

Preferred Library Futures II:  
**CHARTING THE PATHS**

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## EXECUTIVE SUMMARY

Provosts and librarians share an image of the future of information resources on their campus. They all strongly prefer a future in which there is universal access by faculty and students to multiple information resources in all possible media via a single multifunctional workstation. Other images of a preferred future are jointly held—all require basic cultural changes in the academy beyond the control of library director or chief academic officer.... Eventually, some concrete response to demands from students and faculty for a more highly sophisticated information environment will be necessary on every campus. Leadership in the articulation of campus priorities, innovation in the development of demonstration projects, and long-term strategic relocations of resources from various sources will be required if the vision of the future is to be more than a mirage.

So stated the executive summary of the 1991 RLG publication *Preferred Futures for Libraries: A Summary of Six Workshops with University Provosts and Library Directors*.

Bringing together a broader spectrum of those with a stake in the campus information future to help determine the options available to universities and colleges that are trying to create new, transformed information environments would ideally result in a short list of next steps — and some suggested pilot projects.

When such stakeholders — university administrators, information technology managers, university librarians, faculty, scholarly publishers, and academic association/foundation leaders — brainstorm about the campus information future, however, areas of agreement and complexity are thrown into sharper focus than the detail of any set of projects.

While it is revealing and helpful to compare stakeholders' views on influential trends shaping the future, the characteristics the university library must have in the next millennium, and projects to lay the groundwork, the clearest finding from such a gathering is that these stakeholders, plus others, need a means to continue and expand their contacts with each other. Insufficient interaction now exists. Stakeholder interdependencies will make it difficult, if not impossible, for any single group to achieve its own goals unless it can successfully establish alliances and collaborative strategies based on the intersection of its priorities with those of other stakeholders.

Coordinating and achieving the information future will come from regular dialog that pinpoints areas where pilot projects can be undertaken with the full support of all who will be affected. A permanent venue is needed for the kind of ongoing communication and interaction required to shape likely projects and motivate the necessary risk-taking.

Individually, organizations like RLG are pursuing elements of the preferred future of universal access to research information. An electronic think tank would bring such groups together and increase the opportunities for stakeholders to collaboratively chart their way to the future campus information environment.



## INTRODUCTION

In spring 1991, "Preferred Futures for Libraries," a series of six workshops sponsored by the Research Libraries Group, offered library directors and chief academic officers (CAOs) from major U.S. universities the opportunity to discuss jointly the future of the research library. The objective was not to predict the future but to project images of what librarians and CAOs would like to see occur. Although many images were proffered, one emerged consistently as highly desirable: universal access by faculty and students to information via multifunctional workstations.<sup>1</sup>

It also became abundantly clear that those who seek to transform campus information infrastructures will have to rely on collaborative problem-solving strategies to achieve their objectives. The "Preferred Futures" project underscored how intertwined the various components of the scholarly information system have become. To achieve a major shift from traditional roles of the university library and campus computing centers to new service models, librarians and CAOs will have to involve many different stakeholders. This task is beyond the authority and ability of campus officers and librarians, however skillful and intelligent, to accomplish alone. The job will require a collaborative approach that includes a widely expanded universe of partners within and beyond local campuses.

Publishers, research consortium/foundation directors, university administrators, faculty, campus information technology managers, and library directors are all involved in the production, delivery, and use of print and electronic information. Each of these six stakeholder groups, however, has had its own sphere of influence and its own priorities. Although their concerns overlap, we were not aware of any occasion at which representatives of all these groups had come together to discuss the future of information on campus with a view to coordinating that future.

How far could we go in an initial gathering of representatives from the major players? To find out, in June 1992 RLG sponsored a second, single workshop — "Preferred Library Futures: Charting the Paths" — led by Richard M. Dougherty, University of Michigan, and Penny Griffith, consultant, and assisted by Al Davenport, consultant, and Carol Hughes, University of Michigan.<sup>2</sup> Thirty-two people, from the six stakeholder groups, met to consider what an effective university library must be like in the future and what strategies might be pursued in order to transform the library and other components of the current campus information environment. (The list of workshop attendees concludes this report.)

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<sup>1</sup> Richard M. Dougherty and Carol Hughes, *Preferred Futures for Libraries: A Summary of Six Workshops with University Provosts and Library Directors*, Mountain View, CA: The Research Libraries Group, Inc., 1991. 19 pages.

<sup>2</sup>The authors wish to express their appreciation to Brenda Johnson, Yolanda Jones, and Linda Ter Haar, University of Michigan University Library, Ruth Morris, University of Michigan School of Information and Library Studies, and Kathy Willis, University of Michigan Information and Technology Division, for their excellent assistance in facilitating the small group sessions at this workshop.

This workshop was designed to provide an opportunity for the participants to identify what steps leaders within organizations might take to move campus information agendas forward. Unlike the initial "Preferred Futures" workshops, this one focused on what the participants considered a library *needs* to be doing rather than what they might *prefer* it to be doing. Although the views and ideas that emerged cannot be considered fully representative of any type of stakeholder, the results provide insight into where shared views and values do and do not exist among stakeholders. Serious differences do exist, but as we were to learn, the groups also share more in common than many may recognize. This subject is addressed later in the report.



## THE WORKSHOP

The objectives for the day were:

- to create a dialogue among the major stakeholders in the campus information environment of the future;
- to increase appreciation for the complexities involved in developing a new information environment;
- to identify options that could lead to campus or multicampus demonstration projects.

Three activities were used to accomplish these goals. First, participants were led through an exercise to identify some major trends and issues and asked which of these they considered the most important in their own environment.

The second task of the day was to answer the question: "Given your stakeholder perspective, what does an effective research library need to be like — need to be doing in the year 2000?"<sup>3</sup> Here, participants were asked to brainstorm in terms of specific roles, responsibilities, services, and user expectations and needs. Asking different stakeholders to identify what they considered essential tasks for the research library illuminated areas of agreement and disagreement that will be factors as campuses plan for the future.

Next, the participants were asked to consider possible courses of action, as pilot projects that could be undertaken to ensure that these essential roles and requirements will be met. Suggestions ranged from setting up a mock purchasing scheme that would indicate exactly how various constituencies value and acquire information, to a one-year moratorium on all library acquisition purchases with funds going instead to create a new campus information infrastructure. Each person voted for his/her three most-preferred ideas from this brainstorming. The six top vote-getters were then made the basis for designing a pilot project responsive to the needs expressed in the original idea.

To do this, representatives from each stakeholder group were placed in six "mini-think-tanks," one per project. The think tanks were asked to consider several points (enumerated below); but their primary responsibility was to answer the question: "What will the idea look like when in place?" In the short time frame allotted, this question was difficult to answer, but many suggestions were generated that merit further consideration. Each think tank presented its ideas to the entire assemblage

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<sup>3</sup>In the workshop and this paper, the term "research library" was frequently used to encompass all that a traditional research library represents plus the other elements of a campus information environment. The phrase "campus information environment," in turn, was used to subsume all aspects of a university's information infrastructure — school and college computing and libraries in addition to the campuswide library system, campus computing facilities, and telecommunications units.

so that every attendee had an idea of the thinking process that led to the suggested approach.

While time constraints prevented refining the ideas for pilot projects, participants did meet the day's objectives and provide points for others to develop further. The next three sections summarize and comment on the trends, library roles, and pilot projects that emerged.

In the final three sections, the authors and the president of RLG comment on what they learned from the workshop about the issues, the stakeholders, and the rocky terrain through which the paths to the future campus information environment must be charted.

## INFLUENTIAL TRENDS AND ISSUES

Discussing trends was used to stimulate thinking and set the stage for subsequent brainstorming and interaction, rather than to produce a comprehensive, authoritative list of trends and issues. All the attendees participated in developing lists that were built under seven predetermined categories. Attendees were asked to quickly generate a long list of currently important trends/issues. They then voted on which of these they thought were most influential in their own stakeholder environments.<sup>4</sup>

Table 1 lists the trends that received the most votes overall in each category. Contrary to many people's expectations, it became apparent that there was a great deal of agreement across stakeholder groups as to influential trends. And a few distinctive patterns emerged:

- Every stakeholder group felt that a lack of funding would divide the world into information "haves" and "have-nots" and that more people would be forced to make hard choices among competing "good causes."
- Every stakeholder group was aware of growing multicultural diversity and concerned with society's inability to deal constructively with issues of social justice; demographic trends reflected the most agreement, with three trends receiving votes from all six groups.
- Of all the technology trends offered, administrators focused solely on trends in the *costs* of technology. Faculty and publishers exhibited more concern than others with the "garbage-in/garbage-out" potential of expanding electronic communication technologies.
- Copyright and protection of proprietary rights were higher in the minds of librarians and publishers than members of other groups.
- The need for greater staff development, which included promoting greater faculty awareness of technology issues, was of more significance to information technology managers and administrators than to other groups.
- Scholarship/teaching was the only category in which none of the trends received votes from all stakeholder groups.

As the groups turned away from trends toward discussing what the research library must be and do in the future, a telling comment was heard: "It's tough to carry all that in your mind at once." The trends brainstorming had depicted clearly the interdependencies that exist among all stakeholders and the complex effect of these trends on the various stakeholder groups. It was a good introduction to the process of trying to define shared aspirations for the research library of the future.

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<sup>4</sup>Although it would have been interesting to analyze the patterns of votes in each category by stakeholder group, the authors felt that there was too much overlap in the trends for several categories to warrant this level of analysis. As an observer of the day's proceedings, however, James Michalko offers some provocative observations in his Afterword to this report.

**TABLE 1**

**Overall Trends Affecting the Information Environment**

*(Top three trends under each category in descending order of votes received.) N.B. Participants voted for trends that related to areas of deep concern. They did not necessarily agree with the way the trend was phrased.*

**DEMOGRAPHIC**

1. Greater demographic and cultural diversity.
2. Information only for those who can afford it?
3. More computer-literate patrons.

**ECONOMIC**

1. Inadequate funding will force more hard choices among competing "good causes."
2. Lack of funding divides the world into information "haves" and "have-nots."
3. Value in the information environment will be more in the ability to access a unit of information than in the information itself.

**POLITICAL**

1. Lack of recognition of the importance of higher education as an asset in filling the U.S. need for a trained and educated citizenry and workers.
2. Lack of understanding of information and access to it as a critical resource.
3. Increasing political segmentation and confrontation.

**SCHOLARSHIP/TEACHING**

1. Changes in how faculty productivity is measured.
2. "Distance" learning becomes norm.
3. More interdisciplinary approaches to teaching and research.  
*[tied with]*
3. New ways of teaching, learning and doing research facilitated by technology—how to integrate with old ways and encourage and fund?

**SOCIAL**

1. Continuing inability of society to handle issues of social justice/race/economic inequality leads to economic costs, education crisis, and institutional turmoil.
2. Copyright pressures increase with electronic information.
3. Entertainment industry is major route for widespread information technology use.  
*[tied with]*
3. Increasing dependence on visualization, not the word.

**TECHNOLOGY**

1. Information costs will increase relative to other items.
2. Need for technological infrastructure on campus.  
*[tied with]*
2. Hardware costs decreasing; software and people costs increasing.
3. Expanding e-mail — "garbage in/garbage out" — chaos potential in communication.

**MISCELLANEOUS**

1. Protection of proprietary rights in electronic world a major issue.
2. Need for collaboration among diverse stakeholders to solve social/information problems.
3. Staff (and faculty) development woefully inadequate in use of information technology.  
*[tied with]*
3. Changes in the concept of research university and library as emphasis on teaching affects what faculty do and the role of the university in society.

## WHAT THE RESEARCH LIBRARY MUST BE BY 2000

Each stakeholder group met individually to brainstorm what, from its own particular perspective, the effective research library needs to be doing in the year 2000. Many familiar roles, such as teaching people how to use technology and mediating information searches, will remain important. Continued funding constraints will require that the library function cost-effectively, within an "affordable" budget. The results were captured in participants' own words as Table 2.

Library directors mentioned most of the "musts" themselves. But one important future role for libraries was raised only by other stakeholders. Consortia and foundation officers were joined by faculty and publishers in stating that research librarians have to assume leadership in facing the "fee or free" issues that are emerging. Consortia directors called for librarians to give up their "platitudes" and "illusions that information is free." Faculty mentioned that the information environment on campus may be more hospitable toward supporting research with economic value than other categories of research; publishers stated that there will have to be a mix of free and fee-based items.

Library directors, faculty, and administrators agreed on another essential emerging role for libraries — that of being active producers and publishers of information. They also agreed that librarians will be called upon to be participants in the invisible colleges among peers that scholars rely on to keep current. In their opinion, the relationship between library operations and faculty productivity will need to be explored and strengthened.

Publishers noted that the library needs to assume a leadership role on campus in both its own adoption of technology and in its influence on faculty attitudes about the use of technology. All groups agreed that library leadership will also be required in terms of making hard choices and setting priorities on campus.

Information technology managers see a need for a new type of employee within libraries (and in computing centers) — one that combines the best qualities of current professionals in both organizations. Stronger subject and/or technology backgrounds will be important for librarians. Another essential characteristic will be the ability to work effectively in more fluid organizational environments.

This exercise was not designed to create wish lists but to reflect what people felt would be vital for the future, and it stimulated a lively discussion. Publishers came out strongly in support of a greater piece of the resource pie for libraries, asserting that librarians cannot possibly be the leaders in campus information provision without more money. Some technology managers questioned why, since providing information is crucial to so many campus activities, the larger piece of the pie wasn't forthcoming.

Administrators countered with a call for some definitions and an acknowledgment of potential trade-offs if the pie is sliced in a new way. "What is the real information environment needed?" they asked, adding that the range of choice between the minimum of resources needed for teaching and the maximum that could be used in research is a very wide spread. Administrators demanded that librarians know more about what scholars need, so that library directors could make programmatic choices. Faculty entered the discussion at this juncture by pointing out that more information is not always better in the research arena. Limitless information access could potentially lead to "bad research" if it leads to researcher information overload and inadequate investigation of others' work.

As the conversation about what "must be" closed, the sense of shared concern that had emerged during the trends discussion had been tempered by the realization of distinctly different values and priorities for the future on the part of each stakeholder. The "hard choices" that had been mentioned earlier were clearly on the table for the next session's work. The whole group turned to focus on generating ideas for pilot projects that could embody the nature of the new campus information environment.

**TABLE 2**

**Musts for the Research Library by 2000**

**From the perspective of university library directors:**

- become more adept at providing information, become managers of knowledge; increase the library's education role; attract staff who possess disciplinary strengths as well as technical literacy;
- preserve the library as a place where people can meet, interact, and work; continue to focus on preservation of print information sources as well as electronic sources;
- become a technology leader and not a follower; more active as producers of information; focus on access rather than ownership/acquisitions; work collaboratively with many other stakeholder groups;
- need environments that are fluid enough to accommodate change; be cost effective.

**From the perspective of consortia and foundation officers:**

- assume resources will continue to be scarce;
- do a better job of prioritizing; give more consideration to risk-benefit choices; make distinctions about services (or risk bankruptcy); give up illusions that information is free and access is equal; ameliorate stratification;
- invest in technology if to continue to be a supplier; does library play a role in changing the performance/quality evaluation of faculty?;
- do a better job of defining purpose of linkages among institutions; e.g., define what is meant by resource sharing;
- involve other sectors of the campus in efforts to change;
- make a case that public benefits in order make a case for more resources;
- make distinctions at the institutional level about research and teaching, and between individuals who have grants and those who don't.

**From the perspective of the faculty:**

- be involved in teaching students; help faculty teach use of technology to unprepared students;
- provide access to all; provide different information environment to support research with economic value;
- play a more active role in scholarly communication; take over publishing function; scan texts, distribute electronic texts; play a more direct role in communicating through discipline-oriented invisible colleges;
- campus must provide an infrastructure that supports technology; must be willing to continue reinvesting in technology; stop buying some items on paper.

**From the perspective of the publishers:**

- library must not be a warehouse but provide access; librarians need to be more effective at cooperating with other institutions; have a perspective that embraces all information formats; be more selective in what is bought and in services provided; be better

marketers; be willing to offer some services free while charging for others; be more active as intermediaries between users and information providers and scholars and information resources;

- campus requires a campus information system, which requires a larger share of the campus budget; librarians need to be more actively involved in allocating campus information dollars; librarians need to lead in university environments.

#### **From the perspective of information technology managers:**

- be client centered; provide services so that faculty need not come to a building; retain the good things and values libraries currently possess, e.g., contact with faculty and connections with the humanities; be a nexus between librarians and computer consultants but not necessarily an organizational nexus;
- librarians need to be part of the leadership group; need to become more technologically sophisticated;
- recognize the common ground between libraries and information technology; become fully integrated with information technology either as part of a single infrastructure or as service providers; develop common structures; develop a new breed of middle managers in both libraries and information technology units; develop a common language and mutual respect; develop a new class of information professional.

#### **From the perspective of the administrators:**

- be affordable; require no increase in total dollar share of resources spent; no increase in space;
- increase efficiency of getting at information through better cataloging and organization;
- effect a genuine merger between information technology and library that moves away from a competitive stance;
- become an information center; serve all kinds of clients; establish own organization to sell scholarly output; stimulate collaboration between providers and scholars;
- improve library education — current professionals not trained well enough; need more subject preparation; better understanding of what scholars need;
- provide access to information of any type anywhere; acquire rights to use, but not acquire information on speculation that it might be needed later; provide proportionately more access than ownership;
- not publicize number of volumes in college statistics; instead emphasize access to information that can be provided;
- campuses need to change faculty attitudes toward the library; change concept of publication; reassess what should be required with publication and the format of publication; need to protect privacy and honor copyright in an electronic environment; reassess the criteria used to gauge faculty productivity.



## PILOT PROJECTS

When participants turned to brainstorming ideas for pilot projects that could lay the groundwork for the campus information environment in the next century, they identified over 30 possibilities. These ranged from fairly specific suggestions, such as:

- identifying better ways to focus on the real information needs of faculty and students,
- being more aggressive in raising information issues with faculty,
- creating a campus committee to deal specifically with the information environment, and
- taxing all research grants, the proceeds to go directly to the library,

to rather general notions, like asserting that the president of each university must exercise leadership and demonstrate that someone is in charge, or developing the library's mission so that it knows better what resources are available and is better able to convey information to the scholar.

Numerous suggestions were offered about ways in which the new information environment might be financed. There seemed to be wide recognition that a new level of funding would be required, whether from new revenues, reallocations, or funds obtained from a combination of sources. In the aggregate these suggestions revealed a clear awareness of the need for a change in funding patterns. Ideas offered on this topic included:

- imposing an information use fee as a tuition increase;
- providing annual allocations for information acquisition directly to faculty, students, and administrators;
- imposing a research-grant tax, to go to the library;
- developing a process for making better choices among resource allocations;
- forcing library and information technology units to make budget decisions cooperatively;
- providing "funny money" allocations to members of the academic community for their information needs and tracking their ensuing "expenditures."

The funding discussion did not merely bemoan the current economic environment; it carried a strong feeling that there needs to be greater flexibility in the use of

current monies as well as new resources dedicated to experimentation. Furthermore, participants considered better monitoring of current expenditures and a willingness to consider new methods of generating revenues to be essential for the success of any serious effort at transforming activities.

The six suggestions for pilot projects that received the most votes for further elaboration were:

1. Devise a prototype project that will help interested stakeholders to understand better the factors that are limiting universities' ability to act now;
2. Bring the national discussion of library futures to the local campus and develop collaborative models for problem-solving within the university;
3. Develop network access for everyone from a personal workstation;
4. Develop a clear strategy for information sharing across institutions;
5. Start with an upheaval: give no money for materials to the library for a year; instead, invest the funds in developing a new campus information infrastructure;
6. Devise a project to ensure preservation of electronic information.

The participants broke up into their mini-think-tanks to develop a proposal for each pilot project. Each project group was asked to be as specific as possible, using the following questions to prompt discussion:

- What will the idea look like when in place?
- Who are the key stakeholders or players?
- What are the primary benefits? To whom?
- What are the potential obstacles?
- What data needs to be collected?
- What specific evidence would indicate progress?

Elaborating on the pilot project suggestions was by far the most difficult of the day's tasks. As groups tried to map in some detail a path that might lead to the promised land, a dichotomy began to emerge between those who leaned towards evolution and those who favored the "big bang" approach to organizational change. ("There are two basic strategies to making...changes — evolutionary or big bang. The evolutionary strategy involves developing a consensus on the target environment without making any major organizational changes or personnel reassignments

suddenly.... The big bang strategy involves a small nucleus of people developing the target environment for the institution. Once the design is finalized and blessed by the institution's executives, or the Board, implementation must begin with vigor.")<sup>5</sup>

The project groups, moreover, were given little more than one hour to agree on and develop their ideas. But the intensity of the discussions and the quality of work produced demonstrated that, given more time and the proper expertise and organizational support to develop ideas, there is no doubt that greater project specificity could have been achieved (although not necessarily greater agreement on the details of the best approach).

The following synopses are heavily based on the project groups' own language in discussing and reporting to the other participants, but the authors have created unique titles for each project and have chosen to emphasize particular aspects of the discussions. The suggestions for pilot projects were, by the nature of their origin in a brainstorm list, quite vague and open to multiple interpretations. Consequently, each group had to create its own definition of the project — which depended on the particular personalities within the group as much as on the original suggestion. Many project specifics overlap; so do many project goals. The important points are not, in the authors' estimation, the details on which groups settled, but the ideas *behind* the details, which indicate the seeds that could germinate into fruitful avenues of experimentation.

### **1. Overcome what is limiting our institutions now**

This pilot project would establish an interinstitutional consortium of consumers, information providers, and managers/university leaders with the mission of developing a true virtual library that maximizes access to internal and external information for the institutions involved. This consortium must be focused on breaking through current obstacles to a new paradigm for information access and provision.

A small implementation team of librarians, faculty, and information technologists would work together under an "inspired and inspiring leader" to research the information needs of their campuses, analyze other attempts at creating the virtual library, and design the system.

The project would use venture capital to fund a system that served both the information haves and have-nots, since the project group felt that breaking off "pieces of the fringe" doesn't work and "pitting groups against each other" for funding would be counterproductive.

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<sup>5</sup>Paper presented to the INFORMA 1992 meeting by Thomas W. West, Assistant Vice Chancellor, Information Resources and Technology, The California State University.

## **2. Apply national collaborative ideas at the local level**

This project group decided that national discussions about collaboration need to be adopted as a problem-solving strategy at the campus level. They developed a multistep project that involved collaborative approaches for providing information services. The project began with a cost study to gain a sense of what was the current situation. A reassessment by local scholars of their information needs was recommended. A pilot project to mount databases that would involve cooperation between the campus library and computing center was suggested.

Another recommendation was the formation of a library-based publishing project intended to make available electronic copies of texts in the public domain. This campus collaboration, involving initially the library and computing center, would provide leadership in helping other campus agencies, such as the university press, to enter more aggressively into the electronic publishing arena.

It was suggested that agencies which became electronic publishers might also do the initial cataloging, which the Library of Congress could verify, at the time of publication. This campus-based consortium could in time become a multicampus consortium, and in the longer term might even become a public corporation, providing all types of network services.

One major consideration in creating such an innovative approach is to find a trigger that will capture the attention of campus officials at the highest levels. What is needed, the participants opined, is the equivalent of an "athletic scandal" that forces organized collective actions by universities in such a way that no one institution feels it is being put at a competitive disadvantage by participating in a collaborative effort. (This same point surfaced in the fourth project group.)

## **3. Establish network access through personal workstations**

This group planned to create a campus technological environment in which students and faculty would have easy access via personal workstations to campus and national networks. Significant institutional investment would be required; therefore, top administrators must first be convinced of the benefits — which were deemed to include more productive faculty, enhanced teaching, higher-quality research, and improved faculty/student/administrative communication. The group believed that the new environment could be introduced if projects that identified and quantified such benefits were put into place.

The group also underscored the need for campuses to get started if campus users were to benefit from the rapid developments of national and international networks that are already taking place. For example, they noted that publishers are already preparing to deliver content once the infrastructure is in place, and government agencies and even individuals are increasingly making information available in electronic formats. Having raised the specter of missed opportunities, the group

concluded its work by restating that the key issue for success is data that convinces administrators to make the necessary technological investments.

#### **4. Develop a model for interinstitutional resource sharing**

This project group proposed a new type of consortium for resource sharing, one that would be planned with input from publishers and would provide information and documents through many different methods — fax, commercial sources, online file transfer protocol (FTP), etc. Collaborative buying/leasing programs would release funds for the development of the network and the database structure. The consortium could expand to a national level through regional hierarchies, or it could represent other types of institutional groupings. More and newly trained staff would be needed for expanded consultation and support services.

“What could you regard as imperative for your community, but allow to exist at another institution?” This question, posed by one member of this group, defined its major problem — how to enable the user community to maximize information use within resource constraints. An in-depth analysis of the costs of the entire current information environment would be necessary for this project. Special concerns included assuring faculty that their work would not be compromised and developing new measures for library quality, based on service to users.

#### **5. Divert the acquisitions budget to a new infrastructure**

This group proposed that for one year, 90 percent of the library's normal materials budget be used to develop a new library/campus infrastructure — for example, to wire campus offices, dorm rooms, and libraries and connect them to existing networks. The remaining 10 percent of the budget would be turned over to academic departments so that specific needs could be dealt with. A novel idea dubbed “crop rotation” was proposed — to apply such a funds diversion to a different institution each year, so that no single or small group of institutions would be unduly disadvantaged by making such a dramatic change.

This approach assumed publisher and other vendor collaboration. During the year, the library would experiment with full-text document delivery, serve as a campus node for all available electronic full-text documents, and develop new capabilities for pointing users to information located beyond the physical limits of the campus. Library staff would be retrained and existing cataloging backlogs reduced.<sup>6</sup> The library would also conduct a market research study to learn how the 10 percent of the budget turned over to departments was actually spent and to identify which fundamental needs remained unmet.

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<sup>6</sup>Several project groups suggested that more attention be given to the possibility of outsourcing activities. Traditional technical service activities such as serial-related tasks and cataloging were specifically cited.

The group knew that this project would be controversial, and feedback from participants in the other think tanks substantiated their belief.<sup>7</sup> Among the comments were:

*"It's a bad idea because it ignores faculty and student needs for one year."*

*"A campus is a human service organization, not a factory that can be shut down for retooling."*

*"What about cross-disciplinary acquisitions? Do they fall through the cracks?"*

Knowing the idea would be controversial, the group suggested breaking the project into subprojects to ameliorate the immediate operational impact and permit a multiyear transition period from the old to the new information environment. Finally, since all information stakeholder groups would be affected, before an institution could reasonably assume the risks of such a "big bang" project, the group underscored the importance of enlisting the direct involvement or at least the moral support of groups such as the American Association of Publishers (AAP), Association of Research Libraries (ARL), Center for Research Libraries (CRL), American Association of University Presses (AAUP), American Association of Universities (AAU), Coalition for Networked Information (CNI), Commission for Preservation and Access (CPA), RLG, and OCLC.

## **6. Provide for preservation of electronic information**

There is currently no authoritative body assigned the responsibility for "copies of record" for electronically published information, and no procedures have been established to preserve such copies in perpetuity as part of the scholarly record. To solve these problems, this project group came up with a proposed member organization, the International Collections Points (ICP).

ICP would assume the responsibility for preserving copies of record for electronically published information for a group of institutions and/or agencies. Members of ICP would become service agencies for the rights holders of information housed there. These agencies would be international, identified by discipline, but with redundancy built in to protect against potential gaps. Initial start-up money could come through an incubator fund sponsored by diverse sources and funding agencies. ICP would then be funded under a "perpetual care" model through a user tax placed on the initial sale of a publication. (Initially, ICP would deal only with saleable published works; eventually, it would find solutions for preserving free publications and pre-publication formats.) The user tax revenue would go into an investment pool, whose interest would pay the ongoing costs of ICP.

If materials needed to be republished, ICP could provide an electronic version to the rights holder or designee guaranteed to be authoritative. In cases where copyright had expired, anyone could publish the information in exchange for a fee to the ICP endowment.

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<sup>7</sup>Following the general explanation and discussion of the six think-tank exercises, participants were given the opportunity to attach Post-it notes to the newsprint lists produced by each group.

## AUTHORS' OBSERVATIONS

In the course of this workshop, a number of themes and concerns surfaced repeatedly. In evaluating the day's proceedings, the authors offer the following observations.

### **Moving from talk to action.**

Pilot projects need to be mounted to establish the credibility and demonstrate the value and practicality of new information provision strategies. Despite much talk about the virtual library drawing on electronic data made available through a series of electronic networks, hardly anyone has demonstrated clearly what can be done now or what specific tools and policies need to be developed to achieve a full virtual library environment.

### **Negotiation among stakeholders.**

Although organizations such as the Society for Scholarly Publishing and the Coalition for Networked Information have stimulated dialogue among librarians, publishers, and technologists (and even a few projects), for the most part various groups continue to pursue their own interests independently. This pattern must be broken before a new era of collaboration can successfully develop. There is considerable overlap of interests — and self-interest — among the stakeholder groups. In some cases groups agree, but in others their priorities are in conflict. Several organizational issues need sorting out — including how to avert win-lose situations that can hinder future efforts. Agreement exists or could be negotiated on many more substantive issues than many realize; but there is very little opportunity for the key stakeholder groups to talk or work together for a sustained period. Taking fuller advantage of electronic communication tools already available is one way that new communication channels could be created and existing channels further opened for interstakeholder communications.

### **The copyright quandary.**

The issue of copyright permeated or lurked in the background of most discussions among the stakeholders at this workshop. In every think tank copyright was an issue — or would be if the pilot project were implemented in the real world. Librarians and publishers are already acutely conscious of the issue; copyright has been a bone of contention for many years. Scholars and academics at this workshop, while acknowledging copyright's importance, still did not rank it among their priority concerns.

Publishers believed, and possibly with some justification, that traditional library resource sharing, no matter how well intentioned during this period of severely constrained budgets, has already exceeded the Congressional intent of fair use. Librarians would argue to the contrary. But there was agreement among all

concerned that the copyright issue continues to fester and threatens future progress on a number of fronts. (Steven Gilbert of EDUCOM, writing about changes that may be needed in copyright legislation and access to information in a technological environment urged: "Our first task is to articulate the issues with sufficient clarity to permit the development of effective strategies involving collaboration of all interested sectors."<sup>8</sup>) The authors of this report believe it is time to begin negotiations with all of the affected parties. The negotiators should be charged with developing a *modus vivendi* with which all parties can live.

### **Displacing university competition with practical collaboration.**

In the traditionally competitive environment of higher education, the nature of intra- and interinstitutional collaboration is not well understood. It has been traditionally assumed that libraries "ought" to work together — and they have done so to good advantage in many areas. However, their efforts are still often viewed as peripheral to both the library's and the university's primary objectives.

As a workshop participant pointed out: "No university official is going to put his/her institution at a disadvantage in a competitive situation. Does anyone seriously believe that a major university would voluntarily and unilaterally stop buying library materials while competing institutions continued operations as normal?"

Campus officials need to gain a more realistic understanding of what can and cannot be achieved through collaboration. A networked environment will require significant collaboration among all producers and users of information. The real or perceived competition to determine which campus has the biggest library must be reduced as a factor in interinstitutional comparisons. In fact, the authors would argue that the entire campus information environment must move from the arena of interinstitutional competition to one of mutual support and collaboration if any paradigm shift is truly desired.

### **The issue of risk-taking.**

No discussion about achieving the vision of a new information future is complete without looking at acceptable risk. Participants were certainly agreed that more risk-takers are needed in leadership positions. To stimulate the right kind of risk-taking, however, campus officials must be prepared to indicate the ground rules and then reward the risk-takers — even if the venture yields knowledge through failure rather than success. Effectiveness at collaboration is rarely factored into campus reward systems; more librarians have been criticized for extending the hand of cooperation than have been lauded for their altruistic vision. Yet developing

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<sup>8</sup>Steven W. Gilbert, "Information Technology, Intellectual Property, and Education," *EDUCOM Review*, Spring 1990, pages 14-18.



innovative information systems will require increased collaboration and communication skills.

In an environment of conflicting and ambiguous goals, it may be difficult to agree on what is risk-taking, what risks are important to take, and when the risk-takers are going to be rewarded. Each campus needs to establish the goals for the information environment that are worth taking risks to reach; and the transformation process may well need some protection from the competing claims for resources of other campus activities before the call for risk-taking can be considered more than rhetoric.

#### **The financial dimension.**

Seed money is necessary to fund pilot projects. A zero-sum philosophy in a complex organizational setting will impede innovation, because there is always a reluctance to test unproved alternatives at the expense of tried and true activities. Risk-taking in a zero-sum environment only invites turf battles and user opposition. Officials need to be willing to prime the pump. At the same time, and participants clearly understood this need, the way in which campus information activities are funded must be reanalyzed and rethought. Both money to prime the pump of innovation and reallocation of existing resources will be needed to create a new campus information environment.

#### **Realistic expectations.**

The authors expect this charting of paths to go slowly for a variety of reasons: the intractability of campus cultures, the complexity of managing multiinstitutional pilots, funding constraints. "A commitment to true transformation will require institutional analysis far more critical than that required by an accreditation visit, resource redistribution more extended than any caused by fiscal crisis, and broad-based restructuring beyond any resulting from a systems merger."<sup>9</sup> Yet the work is inevitable and pressing.

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<sup>9</sup>James I. Penrod and Michael G. Dolence, *Reengineering: a Process for Transforming Higher Education*, Boulder, CO: CAUSE, 1992. page 19.

## A STEP FORWARD: I-THINK

The series of seven “preferred future” workshops provided venues for many experts to talk about substantive issues and to listen to the views of others.<sup>10</sup> In our judgment most of the solutions suggested during the workshops will remain out of reach until ways are found to enable a high level of multistakeholder communication and interaction.

We now know that the futures of the key stakeholder groups have become highly intertwined and interdependent. It will be difficult for any single group to achieve its own goals unless it can successfully establish interstakeholder alliances and successfully employ collaborative problem-solving strategies. But if a new problem-solving environment can be established, we are optimistic about the prospects for progress. The brief project description that follows is one possible approach.

The authors believe that telecommunication tools offer a way to propel the traditional bricks and mortar think tank into the age of networked communications. We propose the Information Think Tank, or I-THINK — the creation of a virtual think-tank environment. Experts who rarely have opportunities to meet together could continue the work they conduct at periodic face-to-face meetings using available telecommunication tools. The capacity envisioned would be extremely malleable and could serve multiple purposes. For example, participants could examine issues, consider policy alternatives, and propose workable strategies in a sustained and thoughtful manner. Or they could provide advice to ongoing pilot projects.

(I-THINK, as proposed, would be a two-year project. The actual proposal spells out its purposes, plan of action, expected outcomes, unique aspects of the project, and details about the principal staff. Additional information is available from Richard M. Dougherty; send electronic mail to [usergbth@umichum.bitnet](mailto:usergbth@umichum.bitnet) or fax to 1.313.764.2475.)

The key is to create a capacity that assists the work of information professionals who are widely dispersed geographically, don't use common technical languages, hold different views toward information and its ownership, but share a common objective of seeking solutions to complex technical and policy issues in order to create new information futures for our society and its institutions.

We have come full circle; we have talked about the problems at great length; we know a great deal; there is much that could be done. It is time to act.

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<sup>10</sup>The workshops also served to demonstrate that groups or individual campuses can identify their preferred information futures and how they can, if desired, create roadmaps that will aid them in reaching those futures.

## CHARTING THE PATHS — AFTERWORD

by James Michalko, President,  
The Research Libraries Group, Inc.

As a participant in the workshop you've just read about and as a representative of the sponsor, The Research Libraries Group, I've been both pleased and disappointed by the 1992 follow-up to our series of workshops in 1991 on "Preferred Futures for Research Libraries." Pleased because the latest workshop went so well and accomplished much of what we hoped. Disappointed because as a set of stakeholders we are so far from having real, productive, working relationships.

RLG undertook to sponsor "Charting the Paths" because we were puzzled that library directors and chief academic officers had made so little progress towards the vision that they share — an information future in which all faculty and students have universal access via multifunction workstations to the resources that they require. We believed that one reason these campus partners had so few ideas of how to achieve their vision was that a much broader group of stakeholders had to be involved in the working partnership. Consequently we moved on to the broader group of participants and the approach represented in the June 1992 workshop.

My own experience during this second effort was that the necessary goodwill for a productive partnership among stakeholders was there. What is more, the urge to change among all the stakeholders was evident. The imperative to find a new paradigm of information provision motivated all those who attended. These are necessary conditions for a focused, working relationship.

There was also more disagreement, both spoken and unspoken, than the authors could legitimately report on given the constraints of their methodology and their need to be objective facilitators. One of the exercises was to think about significant trends that would influence the shape of the future information environment. Once everybody bid as many trends in as many categories as they could manage, they voted on what was the most important in each category. (Participants had two votes in each category and could use them on one item or two.) What I saw:

**Scholarship and teaching** — not a single administrator worried about faculty productivity.

**Social** — that copyright pressures will slow the advance of electronic information was seen as a trend by publishers, but not by faculty or administrators.

**Technology** — my observation was that the technologists didn't cluster around issues in any of the categories — and particularly didn't cluster around any one of the technology trends. That hardware costs will decrease, while software and support costs will increase, was important to librarians and administrators but not to the technologists.

**Miscellaneous** — intellectual property rights concerned publishers and librarians but not a single faculty member or administrator. No administrator voted that collaboration among stakeholders was going to be necessary to achieve this universal access to information; the faculty and publishers all did.

All of this said to me that the organized anarchy of the university is not going to produce a revolution in electronic information provision for the humanities and social sciences any time soon.

This is, of course, subjective reportage from a small group over the course of one day. And none of this disagreement, or at least lack of congruence, is unmanageable. We ought to anticipate it and build it into our approaches to the future. The fact is that ours is an extremely complicated vision, and we're not going to be able to move toward it in workshop settings or on an investment of stolen attention from volunteer representatives of all these stakeholder groups. To capitalize on the shared imperative of a new paradigm, we need to work through the differing priorities of the stakeholders: we need to find those areas of intersection and understanding that will allow us to set up pilot projects with the full support of all those who will be affected. But before those mythical local and national risk-takers can act, we need the thought, planning, and research that results from real work and real interaction among dedicated representatives of the stakeholders.

Unfortunately, there is no venue for this kind of interaction. There is no organization that has standing with all of the stakeholders that can manage this thought, planning, and research. I believe that without such a think tank, without such a working group to generate the consensus and find the intersections, we will move forward very raggedly.

In the same way that the national community of stakeholders needs leadership and needs mutual understanding and action plans, so do the stakeholders at the local level. Each campus must create the mutual understanding and proactive sense of collaboration that will allow the responsible campus leaders to move forward. We will have to replicate at the local level the interaction that creates a context of understanding, because — even if the basic issues, design, and plans are outlined by a national effort among stakeholder groups — the projects, the services, and the implementations will be local ones. They will be inevitably idiosyncratic to the local environment, and that means local understanding and support must be created and nurtured.

As an organization, RLG and its members are committed to ensuring greater access to information resources that are necessary for research and scholarship. The preferred vision of the future is totally congruent with our mission. As an organization, however, we are not able to provide the leadership that the national

community of stakeholders requires. Our resources are directed at important and necessary *elements* of the preferred future of universal access to information.

RLG is supporting the creation and maintenance of research resources that would not otherwise exist or be available to our scholars. RLG's Early Printed Books project; support for scholarly materials in non-Roman alphabets; creation of the largest database of archival and special collections materials in the world; and integration of scholarly data resources such as the History of Technology and Index to Foreign Legal Periodicals into the CitaDel™ citation and document delivery service; all evidence our commitment to ensure that the needs of scholars and researchers are met in the information environment of the future. What is more, RLG's investment in standards activities — bibliographic and technical — is a necessary, although not sufficient, component of the preferred information future. Our efforts in preservation, in document delivery, in bringing information resources into the managed and accessible electronic future all take into account the information future our scholars, librarians, and students anticipate.

Obviously RLG is investing in the components of the future. And when the leadership is exercised to bring together all the stakeholders in an ongoing, working effort to achieve real plans, real projects, and real outcomes — we will eagerly join the effort.

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