

Number 64

February 1994

Working Paper on the Future

How do changes in technologies, in higher education, and in the very nature of "preservation and access" affect the agenda of the Commission? This Working Paper on the Future was prepared by the board and staff to serve as a guide for future directions for the Commission at a time when the emphasis on preservation of knowledge originally issued in print form is shifting to the preservation of access to recorded knowledge in all formats. In endorsing the paper at the October 1993 annual meeting, the board asked that it be distributed to sponsors by letter and to the general public via the newsletter. The paper also is being shared with candidates for the presidency of the Commission.

The Commission on Preservation and Access was incorporated as a non-profit tax-exempt public charity on July 1, 1988, after two years as a project activity of the Council on Library Resources. The official purposes as stated in the Bylaws for which the Commission is organized and operated are the following:

To foster, develop, and support systematic and purposeful collaboration among all libraries, archives, and

allied organizations in order to insure the preservation of the published and documentary record in all formats and to provide enhanced access to scholarly information.

- To develop and carry out the collaborative plans and procedures that will enable libraries and preservation specialists to expand and integrate present preservation work.
- To promote participation of all disciplines and encourage support by involved and interested academic and professional organizations.
- To encourage technical and other research on topics of importance to the preservation effort.
- To establish a system to gather and analyze information about all aspects of preservation activity.
- To ensure that access to preserved materials is efficient and supportive of research and scholarship.
- To build and maintain effective communication with key organizations and to promote and encourage the institutional adoption of sound preservation policies and practices.

To do any and all lawful acts that may be necessary, useful, suitable, or proper for the furtherance of accomplishment of the purposes of the Commission.

In more informal language, the Commission has defined its mission as the advancement of the preservation and access agenda through coordination, advocacy and exploration of issues rather than through direct operation of programs. The Commission serves chiefly as a

> catalytic agent, a broker, a convener of interested parties, and an identifier of salient problems initially in the field of book and journal preservation, but increasingly expanding into the issues surrounding electronic format. Our purpose is to work primarily through existing institutions with the flexibility to develop initiatives both to shape and to respond to the evolving objectives of the national and international preservation access agenda. Since Commission has decided to remain a small organization, major emphasis is on judicious choice of priorities and the development of catalytic strategies with the most potential to effect change. Essential strategies have included the identification of the appropriate

Commission niche; the elimination of redundancy with other organizations; coordination of fragmented activities; identification of major issues and problems; exploration, analysis and dissemination of results of technology applications and concentration on the national and international arenas.

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Major initiatives introduced during the past five years to carry out the purposes of the Commission include the following:

- The Brittle Books program, now institutionalized in the National Endowment for the Humanities' Division of Preservation and Access
- Scholarly involvement with a variety of disciplines through scholarly advisory committees and task forces
- Communications and outreach with a monthly newsletter; a publications series; the brokering of articles and other information in journals, books, newspapers, and television programs; and the coordination of exhibits at conferences, libraries and archives
- International activities to ensure the compatible exchange of machine-readable bibliographic records of preservation microforms, development of cooperative filming projects, and sharing of information to eliminate duplicate activity
- Contracting for specific research and demonstration projects in support of microfilming improvements
- Research and demonstration projects in the applica-

tion of digital technologies to the preservation of brittle books, images and manuscript collections

- Investigation into the copyright requirements for the microfilm preservation of brittle books
- Exploration of both short-term and long-term educational needs for a vastly enhanced national preservation program
- Development of plans for a central collection of microforms to provide convenient, cost-effective access on a national scale
- Development of a collaborative, long-range science research agenda to address institutional preservation needs

As a result of these activities in concert with others, visibility for the preservation challenge is expanding, federal funding for the reformatting of brittle books continues at a steady level, a focused research agenda for preservation and conservation is evolving, and there is an explosion of

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The Commission on Preservation and Access was established in 1986 to foster and support collaboration among libraries and allied organizations in order to ensure the preservation of the published and documentary record in all formats and to provide enhanced access to scholarly information.

The newsletter reports on cooperative national and international activities and is directed to university administrators, scholars, and faculty; preservation specialist and managers; and members of consortia, governmental bodies, and other groups sharing in the Commission's goals. The newsletter is not copyrighted. Its duplication is encouraged.

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Maxine K. Sitts - Program Officer, Editor Sonny Koerner - Managing Editor In addition to the changing landscape stimulated by Commission and related activities, a variety of external forces continues to influence our agendator the future.

interest and exploration in the application of digital technologies to the preservation of brittle books, photograph collections and other nonprint materials. In addition to the changing landscape stimulated by Commission and related activities, a variety of external forces continues to influence our agenda for the future. The rapid expansion of network capacities, the emergence of more sophisticated imaging technologies, the decline in electronic storage costs, and the unprecedented financial stringency in higher education have increased the urgency for a faster transition to electronic generation, storage, dissemination and use of scholarly information resources. Perhaps the most important implication of all these changes for the Commission's future agenda is the shift of emphasis from preservation of knowledge originally issued in print form to the preservation of access to recorded knowledge in all formats as far into the future as possible.

How do these changes affect the future agenda of the Commission? If the Commission's primary role is to serve as a change agent, our program directions must encompass a continually evolving agenda including both current activi-

> ties and future directions. It will be important not to discontinue Commission programs prematurely as we move into new areas.

> For example, the Commission should maintain an active watching brief over federal support for brittle book preservation. Of equal concern is the implication for paper longevity of legislative mandates for the use of recycled paper. Because libraries and archives will probably be managing hybrid systems for a long transition period, given the nature of technological invention and social change,

attention will need to be paid to both analog and digital technologies for some time to come.

PROGRAM DIRECTIONS

The next significant step for our nation's libraries and archives is an affordable and orderly transition into the digital library of the future in order to realize the extraordinary potential and value of increased access to information resources. It is a transition all information repositories — large and small, public and private — must make in an environment of increasing demand and serious financial constraints. It will not be a brief or sudden transition. The high initial costs often serve to paralyze initiative, if viewed only in the short term and without thoughtful comparison with the rapidly escalating costs of traditional library storage and services. Digital information systems require collaborative design and continuing maintenance to realize their potential financial, intellectual and social benefits for instruction, research and scholarship. It is neither cost-

effective nor intellectually beneficial to build and operate a stand-alone digital library. The capacity to reduce costs and expand access in the long term is directly dependent upon our ability to create and maintain a national and international collaborative support structure.

An important corollary to the potential of the digital library is of course the inherent short life cycles of digital media, hardware and software. Preservation of access to digitally recorded information will require a very different conceptual approach than preservation of the medium itself, the analog strategy.

The transition to the digital library will in all probability follow the pattern of past technological shifts — initial introduction of the new technology into the traditionally managed organization, a period of apparent integration, followed by what appears to be a sudden eruption of chaos and the final recognition that managing new technology requires a restructuring of the organization. In this new environment it seems appropriate that the Commission continue its flexible, ad hoc agenda-setting strategy within

defined broad program outlines accompanied by the annual review of priorities, deletions and additions. The list below enumerates the recommended directions for the next few years.

Executive Capacity

One of the most important roles of the Commission and the hardest to define and make tangible is its advocacy capacity — to maintain visibility of urgent issues and to catalyze productive focused action. Changing a well-entrenched paradigm requires frequent and public articulation of the new mind set required in many arenas. The specific program directions listed below depend upon the capacity to

analyze the changes, seize the initiative in a multitude of seemingly small impasses and leverage the results into a groundswell of change. The stature and influence of Commission board members, the broad range of sponsors, the flexibility for catalytic action, and the capacity to serve as an honest broker unhampered by a special interest membership are important factors in the Commission's capacity for creative responses on a global scale. Its neutral status enables it to serve as the point organization for international preservation activities by providing a single, focused contact to alleviate the frustration of finding the appropriate entree into large bureaucratic organizations. Some specific activities enabled by the executive capacity include the following:

- Continuing Congressional support through staff briefings, annual testimony and serving as an information resource
- Microfilm audit pilot project to establish practice of biennial audits

- Investigation and publication of inconsistencies in guidelines issued by various funding agencies
 - Educational meetings for funding agencies
 - Informal liaison to broad range of constituencies
- Ad hoc committees and task forces to respond to specific concerns, e.g., Mid-sized Research Libraries Committee, College Libraries Committee, Preservation Education Task Force, and the Preservation Managers Council

In addition, the Commission will need to find its particular niche in exploring and resolving a larger set of issues, relevant to the broader information community, accompanying the transition to the digital library. Since many organizations are working on these issues from a variety of interests and perspectives, the Commission's role as a convener and catalyst could be useful to assist in the articulation of the issues, to support pilot projects and to commission timely publications. The three areas listed below represent important opportunities for collaborative initiatives with the relevant organizations. Activities in these areas are complex and distributed among a variety of spe-

cial interest groups. We need to acquaint ourselves further with current activities in order to identify an effective role for the Commission. Our involvement may range from a watching brief to an independent initiative.

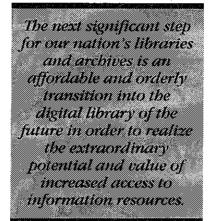
Copyright. The issues of intellectual property in the digital environment require a reconceptualized approach to our traditional copyright principles if we are to maintain a productive balance between stimulation of individual creativity and broad public access.

Standards. Standards for digital hardware, software and media are essential, but the processes for setting them, for analyzing their appropriateness and for their

productive use are fundamentally different from the processes we employed in the analog world. It is critically important that we recognize and rethink the implications of those differences. With the broad range of activities and agencies already involved in standards, the Commission could consider the development of a coordinated progress report on standards activities to develop a priority list of those most essential for preservation and access goals.

Electronic Archives. The management of digital archives requires archivists to consider three major issues:

1) the digitizing of existing paper-based materials; 2) records created in electronic form that do not and cannot exist on paper; and 3) the primary distribution of documents in digitized form. Each of these developments will require study to determine the appropriate policies and practices for preservation and access. Although there are many similarities to digital library collections, archival practices, policies and contents are sufficiently different to warrant special study.



Number 64

The Commission on Preservation and Access

February 1994

Technology Initiative

The Commission can play an important role in catalyzing and supporting the transition to the digital library by continuing and extending its explorations into the use of digital technology for the preservation of deteriorating research resources. The advantages for a preservation thrust are several:

- Deteriorating documents represent culturally important but less heavily used research resources which must be conserved, reformatted or permitted to decay: intervention is justified and can occur on an experimental basis. Nonprint analog materials, such as videotapes, videodiscs and audio tapes, also pose major preservation problems.
- The conduct of coordinated pilot projects to apply digital technologies to endangered materials will provide important and essential information to help resolve uncertainties in the transition to digital information services before undertaking an initial, possibly disruptive and irrevocable transition. In addition, the preservation context per-

mits us to size the problem in a manner that provides a conceptual focus, reasonably controlled expenditures, and valuable management planning information. These projects will cover a variety of issues:

- Costs of storage, refreshing, dissemination and use
- Infrastructure costs: hardware, software and network capacities, availability and compatibility
- Management issues: archiving, human resources, refreshing of short life cycles of hardware and software
- Storage costs trade-off: individual library buildings vs. collaborative databases
- Financial strategies for managing digital information

Specific Activities:

- An hour-long film exploring the characteristics of electronic information, including the phenomena of brief life cycles, unceasing changes in hardware and software access systems, the need for new systems of indexing and analysis, costs, copyright and ownership issues and equity of access to information
- A public policy study to develop a useful vision of the organizational structure for efficient management and provision of electronic information services in higher education, to consider implementation processes for transforming our traditional organizations and to articulate the policy issues to be considered and resolved to stimulate constructive action. The study would include several symposia supported by staff research and position papers.
- Continuing support of a preservation digital consortium to explore the application of digital technologies for preserving brittle books, documents and other deterio-

rating analog media. These explorations would also investigate the potential for collaborative support of digital information services, seek to determine at what point in the process that collaboration must take place and put into effect the kind of interinstitutional mechanisms needed to integrate that process into local operations. The activities of the digital preservation consortium serve several important purposes: 1) collection of valuable information on the application of digital technologies to the preservation of deteriorating print and nonprint research resources; 2) provision of important insights into the management of digital information; and 3) contribution to the total corpus of scholarly materials available in digital form.

Science Research Initiative

A necessary component of a comprehensive preservation program is a science research agenda to address critical technical issues faced by the colleges, universities and

archives that are responsible for large, culturally important collections. The Commission's science research initiative began in October 1989 at the request of several national library committees interested in collaborating on the development of research priorities. The Commission worked with a group of four scientists to develop an educational workshop for a group of sixteen preservation administrators. This initial seminar was followed by an interim one-day planning session and a second intensive workshop.

The general theme for the science research initiative has been an emphasis on extending the useful life of paper, film and magnetic media through better environment and storage. Projects are being

designed to provide new techniques and technologies to manage chemical deterioration in the nation's working collections and to extend their useful life. In addition to developing consensus on priorities for research, the process has strengthened professional relationships among the group and provided a productive learning environment for honing policy formulation, priority-setting and decision-making skills.

Specific Activities:

- Management of the six projects developed in the first two workshops
- Creation and dissemination of a report on the initiative's accomplishments
- Participation in the development of standards and practices that are related to the results of the research projects
- Promotion of the distribution and use of management tools created by the project

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Scholarly Involvement Initiative

The increasing use of digital technologies for preserving the content of brittle books, journals, photographic collections, and other nonprint resources makes the involvement of scholars in the process more essential than ever. Because the traditional information services of research libraries were limited largely to books and journals, we have not developed a comprehensive understanding of how researchers would use either unbundled or differently bundled information resources across the disciplines. We have many mythologies but few facts. The ability of research libraries to provide customized information services is going to require a much more informed knowledge of how scholarly resources are used, which formats are appropriate to which disciplinary inquiries, and which data are needed to assess intellectual requirements versus costs. An active collaboration with scholars is crucial since the availability of information resources and services can greatly stimulate or inhibit the directions of scholarly research. The issue is not what the technology can provide, but what the institution

(or the individual) can afford without compromising the intellectual nature of the research. We already have found in our preliminary investigations with the scholarly advisory committees that once scholars are apprised of the relative costs, they are quite willing to scale back their original requirements superficially based on technological potential alone.

Specific Activities:

- Expansion of scholarly advisory committees into the social sciences and sciences with particular emphasis on exploring technology issues as well as selection strategies
- Focused outreach effort to encourage and support faculty involvement on individual campuses, at professional meetings, and through professional journals.

International Initiative

The international project has expanded rapidly beyond its modest beginning to explore the feasibility of a compatible, affordable, bibliographic database capacity for preservation microfilms on an international scale. The Commission's principal objective in setting priorities for international projects is global accessibility to scholarly resources. Although the preservation of books, documents and manuscripts is a major concern around the world, the Commission's unique capability for flexible response to a wide range of needs makes its contribution extraordinarily valuable. Some countries will be cooperating with the United States in exploring the issues surrounding digital technologies while other countries are faced with almost insuperable obstacles in preserving the printed heritage of the past. The challenge for the future will be maintaining a

coordinated focus and setting affordable priorities in order to achieve the greatest benefit from limited resources.

Specific Activities:

- Maintenance of executive capacity
- ■Continuing collaboration with the European Commission on Preservation and Access
- Continued participation in the European Community's project to develop and maintain a European Register of Microform Masters
- Catalytic support for microfilming and bibliographic access projects in selected Eastern European and Central American countries
- Educational opportunities for Eastern European and Central American librarians
- Cooperation with organizations involved with preservation activities in China, Japan, Australia and Southeast Asia
- Exchange and dissemination of relevant publications on an international scale
- Coordination and encouragement of joint cooperative projects between U.S. and foreign libraries and archives

Communications Initiative

Because all citizens and institutions are affected by how we preserve and provide access to knowledge, the original plans for the Commission called for a communications program that would substantially heighten the visibility of the preservation-and-access agenda beyond the immediate library community and would promote durable support for our work and goals. The strategy that has evolved over the past five years involves developing accurate, timely and dependable information

that will contribute to a broad-based understanding of and support for preservation/access initiatives, using the leverage of existing communicating channels and media services to distribute that information efficiently.

The development of this communication element has been steadily evolutionary, advancing in numbers and in breadth of content in support of our major programmatic areas. The segmented mailing list of 1,600 contacts, with over 300 from outside the U.S., comprises university provosts and presidents, faculty and scholars, state and regional cooperatives, directors of international libraries, businesses and industries, library school deans and preservation and archives administrators.

The effectiveness of the communications program over the past five years is based primarily on its ability to promote a clear, visionary yet sensible preservation-and-access agenda to many previously uncommitted constituencies and to engage their interest and support for exploratory projects. The charge for the future is to strengthen and expand the visibility and awareness of preservation needs

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Number 64

The Commission on Preservation and Access

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and to continue developmental efforts to find cooperative solutions to common problems.

Specific Activities:

- Continuation of newsletter and publication series
- Expansion of mailing list to reach more individual scholars, librarians and technology specialists, the international community beyond national libraries, and institutions of higher education
- Expanded targeted publications and exhibit schedule for scholarly disciplines, policy-makers, publishers and other professional organizations
- Use of the Internet and other new technologies to enhance access to Commission information

Central Collection

A recent informal survey by the Commission's Preservation Managers Council documented the inadequacy of the existing acquisitions and interlibrary loan systems to provide timely access to preservation microforms. The establishment of a central collection of print masters dedicated to rapid, efficient and cost-effective retrieval is essential to provide access to the growing body of preservation microfilms. Such a collection could also serve as a precursor to the organization and management of dedicated electronic retrieval services.

Specific Activities:

- Serve as honest broker to establish central collection
- Conduct necessary studies to determine costs, set

rates, and develop economic formulas for funding a service for the "public good"

Education Initiative

The heightened interest in preservation and access issues, the general concern that new information technologies present a major challenge to our traditional library education curricula, and the need for more preservation professionals have stimulated a continuing interest in defining educational programs for current and future human resources needs. The broader definition of preservation as access to recorded information as far into the future as possible implies a fundamental change in our traditional training in specific skills for the conservation of paper artifacts. Many preservation managers have noted the need for managerial skills such as long-range planning, fiscal management, problem-solving and collaborative strategies. Although these requirements were initially voiced as specific to preservation management, it is now recognized that they apply to all facets of librarianship. The Commission could play an important role in stimulating, based on the perceived needs of preservation managers, renewed and productive curriculum reform for library education.

Specific Activities:

Seminar for deans to explore the current and future needs of librarians charged with providing continuing access to scholarly information recorded on a variety of media with the objective of reconceptualizing library school curricula

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