
Training Professionals to Preserve Digital Heritage: The School for Scanning

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ABSTRACT

From 1995 to 2005, the Northeast Document Conservation Center (NEDCC) presented its School for Scanning conference eleven times in cities across the United States, serving a total of nearly four thousand professionals. The program addressed a seemingly insatiable need for training on building, managing, and preserving digital collections. Because the conference was presented by an organization whose mission is preservation, the emphasis was on standards, quality, and assuring long-term access to digital collections.

Since 1995 the content of the conference has evolved as institutional digitization programs have matured and as standards and best practices have developed. The succession of conference agendas provides a series of snapshots of the effort that has gone into bringing digital programs into being. This article, originally written as a paper for the 2006 Congress of the International Federation of Library Associations [IFLA] in Seoul, Korea, looks at how the needs of the audience changed over the decade. It evaluates the factors that have contributed to the school's ongoing success and at current challenges to this continuing education program as the experience level of professions in the field advances rapidly.

MIRRORING THE GROWTH OF DIGITAL PROGRAMS

On April 13, 1995, NEDCC presented the first School for Scanning as a one-day conference at the John F. Kennedy Library in Boston (see Appendix 1). The program grew out of an ongoing series of preservation microfilm workshops sponsored by NEDCC. A growing number of attendees were requesting additional training on digitization because, they reported, within their institutions, they were the ones expected to staff new

scanning operations. The title was a takeoff on Richard Sheridan's 1777 play, *School for Scandal* and the name stuck. The pilot conference drew more than three hundred people, an enormous response that took the organizers by surprise. Speakers representing the National Endowment for the Humanities (NEH), the Andrew W. Mellon Foundation, and the Commission on Preservation and Access reported on their organizations' support for digital efforts.

The agenda spotlighted two early NEH-funded research projects that explored the conversion of existing microfilms to digital files and vice versa, presented by Paul Conway, then at Yale University, and Anne Kenney, at Cornell University. The major focus was on the technical aspects of scanning, with much discussion about recommended resolution levels, and whether it was preferable to scan first or microfilm first. With hindsight, the emphasis on the technology for image capture appears not to have been the most important issue after all. Parenthetically, neither Yale nor Cornell ultimately delivered content from those experimental projects to the Web.

Most of the audience members at the 1995 conference had no first-hand experience with digitizing collections materials. Their concerns were about how to get started, and their most pressing question was whether they should or should not digitize. Many said they felt pressure from institution directors or trustees who thought the answer to their collection storage problem was to "just scan it." Little was understood about the complexity and cost of building digital collections, or the long-term sustainability issues.

The electricity generated by this first conference was palpable. There was tremendous interest in expanding the agenda to include other aspects of building digital collections and in bringing the conference to other locations. The School for Scanning's long and successful afterlife as a road show began through a partnership with the National Park Service. NPS' enterprising archivist, Diane Vogt-O'Connor, obtained a grant through an internal educational fund to expand the program to a three-day event and present it at the Smithsonian Institution in Washington in September 1996. The Getty Center also joined the partnership, contributing copies of its publication, *Introduction to Imaging* (1995), by Howard Besser and Jennifer Trant, as a free handout.

NEDCC's energetic Field Service Director, Steve Dalton, worked with the National Park Service staff to develop the curriculum for the first three-day conference. New topics that were added included selection, copyright, Web access, and media longevity. Digital preservation was a topic that could only be talked about in the future tense, and hence discussions were abstract. The agenda included a presentation by Steve Puglia, at the National Archives, entitled, "Digital Preservation: Fact or Fiction?" and a wrap-up analysis by Howard Besser, then at the University

of California at Berkeley, entitled, "What Have We Learned? What Must We Learn?" The presentation of the expanded version of School for Scanning filled the largest hall that could be found at the Smithsonian Institution and generated a long waiting list.

Based on the success of the Washington presentation, The Andrew W. Mellon Foundation provided start-up support to take the School for Scanning conference to four other locations including Berkeley, New York, New Orleans, and Chicago. The success of the program in the late 1990s was largely due to the work of a curriculum committee of digital experts who evaluated each conference, based on a post-conference questionnaire, and updated the agenda for the next presentation. The curriculum committee saw a need to look more broadly at management issues. They sought to incorporate new model programs and evolving standards in an ongoing quest to achieve the right balance of topics and speakers.

The evolution of the curriculum reflected the rapid development from digital projects to digital programs, especially at national institutions and large research libraries. Much of the innovative work being done at this time was funded by grants from the Library of Congress's American Memory program and by the Institute of Museum and Library Services (IMLS). These agencies developed guidelines that encouraged institutions to build sustainable collections.

The School for Scanning served as a mirror for the field; the more it reflected the growth of institutional programs, the more it focused on the infrastructure for digitization. Evolving standards were incorporated into the curriculum and the speakers promoted practices that complied with these standards. New topics included the institutional infrastructure and interoperability, and metadata, which first appeared on the program in 1997. As start-up funding from the Mellon Foundation phased out, NEH provided support to NEDCC to continue the School for Scanning as the centerpiece of a national training program on reformatting.

NEDCC sought to appeal to the broadest possible audience and the wide range of professional affiliations of participants proved to be one of the important strengths of the program. School for Scanning was one of the few forums where practitioners from the library, archives, museum, and information technology fields could come together to share information across institutional lines and, as a result, to spawn strategic partnerships. An important turning point was the addition to the faculty in 1999 of Murtha Baca, from the Getty Research Institute, who spoke about descriptive metadata. She focused on the importance of developing common cataloging practices for museums, libraries, and archives that hold visual materials. This message helped to build awareness of how the activities of these different types of institutions were becoming more similar in the online environment.

Other topics that have been added to the agenda more recently have

included vendor relations, digitization of audiovisual formats, business planning, the IMLS/NISO *Framework of Guidance for Building Good Digital Collections* (NISO Framework Advisory Group, 2004), and trusted digital repositories. The NISO Framework, together with the recent publication by RLG and NARA of guidelines for certifying trusted repositories (RLG-NARA Task Force on Digital Repository Certification, 2005), have pointed the way to reorganizing the entire agenda and presenting what most needs to be taught.

APPROACH

The teaching methods of the School for Scanning reflected its goal of accommodating a large audience. NEDCC recruited and cultivated long-term relationships with a core faculty of nationally recognized experts. Thanks to its all-star cast, the program attracted participants who were willing to travel long distances to attend as well as local audiences. The speakers lectured formally in a large hall, most often filled to capacity. Yet participants and faculty reported that one of the strengths of the conference, with the exception of the two most recent presentations, was their interactivity. After each pair of speakers, a generous time slot was allotted for a question and answer period.

The core faculty members, who developed a strong sense of identification with the conference, generally agreed to stay for the entire three days in order to meet with and advise participants. Their spontaneous participation in question and answer sessions and panels helped to spark lively discussions that continued through the coffee breaks, lunches, and often into the evening. In 2000, with support of IMLS, NEDCC produced a textbook for the School for Scanning, entitled *Handbook for Digital Projects* (Sitts, 2000). Although the publication has not been updated, parts of it are still valid and it remains one of the most frequently accessed resources on NEDCC's website.

One of the identifying characteristics of the School for Scanning that remained stable over time, was its deliberate focus on decision making, as opposed to recommending specific products and procedures. Although some people in technical positions attended, the program was clearly addressed to administrators and decision makers, those who supervised technical staff or allocated resources for digital activities. The goal of the School for Scanning was not to give people a cookbook, although many people came to the conference hoping that was what they would get. Instead, they went away with the list of questions they needed to ask in the planning stage of a digital project. The faculty took the position that there was more than one valid solution and that each institution needed to make its own decisions based on its mission and its understanding of who would use the digital content and for what. Another identifying characteristic of the School for Scanning that remained constant was NEDCC's preserva-

tion commitment, and this has distinguished the conference from other forums. From the start, there was emphasis on producing long-lasting digital products. For many years Paul Conway spoke about preservation in a digital world. Long before the principles of the Open Archival Information System (OAIS) were articulated (Consultative Committee for Space Data Systems, 2002), he preached the importance of using nonproprietary software and urged audiences to produce digital products worth preserving.

Like other continuing education programs, the School for Scanning served professionals who were already employed in the field and who needed training to carry out their own jobs. Given that libraries and other institutions needed to staff their growing digital initiatives with people who had not been professionally trained in digital librarianship, the need for training in place during this seminal ten-year period was intense. Institution administrators were hungry for training opportunities for themselves and for their staffs. Programs were advertised nationally. Conferences typically drew participants from forty states, with a handful of international participants. The demographics remained fairly stable over time. The largest number came from libraries, with the majority representing academic libraries, followed by archives, museums, and a wide range of government agencies, research organizations, religious groups, and others.

CHANGING DEMOGRAPHICS

What did change over the years, however, was the audiences' increasing knowledge level about digitization. In the first few years, very few of the participants were actually digitizing. With more than 92 percent of cultural institutions in the United States currently digitizing from source materials, according to a 2005 NEDCC survey, the audience is far more sophisticated and a greater percentage of attendees are practitioners. The questions that are asked are well formulated, growing out of specific projects rather than theoretical interest.

Interestingly, with more experience, the belief that digitization is a cheap and easy panacea has all but disappeared. The audience has a realistic appreciation that digitization is difficult, expensive, and requires an ongoing institutional commitment. The initial euphoria about digitization has been replaced with concerns about the high costs of digital initiatives and how institutions will sustain them after their initial grant funding ends. These concerns are borne out by recent data from a nationwide survey conducted by Heritage Preservation (2005), which indicates that only 27 percent of United States institutions have recognized a responsibility for maintaining digital collections as part of their mission.

As the School for Scanning participants have become much more knowledgeable about digitization, the level of instruction appears to have

evolved sufficiently rapidly to stay ahead of the audience. Even for the two most recent conferences, a high percentage of participants reported that they learned as much or more than they expected to learn: 91 percent for the Chicago program in 2004 and 87 percent for the Boston program in 2005. The speakers have consistently received high marks, with an overall score of 4.5 or higher on a scale of 1–5, with 5 being the highest rating. Attendees continue to comment that the conference helped them plan their next project, or that they will return to their institutions and change the way they manage their digital initiatives.

In addition to benefiting thousands of participants in the United States, there has also been an international dimension to the training program. It was offered in two international settings, at the Royal Dutch Library in the Netherlands in 2001 and the National Archives of Cuba in 2000. The Dutch program benefited from tours of the library's new digital archiving system, while the Cuban program had to be adapted to an environment that lacked widespread Internet access. The author recognizes that the approach of the School for Scanning may not translate with complete success outside of the United States and Canada. As the United States lacks a national agenda for digitization, the relationship of individual institutions to the national effort is different than in countries with more centralized leadership. As a result, the funding is different and priorities are different.

IMPACT

The School for Scanning has had a transformative impact on its sponsor organization, the Northeast Document Conservation Center. The center's access to a national network of digital experts has become one of its most valuable assets, one that transcends its regional footprint in New England. It has established an identity for providing cutting-edge information on digitization and it has recognized a need to maintain this position of leadership.

In 2003, the School for Scanning served as a launching pad for an IMLS-funded National Leadership initiative to develop a methodology for assessing the digital preservation needs of institutions and create tools to help institutions strengthen their digital readiness. In carrying out this project, NEDCC has formed strategic partnerships with the Museum Computer Network, Heritage Preservation, and the Center for Research Libraries. Thus far, a written assessment tool has been drafted and test-bed site visits are currently underway. The goal is to develop a model for channeling technical assistance on digital readiness and digital preservation to small and medium-size institutions.

After ten years of teaching School for Scanning, the market still has not been saturated. Indeed, a recent audience survey performed by NEDCC as part of a business planning study indicated that, among a wide

choice of current and potential educational topics, School for Scanning ranked as the number one need. A number of participants attended the conference on a more or less regular basis; 5–10 percent of the audience are repeat attendees. In an effort to assess what has been accomplished by School for Scanning over the last decade, the author of this article has contacted some of the long-time faculty members, especially Paul Conway at University of Michigan and Steve Chapman at Harvard University, who offered the following comments on the program's impact.

- School for Scanning has been one of the most effective advocates for the IMLS/NISO Framework for Guidelines for Building Digital Collections.
- School for Scanning brought and kept preservation in the consciousness of libraries and archives at a time when most institutions focused narrowly on the technology of scanning.
- School for Scanning succeeded in relating technology to the institution's mission, rather than relating the institutional mission to what technology can do.
- Participants came away from the conferences with an enlarged perspective about how to approach their own work and this is what continuing education should do.
- Participants invariably got leads on innovative projects from the speakers and also from the question and answer sessions. They got a sense of who is who on a national level, of who is doing what.
- School for Scanning was successful in the way it gave participants focused access to the literature, to evolving standards and to people doing the best work. The bibliographies, website links, and other handouts were critical resources.
- As digital projects get older, with some now approaching the ten-year mark, there has been a pay off for School for Scanning participants who thought about their users, who thought about preservation. They are able to rework the interface and rebuild the user experience to get more from collections. Others have static little websites that do not scale; they realize the limitations of the design and wish they had done A, B, and C at the outset.
- Even more than its publications, the School for Scanning has put NEDCC on the map in a new way and made it a national source for continuing education on cutting-edge preservation issues.

FUTURE DIRECTION

The audience for School for Scanning has continued to grow, with 350 people at the Chicago conference in 2004 and 429 at the 2005 conference in Boston. This level of success, however, has had a downside. The original interactivity of the forum has been stifled to some extent by the enormous

audiences. Some participants have reacted negatively to too many “talking heads.” One commented that she “felt like a mushroom after being in the dark for three days.” As a result of the increasing knowledge of a large sector of the audience, faculty and participants have observed a widening disparity between the training needs of experienced practitioners and those of individuals from institutions that are still at the beginning of the learning curve or who have been newly hired for their positions. Beginners have reported that they do not feel comfortable asking questions in this environment. At both extremes of the spectrum, participants feel that, for them, the School for Scanning is no longer a “school.”

Some of the faculty members would like to see the conference evolve into a Graduate School for Scanning, targeted to a smaller audience of experienced practitioners who want to keep up with what is happening on the bleeding edge. Others argue for offering a more basic track for those participants who still need information at an introductory level. Up to this time, NEDCC has been reluctant to fragment the audience. School for Scanning is currently at a crossroads.

NEDCC has recently obtained IMLS funding for a new conference on digital preservation, entitled *Persistence of Memory: Stewardship of Digital Assets*. This program provides more detailed discussions of sustainability issues such as trusted digital repositories, preservation metadata, and business planning. In addition, NEDCC is integrating teaching on digital preservation into its traditional preservation courses in library schools and its basic preservation workshops.

For the immediate future, NEDCC plans to continue to offer the conference without grant support, while adding breakout sessions to incorporate more interactive teaching methods. Given that no topic can be sustainable forever, the future of School for Scanning is uncertain. However, now that NEDCC has established a niche in the digital world, it is well positioned to build on the School for Scanning experience to develop a variety of new services. It has begun to offer digital production services, digital advisory services, and workshops for smaller audiences. As a recent technology survey by the Institute of Museum and Library Services (2006) indicated, to undertake digitization projects, all types of cultural heritage institutions report that training current staff to perform digitization activities is the predominant solution. Education and training emerge as one of the greatest challenges of the twenty-first century as libraries adjust to an increasingly digital environment.

NOTE

This paper is based on a presentation to the 72nd IFLA World Library and Information Congress, August 20–24, 2006, Seoul, Korea.

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APPENDIX 1. LIST OF SCHOOLS FOR SCANNING CONFERENCES

April 13, 1995	John F. Kennedy Library Boston, Massachusetts
September 11–13, 1996	National Museum of American History Washington, DC
May 12–14, 1997	Berkeley Marina Marriott Hotel Berkeley, California
November 3–5, 1997	New York Academy of Medicine New York, New York
December 7–9, 1998	LePetit Théâtre du Vieux Carré New Orleans, Louisiana
June 2–4, 1999	Chicago Historical Society Chicago, Illinois
September 18–20, 2000	University of Washington Seattle, Washington
December 3–5, 2001	Crest Theater Delray Beach, Florida
April 23–25, 2003	The Getty Center Los Angeles, California
June 2–4, 2004	Palmer House Hilton Chicago, Illinois
June 1–3, 2005	Boston Park Plaza Hotel & Towers Boston, Massachusetts

Ann Russell has served as executive director of the Northeast Document Conservation Center since 1978. She received her undergraduate degree from Harvard University and holds a PhD in English Literature from Brandeis University. She has served on

the Boards of Directors of Heritage Preservation and the Intermuseum Conservation Association in Cleveland, Ohio, as well as on preservation committees of the American Library Association and the Society of American Archivists. She currently serves as chair of the Association of Regional Conservation Centers and as treasurer of the Society of American Archivists. She has organized conservator exchanges and training programs in Russia, Mongolia, Cuba, South Africa, Latin America, and Central Europe. She has written two books and numerous articles on preservation.

