An Unexpected Future:  
A New Century Dawns for Art Librarians and Image Curators  

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The year 2000 has brought art librarians and visual resources personnel into a world in flux. During the past months of millennium furor, apocalyptic terror, and Y2K alarm, the “Brave New World” of cultural heritage documentation has seemed fraught with challenges and insidious pitfalls. How will the art information professions continue into the next century and how will they change? Our crystal ball is ready and, despite the risks, it is time to take a look at the trends which may create a new future.

Four Sure Things

Amidst all the culture shock of the new century there are four things of which we can be certain. Libraries and visual resource collections will continue to exist, there will continue to be a market for our professions, the information explosion will continue unabated, and change will always be a part of our lives.1

In key ways things will not be different from the way they always have been. We will continue to acquire, organize, provide access to, and service our collections. Instruction in the use of these collections will continue unabated. In other important ways, however, things will change dramatically. The formats of our collections will develop to include media that do not yet exist, our perspectives of who we are and how we do our work will shift, we will feel additional pressure to work at warp-speed, and our professions will continue to merge.

The Future Is Now

There is one more thing of which we are certain. The future is happening now. We already work within a changing professional continuum. Some of us collect, catalog, and assist scholars in using incunabula, rare illuminated manuscripts, e-books, and Web sites. Others make pictures available in multiple formats: historic engravings, 35mm slides, and digitized images. We create preservation plans for crumbling print materials while simultaneously debating how best to preserve the new cyber-formats so recently created.2

Old instructional issues such as bibliographic citation formats exist alongside the crucial student need to know a variety of electronic searching protocols. While some of us work in venerable architectural masterpieces constructed in the nineteenth century by distinguished architects like McKim, Mead, and White, others work in post-modern marvels. We meet to discuss new concepts and products while we continue to chew on venerable chestnuts like “our professional image.”

Because we enter the new millennium carrying our history with us, it is to the historic aspect of our work that we turn first. In fact, we have discovered that we cannot think or write about our future without thinking about our past. As academic librarians, we can describe that world best.

Professional Organizations Emerge

Professional organizations and alliances for book librarians and images curators have changed a great deal in the past thirty years. The Art Libraries Society of North America (ARLIS/NA) was born in 1972, founded by a group of art librarians grown weary of lobbying for program time and publication space within the American Library Association structure. It had become obvious that the only way the unique concerns of the art library world would be adequately addressed in this country was to form a separate organization. Already a group of forward thinking visual resources curators had established a group within College Art Association (CAA), and colleagues in the United Kingdom had recently formed the Art Libraries Society of the United Kingdom (ARLIS/UK). Within two years of its founding (i.e., 1974), ARLIS/NA established its Visual Resources Division designed to welcome slide curators.

During the early 1970s many visual resources professionals felt that neither CAA nor ARLIS was meeting their needs. Image professionals were discussing day-to-day management of collections, how to organize those collections, and how to acquire needed materials. It was felt that CAA was not interested in these issues and ARLIS/NA was too focused on books. Human nature being what it is, these differences created a split in 1982. The creation of the Visual Resources Association dedicated to image professionals seemed to answer the latter group’s needs.

Approaches to Organization

In the 1970s and early 1980s, traditional book libraries were physically separate from visual collections in art departments and there was no perceived need for interaction. The difference of approach was most obvious in the practice of cataloging...
and classification. In the book world, the MARC record format became the standard, used through OCLC or other utilities to share cataloging records. The ability to share cataloging records eliminated the previous need for original cataloging of every item that came into a library. As the use of shared records grew, specialist subject cataloger positions in most libraries were eliminated.

In contrast, visual image cataloging had no common standards and the use of the MARC record format seemed neither possible nor necessary. Each visual collection used its own cataloging system (or a variant of someone else’s system), and its own filing scheme. Users did not always expect more access than that provided by the filing scheme, since the image itself was often found easily. Many print librarians felt that visual librarians did not understand the “real” cataloging world. And in fact, many image librarians really did not understand the world of book cataloging, MARC, and standards. Images were available only through visual collections; books and other print materials were only available in the library. Each library served its clientele in its own unique way.

Change came first to book librarians. As book cataloging was moving in radically new directions, image collections continued to provide access in the same ways they had always done. Some collections had card catalogs, but many did not. Access was often only via the filing scheme within the collection. It was not until the mid-to-late 1980s that image curators began to consider the use of databases to organize their materials. Because image cataloging is so very different from book cataloging, image databases were not of the library catalog variety, with MARC fields. There were no standards for record creation, no common terminology, nor was there a way to share records. Most image cataloging databases were homegrown systems set up to fulfill local needs. When they moved from a manual to an automated environment, they did so without changing service philosophy.

**Art Pedagogy Evolves**

The period of the past twenty years has been a time of transition in the study of art and art history. The discipline and pedagogy of art history have evolved from traditional connoisseurship into contextual studies involving traditionally defined fields like religion, history, archaeology, and philosophy as well as semiotics, Marxism, feminist studies, gay and lesbian studies, and material culture.1

New job definitions within the field of academic art history are being created as we write. A position description for a Professor of Visual Culture recently appeared on the CAAH list-erv. Visual culture was described as cross-disciplinary and included film and media studies as well as art history and theory. Another research university is currently seeking a professor who can teach both art history and image digitization to its graduate students.

Studio art has also expanded from traditional drawing, painting, printmaking, photography, and sculpture to include installation art, performance art, artists’ books, digital images, multimedia presentations, and Web-based sites.1 Course content changes have affected collections as much as professional and technological changes.

**The Impact of OPACs**

The advent of online catalogs has dramatically changed access to materials. In the late 1970s and early 1980s, librarians began developing online catalogs of their book and journal collections. This transition meant that cataloging could be done electronically. Laborious card filing became a thing of the past. The online catalog allowed users from inside and, eventually, outside academic institutions access to bibliographic records. Simple access to materials increased exponentially.

**Core Records**

In addition, changes in cataloging itself have taken place. The concept of the main entry is no longer valid because OPACs provide multiple access points to materials. The efficient use of core records that reduce cataloging backlogs and make books available to the public more rapidly is hailed, while the resulting lower cataloging standards cause concern about successful information retrieval.

Catalogers of art materials are currently working on core-level standards for exhibition catalogs. It is ironic that lower cataloging standards are being adopted at the same time that institutions are discussing enhanced cataloging that will make tables of contents, bibliographies, indexes, and other features searchable electronically. Future technological developments will lead to the creation of OPACs in an infinite variety of forms, some of which will allow individual users to create their catalogs in formats that meet their unique needs.3

In the 1990s image cataloging moved quickly to catch up with the developing efficiencies of book cataloging. During the past five years, the VRA Data Standards Committee has developed a core record format for cataloging images. The development of a core set of record elements is an effort to begin the standard cataloging of images, and eventually, to allow for the sharing of cataloging records. One exciting aspect of this development is the involvement of book catalogers as well as image catalogers in this process. The work on the VRA Core has taught book catalogers what image cataloging involves and involvement by book catalogers in this process has, in turn, taught image catalogers much about standards and authorities. In universities where the VRA Core is being implemented, there is often collaboration between book and image catalogers as they develop new databases. The merging of book and image professions becomes evident in this quest for standards.

**Institutional Priorities**

Institutional financial priorities have played, and will continue to play, a large role in the creation of new practices. Academic collections have felt the impact on staff support and acquisitions of reduced financial support. In visual collections, it is often heard that money can be saved by simply digitizing the collections or by purchasing image collections on CDs. Theoretically, this will mean that no librarian or image professional will be needed to maintain future collections. Already many types of libraries have reduced personnel. Staff assistants, Technical Services staff, and part-time positions continue to be lost in visual collections.

In addition, institutional financial priorities affect the development of databases. At one time it was widely believed that
electronic databases would reduce or eliminate staffing needs. We all know that this has proven fallacious, and in fact, the work has increased. By making collections accessible to a wider audience, expectations of administrators and users have been raised. Managers are now expected to do more than ever before, but with fewer monetary and staff resources. This situation has led to the development and publication of the *Staffing Standards for Art Libraries and Visual Resources Collections* by the ARLIS/NA Staffing Standards Task Force and the *Criteria for the Hiring and Retention of Visual Resources Professionals* which are designed to address the problems.

**Multiple Formats**

We have moved into an era in which text and images can be found in a multiplicity of formats: CDs, Web site, digital images, and digital text. Visual collections no longer acquire only slides; book libraries no longer acquire only books. Diverse types of materials are added to all our collections. Film images are still purchased through traditional slide vendors, but both print libraries and visual libraries are licensing images for use across campuses.

Print libraries and visual collections buy interactive CDs. Web pages with images for study use are created in both the print library and the visual collection. Professors of art and architectural history also create Web courses that off-campus students can access. Indexing services provide their products in a variety of electronic formats, making information available to remote users of the "virtual library."

Digital projects are proliferating across the country. Print libraries and image collections are digitizing images of objects in an effort to anticipate the way future clients will access library materials. Several universities in the United States are building large digital libraries with union catalogs and image repositories. These digital libraries are not catalogs for digital images only. They will be used for all types of objects and materials.

Soon a scholar will be able to find text, images, objects, and archival collections all in one catalog. It is an exciting time in which we are beginning to unlock the information that is inherent in images. Both art librarians and visual resources curators are working collaboratively within this important trend.

**Media Centers**

Some noteworthy institutions have created important projects and research centers that are leading the way in merging the accessibility of print and images. The Design, Art, Architecture, and Planning Library at the University of Cincinnati, for example, began to create a new media hub with CDs, videos, analog slides, digital images, and Web sites in 1988. The building in which the media hub is housed was designed by Peter Eisenman and opened in 1996.

In the same year, the University of Michigan dedicated its Media Union. In this facility, the resources of the Engineering and Art and Architecture Libraries were merged and accompanied with advanced visualization technology, a virtual reality lab, and design labs. Researchers there are working in an integrated environment that provides access to images as well as text.

The Visual Information Access Project at Harvard University involves librarians, visual resources curators, and archivists in work on a union catalog for visual materials throughout the collections at the university. This is a groundbreaking shared cataloging venture.

Hailed as the first of its kind, the Lita Annenberg Hazen and Joseph H. Hazen Center for Electronic Information Resource at the Watson Library in the Metropolitan Museum of Art opened in January 1997. The Center was developed as a state-of-the-art place in which scholars have access to Watsonline, the library’s online catalog, as well as an extensive collection of CD-ROMs, online journals, and indexed Internet resources on the history of art.

**Consortia**

Newly formed consortia are also important. Organizations such as AMICO (Art Museum Image Consortium) provide images for teaching through licensing agreements with universities. Ohio LINK began in 1987, provides World Wide Web access to seventy-six research databases (including those with image and video content) to campuses and public libraries across Ohio. OhioLINK is a statewide effort to address the growing need for digital materials by very diverse clients. Print libraries buy access rather than ownership through cooperative agreements with libraries in the region.

**New Media, New Teaching**

The new variety of materials collected affects user interactions. In traditional print and image-based libraries, librarians or curators worked with clients to teach them how to find materials in a few formats: books or periodical articles in libraries, or slides in image collections. Today managers spend time teaching people how to use a wide range of tools and products, including online databases, electronic periodical indexes, Web databases, and image databases on the Web. We continue to do what we have always done, teaching people how to access the materials they need, but we are doing it in a different way with different tools. Many of these tools we have to learn how to use ourselves before we can teach our patrons.

When we purchase books or images, we do not have to learn how to read them. In contrast, electronic products have a myriad of interfaces, different access techniques, use a multitude of vocabularies and search protocols, and are constantly updated. Search vocabularies vary from discipline to discipline, so each product requires customized instruction. This has led to a dramatic increase in user instruction.

Collection managers are teaching more than ever before, but it is critical to convince faculty members that library instruction is best when included in curricula. New products and services make it imperative that we partner with faculty members when implementing library instruction programs.

Library and image collections used to serve only clients from local departments or similar subject areas. In general, it was easy to predict the scholars’ needs. Today scholars from literally all over the world, representing all disciplines, have access to our materials through electronic means. In particular, people are using images to illustrate their own areas of expertise in ways they never have before. Librarians who are subject specialists must broaden their perspectives, yet retain fields of specialization. In

ages have become prime material in all areas of scholarship and
we are the professionals who can lead clients to those materials.

What Faculty Want

We cannot speak about our future without speaking about our
users' needs. They too are based in the past, yet enticed by fan-
tasies of the future. When recently polled, one faculty group stated
that the card catalog was still easier to use than electronic
databases and online catalogs. While they have been afflicted
with the same sense of urgency that we all feel in today's glob-
ally networked environment, many of their basic needs have not
changed over the decades. Art faculty want healthy book bud-
gets, books and slides re-shelved and refilled within twenty-four
hours, interlibrary loan materials that arrive within a week, and
equipment repaired quickly.

They also want and need speedier Internet connections, the ca-
pability of accurately searching multiple databases simultane-
ously, and search engines that are capable of filtering the qual-
ity of information that they access on the World Wide Web. In
addition, art and architecture scholars need more journals in
their fields, including the images in them, available electro-

cally in full-text. Scholars in all disciplines of the humanities also
need retrospective electronic indexing and deep archives of full-
text e-journals.

Many ARL libraries are beginning to mount customer service
programs to measure and evaluate the current quality of services
we provide. Most of us suspect that such studies will not neces-
sarily result in additional staff resources to assist meeting customer
service expectations.

The use of electronic resources affects all information profes-
sionals, including catalogers working on a variety of materials:
books, films, electronic products, Web sites, e-journals, e-books,
slides, and digital images. This in turn has caused changes in how
the MARC record is used, forcing its accommodation to various
types of materials.

New formats are also found in visual collections where we are
no longer only cataloging slides, but also digital images, digital
objects, and other materials. Format is less important now than
it once was. Access to information is available through online
databases and the Web. Increasing numbers of faculty members
are beginning to use technology in the classroom. To respond to
that need, we must evolve into people who help get the informa-
tion into a content form that can be used electronically.

Old Formats Decline

In some cases, we are the developers of the formats that faculty
will use in their classrooms. One critically important issue that we
need to be aware of as information providers and teachers is change
in scholarly communication. This is especially important in hu-
manities disciplines where scholars rely on monographs. Art his-

torians, historians, and literary scholars rely on the book-length
treatment of specialized subjects and their career advancement re-
quires the production of such publications. The needs of these schol-
ars are threatened at a time when university presses are publishing
fewer monographs and library purchases are on the decline.

There is a decline in another traditional format. The number
of slide vendors is decreasing at an alarming rate, making the
ability to find high quality images for teaching and research very
difficult. This is happening at the same time that copyright re-
strictions are increasing. Both factors impinge on the ability to
provide the images needed for teaching in universities around
the world.

The Metamorphosis of the Bibliographer

The role of the subject specialist bibliographer may undergo
metamorphosis in the next few years. New collection develop-
ment issues are arising in book libraries as bibliographers learn to
evaluate, acquire and access e-books and e-journals. Rather than
superseding printed resources, digital collections are extending
printed collections and causing us to think about "a collection" in
terms of access rather than acquisition. The emphasis of collection
development is moving from the container of information to the
information itself. Thus collection development policies for both
print and image libraries need to be reviewed and revised to
reflect these changes.

The bibliographer's and image librarian's role is changing from a
curatorial position to an active and creative position in the man-
agement and dissemination of, and intellectual access to, infor-
mation. Bibliographers working in ARL libraries are also facing
changes as their institutions work with the AAU/ARL Global
Resources Program that was established in 1997. Distributed
collecting practices require a redefinition of collections that di-
rectly affects the role of the bibliographer.

As collecting practices change in the new century, librarians will
serve as intellectual leaders in crafting new models for access and
new structures for cooperative collection building. They will have
important roles in fund-raising, administering grants, and the cre-
ation of Web pages with detailed collection descriptions. They
will move from an independent working environment in one in-
nstitution to an interdependent global environment. Successful
work as an active information manager demands in-depth sub-
ject knowledge, research skills, teaching abilities, and experience
with current technologies.

Evaluation of Products

It is here that the future of the subject specialist lies. Even though
administrators are flattening organizations and using specialized
librarians to work in general reference or in libraries outside the
individual's field of expertise, subject specialists are more neces-
sary now than ever if such global resources programs are to func-
tion as expected and if expensive digital and electronic products
purchased are to be fully and efficiently utilized.

Which formats are the best? Bibliographers are now asked to
de-select unnecessary materials and select new titles included in
digital book collections such as NetLibrary. Questions arise in the
management of e-journal collections. A librarian must decide
whether or not to keep the print format, spend money to bind
the printed issues, use staff resources to check them in, or use pre-
cious shelf space to warehouse the printed volumes. There are im-
portant staffing implications involved in each decision. An art li-
brarian must be prepared to inform administrators that staff
normally used for serials check-in and journal binding must be
retained and used to assist with growing public service needs cre-
ated as new technology is put in place.
Specialized subject bibliographers are critical to both the creation and selection of electronic databases and digitized collections. Art librarians and visual resources curators should insist that art journals be included in digitized collections of e-journals. And they must demand that those e-journals include access to high quality reproduction of the images within art journals. All disciplines that study artifacts in detail rely heavily on images as evidence.

Too Much, Too Fast

Reference librarians of all types are feeling the strain of too much, too fast. Visual image librarians are now providing in-depth reference help to multiple sources akin to reference librarians in book collections. There is access to hundreds of electronic databases that include library catalogs, periodical indexes, CD-ROMs, and image databases. When we work with a patron to help him/her find information, we are no longer merely looking in our own library catalogs and a few periodical indexes. We have a huge range of choice as to where to look and direct patrons.

Librarians not only answer questions from patrons who walk into a physical facility, but also those that come from afar via mail, telephone, e-mail and queries on institutional Web pages. We are also teachers to those enrolled in distance education programs as well as to independent scholars outside the institutional framework. The teaching we do involves explaining the mechanics of electronic access to materials, how to navigate Web sites, periodical indexes, online catalogs, image databases, and also involves the interpretation of the information found in these resources. Because the people we assist are looking for all varieties of material, they no longer go to just the print library or just the image collection. They go to whoever can help. This may be a print reference librarian or an image professional. It no longer matters where they find the access to the materials, only that the material can be found.

Warp-Speed and its Cost

Not only is the content of librarianship changing on a daily basis, the speed at which we are required to work is accelerating. The speed of communication has steadily increased since Samuel Morse sent the first telegram in 1844, Guglielmo Marconi sent the first radio transmission across the Atlantic Ocean in 1901, and Alexander Graham Bell sent the first transatlantic telephone call in 1904. Now anyone can achieve things via conference calls, video teleconferencing by satellite, e-mail, and cellular phones carried in our pockets. With luck, we can have instant conversation with anyone on the planet. Thanks to the ubiquitous computer, telecommunications, and the Internet, we have conquered time and space.

This victory has come at some cost. What happens to our physical selves when, amidst this acceleration, administrators demand we “do more with less” and patrons display “instant information gratification” syndrome? In a recent article, James Lardner stated that “between 1977 and 1997, the average work week...lengthened from forty-three to forty-seven hours. Over the same years, the number of workers putting in fifty or more hours a week jumped from twenty-four per cent to thirty-seven percent.”

The work week of the average information manager is also growing, according to Karyle Butcher’s recent article on academic librarianship. Butcher also addresses the stress created by segmentation of the academic librarian’s responsibilities into many different duties. Once it was thought that technological inventions would make us more productive and we would need fewer staff. In contrast, work has grown more complex and time-consuming as we attempt to cope with the daily communication overload caused by e-mail, voice-mail, and cell phones addition to snail-mail, telephones, and faxes. It may require a half a workday just to communicate with everyone who has tried to reach us during the previous night.

Daily there are new communication devices, new software programs, new releases of old programs with new features. New equipment arrives frequently, and digital libraries drop son databases and add others. There is little control over what technology is used, what databases are included in package deals negotiated by administrators or purchased by consortia. There little training in how to use any of it. More time is spent diagnosing and treating equipment, rebothing devices, teaching people how to use them, and waiting for repair people to appear.

Internet 2

There is no respite from the constant stream of innovation and information. And the future holds more of it. Internet 2 promises to deliver information at the rate of 2.4 gigabits per second that will lead to new ways to communicate. The Web as we now know it will disappear like the Gophers we used for remote access to the Web in the mid-1990s. Internet 2 will allow for the creation of very large and powerful databases and it will also allow video to be available in digital libraries. In addition, embedded technology will lead to the development of “smart” machines that are “Internet ready.” Increasing numbers of electronic tools will become wireless and “voice-in voice-out” computer technology will allow us to speak commands to digital libraries. Internet 2 and increased bandwidth will also allow art and architecture students to create virtual objects and buildings. This means that a library user will be able to walk through a virtual reality recreation of Pompeii or Notre Dame Cathedral.

We baby-boomers and older adults recall Alvin Toffler’s predictions of thirty years ago and can visualize images from Star Trek in which the characters moved at warp-speed. The supersonic speed of the World Wide Web has brought us a world and work environment of instant communication and commerce. Our globally integrated systems push us in the unchallenged direction of keeping up with change. We find ourselves on the non-stop, high-speed track. It is exhilarating, and it is stressful.

Rushing All the Time

The discussion of stress and time management has exploded in the past twenty years. Soon there will even be a new reference source entitled The Encyclopedia of Stress. Stephen Bertman’s article points out that in 1965 twenty-five per cent of people surveyed felt rushed all the time. In 1992, thirty-eight per cent (a fifty per cent increase) of the survey participants reported the same feeling. Our minds and bodies crave a slower pace, yet we feel driven to keep up with the faster tempo our technology demands.

As Bertman states, “A faster society is a different society.” As our society’s velocity changes, so do our values. Bertman notes that people who live in a hurried culture lack knowledge, perspective, pa-
tience, and commitment. Information managers see this in the behavior and expectations of patrons we serve and the expectations of our administrators. There seems to be low tolerance for imperfect human beings who are not as efficient as computers.

Although stress is one of the most important social, medical, and psychological issues of our time, librarians and their administrators do not discuss what must be eliminated in order to do the things technology now requires. We passively accept increasing amounts of work with less time and fewer resources to get it done.

Living in a hurried world also disengages us from the past and plunges us toward the future, isolating us in the present. And that present is permeated with transience and flux. It is a world that undermines the value of experiences and activities that develop slowly. Such activities run the gamut of human experience, from creative thinking, quality time with our families, and quality cataloging, to lengthy reference consultations. Finely trained Olympic athletes seem, astounding, to keep “raising the bar” in terms of what they can accomplish. How far can we raise the library bar? And at what cost?

**Resolutions for a New Century**

Our world may be changing faster than we can keep up with, but there are things we can do to help the profession and ourselves. We have some millennial resolutions that we suggest art librarians and visual resources curators take on.

The worlds of text and images are becoming one world. The issues that both print and visual librarians face are the same. We must stop seeing ourselves as separate types of information managers. We need to join together and work together to solve the issues we face in the twenty-first century. For this to happen, we need to adjust our concepts of who we are and realize that we all work with print and image materials. Rather than thinking of ourselves as two groups who have separate issues, we need to communicate together to begin solving some of the issues.

There are many methods of communication we can use to help break down the barriers that we ourselves have put up. We have two organizational listservs that we use to communicate. We would suggest that both listservs are useful to all of us. If possible, each of us should attend conferences of more than one organization. When that is not possible, reading the published papers from other conferences is valuable. Topics that may appear irrelevant may actually be very useful and translate well to another environment. ARLIS/NA and VRA are planning a joint conference in St. Louis in 2002. The conference topics will be developed jointly and will focus around issues that we all face. We hope that this will be among many such conferences.

Our organizations need to be in constant contact with library schools, reminding them of professional opportunities. Just as the ARLIS/NA and VRA Web pages do, our regional and chapter Web pages need to have links to national organizations such as the American Library Association, Special Libraries Association, Society of American Archivists, and Museum Computer Network. The formation of student ARLIS/NA and VRA chapters would also convey information about the profession to prospective practitioners.

Those of us who teach need to talk with our library schools about why the field is important. When we have job openings, we need to make sure our job descriptions are included in library school job listings.

It is the responsibility of each of us to market ourselves and our profession to the wider world. Each of us needs to talk to administrators about what we do and why our expertise is needed in providing information to clients. Respecting ourselves as professionals is the first step to gaining respect from others.

Our organizations have a role to play. They need to conduct membership drives and market our organizations to potential members. Developing continuing education programs will further the education of our colleagues. A joint ARLIS/NA and VRA Task Force would be a beneficial way to develop salary guidelines for administrators. Working collectively with publishers and vendors may be a way to obtain the materials (including images) that we need to have made available electronically in our collections.

**Call for Action**

This is the moment for action, not for studying the situation. We are in the midst of the most exciting technological revolution to date of the world of information management. We are the experts in this field and we need to take the lead in shaping the future of art information management. It is the responsibility of each and every one of us to join together with our print and image colleagues to form a strong association that can lead art information into the future, a future that is other than what we thought it would be...
Notes


7. The Joint ARLIS/NA-VRA Task Force on Visual Resources Professional Issues was established in 1991.

8. Collaborative collections management programs have been established in many ARL libraries in order to expand their collections and services.


10. Core technology that is currently available does not include the ability to discern the essence of a question. When that technology develops, information searches will produce more precise and accurate results. See the relevant discussion in Mark Tucker and Carl Frappart, "Search Engines in the Age of Knowledge," Intelligent Enterprises 2 (December 21, 1999): 30-37.

11. All art scholars, including the librarians and visual resources creators who work with them, are delighted about the retrospective indexing of Art Index and the retrospective indexing project planned for the Avery Index to Architectural Periodicals.


13. A current publication on the subject is Technology and Scholarly Communication edited by Richard Ekman and Richard E. Quandt (Berkeley CA: University of California Press, 1999). ARL has taken an active role in informing scholars of changes in scholarly communication by establishing the Scholarly Publications and Academic Resources Coalition (SPARC) published SPEC Kit 250 entitled Educating Faculty on Scholarly Communication Issues, and publishing a new brochure entitled Create Change for u with faculty and researchers. A position was recently created at one ARL library to coordinate the library's scholarly communication program.


15. The program, designed to improve access to international research resources, currently includes six regional projects on Africa, German Japan, Latin America, South Asia, and Southeast Asia. The program involves cooperative collection development, document delivery, cataloging, and preservation.

16. See R. Brooks Jeffery, "Librarians as Generalists: Redefining the Role in a New Paradigm," Art Documentation 17, no.2 (1998): 25-27. Administrators are making such decisions because, in the face of dwindling resources, they feel the need to consolidate resources, service and personnel. There is a strong case to be made that all librarians broaden their expertise so that they can adequately assist patrons with problems related to resources in interdisciplinary studies and use print and electronic resources in several disciplines. However, it should not be to the detriment of a professional's ability to provide subject expertise. Herbert S. White wrote recently about the increasing need for subject speci

17. NetLibrary, a commercial venture based in Colorado, sells electronic books to university libraries for the same price as printed editions.


20. The subject of “techno-stress” is fully examined in Michelle M. Weil and Larry D. Rosen, *Technostress: Coping with Technology @ Work, @ Home, @ Play* (New York, NY: John Wiley, 1997).


22. Academic Press hopes to publish the three-volume *Encyclopedia of Stress* in February 2000. The editor-in-chief, George Fikne, will include an article on stress in the workplace.


24. Ibid., 18.