
Los Angeles County Museum of Art

**Information Technology Task Force
Needs Assessment Reports**

February 1, 1996

Contents

Overview of the Needs Assessment Process and Reports	4
<i>Eric Pals</i>	

Task Force Members	13
--------------------	----

Department Reports

Deborah Barlow

Research Library	16
Visual Resource Center	18

Jim Drobka

Publications	21
Graphic Design	22
Photographic Services	24
Rights and Reproductions	25

Dale Carolyn Gluckman

Volunteer Councils	27
---------------------------	-----------

Lynda Koehler

Finance Office	33
Personnel	
Administration	
Museum Shop	
Art Rental and Sales Gallery	

J. Patrice Marandel

Curatorial Departments	37
-------------------------------	-----------

John McDaniel

Protective Services	42
Ticket Sales	45

Catherine C. McLean

Conservation Center	47
----------------------------	-----------

Renee S. Montgomery

Registrar's Office	57
Exhibitions	65
Operations	67
Technical Services	69

David Roberts

Facilities	71
Audio-Visual	73

Stefanie Salata

Media and Public Affairs	76
---------------------------------	-----------

Jenny Siegenthaler

Education	80
Film Programs	91
Music Programs	95

Al Vasquez

Membership and Development	100
-----------------------------------	------------

<i>Appendix</i>	106
-----------------	------------

User Questionnaire	
---------------------------	--

Overview of the Needs Assessment Process and Reports

On November 28, 1995, Andrea Rich, LACMA's new President and CEO, appointed a task force to conduct an assessment of the needs of users of information technology at the museum and to develop a strategic plan for the long term upgrading and maintenance of the museum's communication systems. I served as chair of the Information Technology Task Force, with Renee Montgomery serving as vice-chair. The Task Force also was comprised of three members of the Information Systems Department which is headed by Jim Schlotter, and a 12-member Steering Committee of end-users. The members of the Information Technology Task Force are listed on page 13.

Overview of the Process

The Task Force immediately set about its work with the goal of producing two companion documents:

- 1 *Needs Assessment Reports*. These were to be written by members of the Steering Committee and other staff who were asked a) to consider the ways that museum staff members currently use information technology, b) to identify current unmet needs, and c) to envision how information technology might be used in the future to advance the mission of the museum.
- 2 *Information Systems' Strategic Plan*. This was to be written by Jim Schlotter and was intended in part to respond to needs expressed by end-users during the needs assessment process and in the final reports.

This volume contains the *Needs Assessment Reports* that were written by the Steering Committee and several other staff members who were invited to write. I would like to take this opportunity to commend all of the Steering Committee members for their efforts and work on this project. The commitment and seriousness of purpose they brought to this endeavor are reflected in their reports. Renee Montgomery deserves special thanks for her work as vice-chair, as does Jim Drobka for designing this volume.

The work of the Information Technology Task Force is unprecedented in the 30 year history of the museum. This marks the first time that an assessment of this magnitude has ever been conducted regarding the needs of users of information technology at the museum. Likewise, the work that will follow the submission of the Task Force's reports will

present new opportunities for LACMA. Never before has there been such a wide range of information technologies and high-quality upgrade choices available, including increasingly fast microprocessors, collaboration software, wireless communications, digital cameras, personal digital assistants (PDAs), interactive multimedia, videoconferencing and, of course, the Internet. There will be tough decisions that need to be made regarding which technologies to use and support, but such decisions will be made during a time of exciting progress in the field of enabling computer technologies.

The Task Force held an initial round of meetings during December 5-21, 1995. Individual members of the Steering Committee and other staff gave brief presentations about their information technology uses and needs. These meetings were intended to stimulate some preliminary thinking by staff about their information technology needs, and to provide an opportunity for staff to share those thoughts with members of the Task Force. It was also hoped that these meetings might help members of the Task Force, most of whom work in different departments and who have unique experiences, knowledge, and perspectives, to reach a greater understanding of how the various departments of the museum work together (or could work together better in the future) in order to advance the mission of the museum. In addition, during the December 7 meeting, Jim Schlotter gave a demonstration of Microsoft's suite of integrated software that runs under the Windows NT operating system designed for organizational use.

During December, a User Questionnaire was developed by Jim Schlotter and other members of the Information Systems department, with additional input provided by me and several members of the Steering Committee. The User Questionnaire, which was made available from December 26, 1995 to January 9, 1996, was intended in large part to provide all staff with an opportunity to express their information technology needs, as well as to serve as an instrument from which additional information could be derived for inclusion in the *Needs Assessment Reports* and *Information Systems' Strategic Plan*. A copy of the User Questionnaire can be found in the Appendix at the end of this report.

One-hour interviews were conducted by Jim Schlotter and other Information Systems personnel with selected staff from the museum's many departments during January 2-10, 1996. Each member of the Steering Committee also attended the interview of the department for whose reports he or she was responsible. These interviews were intended to further address department-specific needs that were expressed during the initial round of meetings and other needs expressed by staff participating in the interviews.

In addition, Steering Committee members were encouraged to discuss information technology needs with appropriate department heads and other colleagues, to benchmark other institutions' practices, and to cite any other sources they may have found relevant to their needs assessment.

Overview of the Reports

While the *Needs Assessment Reports* were written by the 12-member Steering Committee and several other staff members, they reflect the input of many staff members throughout the museum who were eager to participate in the process. It would be difficult to overstate the importance and value of their perspectives regarding their current and anticipated future use of information technology. In writing this overview, I have endeavored to be faithful to those perspectives and the needs that are expressed. Careful reading of the reports will yield more detailed and additional insights into the needs of individual departments.

Network Infrastructure

Although the Steering Committee's reports do not directly address the requirements of the museum's network infrastructure, they do discuss anticipated needs and future projects that would require an infrastructure capable of carrying all data types, including real-time, full-motion video, across the network. Such projects include Audio-Visual's desire to provide support in all public venues to presenters who need high-resolution computer and video projection; Education's request for interactive multimedia programs running on workstations in the galleries; Exhibitions' anticipated need for videoconferencing capability in the future; and the need expressed by numerous departments for access to images in the collection over the network, and to multimedia information on the World Wide Web.

Hardware and Software

Among those departments whose computing is mostly for administrative and business purposes, who also expressed a preference for a specific platform, the preferred platform to upgrade to is Microsoft's Windows operating system running on PC-based computers. There seems to be a general recognition that this so-called Wintel platform (Windows running on PCs with Intel microprocessors) will meet the vast majority of computing needs at the museum that require the use of productivity software such as wordprocessors, spreadsheets, and low level databases. This platform would provide the mouse-driven, graphic user interface and multitasking capabilities preferred by most end-users.

Graphic Design has worked on Apple Macintosh computers for over five years and recently upgraded to new Power Macintosh 9500 computers. The designer of the members' magazine who works in Media and Public Affairs also uses a Macintosh computer, and there is a Power Macintosh in the multimedia room in the Research Library. There are other departments with graphics- and multimedia-intensive needs that also expressed a preference for or interest in the Apple Macintosh platform, or might consider an alternative platform that is strong in desktop multimedia. They include Audio-Visual, Conservation, and Education.

The need for new computers with color monitors to be widely deployed throughout the museum is also expressed. For example, the Registrar's Office cites a need for a new computer

for each member of the department; the Curatorial Departments would find terminals in art storage areas useful; and both Protective Services and the Volunteer Councils request terminals in critical areas such as staff entrance, the Anderson Building reception desk, and the Times Mirror Central Court.

Additional hardware needs expressed in various reports include floppy disk and CD-ROM drives, sound cards and speakers, scanners for text and images, notebook computers for portable computing both at the museum (Conservation) and away from the museum (e.g. Curatorial, Development, Exhibitions), color printers (e.g. Graphic Design, Technical Services), digital cameras (Conservation), personal digital assistants (Conservation), and photocopiers (e.g. Membership and Development, Film).

With regard to software, the most frequently stated need is for an *integrated suite of applications*, including word processor, database, spreadsheet, data visualization (for graphs, charts, etc.), presentation, calendar manager, and rolodex programs. Other commonly cited software needs include desktop publishing (e.g. QuarkXPress, Adobe Photoshop), graphical Web browser (e.g. Netscape Navigator), workflow management, on-desk fax, and collaboration software (e.g. Lotus Notes).

Several departments need more specialized or customized applications. For example, the Registrar's Office needs a new collections database specifically designed to meet its needs and those of several other departments (as set forth below). A database is needed for the development of special exhibitions organized by LACMA. The Finance Office needs customized software for non-profit organizations and online time and attendance recording. Technical Services requests computer-aided-design (CAD) software. Audio-Visual would like to use multimedia production tools, and Ticket Sales needs credit card processing capability.

Ergonomics and Safety

When the use of computers is viewed as transactions between people and technology in the broadest sense, then the work environment becomes a major consideration in addition to the computing environment. Ergonomic configurations at LACMA are generally poor, as several Steering Committee members point out in their reports (e.g. Curatorial, Membership and Development, Conservation). This has contributed to some staff developing repetitive strain injuries.

A desire that serious attention be given to ergonomics and health and safety issues related to computer use is expressed in several reports. There is concern that much of the museum's office furniture may not accommodate larger terminals (Volunteer Councils). This underscores the need that new computer equipment be ergonomically designed and installed on either existing or new office furniture. Proper lighting and color monitors that are easier on one's eyes than the DEC monitors are considered essential. There also is a need for training regarding proper computer use and exercises, and better access to health and safety information.

Database for Permanent and Loan Collections

There are numerous information technology needs that are vital for the museum to function productively and efficiently, but perhaps none is more crucial than the development of a comprehensive collections database. This database ideally would contain both text and images and could be used by all appropriate LACMA staff and perhaps the public. As Renee Montgomery points out in her report for the Registrar's Office, "Almost every museum department requires access to the collections information," particularly Curatorial Departments, Conservation, Exhibitions, Photographic Services, Protective Services, Slide Library, and Technical Services in addition to the Registrar's Office.

LADRRS, the current collections database, contains records on artworks acquired since January 1992. However, to-date it has been programmed for use by only two out of 12 full-time staff in the Registrar's Office. Patrice Marandel writes, "It is recognized by the entire curatorial staff that...LADRRS is archaic, cumbersome, and useless." Please see the needs assessment reports for the Registrar's Office and the Curatorial Departments for their detailed descriptions of what is needed in any new collections database. While there is agreement on the need for character-based data on all permanent and loan collections, the Registrar's Office and the Curatorial Departments have contrasting views on the priority that should be given to digitizing images. The Registrar's Office recommends first entering character-based data on all permanent and loan collections, then digitizing images for the collections database. The Curatorial Departments, particularly those dealing with "anonymous" art such as Costumes and Textiles, express the need for character-based data and digital images to be entered concurrently into collections database.

This is a long-term project that will require significant resources and commitment to complete. But the development of a comprehensive collections database is critical to the museum's ability to account for, manage, and utilize its collections well into the future.

Communications and Access to Networked Information

People are increasingly using computer networks for communications and data sharing rather than isolated data processing. Many of the Steering Committee members' reports cite the need for people, whether they are at the museum or a remote location, to communicate and have access to shared data on the museum's local area network (LAN), on the Internet; and/or on online services.

There is great need for increased communications and access to networked information on the museum's LAN. Staff increasingly are using email at the museum to communicate and require a more flexible email program. The Research Library's catalogue will be available on the museum's LAN soon. As mentioned earlier, numerous departments require access to a better collections database. Exhibitions and the Curatorial Departments need access to departmental and exhibition budgets maintained by the Finance Office, and this is endorsed by the Finance Office in its report. Other examples include access to general museum policies, selected personnel

information, and conservation treatment records. The need for remote access to email accounts and departmental files on the museum's LAN is also expressed (e.g. Education, Curatorial). These needs underscore the importance for people to have timely access to critical information on the museum's LAN from their desktop terminals, home computers, or portable computers.

Many departments need access to information on the Internet using a graphical Web browser that also facilitates navigation. For example, Membership and Development needs access to information on government agencies and foundations; the Finance Office would like to use the Internet to research payroll issues, state and federal regulations governing the administration of non-profit organizations, and investment opportunities; Facilities would benefit by having access to traffic information available on the World Wide Web that can only be displayed using a graphical Web browser. The Curatorial Departments and Education also expressed interest in using the Internet for research purposes.

There is also need for access to proprietary services such as Lexis-Nexis (e.g. Media and Public Affairs) and databases maintained by libraries, universities, museums, and other institutions (Curatorial).

Problems with the current telephone systems and the need for improving the museum's telecommunications capabilities are discussed by several departments (Membership and Development, Education, Registrar's Office, Publications et. al.). The need to upgrade Membership and Development's telephone system is particularly urgent. See Education's report (Part One, Problem 4) for a discussion of how an improved telephone system could enhance the museum's ability to provide better service to the public.

Using Information Technology to Streamline Administrative Functions

Several reports discuss the need to streamline administrative functions by increasing the use of electronic documents in order to share information. A substantial amount of information at the museum is shared by exchanging paperwork using procedures that have enormous potential for inefficiency. Catherine McLean, in her report on the Conservation Center (Problem 5), describes the time-consuming task of "dogging a work order" and notes that the Conservation Center uses "procedures that were developed over 20 years ago." Jenny Siegenthaler notes in her report for Education that the benefit of using information technology to streamline administrative functions is to enable the staff to "focus on the quality of its programs and products."

Examples of documents that might be shared electronically are presentation sheets for artworks, loan forms, purchase orders, budget transfer requests, and work orders (Curatorial, Education). One proposed solution is to introduce collaboration software such as Lotus Notes (Conservation). Such software should provide a means for tracking the progress of an activity and for holding individuals accountable for their work.

Another suggestion for streamlining administrative functions is to use workflow management or scheduling programs in order to improve the efficiency of planning and implementing projects (Operations).

Training, Support, and Staff Development

The reports of several departments emphasize that ongoing computer training is critical (e.g. Graphic Design, Media and Public Affairs). Al Vasquez, in his report for Membership and Development writes, "With...new hardware and software being introduced, it is of the utmost importance that there be an abundance of training." He also points out that more personnel will be needed to conduct this training. The Museum Service Council, which cites a need for more of its members to receive training, has suggested training some volunteers who would then train others. This is a common informal practice among the staff that should be encouraged in order to foster the development of a community of learners with respect to the use of information technology. Other training needs include both paper and online user manuals and online tutorials.

There is a need for better and more timely support from the Information Systems department, particularly for problems with printers (Media and Public Affairs, Volunteer Councils). For example, in her report for Media and Public Affairs, Stefanie Salata writes, "Other hardware problems include the printers misfeeding or misprinting often, setting off a round of time-consuming troubleshooting, or necessitating downtime while waiting for the printers to be reset. Our reputation and productivity depend upon being able to respond quickly."

Needs related to database support are cited by the Finance Office, Personnel, and Registrar's Office. Membership and Development is supported by two database coordinators who will need additional training when that department upgrades its computer technology. The need for a person to coordinate the scheduling and locations of events at the museum using a calendar manager program is expressed by Education.

Increasing the opportunities for staff development through classes, seminars, and conferences on information technology that are conducted outside the museum is also discussed in the reports (Curatorial, Registrar's Office).

Web Publishing, Content Development, and Management

In December 1994, LACMA went online with its World Wide Web publication, LACMAWeb. Since its launch, LACMAWeb has been expanded and enhanced, and its multimedia content has been accessed by local and global audiences. Many people view the World Wide Web as the beginning of the information highway, and interest in the Web among LACMA staff and volunteers is growing. Their interests and concerns generally fall into three categories: 1) publishing information on the Web; 2) participation in Web content development; and 3) the need for a LACMAWeb management plan.

LACMAWeb currently provides information on current and upcoming exhibitions, the permanent collection (with images), educational opportunities, membership, films, concerts, and merchandise; and has features on special exhibitions such as *Photography Los Angeles Now (PLAN)*, *Annette Messenger*, and *The American Discovery of Ancient Egypt*. Several

departments report plans for, or express interest in, having additional information published on LACMAweb. They include Art Rental and Sales Gallery (services and images); Curatorial (e.g. exhibition installations); Education (e.g. Evenings for Educators materials); Exhibitions (available touring exhibitions); Museum Shop (further development of an online merchandise catalogue with the ability to conduct sales transactions on the Web); Research Library (catalogue); and Volunteer Councils (fundraisers such as Art of the Palette, art walks, and architectural tours).

Several departments expressed the desire to increase their participation in Web content development, including Audio-Visual, Curatorial, Education, and Graphic Design. For example, Audio-Visual is interested in producing digital audio and video for Web projects; Curatorial Departments are interested in organizing artists' projects for the Web; Education would like to develop online curriculum materials; and Graphic Design staff members are "very interested in the Web." The need and potential for more interdepartmental collaboration on Web content development is also cited (Audio-Visual, Education).

The need for a management plan for LACMAweb is discussed in the reports for Education and Graphic Design. They point out that issues such as staffing, editorial policy, design standards, and production procedures need to be addressed.

Educational and Interactive Technologies

In addition to developing educational content for the World Wide Web, Education proposes the following initiatives intended to enhance the museum's role as an educational resource:

- 1 The creation of a multimedia division with expanded film and electronic media production capabilities, enabling the museum to produce more educational films and programs in new formats such as CD-ROM
- 2 Producing videos of lectures and symposia which could be lent to the public through the Visual Resource Center
- 3 An interactive orientation and information kiosk for the Times Mirror Central Court
- 4 Interactive multimedia programs stationed in proximity to the galleries

Please see the reports for Education and Audio-Visual for further description and discussion of these proposals.

Visions for the Future

Members of the Steering Committee and other staff were asked to envision how information technology might be used in the future to advance the mission of the museum. Some of the applications of information technology that staff anticipate using in the future have already been discussed (e.g. Technical Services' request for CAD software; Audio-Visual's request for multimedia production tools; Conservation's proposal for collaboration software). Following is a sampling of other possible future applications described in the reports:

- Video phone access to customer service representatives (Membership and Development)
- A Virtual School that would use videoconferencing technology to hold interactive dialogue sessions with artists, curators, educators, and students (Education)
- Digital sound system in the Bing Theater (Film)
- Interactive Sound Gallery where artists can create sound installations (e.g. motion activated) that would be user-friendly for the public (Music Programs)
- Electronic bar-coding of art objects (Registrar's Office)

Outside Consultants

Obtaining advice and information from outside consultants and colleagues at other museums is strongly recommended (Conservation, Curatorial Departments, Education). Catherine McLean writes that among the conservation staff "there is a consensus that an outside consultant must be hired who is of the highest caliber, impartial, knowledgeable of all platforms in current use, the software available for each, and an understanding of the unique needs of the museum." The Curatorial Departments recommend getting more involved with local universities and institutions that are technologically advanced and utilizing them as a resource. Finally, after discussions with consultants and colleagues, it is recommended that representatives of companies that sell computer products and services be invited to demonstrate their systems at the museum (Curatorial Departments).

Continuation of the Process

The Steering Committee believes that continuation of the process undertaken by the Task Force would be beneficial. Patrice Marandel writes, "The Curatorial Departments...recommend strongly that the process begun by this task force—a critical review of our electronic technology—be an ongoing program at LACMA." In her report for the Finance Office, et. al., Lynda Koehler states that "a standing user committee representing all departments would help ensure that departments would continue to have their needs met throughout the process of selecting computer hardware, software, and support."

The needs assessment process undertaken by the Information Technology Task Force is an important step in what must be a process of continually improving LACMA's information technology capabilities and staff members' use of the technology available to them. As the rapid pace of advances in digital technology over the past few years has demonstrated, the river of technological progress will not stop flowing. We hope that the work of this Task Force will lead not only to significant benefits for the museum in the near future, but also will result in many positive downstream benefits for the arts and society as the staff, assisted by new technologies, continues to advance the museum's mission and to serve the public.

Eric Pals, Chair, Information Technology Task Force

Information Technology Task Force

Eric Pals

Chair

Renee S. Montgomery

Vice Chair

Information Systems Department

Jim Schlotter

Rebecca Ledesma

Alex Wehmeier

Steering Committee

Steering Committee members served as representatives for the departments following their names.

Deborah Barlow

Research Library

Visual Resource Center

Jim Drobka

Publications

Graphic Design

Photographic Services

Rights and Reproductions

Dale Carolyn Gluckman

Volunteer Councils

Lynda Koehler

Finance Office

Personnel

Administration

Museum Shop

Art Rental and Sales Gallery

J. Patrice Marandel

Curatorial Departments

John McDaniel

Protective Services

Ticket Sales

Catherine C. McLean

Conservation Center

Renee S. Montgomery

Registrar's Office

Exhibitions

Operations

Technical Services

David Roberts

Facilities

Audio-Visual

Stefanie Salata

Media and Public Affairs

Jenny Siegenthaler

Education

Film Programs

Music Programs

Al Vasquez

Membership and Development