much richer the documentary universe is for the new technologies. I might worry about maintaining my personal records in digital formats over a long period of time, but I am not giving up word processing for a typewriter or trading in my iPad for a legal pad. Some, such as Peter Tiersma, believe that regardless of the technical changes that writing will persist as a major means of communication. Tiersma mostly sees us as an oral society, noting, “we live in a society that is relatively oral. Even though we still produce a great deal of written text, including email and text messages, much of the writing we currently do is similar to speech in that it tends to be informal, contextual, and often quite transient.”⁷³ Nevertheless, he speculates, “Even in a world that in decades to come will offer communication technology that we cannot imagine, I believe that the significance of written text, as well as many of the textual conventions of the legal profession, will persist. One of the reasons is that language is a defining characteristic of human beings.”⁷⁴

We are facing some poignant dilemmas in what we can call a transitional era. In a major recent report about the preservation of recorded sound by the Council on Library and Information Resources and the Library of Congress, some warnings were expressed, suggesting that we are losing a foundational knowledge with older sound systems, namely, “The community of individuals familiar with legacy media is shrinking. A system must be developed to ensure that the generations of engineers and archivists who have had no experience with analog recording formats will gain familiarity with the physical properties of, and best methods for preserving, legacy media.”⁷⁵ Likewise, “A generation of specialists with experience in legacy media is disappearing, as is equipment on which to play analog recordings such as open-reel tape or wire recordings. Fewer and fewer people are familiar with the care and repair of older equipment. Many of these individuals are collectors or hobbyists, not necessarily academic or industry experts. This fund of knowledge and expertise is not being documented professionally and is not being passed on in any systematic way to individuals studying audio engineering and who will work with legacy formats in libraries and archives.”⁷⁶ A call for new educational programs grounding individuals in the history of recordings has been issued ~~and also~~ the realization that recorded sound preservation has an uncertain future, with poor funding and few positions. Again, the problem is not merely technical. We need a new collective will to understand and support the mission to preserve the documentary heritage in all of its various recording formats.

Archives and Human Nature

The source of any real hope should come from our knowledge, built from centuries of observation and experience, that writing down our actions is inherently part of our nature. We can add to this hope since so much seems to survive accidentally

even as we put our records through extremely harsh conditions and neglect them. Moreover, our records possess many values, from cultural to legal, from research to administrative and fiscal—attesting to the fact that there are many reasons for both why records are created and then preserved. The problem here may be that the public thinks that archives are merely quaint old stuff of interest to antiquarians when, in fact, they are essential for many other administrative and societal purposes. A perusal of any newspaper on any given day finds many stories about scandals, illegal actions, and other calamities in which records prove to be essential for purposes of accountability and justice. Unfortunately, sometimes archivists have been reluctant to discuss openly these kinds of archival values.

But for our purposes here, we should consider, first at least, why the creation of documents is a deeply personal (and often fulfilling) exercise. When we capture an activity we are engaged in—by writing a diary entry, sending an email, filling out an application, or taking a photograph—we usually feel we are capturing something about ourselves and doing so in a fashion that will extend our selves into posterity. And this deep sense of the importance of records is supported by where we work, places where we often keep careful track of certain records in order to help our organizations stay compliant to an array of laws, policies, and best practices. The recording, if not the archival, impulse is part of our nature, and it is difficult to imagine that we would allow it to disappear. Even those arguing for memory chips implanted into our brains, and 24/7 recording of all activities, are now realizing that these grand plans are no replacement for constructing archives and hiring archivists. Many observers have noted our basic instinct to survive by recording and remembering. Nicholas Delanco, in his interesting book on “lastingness,” writes, “If art is long and life is brief, then what we make outlasts us. In flea markets and tag sales and antique shops, there’s a kind of afterlife on offer—some new potential owner assessing what was by others abandoned. . . . Far from a culture of planned obsolescence we are, it seems, a people bent on preservation; we don’t throw things away.”¹⁷ Some might debate this, but the interest in debating this is probably an indication of its significance in our lives.

I do not believe that archives are going to disappear, just as I do not think that newspapers or books are going to evaporate somewhere off in cyberspace (although they are being transformed in important ways).¹⁸ Indeed, we need to remind ourselves that all physical artifacts reach a point when we have to make decisions about whether they are going to survive in their original form or not. Architectural historian Witold Rybczynski reminds us, “The hardest test for a building is between its thirtieth and fiftieth birthdays, when architectural tastes have changed and the original design no longer seems fresh. That is when calls for demolition—or drastic alterations—are most likely to be heeded. If a building weathers this midlife crisis, after several more decades, as the pendulum of fashion swings back, it may once more be appreciated.”¹⁹ There are similar anniversaries for recordkeeping systems and the documents produced by them, although the cadence is very different and

not as leisurely as for buildings or historic sites. We also have to keep in mind that sometimes the original form is important, even essential, but that this is not always the case. New digital archives bring many other positive attributes, even if they are not as collectible as their predecessor systems. Some philosophers have speculated on new varieties of fetishism for discs, computers, and Web sites, different but not unrecognizable from our obsessions with paper and other earlier documentary artifacts.

Some of the other issues we will continue to face in the future, such as intellectual property constraints, are being exacerbated by technology but not caused by it. The founders of the American nation wanted knowledge to be available for supporting “democratic self-governance, encouraging creative community, and enabling citizens to become public actors, both civic and creative,” opposing exclusive control over the creative, literary, and products of our mind.²⁰ A former chairman of the National Endowment for the Arts, Bill Ivey, worries about the growing corporate ownership of our documentary heritage, creative arts, and art of lasting value (like classical music), and the fading cultural and other institutions that collect and care for them. He considers our cultural heritage, arguing that “early archives” were often “labors of love created by devoted fans of history and art” but now “it’s business.”²¹ Ivey is dismayed by the lack of care by corporations of cultural assets, often “no better treated than assets such as buildings and furniture” and, at the same time, non-profit organizations administering these archives are “under funded” and “have struggled to keep up with expanding collections, expensive technologies, and an increasingly burdensome intellectual property environment.”²² The corporate mentality, everything reduced to profit or loss statements, is not limited to the cultural sector; we see it in our universities as well, threatening to trim everything that is not a potential profit-oriented science and technology function (following what universities have done to the commercialization or professionalization of their major sports programs).

Different Archives

Despite the present dire economic circumstances of archives, the safest prediction is probably that archives and archivists are going to survive—but that they are going to be different. The archival impulse is too much of a basic human need, remembering. Information technologies may have lulled us into a false security, the notion that we can keep everything (and, thus, remember everything). We must acknowledge that these technologies will bring change, and each of us can personally attest to how our lives have changed in the past decade or two because of information technologies. We rarely go inside banks to work with tellers; we bank online or rely on ATM machines. Even if we love printed books and other publications, we now regularly use digital libraries and e-readers to supplement what and how we

read. The loss of walking along the stacks of books in a bookstore or library can be compensated for by a new kind of electronic browsing. For a long time I lamented the lack of scholarly books at a place like Borders; but now I can go to the Borders web site, locate the title I am interested in, browse other titles, and even browse inside the book. A few seconds later I can cash in a coupon, buy the book at a good price, and have it delivered to my home in a few days with no postage charge (of course, now Borders is completely gone). Are we seeing the same kinds of changes in the archival world?

We need to be careful in how we consider evidence in archives with the information in books. We have considerable personal testimony about the tactile qualities of physical books, how we remember and react to these books because of their physical features.²³ Much of the recent commentary of the impact of technology on society has come in the form of one extreme or another, either the salvation of our culture or the source of all that is bad. The truth of the matter is that it is not an either/or scenario (unless you view change as inherently bad). Our records, and hence our archives, will be different, but we gain from the changes. The digitized and born-digital records have the potential of expediting scholarly research and keeping government and corporations accountable. Yet, they also have the potential of lulling us into complacency about both evidence and information. It is easy to assume that all archival evidence is available on the Web, but that is not the case and never will be the case. Researchers at Old Dominion University have been working on determining just how much of the Web is really archived and who is doing it and how it is done, generating commentary about whether such questions can really be answered and the even more startling observation that people are just beginning to realize that their work on the Web might be lost.²⁴ Moreover, we are likely to leave more traces of our activities, some of which we prefer to keep private, as we work online, while making it more difficult to preserve what we want to keep (emails versus letters, both maintaining them and the changes in what we say and reveal). We know that we need to be careful with whom we entrust our cultural heritage to, such as what Siva Vaidhyanathan states about Google: “Clearly, we should not trust Google to be the custodian of our most precious cultural and scientific resources. We should not assume that Google, with its focus on delivering what we want—or think we want—will deliver what we actually need.”²⁵ But who or what has the resources, other than something like Google?

Serious users of archives, while appreciative of the piles of information they can retrieve from the Web, will still need to visit archival repositories in person, in order to inspect physically the documents and to ensure ourselves that they are not missing anything. Here is how one historian characterizes this activity: “At the risk of arrant romanticization, I am inclined to argue that historians must hold the original document of whatever they study, look at the paper, and smell everything. Only by coming face to face with surviving documents, seals, letters, maps, accounts, and receipts, can one, I believe, fully weigh the meaning of terms like in-

tention, falsification, and truth.”²⁶ It is possible, as technologies improve and more documentary resources are available online, that some researchers may lose the understanding of this kind of archival inspection. It has been well-documented, for example, that the research skills of many university students have eroded as they believe that everything is online and can be retrieved by a quick and dirty Google request—often executed the night before the paper is due. The point here is that not going in-person to an archives to examine archival documents may be equivalent to the possible damage to inter-personal skills inflicted by relying only on virtual communications systems. The exception in the archival realm would be for those digitally born recordkeeping systems where no physical documents were intended. But here, we need to develop new skills and practices.

Archival Overload

Actually, the problem may be that there is too much evidence and information floating about in cyberspace. Ann Blair, a historian at Harvard University, contends that every age has faced information overload, a point others have made. She focuses on the period up to 1700, examining various approaches to managing information, including sorting and storing, summarization, note taking, dictionaries, sentence collections, commonplace books, indices, bibliographies, and encyclopedias. Blair pushes back on the claims for the influence of printing on the creation and use of scholarly references, arguing that most of the methods of scholarly reference were in place before the advent of printing. She weaves through her narrative, rich detail about the techniques of early information management, political, educational, religious, cultural traditions, and technological influences and issues.²⁷ The quantity of information not only creates problems with locating and selecting (especially difficult for younger and inexperienced students), but it also potentially lulls us into thinking that everything we need is on the Internet. It also may push people away from visiting archives to examine the vast stores of evidence that is not, or never may be, online.

There is little question that new tools will be developed to overcome some of these challenges, but it is also likely that old tools are not going to disappear. There are always danger signals. At times, we focus increasingly on faster remote access, shuffling aside issues of reliable and authentic records. Some worry that this focus on personal access ultimately will diminish or eliminate the role of the archivist. Yet people make adjustments. Thirty years ago William Zinsser wrote a candid book about using a word processor for writing, sounding similar laments: “I belong to a generation of writers and editors who think of paper and pencil as holy objects.” He continues, “The feel of paper is important to me. I have always thought that a writer should have physical control with the materials of his craft. . .”²⁸ All through this book, Zinsser struggles with his new world: “The hardest thing

for me to think about was the idea of getting along without paper.”²⁹ He attributes such attitudes to how writers work, although such attitudes extend far beyond just professional writers. However, his perspective as a writer is quite revealing: “I found it hard to believe that I had brought into my life a set of writing devices that I would always have to activate. I couldn’t just sit down and write; I would have to think about pushing certain keys and inserting diskettes. Now, just to push the ON switch seemed like a major decision.”³⁰

What *Writing with a Word Processor* opens to us is the world of writing and recordkeeping we used to live in, where there was a lot of paranoia caused by the technology. “When everything is written down on paper it can be found and reviewed and put to use on some other piece of paper,” Zinsser reflects. “But when words are mere shadows of light in an electronic box they offer no such security.”³¹ This notion has troubled archivists, of course, and much of their efforts in recent decades have been focused on providing some sense of security in a digital age. These efforts have transformed what archivists do or, at the least, what they want to do. If we are students of history, then we adopt a long view that provides some sort of reassurances. We have lived through other technological shifts and survived them. If you close your eyes, you can still hear the sound of the electric typewriter,³² (and I miss that) replaced in most offices by the electronic hum of desktop and portable computers (and the ping-pong of these devices at meetings when their owners forget—or refuse—to turn down the sound). While we now know that the printed book was less fixed than we ever thought,³³ it is certainly extraordinarily more stable than anything we have now.

Transformations

It is not only the fear of loss driving archivists to wring their hands, but the worry about the transformation of encounters with archival sources. Indeed, reading in general as a discipline has become a major focus of scrutiny, generally in the context of the fate of literature, print, and bookshops. Marjorie Garber recently wrote, “The change in reading habits from public and collective to private, solitary reading has been commented upon by many critics, and we have only to look at some of the latest technologies, like the iPad, the Nook, the Kindle, and the Sony Reader, to remember that there is no timeless and universal reading practice. Not only for those with photographic memories, who remember passages from their placement on the page, the typeface, and the quality of the paper, but, indeed for everyone who reads, sees, hears, or hears about a work of literature, the situation of the encounter is part of the reading experience.”³⁴ The same concerns apply to the access to and use of archives. Reading, for some, has become a lost art, replaced by Web browsing or worse, no reading at all.

To counter some of these concerns we might tally up the myths associated

with the Information Age, itself a myth, such as offered by Robert Darnton, historian of books, printing, and the eighteenth century. He discounts the idea that the book is dead, the notion of a unique information age, the availability of all information online (specifically, “Only a tiny fraction of archival material has ever been read, much less digitized”), the obsolescence of libraries, and that the future is only digital. Darnton argues, “I mention these misconceptions because I think they stand in the way of understanding shifts in the information environment. They make the changes appear too dramatic. They present things ahistorically and in sharp contrasts—before and after, either/or, black and white.” He sees historical precedents for all the current problems of today in terms of reading, writing, and cognition.³⁵

Archivists have wondered, for at least a quarter of a century, whether there is a place for them in the (now present) digital future. Do we need archivists when we can sit down in front of a computer and access vast troves of archival sources with a few keystrokes? Librarians seem to have been fired up to contend that they are more important than ever. Marilyn Johnson tackles how librarians are making a transition into cyberspace. “In a world where information is a free-for-all, with traditional news sources going bankrupt and publishers in trouble,” Johnson writes, “we need librarians more than ever.”³⁶ I think the same can be stated for archivists, not what archivists do or what archives house, those things will remain the same. Here is an observation from one historian: “The nature of historic documents has fundamentally altered during the last hundred years. Historiography of the twentieth- and twenty-first centuries will differ significantly from the way we evaluate evidence from earlier times. Lengthy evocative letters. . . are rare now. Our feel for the temporal has also radically changed. Nineteenth-century writers took the time to be expressive; they knew their letters could require time to arrive; and they expected they would be carefully kept as timeless mementos.”³⁷

Now our focus seems to be on the speed of communication and the use of computers to shape, or replace, our social relationships. Recognizing that communication is essential to our humanity, we have embraced the new digital forms, with two new problems. Now we may be overwhelmed with communication, as Richard H. R. Harper muses, “Twenty years ago, we were convinced (as we are now) that communication is good for you, but the levels of what was optimal had not been achieved. Today there is a feeling that we have gone beyond the right balance and we communicate too much.”³⁸ And, despite the advancing sophistication of these technologies, we are hard-pressed to figure out how to manage them and to preserve what is essential for the long term.

How can we predict what is worth saving and how it will be used? Here is a cautionary tale offered by William J. Mitchell, and worth quoting in full. Mitchell, considering that the Media Lab building at MIT “was originally laid out as a collection of carefully tailored zones for particular research and production activities, with meticulously worked out areas and adjacencies,” describes how this careful planning was wasted effort, because

Technologies and research agendas rapidly changed, and the researchers repeatedly tore the space apart and reorganized it, eliminated old uses, and took over areas for new uses as short-term necessity demanded. The process was much like that of fragmentation of disk space, and the interior quickly lost any semblance of architectural coherence. Even worse, some fundamental design assumptions became obsolete; the deep, artificially ventilated and lit interior spaces had been designed on the assumption that computers occupied fixed locations and required highly controlled environments, but the emergence of robust, portable, wireless laptops with screens bright enough for use in daylight changed all that. The lesson was that detailed programs of architectural requirements—based on the immediate needs of the first occupants, and frequently demanded by managers as a justification for building and as a way of checking the architect's work—do not provide a rational basis for planning a research building that will operate for many decades in a highly dynamic environment.³⁹

If we escape from the confines of one building and consider, first, local, and then, national, communities, the problem or challenge becomes much more complex. If we are constantly rebuilding the technological systems, how can we stabilize or administer all the stuff in them? (I am not even addressing the global society, where a complexity of economic, cultural, political, and religious differences makes it extremely difficult really to discuss in rational terms, unless we believe that the technology is creating a monolithic global culture. And I just don't buy it.)

Perhaps we need to remind ourselves that we are in a transitional era? Except, of course, that every era is a transitional one, and we cannot see the larger implications until we step back a half-century or more and begin to see patterns and meanings for us today.⁴⁰ This purpose is what archivists are here to accomplish, to identify and preserve records essential for us to understand an event, a trend, a person, a place, and so forth, except that now we need to make such decisions at the instant of a document's creation. Archivists face the challenges, although it adds additional stresses and strains to their work; but it does not eliminate them or their mission to capture and preserve our documentary heritage. There is no scientific exactitude in doing any of this. Howard Gardner, always interesting and entertaining, reflects that history seeks to discover the truth of the past, but it is not like science where it can be observed or derived through experimentation. History requires an "imaginative leap." According to Gardner, "The historian must try to understand how human beings—in some ways similar across time and space, in other ways fantastically, almost unfathomably, different across those divides—came to think and act in the way they did."⁴¹

As long as humans want to remember and to position themselves in time, there will be a need for archives and archivists (if not in substance, that is in the

practical use of the documents, at least in a symbolic fashion representing an interest in the past). Perhaps in the future, we may be consulting archives like one of those scenes in a *Star Trek* episode, where we can see and hear any moment of the past as if we had travelled back in time. The point here is that we never stop consulting the traces we have left behind. We cannot live only in the present, we live suspended between past and the future. While we may lose a lot of documents because of poorly designed information systems, the truth is that we have lost a lot from the past as well. We know from the technicalities of illuminated manuscript production, that old texts were scrapped to make new ones, and the evidence of older manuscripts lies buried within newer, now ancient, documents.⁴² The joy, excitement, and challenge of being an archivist is figuring out how we can save such essential evidence.

Archival Persistence

Fifty or a hundred years from now, we will have archival repositories and archivists tending to them. Archivists may be less custodians and more facilitators or guides, as what constitutes the documentary heritage will be mostly digital and held in sustainable virtual repositories. Whether or not the majority of the analog documentary heritage will have been digitized is questionable, given its scale and the issues of financial and other resources, but this may be the wrong issue to worry about. There will always be the need to preserve a large quantity of older documentary sources, textual and artifactual, needing to be consulted or examined physically. Archivists will be on hand, albeit virtually, to assist individuals needing access to archival sources. Occasionally these archivists may be called upon to guide someone in to examine a particular archival artifact, an old paper record, or to retrieve such a document for an exhibition. Bill Hayes, crafting his story of Henry Gray and his textbook on anatomy, reflects on his search for evidence in this way: "Henry Gray is in a box somewhere, I keep telling myself. Somewhere he survives in a box of letters, personal papers, manuscripts, drafts, page proofs (something), stashed away in a basement, a mislabeled carton, a forgotten storeroom, a locked drawer (someplace), just waiting to be discovered. But the box eludes me still. My many inquiries to libraries, universities, and medical societies have resulted only in the most politely worded series of Nos."⁴³ In the not too distant future, a researcher like Hayes will do much of this kind of search online, retrieving digital documents and finding more than he knows what to do with. Boxes, basements, and storerooms will be open to the intrepid researcher.

More than likely many individuals will operate as their own archivists. Consider this assessment of the present, not a prediction, by one well-known archivist: "Those of us who graduated from college in the pre-computer age left with perhaps a few spiral notebooks or a ring binder of class notes, graded papers and

perhaps a thesis. Now a student might leave with a complete record of each course and a thoughtful analysis of their learning process. The resulting record reflects a very different educational process.”⁴⁴ While this may be a challenging transition for many archivists, it will be a positive change in that everyone will gain a greater understanding of the nature and purpose of archives. This isn’t quite happening yet, but it is on the near horizon, assuming we can work out all the intellectual property, privacy, legal, and other issues. Not long into the digital era, and after considerable research into electronic records strategies, some archivists worried about the fate of personal papers, and the result may be a new kind of archivist and a greater emphasis on personal records creators becoming their own archivists.⁴⁵ This suggests a different archival profession in the future, one that is less entranced by the process of collecting and one that is more committed to new forms of advocacy as archivists work more intensely with individuals enabling personal archival sources to be located and accessed. This may be more difficult for many archivists because it forces them out of their repositories and into the public square.

Today, archivists know that not everything is available via the Web, and they are not sanguine that everything will be accessible in this way. Will this change in the next half-century? It is hard to be that optimistic given the financial and other challenges facing present-day archivists. They lack financial and other resources to preserve the old paper and other analog records, let alone to begin to grapple with the many and increasingly complicated products of digital information systems. When archivists are struggling to keep the doors of their repositories open, it is difficult to ask them to imagine any future (especially since the basic costs of business in the digital age are far higher than what preceded it). Yet, it is imperative that we extrapolate from the present to imagine the future. It is even more important that we communicate the importance of archives to society so that the necessary investment is made to maintain our documentary heritage. I have come to the conclusion that archivists, despite a broad array of interesting efforts to deal with electronic records, cannot solve all these problems on their own; be educated both broadly and deeply enough to deal with these challenges in any useful way (everything changes just too quickly); or become both technical and professional experts on all these digital systems. But will they do so that their repositories don’t become archaeological sites, like **genizot**, where old manuscripts and scraps were sent to die?⁴⁶

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A New Archival Advocacy

To turn from the impossible task of training archivists to be able to know and do everything in digital archives to helping them to know how to advocate for their societal mission may be no easier. Bill Ivey says that “Our scattershot cultural policy has failed to balance the public interest with the marketplace.” One of the more interesting points Ivey makes is that the media industries are against the notion

of preservation, according to him, because they fear a public backlash: “By revealing how much has been lost, how much has never been released, and, following decades of mergers and relocations, just how little record, film, and television companies know about what they do or do not own, the truth would produce public outrage.” The source of this problem or approach is because the “preservation strategy” is “based on current market value. The result is at best a leaky sieve. Some treasures are saved, but others are mislaid, poorly stored, or locked up in service to profit.”²⁴⁷ What makes this worse is that the nonprofit repositories have adopted the same approach: “Nonprofits are too often careless with historical assets, risk averse, and too often drawn to projects that have no real importance beyond an impact on the bottom line.”²⁴⁸ As Ivey argues, this just is not going to work (at least if we are concerned about the public good). It also suggests that we, archivists, have not been very good at conveying, in simple direct language, why archives are important to society. We need to assist archivists to be knowledgeable enough to talk with people, from technicians to presidents, and from clerks to CEOs, to convey the reasons why archives are important in our society. We are often in a political battle, needing to influence public and institutional policies and practices.⁴⁹ In reflecting on educating future archivists, it may be as least as important to prepare them to be advocates for archives as it is to ground them in technical matters and techniques of practice. Of course, this is the proverbial chicken or egg causality dilemma, but it is nevertheless clear that we must develop better educational strategies.

There are other reasons to be optimistic that are not just wistful thinking. For a long time, archivists have worried about the status of archival work in corporations, where records managers have dominated what is done with records and information and the dominant focus has been to destroy what is not needed unless it meets a legal, fiscal, or compliance regulation. There are signs that this may be changing. James Cortada, in his brief text on the nature of information in the modern corporation, writes that one area of change in corporations concerns the “deletion of earlier versions of presentations, old e-mail, and statistical data on past activities that law doesn’t require a corporation to preserve. Though almost universally ignored, this topic is worthy of corporate consideration, since information is an asset. Too often files are discarded, almost as if you were to throw away coins minted two years ago because the exchange rate for your country’s currency had declined. Two-year-old coins still have value, and so do many types of old information. Eventually corporations will recognize that fact, but in the meantime IT [Information Technology] departments chastise users for filling up their laptops’ inexpensive hard drives, and departments continue to have contests to see who can throw out the most material when they move from one building to another.”²⁵⁰ This is a refreshing change from what most records and information management experts believe or practice.

Why is it necessary to have archives in the future? We can discern **why be** examining various values we assign to archival materials. First, archives are time capsules of human activity, vital testaments to what makes us uniquely human,

providing cultural and symbolic importance about humanity's position in time and space; without archives, we are less human. Second, archival sources provide essential evidence for keeping public officials, corporate leaders, and the organizations they manage, accountable to the public. When corporations and government agencies report falsehoods, or when newspapers are fooled by them, or seek to uncover the truth, archivists and archival repositories may be the place where the critical evidence is maintained; archives are not just about a cultural mission. Third, as archivists increasingly work with born-digital sources, and new approaches such as digital curation emerge, their focus nevertheless will stay on identifying documents critical to understanding the past. Indeed, certain basic or core archival functions, such as appraisal (the identification of what records possess continuing value not the determination of financial worth) will become more important than ever.

The reasons for archives go on. Fourth, archival materials, both analog and digital, will remain critical to any efforts to comprehend the nature of the past. From time to time, there will be people, like David Irving, who manipulate or fabricate evidence about events such as the Holocaust, countered by others who retrieve genuine records and identify what is being falsely presented.⁵¹ These events only will underscore the importance of archives for humanity. Archives are too essential for our consciousness of life to disappear, although we certainly will lose some important records, as we have in the centuries before. Alexander Stille reflects on the paradox of preserving the past, arguing, "every major historical change involves, by necessity, enormous loss. Without adopting a Luddite, antitechnological stance, I think it is important to acknowledge that our society is in the midst of a fundamental rupture with the past, which involves loss as well as gain." Stille believes that "one of the great ironies of the information age is that, while the late twentieth century will undoubtedly have recorded more data than any other period in history, it will also almost certainly have lost more information than any other previous era."⁵² Fifth, those behind war and civil strife will target archives as symbolic elements of nations, communities, and various groups, as well as generate new forms of archival documentation. If war is one of the most intensely human endeavors we experience, then archives are an integral part of it. Every act of deliberate destruction of an archive is a testament to the importance of archives in society and to its many groups and communities. We can even see theft and forgery as another extension of the idea of the importance of archives in our world. To all of these reasons, we can add that archives are just intrinsically interesting, and they will always attract some attention from the public whether via private collecting, visiting museums and historic sites, or reading good historical works based on archival evidence.

Conclusion

At the start of this essay I invoked Cornelia Visman's notion of "a life off the record"

as “simply unthinkable.” Indeed, archives, often seen as documents and paperwork, have become a metaphor for artists to express themselves about certain aspects of modern life—criticizing bureaucracy, celebrating the past, and speculating about the future.⁵³ Even as digital information systems grow, become more sophisticated, and even take on a life of their own, I am sure that a life without records will continue to be hard to imagine. Archivists worry about this, as Christopher J. Prom and Ellen D. Swain in their introduction to a collection of essays on academic archives remind us: “If we are not careful, many of us may find ourselves to be the marginalized keepers of idle curiosities. Worse, we may find ourselves to have been complicit in a failure to adequately preserve institutional memory and a complete record that will allow for future research and historical understanding.”⁵⁴ Many commentators have sought to separate the work of information professionals, such as archivists and librarians, from the artifacts they administer and the places they work.⁵⁵

Finally, we must consider some countervailing forces in our society. There is an increasing chorus of voices, represented in books and journal essays, that heritage, public memory, and collective forgetting are new forces in our culture. On the one hand, these relatively new areas of scholarship and inquiry reflect recognition that archival sources are not the only means by which to understand the past or, at the least, that the traditional means by which we define such sources needs to be expanded. Elaine Tyler May, as just one example, considering the relationship between history and memoir, also considers the limitations of archival sources. Reflecting on her poring through birth, death, property, and business records, she writes, “But these records had no stories, no real people, no emotion. Just numbers and bits of data. I imagined myself making charts with categories and checking off little boxes for hours on end. I would die of boredom before I could write one word of history—and what could I write without stories?”⁵⁶ From my vantage point, I see many wonderful stories in archives, while recognizing that memory and heritage often are used to tell different types of stories. The interest in heritage, memory, and forgetting is important, but the fact that these issues have become prominent may be in inverse proportion to the declining importance accorded archives in our digital era. The need for the kinds of stories found in archives becomes more important every day.

For as long as I have been in the archival profession, now forty years, I have heard calls for archivists to be activists, pushing their mission out into the public forum and being more aggressive in promoting their role and mission. There have been notable examples of such leadership, but, by and large, archives have been relatively passive collectors and repositories, tweaking things such as adding Web sites in order to draw people to their holdings. Yet, the digital future suggests that archivists must rethink their most basic assumptions about their work and mission. Andrew Flinn states, “It is clear that involvement with both digital archives and with community or otherwise marginal or transitory campaigning groups fundamentally challenge the notion that the archivist can afford to be merely a passive

recipient of these records.” He continues, “many of these networks and groups will be organizing, mobilizing, and perhaps actively campaigning, not just in the real world and not just by relatively fixed and well-understood digital forms such as email, websites, and word-processed documents, but also via dynamic and evolving media such as instant messaging, social networking sites, wikis, blogs, and other virtual, participatory, and collaborative mediums. The skills and expertise required by the archivist working with groups to capture and understand these interactions will have to be significantly enhanced.”³⁷ Otherwise, there will be projects in the future to search for memories of archivists and their once honorable profession.

My final expression of faith in the future of archives comes in the recognition of the new individuals preparing for archival careers. No matter how bleak the job market may seem, how low the salaries may be, or how unknown the field may seem to be, new energetic students enter archival education programs with enthusiasm about the importance of the archival mission. When I get too cynical, I am often pulled back by the **optimistic** and energy of my students. Hopefully, they will discover the solutions to the challenges facing the documenting of our society and preserving the materials of the past for use in the future. Most importantly, it is hoped that they will develop the means to state clearly, eloquently, and forcefully, why archives are important in our culture; this essay draws from my efforts to get my students to reflect on such matters. The future of the archival field, and archives themselves, seems to be in good hands. Otherwise, society will need to fill in the blanks, not always a good means by which to gain an understanding of the past. The story of archives and their significance in the everyday life of society is one needing to be told. No matter what they do, archivists just need to make sure that their story gets told.

Acknowledgements

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Notes

1. See, for example, Valentin Groebner, *Who Are You? Identification, Deception, and Surveillance in Early Modern Europe*, translated by Mark Kyburz and John Peck (New York: Zone Books, 2007).
2. Cornelia Vismann, *Files: Law and Media Technology*, translated by Geoffrey Winthrop-Young (Stanford: Stanford University Press, 2008).
3. Richard H. R. Harper, *Texture: Human Expression in the Age of Communications Overload* (Cambridge: MIT Press, 2010), 21. According to Harper, computers alter us: “But saying that computers have become virtually invisible misses the point—which is that our relationships

with computers have come to stand proxy for parts of our relationship with people. Computers compute and thus shape our economic world, but they also connect us to others, thus shaping our social world”(153).

4. Johnny Ryan, *A History of the Internet and the Digital Future* (London: Reaktion Books, 2010), 49.
5. Donald A. Norman, *Living with Complexity* (Cambridge: MIT Press, 2011), 65.
6. Marilyn Deegan and Simon Tanner, eds., *Digital Preservation* (London: Facet Publishing, 2006), 4–5.
7. Michele V. Cloonan and Shelby Sanett, “Preservation Strategies for Electronic Records: Where We Are Now—Obliquity and Squint?” *American Archivist* 65 (Spring/Summer 2002): 70–106. They state, “Preservation of electronic records is a young field” (71).
8. Steve J. Wurtzler, *Electric Sounds: Technological Change and the Rise of Corporate Mass Media* (New York: Columbia University Press, 2007).
9. Wendy Richmond, *Art Without Compromise* (New York: Allworth Press, 2009), 99. Richmond presents this in a way that suggests how little choice we actually have in such matters. First, “Most of the devices that we had twenty-five years ago have advanced in service beyond our wildest imaginations, but they have become increasingly complex in usability” (89). Second, “Contemporary practices of recording and storing are not only more automatic and far-reaching, they are also aided by changes in personal technology. All of us, with our built-in GPS tracking, shareable calendars, digital pedometers, and digital heart rate monitors, are consciously and unconsciously becoming major contributors to the national tonnage of historical data” (101).
10. Steve Kolowich, “Cutting the Cord,” *Inside Higher Education*, June 14, 2011, http://www.inside-highered.com/news/2011/06/14/study_points_to_weaknesses_in_assessing_sustainability_of_digital_resource_projects, accessed June 14, 2011.
11. Clive James, *Cultural Amnesia: Necessary Memories from History and the Arts* (New York: W. W. Norton and Co., 2007), 117.
12. Simon Schama, *Scribble, Scribble: Writing on Politics, Ice Cream, Churchill, and My Mother* (New York: Ecco, 2010), 357–358.
13. Peter M. Tiersma, *Parchment Paper Pixels: Law and the Technologies of Communication* (Chicago: University of Chicago Press, 2010), 63.
14. *Ibid.*, 78.
15. *The State of Recorded Sound Preservation in the United States: A National Legacy at Risk in the Digital Age* (Washington, DC: Council on Library and Information Resources and the Library of Congress, August 2010), 100.
16. *Ibid.*, 102.
17. Nicholas Delbanco, *Lastingness: The Art of Old Age* (New York: Grand Central Publishing, 2011), 244–245.
18. Jack Fuller, *What Is Happening to News: The Information Explosion and the Crisis in Journalism* (Chicago: University of Chicago Press, 2010) provides an interesting analysis of the state of journalism, tying the fate of news coverage not to the fate of print and ink publishing but to the condition of our society and the need for honest, reliable reporting. Fuller covers the emergence of journalism as a profession, the development of its principles and methods, the challenges offered by television and then the Internet, and suggestions regarding its future. Fuller does not defend traditional journalism, but he, instead, shows where the field needs to accommodate new readers and technologies. While independence and verification must remain, Fuller suggests that other traditional notions, such as neutrality and disinterestedness, may be far less important or relevant.
19. Witold Rybczynski, *Makeshift Metropolis: Ideas About Cities* (New York: Scribner, 2010), 136.
20. Lewis Hyde, *Common as Air: Revolution, Art, and Ownership* (New York: Farrar, Straus and

- Giroux, 2010), 77. He notes that the Founders were always worried about the use and abuse of power when it came to the issue of information and knowledge. Hyde examines a variety of interesting recent case studies, such as Bob Dylan, Martin Luther King, Jr. images and materials, and the Human Genome Project. Hyde also addresses the role of universities in this, noting that "If the proper mission of a university is to preserve, create, and disseminate knowledge, and if that mission conflicts with values from other spheres, then propriety demands resistance" (225).
21. Bill Ivey, *Arts, Inc.: How Greed and Neglect Have Destroyed Our Cultural Rights* (Berkeley: University of California Press, 2008), 35.
 22. *Ibid.*, 45.
 23. Here are two examples from Seth Manning, ed., *Bound to Last: 30 Writers on Their Most Cherished Book* (Philadelphia: Da Capo Press, 2010). Daniel Trussoni in remembering his book: "The spine is broken, the pages dog-eared and water-stained. Simply picking it up and turning it in my hands allows me to remember the years I have spent with it"(21). Victoria Patterson recalls hers: "On a screen, I don't get the sense of accumulation that I do with a physical book: the weight of the pages moving from my right hand to my left hand, a history building and adding on itself. On a screen, pages disappear. For me, e-books are like ghosts of books. They're not here."(165)
 24. Jie Jenny Zou, "Old Dominion U. Researchers Ask How Much of the Web Is Archived," *Chronicle of Higher Education*, July 6, 2011, accessed July 7, 2011, http://chronicle.com/blogs/wiredcampus/old-dominion-u-researchers-ask-how-much-of-the-web-is-archived/32068?sid=at&utm_source=at&utm_medium=en.
 25. Siva Vaidhyanathan, *The Googlization of Everything (And Why We Should Worry)* (Berkeley: University of California Press, 2011), 202. He reminds us that we have choices to make, but that they are more complex than we generally assume: "We make a grave mistake by relying on technologies to change societies. Technologies are embedded in societies and cultures. They are not distinct and independent drivers" (133).
 26. Deborah A. Symonds "Living in the Scottish Record Office," 164–175 in Elizabeth Fox-Genovese and Elisabeth Lasch-Quinn, eds., *Reconstructing History: The Emergence of a New Historical Society* (New York: Routledge, 1999), 165.
 27. Ann M. Blair, *Too Much To Know: Managing Scholarly Information before the Modern Age* (New Haven: Yale University Press, 2010).
 28. William Zinsser, *Writing with a Word Processor* (New York: Harper and Row, 1983), vii.
 29. *Ibid.*, 20.
 30. *Ibid.*, 30–31.
 31. *Ibid.*, 105.
 32. Darren Wershler-Henry, *The Iron Whim: A Fragmented History of Typewriting* (Ithaca: Cornell University Press, 2007).
 33. See Joseph A. Dane, *Out of Sorts: On Typography and Print Culture* (Philadelphia: University of Pennsylvania Press, 2011) and Elizabeth L. Eisenstein, *Divine Art, Infernal Machine: The Reception of Printing in the West from First Impressions to the Sense of an Ending* (Philadelphia: University of Pennsylvania Press, 2011) as recent examples of studies examining this issue among others.
 34. Marjorie Garber, *The Use and Abuse of Literature* (New York: Pantheon Books, 2011), 168.
 35. Robert Darnton, "5 Myths About the Information Age," *Chronicle Review* April 17, 2011, http://chronicle.com/article/5-Myths-About-the-Information/127105?sid=at&utm_source=at&utm_medium=en.
 36. Marilyn Johnson, *This Book Is Overdue! How Librarians and Cybrarians Can Save Us All* (New York: HarperCollins, 2010), 7.
 37. Elizabeth Brown Pryor, *Reading the Man: A Portrait of Robert E. Lee Through His Private Letters* (New York: Viking, 2007), 347.

38. Richard H. R. Harper, *Texture: Human Expression in the Age of Communications Overload* (Cambridge, MA: MIT Press, 2010), 234.
39. William J. Mitchell, *Imagining MIT: Designing a Campus for the Twenty-First Century* (Cambridge: MIT, 2007), p106, 108.
40. The idea that we are in a transitional era, one that takes a long time to unfold enough that we can understand it, is a theme in Christine Borgman's study on the nature of the digital scholarship—*Scholarship in the Digital Age: Information, Infrastructure, and the Internet* (Cambridge, MA: MIT Press, 2007).
41. Howard Gardner, *Truth, Beauty, and Goodness Reframed: Educating for the Virtues in the Twenty-First Century* (New York: Basic Books, 2011), 25. Or, as he states at the end of the book, "if futurology is a risky profession, history is a necessary one" (197).
42. See Raymond Clemens and Timothy Graham, *Introduction to Manuscript Studies* (Ithaca: Cornell University Press, 2007).
43. Bill Hayes, *The Anatomist: A True Story of Gray's Anatomy* (New York: Ballantine Books, 2008), 167.
44. Helen W. Samuels, "Educational Technology: A Documentary Tool?" *The Academic Archivist* 23 (Spring 2006): 4–9 (quotation 8).
45. See Adrian Cunningham, "The Archival Management of Personal Records in Electronic Form: Some Suggestions," *Archives and Manuscripts* 22 (May 1994): and "Waiting for the Ghost Train: Strategies for Managing Electronic Personal Records Before It is Too Late," *Archival Issues* 24, no. 1 (1999): 55–64.
46. Adina Hoffman and Peter Cole, *Sacred Trash: The lost and Found World of the Cairo Geniza* (New York: Nextbook, Schocken, 2011).
47. Ivey, 48.
48. *Ibid.*, 55, 217.
49. See, for example, Caroline Frick, *Saving Cinema: The Politics of Preservation* (Oxford: Oxford University Press, 2011).
50. James W. Cortada, *Information and the Modern Corporation* (Cambridge: The MIT Press, 2011), 96.
51. Richard J. Evans, *Lying About Hitler: History, Holocaust, and the David Irving Trial* (New York: Basic Books, 2001).
52. Alexander Stille, *The Future of the Past* (New York: Farrar, Straus, and Giroux, 2002), xi, 300.
53. Sven Spieker, *The Big Archive: Art from Bureaucracy* (Cambridge: MIT Press, 2008).
54. Christopher J. Prom and Ellen D. Swain, *College and University Archives: Readings in Theory and Practice* (Chicago: Society of American Archivists, 2008), vi.
55. Such as Sue Myburgh, *The New Information Professional: How To Thrive in the Information Age Doing What You Love* (Oxford: Chandos Publishing, 2005).
56. Patricia Hampl and Elaine Tyler May, eds., *Tell Me True: Memoir, History, and Writing a Life* (St. Paul, MN: Borealis Books, 2008), 88.
57. Andrew Flinn in Louise Craven, ed., *What Are Archives? Cultural and Theoretical Perspectives: A Reader* (Burlington, VT: Ashgate Publishing Co., 2008), 123.