

**DRAFT  
MINUTES  
NCLIS MEETING  
JULY 14-15, 1995**

**Commissioners Present:**

Jeanne Hurley Simon, Chairperson; Joan R. Challinor; Carol K. DiPrete; Mary S. Furlong (Commissioner-Designee); Norman Kelinson; Frank J. Lucchino; Bobby L. Roberts; Gary N. Sudduth; Winston Tabb (for James H. Billington); Barbara J. H. Taylor; and Robert S. Willard

**Commissioners Absent:**

Martha B. Gould, Vice Chair; Shirley Gray Adamovich; Kay W. Riddle; and Joel D. Valdez

**Staff Present:**

Peter R. Young, Executive Director, Mary Alice Hedge, Associate Executive Director; John Lorenz, Coordinator, Library Statistics Program; Jane Williams, Research Associate, Kim Miller, Special Assistant; and Barbara Whiteleather, Special Assistant and Recording Secretary

**Guests and Observers Present:**

Richard Akeroyd, NCLIS Liaison for COSLA; Toni Carbó Bearman, Dean, School of Library and Information Science, University of Pittsburgh; Beth Bingham, Liaison for WHCLIST; Beverly A. Blankowski, Administrative Assistant to Commissioner Lucchino, County of Allegheny, Pittsburgh; Robert Croneberger, Director, The Carnegie (Museum of Art and Museum of Natural History), Pittsburgh; Janice G. Criss, Baldwin Library, Pittsburgh; Shelley Dowling, Librarian, U.S. Supreme Court, Washington, DC; Susan Jacob, Allegheny County Library (for Kurt Saunders); Carol Henderson, Liaison for ALA; Susan Jason, Jury Commission, Pittsburgh; Marilyn A. Jenkins, Administrator, Allegheny County Library, Pittsburgh; Kathy Kennedy, Jo Ellen Kenney, Carnegie Free Library of McKeesport, McKeesport; Charles B. Lowry, University Librarian, Carnegie Mellon University, Pittsburgh; Glenn R. Miller, Pennsylvania Library Association, Harrisburg; Nancy Musser, Baldwin Public Library, Pittsburgh; Peyton Neal, NCLIS Liaison for IIA; Robert Oakley, NCLIS Liaison for AALL; Loretta O'Brien, Deputy Director, CLP, Pittsburgh; Gary Wolfe, Acting Commissioner of Education, State Library of Pennsylvania, Harrisburg; Susan Wolfe, School Librarian, Harrisburg.

**Thursday, July 14, 1995**  
**The Carnegie (Museum of Art and Museum of Natural History)**  
**Pittsburgh, Pennsylvania**

The meeting was called to order at 10:10 a.m. At Chairman Simon's suggestion, all those present took a few moments to honor the memory of Commissioner and friend, Daniel W. Casey. This meeting is the first since Mr. Casey passed away in March. Chairperson Simon thanked Robert B. Croneberger, Director, The Carnegie Library of Pittsburgh, and Commissioners Lucchino and Willard for their enormous assistance in helping to plan and arrange this meeting. After introductions, the guests were recognized and welcomed.

Chairperson Simon noted that today, July 14, is Bastille Day, and stated that "The spirit of freedom and the freedom of access is alive and well."

### **COMMISSIONER-DESIGEE MARY FURLONG**

Commissioner-Designee Mary S. Furlong, was welcomed by all to her first NCLIS meeting.

### **CHAIRPERSON'S REPORT**

Highlights of Chairperson Simon's activities since the February 23-24, 1995, meeting included:

- March 1-3 -- NCLIS/NCES FSCS Eighth Annual State Data Coordinators Workshop, Austin, Texas;
- March 8 -- Meeting with Sharon Robinson, Assistant Secretary of Education, OERI (with Peter Young and Mary Alice Hedge);
- March 28 -- Meeting with White House Personnel staff (with Mary Alice Hedge);
- March 30 -- Speaker, Sixth Annual Elizabeth Stone Lecture, Catholic University of America;
- April 3 -- Meeting with Jennifer McKay, House Appropriations subcommittee staff;
- April 4 -- Hearing on NCLIS FY 1996 budget request, House Appropriations Committee, Subcommittee on Labor, HHS, Education and Related Agencies (with Peter Young, Mary Alice Hedge, John Lorenz, and Jane Williams);
- April 6 -- Meeting with Secretary Riley regarding outlook for federal library support (with Peter Young and Mary Alice Hedge);

- May 10 -- 7th International Congress on Medical Librarianship - Opening Ceremony Greetings;
- May 15-16 -- Library and Information Services Policy Forum, (Co-Chaired by Chairperson Simon);
- June 8 -- "Information Technology Conference Series: Part 4: National Infrastructure Policy and Issues," Champaign, Illinois. Speech, "*Libraries and Their Role in the NII: A View from NCLIS*";
- June 22-28 -- American Library Association annual conference, Chicago. NCLIS breakfast with ALA Executive Board. Speaker at numerous programs, including Association of Jewish Librarians; Federal Librarians Round Table Program; Chapter Relations Library Advocacy Program; American Association of School Librarians; and Urban Libraries Council Executive Board dinner.
- July 12 -- Meeting with Jim Kohlenberger, Domestic Policy Staff Member to Vice President Gore (with Peter Young and Mary Alice Hedge).

Chairperson Simon stated how pleased she was with the semi-annual informal NCLIS/ALA Executive Board breakfast/meetings held at Annual and Midwinter meetings. She expressed optimism about NCLIS's good working relationship with ALA Executive Director Elizabeth Martinez and other ALA officials.

In keeping with the Commission's international perspective, Chairperson Simon and NCLIS staff have held meetings recently with USIA-sponsored visiting librarians from the National Library Board of Nigeria and the National Autonomous University of Mexico.

## **NCLIS MINUTES**

### **MOTION**

It was moved by Frank Lucchino, seconded by Gary Sudduth, that the following NCLIS draft minutes be approved as submitted:

- NCLIS conference call - 15 June 1995;
- NCLIS conference call - 18 May 1995;
- NCLIS conference call - 5 April 1995; and
- NCLIS meeting - 22-24 February 1995.

The motion carried unanimously.

## **EXECUTIVE DIRECTOR'S REPORT**

Mr. Young briefly highlighted points from the 14 July 1995 Executive Director's report. Copies of the report were distributed in the NCLIS meeting folder. The report highlights included the following points:

1. The Commission's Pittsburgh meeting activities are held in conjunction with the 88th Annual Meeting of the American Association of Law Libraries. Plans for presentations about the Carnegie Library, Allegheny County Public Libraries, the NII Advisory Committee, and for Commissioner Frank Lucchino's reception for NCLIS members.
2. The status of recent Congressional initiatives, including:
  - S. 856 - Arts, Humanities, and Museums Amendments;
  - H.R. 1617 - Careers Act;
  - FY 1995 Appropriations Recission;
  - FY 1996 Appropriations Request;
  - Telecommunications Regulations - H.R. 1555 and S. 652.
3. NCLIS's recent publication, *Internet Costs and Cost Models for Public Libraries*, and proposed plans for updating the 1994 NCLIS sample survey of public libraries and the Internet.
4. *NCLIS Principles of Public Information, June 1990*, published in June 1995 *Federal Register* for comment at the request of the Information Policies Committee.
5. NCLIS issuance of two other publications: *Hearing on the Federal Role for Libraries: Planning for the Reauthorization of LSCA - Lake Tahoe, October, 1994* and *Toward the 1995 White House Conference on Aging: Priorities and Policies for Library and Information Services for Older Adults - Philadelphia, February, 1995*.
6. Update on the Library Statistics Program, including the 1993 FSCS State Ranking Tables and plans for the July 1995 NCES Data Conference.
7. NCLIS budget requests for 1996/97 - appropriations outlook and requirements for adhering to performance measures mandated by the Government Performance and Results Act of 1993.
8. Recent NCLIS/NARA/LC activity to survey the 50 State governors on the use of permanent paper by state governments.
9. Plans for 61st General IFLA Conference in Istanbul, Turkey in August 1995 and NCLIS representation using ICSECA contributed funding.
10. Outline of suggested approach for preparing a Report on Federal-Related Library Programs as requested by Representative John Porter, Chair, House Appropriations Subcommittee. This approach would enable the Commission to review and comment on current Congressional proposals for restructuring and reauthorizing LSCA in reference to objectives outlined in Chairman Porter's request to NCLIS.

Chairperson Simon and Commissioner Challinor expressed their sincere gratitude to Mr. Young and the entire NCLIS staff for their continuing hard work and support.

## **S-856**

A copy of selected pages from the Senate Labor and Human Resources Committee's marked up version of S. 856, Arts, Humanities and Museum Amendments of 1995, was included in the NCLIS meeting notebook (Tab D). In brief, the bill authorizes \$150 million in FY 1996 and similar sums for the next four years to provide states with funding for: a.) information access through technology, and b.) information empowerment through special services. The bill includes provisions developed by the LSCA Task Force which are included in the Library Services and Technology Act (LSCA). Appropriated funds would be administered by a newly created Institute of Museum and Library Services (IMLS) (within the National Foundation on the Arts and the Humanities) to State Library Agencies and could be used for technology projects and for projects to serve special populations. Portions of the appropriated funds would be reserved to serve children in poverty, to fund joint library/museum projects, for Indian library services, and for national leadership programs in library science.

The Senate Labor and Human Resources Committee is reviewing amended statutory language which would involve NCLIS providing the IMLS with policy advice on the library and information services programs, similar to the role of the National Museum Board.

Mr. Young discussed specific areas of concern to NCLIS included in S. 856:

1. Bill language proposes to replace the Librarian of Congress as a NCLIS member with the Director of IMLS; and
2. Change in Commission composition to increase the number of librarians from five to seven.

Both these concerns have been communicated to Senate Committee staff who are actively developing revised language for S. 856 based on NCLIS recommendations.

Carol Henderson, Director, American Library Association (ALA) Washington Office, and NCLIS Liaison for ALA, called attention to the draft minutes (page 4) of the May 18, 1995, NCLIS conference call, which reads in part: "In considering this option, Mr. Ritter advised Mr. Young that the ALA Washington Office is pressing to have the Commission's composition changed from 5 to 6 or 7 professionals in the library and information field (including the Librarian of Congress)."

Ms. Henderson clarified ALA's position in this regard by stating, "The American Library Association has not been pressing for any changes in the Commission's composition. We were asked, given the new role for NCLIS with regard to the IMLS, if

it would be helpful to have another librarian on the Commission. However, we are not pressing for that change, nor is ALA recommending any change. I appreciate this opportunity to clarify ALA's position."

Richard (Dick) Akeroyd, Connecticut State Librarian and NCLIS Liaison for COSLA (Chief Officers of State Library Agencies), reported that COSLA recently discussed S. 856. It appears that COSLA's major issue with S. 856 is a lack of understanding of the set-asides for children's programs. COSLA is carefully watching the draft bill and trying to influence where possible. All in all, COSLA is very pleased with the bill's progress.

Chairperson Simon asked Mr. Akeroyd to describe COSLA's feeling regarding NCLIS and IMLS. Mr. Akeroyd replied, "It is not entirely understood that NCLIS is not actively moving to take over responsibility for administering the library grant program." Chairperson Simon assured Mr. Akeroyd that this is not true and that, further, NCLIS is not looking for a larger role. In Mr. Young's opinion, in terms of the transition to a new structure for LSCA proposed in S. 856, NCLIS' workload would increase significantly if the legislation is enacted in its current form. The Commission would take on significant new responsibilities, especially at the outset, given that the bill specifies that the first IMLS Director would come from the Museum field and therefore require more assistance related to the library and information services program activities. Mr. Young stated, "It is interesting that we are meeting here today -- in a building that offers an excellent example of how successful museums and libraries can collaborate. The Carnegie offers a wonderful model for a very successful combination!"

Ms. Henderson stated her opinion that the Commission could, indeed, provide very useful advice to the newly formed IMLS regarding the Library Services and Technology Act, accountability, and on the increased flexibility which S. 856 would allow state library administrative agencies. In concluding this discussion, Chairperson Simon stated, "NCLIS is well aware of the sensitivities regarding S. 856, and we will proceed accordingly."

## **H.R. 1617**

H.R. 1617, the Careers Act, provides block grants for job training, vocational rehabilitation, adult education, and library services. Block grants for libraries would continue to be administered by the Department of Education. The bill is based on a modified version of the Library Services and Technology Act proposed by a coalition led by the American Library Association. The bill would authorize \$110 million for each of fiscal years 1997-2002 for Title IV, Subtitle B, Library Services and Technology Consolidation Grants.

## **NCLIS REPORT TO REPRESENTATIVE PORTER**

During NCLIS' FY 1996 House budget hearing, Representative Porter, Chair of the Appropriations Subcommittee on Labor, HHS, Education and Related Agencies, expressed his concern about the need for so many specific programs targeted narrowly to different aspects of libraries and library science. Chairman Porter proposed a study of the possibility of one agency overseeing all of these programs. Rep. Porter then suggested that the Commission undertake a study with reference to libraries. "It might be instructive for all of government in many different areas as to how we might better organize ourselves to deliver services more effectively and efficiently," he stated.

In drafting the Commission's response to Rep. Porter's suggestion, Commissioner Willard offered that this is the perfect justification for the continuation of NCLIS and, further, NCLIS could not undertake such a study on the \$450,000 appropriation recommended by the House.

Commissioner Roberts stated, "We are always talking about library cooperation, and we need to avoid getting into a "box" regarding different types of libraries. This is a very difficult question -- like trying to combine the Air Force and the Navy. The response requires a very political answer.

Commissioner Lucchino expressed his concern that 3-½ months have lapsed since Rep. Porter asked for the Commission's input. Ms. Henderson noted that much of the response has already been answered in the consolidation proposed and contained in H.R. 1617.

### **MOTION**

It was moved by Joan Challinor, seconded by Frank Lucchino, that Commission will discuss and formulate a response to Representative Porter by September 1, 1995.

The motion carried unanimously.

In discussion that followed, about the nature of the Commission's response to Mr. Porter, the following comments were made:

- Show the advantages of diffusion of power. (Commissioner Willard);
- Show cost-effectiveness of consolidation. Clearly state the crucial role of libraries in providing access to the NII; everyone is concerned about the public's access to Internet. (Commissioner-Designee Furlong);
- There seems to be some debate over the intent of Rep. Porter's question. (Commissioner Sudduth);

- Focus on LSCA/HEA/ESEA. (Chairperson Simon);
- Answer in support of S. 856. (Mr. Tabb);
- Compliment Rep. Porter on his vision because at that time there were no Senate or House bills. There is a real strength in the Senate bill for libraries to have a much higher position in the whole federal sector. Share some of the positives. (Ms. Hedge);
- Work it around having all library programs under one umbrella; much like the Senate bill. (Commissioner Taylor);
- We can only offer an opinion. I do not know if you could do a study that answers Rep. Porter's question, "What do we think is the best way to organize government to meet the library and information service needs? (Commissioner Willard);
- Museums and libraries can and do co-exist under single leadership. (Mr. Croneberger);
- I think the question is how to get everything under one roof so that cuts can be made. (Commissioner Challinor).

Chairperson Simon stated that the draft response would be sent to all Commissioners for comment. In preparing the response, many options will be considered and the response will be a blend of philosophical and practical approaches. It was agreed that the response will be brief and to the point, perhaps not more than one or two pages.

## **NATIONAL PERFORMANCE REVIEW, PHASE II**

Chairperson Simon reported that, to date, no response has been received regarding NPR, Phase II. The comment from Aromie Noe, NCLIS' OMB budget examiner, is that it is very difficult to know what Congress is going to do in FY 1996.

Chairperson Simon reported that on July 12, she, Mr. Young, and Ms. Hedge met with Vice President Gore's representative, Jim Kohlenberger, to personally deliver "*Internet Costs and Cost Models for Public Libraries*" and to discuss NPR II. The Vice President was in Tennessee to visit his Mother who had been hospitalized. Mr. Kohlenberger was familiar with "*Public Libraries and the Internet*," and assured Chairperson Simon that he would inform the Vice President what NCLIS is doing and what "NCLIS is doing so well in the area of NII and libraries."

## **STATUS OF OTHER LEGISLATIVE INITIATIVES**

The Legislative Report, dated July 6, 1995, prepared by Jane Williams, was included in the NCLIS meeting notebook, Tab D. The report highlights recent Congressional initiatives:

1. FY 1995 recissions;
2. Congressional budget resolutions;
3. President's budget plan; FY 1996 appropriations;
4. Libraries, Education, Literacy, Arts and Humanities;
5. Electronic Information, Technology, Telecommunications and Networks;
6. Paperwork and Regulatory Reform; and
7. H.R. 1763 - Federal Agency Sunset Act of 1995

Ms. Williams called attention to H.R. 1854, Legislative Branch Appropriations Act. The bill proposes to cut the \$32 million 1995 appropriation for the Depository Library Program run by the Office of the Superintendent of Documents in the Government Printing Office (GPO) to \$16 million in 1996. This would seriously reduce the ability of the program to provide government publications to the 1,400 depository libraries around the country.

Mr. Tabb pointed out that under H.R. 1854 the Office of Technology Assessment (OTA) would be funded in 1996 by transferring \$15 million from the Library of Congress to the Congressional Research Service which would begin performing OTA's functions. This would require LC to reduce other functions to absorb the OTA functions. LC's American Folklife Center's funding, \$1,650,000, would be transferred to the Congressional Budget Office to fund a study of unfunded mandates. In addition, the Joint Committee on Printing would be eliminated. House Information Systems would receive funding to upgrade computer and telecommunications networks and the Library of Congress would get \$3 million for its National Digital Library project.

Mr. Tabb stated that the American Association of Law Libraries (AALL) is in support of OTA and not for cutting LC programs. Senate action is expected on these proposals shortly.

Other matters of particular concern are: (1) S. 946 - Federal Information Technology Reform Act of 1995. This bill would remove procurement authority from the General Services Administration to establish a National Chief Information Officer in the Office of Management and Budget, as well as chief information officers in the major federal agencies. The bill discourages megasystem purchases in favor of incremental approaches and would make it easier for agencies to buy commercially available products; and (2) H.R. 1978 - Internet Freedom and Family Empowerment Act, a bill to encourage and protect private sector initiatives that improve user control over computer information services.

## **INTERNET COSTS AND COST MODELS FOR PUBLIC LIBRARIES**

Copies of the NCLIS study, *Internet Costs and Cost Models for Public Libraries*, conducted by Charles R. McClure, John Carlo Bertot, and John C. Beachboard, were recently sent to all Commissioners. Mr. Young noted that the project resulted from findings reported in the June 1995 report, *Public Libraries and the Internet: Study Results, Policy Issues, and Recommendations*. A re-administration of the 1994 sample survey study in 1996 has been discussed with Dr. McClure. Re-surveying public library involvement with the Internet in 1996 would allow the Commission to address the rapid changes in the field and provide a mechanism for validating the cost models developed for NCLIS in 1995.

Mr. Young stated, "The findings of this study are intended to provide a basis for extending the benefits of advanced information services to the Nation through our 9,050 public libraries. The Commission should feel very positive about the follow-up 1995 report. NCLIS is receiving a very large number of requests for copies of the public libraries-Internet cost study from librarians and public policy officials from around the world. Chairperson Simon stated: "This latest study speaks well for what the Commission is all about. I look forward to working with Dr. McClure on the follow-up study."

## **NCLIS 25TH ANNIVERSARY**

Commissioner Taylor, Chair, NCLIS 25th Anniversary, reported that she received a favorable verbal response from Mrs. Clinton regarding NCLIS' 25th anniversary celebration at the White House.

At Chairperson Simon's invitation, Gary Wolfe, Acting Commissioner of Education, Pennsylvania, read a proclamation honoring the Commission and signed by Tom Ridge, Governor of Pennsylvania. A copy of the proclamation is attached to these minutes (Attachment I).

To date, proclamations have been received from the Governors of Delaware; Illinois; Kansas; Maryland; Massachusetts; Pennsylvania; and Virginia. In addition COSLA has provided a proclamation. Proclamations are also expected from Arkansas, Connecticut, Iowa, Nevada, as well as a Presidential Proclamation. Ms. Hedge suggested attaching all of the proclamations to the response to Rep. Porter.

Commissioner Taylor reported that William Welsh, a former NCLIS member serving for the Librarian of Congress, suggested videotaping statements from former NCLIS Chairs. Ms. Hedge will explore and help coordinate these presentations.

To date, \$600.00 has been contributed toward the anniversary celebrations; contributions are now being accepted.

The Commission approved a draft NCLIS press release, included in the NCLIS meeting folder, announcing that NCLIS is accepting nominations for twenty-five Silver Awards. The awards will honor individuals who have made noteworthy and sustained contributions at the national, state, and/or local levels in their field of effort, covering a wide range of library and information work. Ms. Williams noted that she has also prepared a "skeleton" outline of the *25th NCLIS Annual Report*.

Chairperson Simon thanked Commissioner Taylor and Jane Williams for their continuing hard work in this area.

## **PRESENTATION ON PITTSBURGH/ALLEGHENY COUNTY**

Commissioner Frank Lucchino showed a video on the state of libraries in Allegheny County and detailing a 1991 study, *"A Quiet Crisis: Libraries in Allegheny County"*.

Referring to the study, Commissioner Lucchino explained that the Commission on the Future of Libraries in Allegheny County was formed by Allegheny County in response to this study. The study documented the problems facing public libraries in the county and as a result, the Allegheny County Commissioners made a county library administrator a full-time position paid for with county funds.

Commissioner Lucchino noted that by establishing an Electronic Information Network for Public Libraries in Allegheny County, all residents of the county will have equal access to the most up-to-date information for their education, employment, enjoyment, and health. Interestingly, during the last decade, college-educated Allegheny County citizens have far surpassed the national average. Allegheny County has 65 libraries and 43 independent/separate public library administrative agencies, and there are 130 separate municipalities in the County!

Commissioner Lucchino stated that a pilot project to provide computer access information to senior citizens is underway. They also hope to reach the unserved and underserved in public housing; senior housing; and homeless shelters. He stated, "You are not going to get the kind of library funding you want until you have the support of everybody in the community. Libraries have won the hearts of people, but not their minds. There is no library support if you don't reach beyond their hearts to get to their MINDS!"

The Commission, staff, guests, and visitors heartily applauded Commissioner Lucchino for his dedication and service as Controller, County of Allegheny, and for his exemplary leadership for Allegheny County libraries.

Mr. Robert Croneberger, Director, The Carnegie Library of Pittsburgh, described the Oakland Library Consortium formed by The Carnegie Library, Carnegie Mellon University Libraries, and the University of Pittsburgh Library System in August 1993. The Consortium's mission is to "strive to maximize all possible benefits that accrue from close physical proximity of its three member libraries. Through information access, document delivery, and information resource management, the three libraries will endeavor to create a barrier-free information environment for their shared body of users, capitalizing on unique strengths, diverse expertise and state-of-the-art technology."

Mr. Croneberger briefly described the history of the establishment of the Carnegie Library of Pittsburgh. Andrew Carnegie (1835-1919), often referred to as the "Patron Saint of Libraries" made new library buildings available to hundreds of communities in all parts of the world. The "Steel King" spent more than \$333,000,000 (90 percent of his fortune) for what he termed "the improvement of mankind." The Carnegie Library of Pittsburgh was founded in 1895, and is celebrating its 100th anniversary this year. The Library serves a population of almost 1.4 million, with a collection, both book and non-book stock, of over 6 million items.

The Library's pilot project, Project Link-Up, has been a huge success. The project was initiated to connect the independent public libraries of Allegheny County to The Carnegie Library through personal computers, a modem, and public telecommunications networks. In addition, patrons connect to CAROLINE, the online public access catalog of The Carnegie Library, with a listing of 675,000 titles of books, records, and films. Since the establishment of Project Link-Up, electronic requests for materials have increased by 84 percent with a simultaneous reduction in turnaround time of more than 50 percent.

Ms. Hedge related the long working relationship NCLIS has had with Bob Croneberger since he chaired the NCLIS Task Force on Community Information and Referral in 1982-83.

Dr. Charles B. Lowry, University Librarian, Carnegie Mellon University, also described the Oakland Library Consortium. He then presented an economic analysis of the impact of information technology on the cost of information storage. This study begins to define the possibilities for a "new paradigm" of library and information services in the information age. Dr. Lowry spoke from a prepared text, a copy of which is attached (Attachment II).

## **SENIOR NET**

The Commission viewed a seven-minute video about Senior Net which was broadcast on McNeil-Lehrer's Newshour. The video was provided by Commissioner-Designee Furlong who is interviewed on the video as the founder of Senior Net. The video offered the viewers an exciting overview of the work that Senior Net is doing to introduce older Americans to networking.

## **TOUR OF THE LIBRARY**

Following the video, the Commission adjourned for an extensive tour of The Carnegie Library and Museum, led by Mr. Croneberger and members of his staff.

## **AMERICAN ASSOCIATION OF LAW LIBRARIES**

The Commission and staff attended a reception and working dinner with the members of the American Association of Law Libraries (AALL) Executive Board. During the dinner welcoming remarks and brief introductions were made by Carol Billings, AALL President (1994-95), Robert Oakley, AALL Member, and NCLIS Chairperson Jeanne Simon.

**Friday, July 15, 1995**  
**Hyatt Regency Pittsburgh**

The meeting was called to order by Chairperson Simon at 9:00 a.m.

## **PLANS FOR NCLIS ACTIVITIES, FY 1996**

Given an appropriate funding level in the FY 1996 appropriation, the Commission expressed the need for a two- or three-day strategic planning meetings to develop NCLIS programs, plans, and activities. Believing that developing a five-year plan for the Commission, as required by the Government Performance and Results Act, may be "too ambitious" at this time, it was suggested that NCLIS develop either a three-year plan or a two-year plan which could be used as the basis for developing a five-year plan. Commissioner Sudduth emphasized the need for an experienced facilitator who could direct the strategic planning meetings. Commissioner DiPrete encouraged a "retreat-type" meeting and explained that this type of strategic planning is long overdue.

Commissioner-Designee Furlong suggested holding an NCLIS meeting in conjunction with the final meeting (December 1995) of the National Information Infrastructure (NII) Advisory Committee when they present their report to Vice President

Gore in December 1995 in Washington, D.C. Further, she suggested, that the Commission could appropriately carry on the mission of the NII Advisory Committee once this group concludes its work.

In Commissioner Willard's opinion, the Advisory Committee has here to fore discouraged combined meetings. However, he suggested that the question be posed to Dr. Toni Carbo Bearman, scheduled to speak later in the day. In addition, Chairperson Simon reminded the Commissioners of the possibility of celebrating NCLIS' 25th anniversary at the White House around this time and suggested the possibility of having the celebration coincide with the NII Advisory Committee meeting, if presented with that opportunity.

To avoid "same kind" of agendas, Commissioner Lucchino urged continuing and increasing meetings in conjunction with other groups, e.g., the Mountain Plains Library Association and AALL.

Mr. Young pointed out that implementing the Government Performance and Results Act (GPRA) necessitates that NCLIS engage in a strategic planning process. This new process calls for developing output and outcome measures, developing performance goals, developing performance indicators, program activities, and program evaluations.

## **PERFORMANCE MEASURES AND BUDGET REQUEST FOR NCLIS, FY 1997**

Mr. Young called attention to the memorandum from Alice Rivlin, Director, Office of Management and Budget, dated March 3, 1995 (Tab I of the NCLIS meeting notebook). The memorandum states in part:

"In preparing the FY 1996 Budget, OMB asked for increased program performance information as part of the ongoing effort throughout government to define programmatic goals, measure how well those goals are being achieved, and assess program effectiveness. Clearly, the public has a right to know as much as possible about the results obtained for the resources invested. . . ."

The FY 1996 Appropriation Justification, Tab I of the NCLIS meeting notebook, listed seven program objectives, individually ranked by Commissioners in 1994. Mr. Young asked if these were still considered the top objectives and priorities:

1. Libraries and the National Information Infrastructure
2. Libraries, Literacy, and Educational Reform
3. Library Services and Construction Act (LSCA) Reauthorization
4. Economics of Library Support
5. Federal Information Dissemination Policy

6. Public/Private Sector Relationships
7. Library Education and Training

Discussion centered on a memorandum from the ALA dated July 12, 1995, regarding a Forum on Government Information Policy, July 20-21, 1995. The memo read in part:

“As you know, we face an imminent and serious threat to the Depository Library Program through a House appropriations action that would cut funding in half and revise the underlying statute without public input. . . Further, major pending bills would make changes in how the federal government meets its responsibility to provide public access to government information. . . Finally, hearings planned for August 1 on revision of the underlying statute (Title 44) by the House Government Reform and Oversight Committee demand our concerted attention and consistent recommendations.”

At Chairperson Simon’s request, Commissioner Challinor agreed to represent NCLIS, along with Mr. Young. To prepare for the meeting, Mr. Young will brief Commissioner Challinor on government information policy at the NCLIS office.

Returning to the seven top priority areas and to prepare for Robert Oakley’s presentation on intellectual property and copyright issues, Mr. Young noted that librarians in the academic library community are very concerned about maintaining the balance between owners and users of copyrighted materials, and about the future of the fair use provision of the U.S. copyright law. F. J. Lucchino, Jr., (son of Commissioner Lucchino) contacted NCLIS staff this past spring to obtain appropriate materials to assist him in a law school course on intellectual property law and to prepare a paper on the library fair-use provision and interlibrary lending. Based on the materials provided to Mr. Lucchino, he completed “Electronic Interlibrary Loan: Applying Copyright’s Analog Rules to Digital Technology”. A copy of the paper was included in the NCLIS meeting notebook, Tab K.

In discussing copyright, fair use of copyrighted materials, and illegal photocopying, Commissioner Willard stated, “As technology gives us the ability to see more clearly who is benefiting, we will be able to see a downward trend in the fair-use price. The Constitution (a copy of which I have here in my pocket) recognizes that the protection of the rights of the owner is there to spur the flow of information and the development of technology. You have to make sure that the authors’ interests are protected.”

Ms. Hedge reminded the Members of the Commission’s long history of work, concern, and accomplishments in the copyright area, including being instrumental in the 108(g) Section in the rewrite of the 100 year-old Copyright bill and the 1982 study on “*Public Sector/Private Sector Interaction in Providing Information Services.*” The

report presented the results of a two-year study of the interactions between government and private sector information activities, and cites seven principles for guiding interaction between the public and private sectors and 27 recommendations for implementing these principles.

Commissioner DiPrete called awareness to the fact that there are many groups at work in this area of concern. Mr. Tabb then stated, "This is a perfect example of why the Commission needs a meeting to develop its three-year plan. There is a real need to determine where there are roles for the Commission. These are very interesting questions, but there are many groups trying to come up with the same conclusions."

Commissioner-Designee Furlong suggested that one role for NCLIS is to help shape the copyright questions being asked. Further, she suggested NCLIS could be of service by developing a Home Page on these issues which then links up with six or seven other groups. In this way, NCLIS may not have all the answers, but could share information with those thinking about the questions.

Returning to discussion of program objectives, Mr. Young asked:

- What is it the Commission needs to do as we shift our thinking from reacting to planning?
- How much information and background do we need on these issues?
- What is the role of the staff in supporting the Commission's decisions?
- How does the Commission fulfill its broad statutory mandate given its limited resources and wide array of challenges and issues?
- How are we going to set the course for where we will be in five years?

Mr. Young stated, "I am convinced that NCLIS needs a three- or five-year program plan. Once we collectively agree upon that plan, the budget process will result from that plan, rather than the other way around. The staff needs your help in placing priorities in support of the Commission's agenda and for focusing time. We need your guidance for preparing the justification for the FY 1997 budget."

Given the probability that the Commission's appropriation will be cut from 1995 funding levels, Commissioner-Designee Furlong suggested one option that might be considered is that the Executive Director spend 25 percent of his time seeking outside support (e.g., foundation grants) to supplement the Commission's budget.

As a result of discussion, the Commission proposed instituting a process for determining top priorities and direction. However, in the meantime, they began revising the list of the top priorities and objectives for FY 1996, based on short-term planning. The top three critical issues are:

1. Libraries and the National Information Infrastructure
2. Library Services and Construction Act (LSCA) Reauthorization
3. Federal Information Dissemination Policy

## **TONI CARBO BEARMAN**

Commissioner Willard introduced Dr. Toni Carbo Bearman, Dean of the University of Pittsburgh's School of Library and Information Science, and a Member of the U.S. Advisory Council on the National Information Infrastructure (NIIAC). Dr. Bearman is the only member from an institution of higher learning appointed to the NIIAC and the only professional librarian. From 1980-1986, Dr. Bearman served as NCLIS Executive Director.

The NIIAC has specifically focused on generating national strategies for developing applications in electronic commerce, manufacturing, education and lifelong learning, health care, government information and services, and public safety.

Dr. Bearman thanked the Commission for the opportunity to describe the work of the Council and Task Force, noting that the NIIAC's challenge is, "To link every school, public library, hospital, and community center by the year 2000." She stated that the NIIAC Members have made a personal commitment to work within their communities to meet the President's challenge. As part of the overall blueprint, the Council is working with state and local governments, governors, local communities, and counties on the plan for universal service with the idea is that this is a private sector responsibility; the federal government is only there to push and make things happen.

In discussing the Government Information and Services Principles drafted by the Task Force on Mega Project I, Dr. Bearman read the principles, noting that 2-8 have been approved. A copy of the draft preamble, principles, and definitions is attached (Attachment III).

In addition, NIIAC has developed fundamental principles in five critical areas: (1) universal access and services; (2) privacy and security; (3) intellectual property; (4) education and lifelong learning; and (5) electronic commerce. These principles were distributed to the Commission as Information Document 95-27.

In discussing the NII, Dr. Bearman stated the importance of involving the following six components:

- 1) human resources; the most important part. This is where the library/information community takes a great leading role because it is the professionals who will design, manage, run, and teach people how to use the information infrastructure;

- 2) **physical infrastructure.** This is the one people think about most often when they talk about “the last mile”;
- 3) **software.** The information system would not be possible without the software, which needs to be much easier to use;
- 4) **content.** How do we help people find what is needed? We are only beginning to tap the surface of what will be available;
- 5) **laws/policies/regulations/technical standards.** Imagine a highway system where we didn’t agree which were “on ramps” and which were “off ramps.” Or, some people think red means stop and some think it means go. The “rules” of the information road are absolutely essential; and
- 6) **financial resources.** Who is going to pay? How do we ensure that people have access to what they need?

In response to Chairperson Simon’s request for information on the Kick-Start program, Dr. Bearman replied that the program has developed a “compelling vision of success” on the belief that the Nation’s future depends on our ability to make information and learning resources available to anyone, regardless of age, income, ethnic group, gender, geography. Presently, the Information Infrastructure Task Force is working on several different pieces of the program with local schools (K through 12), local libraries, and community centers to tie into the NII, including access, equipment, human resources, and funding, as well as identifying leadership in the local communities and at the state level. A draft of the Kick-Start document is expected by mid-August, and Commissioner Willard offered to share his copy with the Commission.

Dr. Bearman noted that the NIIAC found the report, *Public Libraries and the Internet*, as well as other NCLIS reports and studies are very helpful.

The challenge to everyone, she noted, is to share information. A perfect example of this type of information sharing was the Commission’s briefing on Libraries and the Information Superhighway: The Role of State Library Agencies, held September 1994. Dr. Bearman encouraged continuing this type of extremely valuable activity; in fact, a major thrust for the remainder of NIIAC’s time will be devoted to learning which systems did not work and why. “Successes are often told, but the mistakes are not,” she stated.

Commissioner Willard relayed to Dr. Bearman the Commission’s earlier discussion that NCLIS, as a continuing body, could be the natural organization to carry on the work of the NIIAC. Dr. Bearman agreed, and reported the NIIAC will be presenting its final report (a multi-media report including videos) to the Vice President (and possibly to the President) in January 1996. Another NIIAC working meeting is scheduled for December 1995 in Washington, DC.

Following her presentation, Commissioner Lucchino asked Dr. Bearman, "Why was NCLIS not involved, in some fashion, in the structure of the NII Advisory Council? Dr. Bearman replied, "A bigger question is why Vice President Gore chose to place the Advisory Council within the Department of Commerce. I think it was because of the Department's strong telecommunication and economic interests. Through its diverse membership, the NIIAC represents many of the key constituencies, including private industry; state and local governments; community, public interest, education, and labor groups; creators and distributors of content; privacy and security advocates; and leading experts in NII-related fields."

Commissioner Lucchino then asked, "Since the NII disbands in January 1996, how can NCLIS position itself to carry forward after January? How can NCLIS enhance the 'information science' component. A misconception is that the Commission's work stops with 'libraries.'" Dr. Bearman replied, "Get more industry involvement. For example, the NIIAC's membership includes the CEO of AT&T, the President of Communications Workers of America, the Chairman of the Board of the American Society of Composers, the President of the Disney Channel, Chairman of the NYNEX Corporation, President of KABQ Radio, Executive Vice President of the MCA Music Entertainment Group, President, West Publishing Company, many, many people from industry -- absolute top level. In filling NCLIS membership slots, I would certainly encourage that NCLIS look for industry CEO's. Bring in other components of the information field, e.g., the broadcasting and entertainment industries, higher education, newspaper, publishing, telecommunications, and software companies; always making sure that there is that necessary balance. Please understand that I do not mean this as a criticism of any of the Members on the Commission. These are just ideas for new Members.

"The Commission should look at the bigger issues, e.g., How is the application of technology going to affect different professions? What effect will the NII have on healthcare? How do you measure the economics of information? We need more and better data showing the differences libraries make and the differences information services make. There is a real need for extensive longitudinal data. This would be one of the most significant contributions that NCLIS could make!

"The 'library' perception has always been a challenge for NCLIS in terms of priorities, funding, membership, and industry involvement. I encourage the Commission to meet with others groups, such as the Council of Governments, the newspaper industry, the American Association of Publishers -- all of those other industries that are being tremendously affected by the application of technology."

Commissioner Willard pointed out that much of the NII and Task Force documentary material is available on World Wide Web.

## ROBERT OAKLEY

Mr. Robert Oakley, Librarian, Edward Bennett Williams Library, Georgetown University Law Center, highlighted major concerns and issues relating to intellectual property and copyright. Mr., Oakley's presentation centered on: (1) the Texaco Case; (2) intellectual property and the NII; (3) preservation; and (4) technology and encryption.

(1) *The Texaco Case* -- *Texaco Inc. v. American Geophysical Union*. This is a widely-watched copyright case about routine photocopying of articles from scientific journals by a Texaco scientist. The court's clarifying opinion was that this type of photocopying did not qualify as "fair-use" of copyrighted material under the law. The new opinion says the finding might have been different if the copier "were a professor or an independent scientist engaged in copying and creating files for independent research, as opposed to being employed by an institution in the pursuit of his research on the institution's behalf". Texaco's institutional systematic copying did not qualify as a "fair use," the new opinion says.

Mr. Oakley stated that this decision obviously has a huge impact on businesses of all types, including for-profit special libraries and law firm libraries. It means that any copying done in the context of for-profit organizations is potentially considered to be commercial. Library groups are willing to go together on a brief on this case because it could extend far beyond the commercial sector."

(2) *Intellectual Property and the National Information Infrastructure* -- In February 1993 President Clinton formed the Information Infrastructure Task Force (IITF) to articulate and implement the Administration's vision for the NII. The IITF is chaired by Secretary of Commerce Ronald H. Brown and consists of high-level representatives of federal agencies that play a role in advancing the development and application of information technologies. In July 1994, a Preliminary Draft of The Report of the Working Group on Intellectual Property Rights entitled, "*Intellectual Property and the National Information Infrastructure*" was issued.

Specific problematic issues contained in the report are:

- Most of the library people who have read this report feel that, while it does a good job of explaining the law, it tends to have an imbalance. They feel it focuses more heavily on protecting the rights of the proprietors in the electronic information environment rather than helping to define the scope and rights of the information users.

- The Working Group recommended that the definition of “transmit” be amended, as follows:

*To “transmit” a reproduction is to distribute it by any device or process whereby a copy or phonorecord of the work is fixed beyond the place from which it was sent. In the case when a transmission may constitute both a communication or a performance or display and a distribution of a reproduction, such transmission shall be considered a distribution of a reproduction if the primary purpose or effect of the transmission is to distribute a copy or phonorecord of the work to the recipient of the transmission.*

The writers of this proposal thought they were explaining the existing law, but, rather, it basically set up a new exclusive right for copyright owners and did not deal with what libraries can do in the electronic environment.

- “First Sale Doctrine.” There is concern about the wording. As a result, it is understood that this proposal will not be in the revised version of the report;
- The issue of fair-use in the electronic environment was not covered. However, the IITF has since convened a series of monthly meetings, opened to all interested parties, on fair use in the electronic environment. In all fairness, we have not gotten very far, with the exception of the discussion on preservation, which, too, is problematic. Even after several months of hard work, little progress has been made; probably because there is no incentive to agree. The library community would like to see more clarity and more definition of their rights. The publishing community views it as an expansion of the fair use, and they are very unhappy and reluctant to move in that direction.
- Section 108. The library community continues to insist that Section 108 is applicable in the electronic environment. AALL believes Section 108 is technology-neutral and applies equally in the electronic environment. Publishers disagree, saying that Section 108 is a product of its time and must be limited. So, there is substantial disagreement on this issue.

Section 108 (g)2, authorizes libraries to engage in limited interlibrary copying. Publishers argue that interlibrary loan has become more systematic and that library resource sharing is a clear attempt to develop systematic copying methods that substitute for purchase of copyrighted works. But this is clearly prohibited under the law. Publishers say that copying systems and techniques developed today go well beyond what is permitted in the law. Librarians argue that publishers have it backwards. Interlibrary loan is a point of serious disagreement, and the publishers’ call to repeal this section will become somewhat louder in the coming months.

Mr. Oakley noted that the research paper prepared by F. J. Lucchino, Jr., "*Electronic Interlibrary Loan: Applying Copyright's Analog Rules to Digital Technology*," serves as an excellent resource document on this issue.

(3) *Preservation* -- Section 108 B and C, the two sections of the copyright statute on preservation, appear not to be technology-neutral. Also, there is a single-copy limit, only in paper or microfilm. Librarians would like some level of greater certainty both for multiple copying and for being able to copy in digital form.

(4) *Technology and Encryption* -- Publishers are holding the trump card -- the technology. Publishers worry about losing control of proprietary material once it is released on the information highway. To cope with this, publishers have devised the technology that allows them to take proprietary work and put it in an electronic envelope. They can seal up the envelope and write on the outside the conditions under which the envelope can be opened, i.e., payment, and restrictions on printing, downloading, and copying. This is a fundamental change in the way people use information in libraries. Some people are advocating, "pay per view." If you want to read an article, it will cost you, perhaps, ten cents a page. This goes beyond copyright, and appears to give the copyright owners a complete monopoly. This is fairly directly incompatible with the public policy that underpins the balance of rights.

After a question and answer period, Chairperson Simon expressed the Commission's appreciation to Mr. Oakley for his very informative presentation. Mr. Oakley offered to work with the Commission in this area, and Chairperson Simon thanked him for his generous offer.

## **SHELLEY DOWLING**

Ms. Shelley Dowling, Librarian, U.S. Supreme Court, presented an overall preview of AALL and its upcoming 88th annual meeting and National Conference on Legal Information Issues.

The National Conference is unique in that, instead of librarians talking to librarians, AALL members and representatives of the many constituencies that make up the legal and information community will be brought together. The major goal of the conference is to bring together representatives from as many jurisdictions and legal and information organizations as possible, to get to know AALL members, and the issues considered important. The idea is to get to know each other on an even playing field, and partnerships may evolve as a result. AALL is 'busting out of its shell,' even though it is 5,000 strong, to play a national role because that is where the information policy is evolving. Ms. Dowling continued, "We need to be building bridges and new partnerships as we move into the future. Commissioner Willard's idea to have NCLIS meet in conjunction with the AALL meeting has enriched this entire idea."

Ms. Dowling stated, "As a law librarian, our aspirations may far exceed what we are able to accomplish, but I think it is because we work with such a demanding profession with very high expectations."

Following a question and answer period, Ms. Dowling discussed the holdings and on-line and electronic services available in the Law Library of the U.S. Supreme Court.

Chairperson Simon thanked Ms. Dowling for the interesting briefing on the AALL National Conference and for her personal comments.

## **INFORMATION POLICIES COMMITTEE**

Commissioner DiPrete, Chair of the Information Policies Committee, stated that comments are being received on the Principles of Public Information, which were recently re-published in the Federal Register. At the Committee's request, Chairperson Simon granted additional time for the Committee to continue its work. The Committee has decided to narrow its scope and to focus on Access to Information. The Committee is planning a face-to-face meeting (as opposed to conference call) to discuss how best to proceed in developing specific proposals, i.e., voucher systems and/or think tank sessions.

Mr. Lorenz suggested that the Committee consider 'measuring the value of information services.' "In the long run, this kind of data will have a strong influence on the future of library and information services. We have to show the results of the investments made," he stated.

## **RESOLUTIONS**

### **MOTION**

It was moved by Joan Challinor, seconded by Carol DiPrete, that the draft resolutions honoring Commissioners Kelinson, Riddle, and Taylor for their service as NCLIS Members be approved as submitted.

It was moved by Joan Challinor, seconded by Carol DiPrete, that the draft resolution honoring the American Association of Law Libraries be approved as submitted.

The motion carried unanimously.

Chairperson Simon thanked the Commissioners and staff for a very productive and worthwhile meeting.

The meeting adjourned at 4:00 p.m.

- Attachment I - Proclamation to NCLIS from the Governor of Pennsylvania**
- Attachment II - "Testimony for NCLIS Visit, " Dr. Charles B. Lowry, University Librarian, Carnegie Mellon University**
- Attachment III- Government Information and Services Principles, Mega Project I (draft)**

# Governor's Office

## PROCLAMATION

### 25TH ANNIVERSARY OF THE FOUNDING OF THE UNITED STATES COMMISSION ON LIBRARIES AND INFORMATION SCIENCE

JULY 14 - 15, 1995

*WHEREAS, Pennsylvania libraries lead us into the 21st century with cutting edge information, technology and educational resources; and*

*WHEREAS, libraries serve our communities, campuses and corporations, helping us become well-informed and productive citizens engaged in lifelong learning; and*

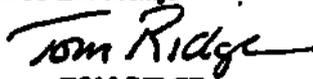
*WHEREAS, libraries support our freedom of expression, develop our ability to think and protect our right to free and equal access of information; and*

*WHEREAS, librarians provide invaluable leadership in helping us learn new things, travel to unfamiliar places, and discover worlds we never dreamed of; and*

*WHEREAS, twenty-five years ago the U.S. National Commission of Libraries and Information Science was established by Public Law 91-345 to carry out national policy " . . . that library and information sciences adequate to meet the needs of the people of the United States are essential to achieve national goals and to utilize most effectively the nation's educational resources and that the federal government will cooperate with state and local governments and public and private agencies in assuring optimum provision of such services."*

**THEREFORE, I, TOM RIDGE, Governor of the Commonwealth of Pennsylvania, do hereby proclaim July 14 - 15, 1995, as the 25TH ANNIVERSARY OF THE FOUNDING OF THE UNITED STATES COMMISSION ON LIBRARIES AND INFORMATION SCIENCE, and encourage all Pennsylvanians to discover the wonders of our libraries.**

*GIVEN under my hand and the Seal of the Governor, at the city of Harrisburg, this ninth day of July in the year of our Lord, one thousand nine hundred and ninety-five, and the Commonwealth two hundred and twenty.*

  
TOM RIDGE  
Governor

**"TESTIMONY FOR NCLIS VISIT"  
CARNEGIE INSTITUTE, 7/14/95**

**Charles B. Lowry, Ph.D.  
University Librarian  
Carnegie Mellon University**

**INTRODUCTION**

**My intent here today is to supplement what has been said already by Frank Lucchino and my colleague Bob Croneberger, but also to offer you some of my own views which are shaped by my experience in recent years. My primary purpose here is to explicate, through examples in the OLC and Carnegie Mellon experience, the technological conditions which define the possibilities for what is called the new paradigm. My remarks are more or less formal**

**In some measure those of us who are involved in library work are all embarked on a journey of discovery. When I took my first job as a librarian some twenty years ago, I assumed I would be working in an institution centered on the management of books and journals. This was a safe assumption for very few years. I have learned since that libraries are in the information retrieval business, and in the academic setting they do this work in collaboration with faculty and students involved in classroom teaching and research. This change in perspective occurred because of the widespread application of information technology (IT). There are a**

number of catch phrases in use to describe what's happening to libraries-- paradigm shift, virtual libraries, digital libraries, libraries without walls-- and I hope you will excuse me if I don't use them with any precision but merely as a rubric to capture the gestalt of a very complex world which is in some measure beyond our control.

The new software and hardware IT infrastructure is the prerequisite for the virtual library, and it rests on the foundation of client/server distributed computing; large-scale local and wide area networking; open architectures and standards; authentication, authorization, and encryption; and billing and royalty tracking.

The second task is to create a substantial amount of digitized information of the type now represented by books and journals. This is not to say that multimedia has no place in libraries. On the contrary, I agree that we must find the means to manage whatever kind of information supports our teaching and research missions--whether it is audio, numeric, graphic, text, or visual data. On the other hand, I do believe that the first order of business is the text. This second task is the work of publishers--including commercial and university presses, scholarly associations, and secondary publishers. The networked environment will also stimulate much entrepreneurial experimentation with electronic publishing.

You are sitting in the middle of the historic Oakland neighborhood and within a ten minute walk of the three main libraries that participate in the OLC. There is a powerful geographic propensity for us to cooperate.

We are still struggling--like many consortia--to cooperate more fully. We work closely to ensure that our patrons may directly and in person use all our resources, regardless of their home institution. We have a document delivery service, recently upgraded from a foot driven backpack system to a delivery truck with a twice daily route. We share collection development data, especially about journals.

Recently the OLC Board has made a significant commitment to initiate a new and challenging technology effort. We have committed at least \$65,000 to making available the full text of our local newspaper *Pittsburgh Post Gazette* to the consortium. This database will cover at least three years from the outset and will be available through a Web interface (Netscape or Mosaic) to our patrons. More importantly, we will be implementing what I believe is a revolutionary technology for this one year project--natural language processing. NLP information retrieval is a breakthrough technology that will in my view largely supplant keyword Boolean retrieval. The results of a typical KBR search in full text are what one might--expect--low recall and high precision, high recall and low precision, or neither. The reasons for this failing are well understood and empirically demonstrated in the literature.

By contrast, NLP has the potential to answer many of the key problems. This process eliminates irrelevant retrieval. In the case of KBR, when a searcher (library user) has a false negative or retrieves an overwhelming number of hits, they may well not know what to do next. If they have high recall and low precision, they will be faced with browsing many irrelevant documents to choose those which fit their needs--an

unappealing if not inhibiting task. Refining the search may not help either. Indeed, based on studies at Carnegie Mellon University Libraries, most users search with single terms or use "and" almost exclusively. Most users don't bother refining searches, and this is true of students and research faculty. All of this argues for full NLP capabilities with good GUI. This kind of IR allows users to retrieve using nouns and noun phrases, not words and Boolean operators. In effect, the user enters into a dialog with the system which will retrieve relevant materials with very general wording. We are already running a prototype system using the Grolier Encyclopedia in which I might ask a question like--"what's the relationship between Albert Einstein, Robert Oppenheimer and the Manhattan Project. Did this have anything to do with German heavy water experiments in World War II?" Similarly--"How did Pope Clement VII deal with the matrimonial problems of Henry VIII? Were there any political or military dimensions to this problem besides those presented in the English court?" Or more germane for a newspaper database--"when the Pittsburgh Steelers play the Dallas Cowboys, how well have they done?" Or--"what was the working political relationship during the change of administrations from Mayor Mazloff to Mayor Murphy?"

Carnegie Mellon University Libraries have formed a partnership with our computational linguistics group which developed an NLP software system. Known as CLARIT, it is currently being commercialized by CLARITECH Corp. As I mentioned, we are already in the process of applying CLARIT software technology to library domains. For sometime now, the OLC has been looking for an opportunity to do a CLARIT NLP implementation. We have finally found the resources to do so. We hope to have the first

phase availability without fielded retrieval in September and follow on with fielded retrieval in the late fall.

## **ECONOMICS OF DIGITAL LIBRARIES--PRINT VS ELECTRONIC**

I want to shift my emphasis now to the questions of the economics of digital libraries--the print vs electronic battle. Too often, work on digital libraries, not to mention much theoretical discussion, proceeds without a thorough grounding in the realities of cost. There are certain assumptions which precede this state of affairs, among them the notion that digital libraries somehow will be cheaper than print libraries, perhaps even free. One suspects that this arises from the misplaced hope that digital libraries will liberate us from the difficult cost dynamics of print libraries. There is also a presumption that electronic access will mean added value to library patrons, but it begs the question if the access is at a cost patrons are unwilling to pay.

In the first place, it seems clear that libraries will not have large amounts of new funding with which to purchase electronic materials, although it is not a zero-sum game. It follows that publishers may not expect to have large sources of new profits from the sales of electronic products that represent the scholarly information published today in books and journals. The economics of scholarly book and journal publishing, in short, how to make a profit from them, are well understood.<sup>6</sup> The profit largely arises

from transactions with libraries in the form of subscriptions and book orders, not from sales to end users. The magnitude of the undertaking before publishers is no less daunting than that facing libraries.

We are three years into two major online journal projects--one with UMI called the "Virtual Library Project" and the TULIP project with Elsevier Science, B.V. It is possible now to begin making estimates of the infrastructure costs to the library for managing print versus electronic text. Some extrapolation is necessary in order to make legitimate comparisons of costs. Using the TULIP project as a basis, Carnegie Mellon subscribes to 29 of the 43 journals in materials science which are part of the project and, for these titles 85 volumes a year are bound. Tables 1-3 (which you have) illustrate the comparative costs for print, magnetic, and CD jukebox storage of journals. The key costs for print storage (see Table 1) are binding and the capital for library buildings and shelving. The cost for storing the print volumes from these 29 titles is \$914 and the net cost for the 3.5 years is \$3,199. The magnetic storage costs (see Table 2) includes a DEC Alpha 200 configured with five 9.1 GB Seagate disk drives, a 45.5 GB capacity. Only 30.1 GB is actually required to hold the 29 journal titles in the project for 3.5 years. The prorated cost for server and magnetic storage of TULIP journals is \$16,891. Table 3 illustrates jukebox storage. The CD format using jukeboxes presents a much more cost efficient medium for local storage than does the magnetic, but it is still 23% more expensive than print.

Several observations should be made about this costing method. These cost figures do not include any of the expense of stack

maintenance by library staff, cost for computing staff, or cost for the necessary computing and telecommunications infrastructure to actually exploit electronic digital journals. Nor do they reflect the expense of the subscriptions to the journals. Perhaps it can be assumed that the maintenance of the print collection by the library staff or the electronic collection by computing staff is equivalent. It might also be assumed that the telecommunications infrastructure will ultimately be available on most campuses, and that students will routinely have small, inexpensive but powerful workstations at their disposal to access such information. Finally, it might be assumed that publishers will charge no more (perhaps less) for a subscription to the electronic version of a journal than to the print version. If these assumptions prove incorrect, then electronic text will be even more expensive to support than print.

On the other hand, magnetic storage has dropped dramatically in price. For instance, in 1985 a mainframe 260MB disk was \$11,340 with a 40% educational discount. If prices had not dropped, the inflation-adjusted price of this disk would be \$15,876 in 1994 dollars and 1 GB would have been over \$60,000. But, today better storage may be purchased for a fraction of the cost--1 GB at about \$374.

As the tables clearly show, the current cost for magnetic storage is 5.3 times greater than print, and jukebox storage on CDs is 1.2 times greater. It is also worth considering that the typical book stack will last well over 30 years, but not the information technology. The TULIP server and magnetic storage will have to be replaced at least every eight to ten years,

and this is stretching the point. Even based on an extended ten-year replacement cycle, digital storage and access will cost academic libraries 16 times as much as print to store locally. It seems unlikely that a persuasive case can be made for the added value of electronic access and retrieval without a dramatic change in the ownership concept. From firsthand experience, it is clear that jukeboxes are not nearly so robust and the replacement cycle on this technology will be every three to five years. One final note on comparative capital expense—the cost of building will continue to increase at something like the CPI, and (if recent past is a guide) the cost of servers and storage will continue to fall at a more rapid rate. The problem is guessing correctly when these trend lines will cross and make digital storage cheaper than print.

## **PRELIMINARY CONCLUSIONS**

As much as any, Carnegie Mellon Libraries have participated vigorously in the work of digital libraries, and I have enthusiastically lead this work and written about it. It seems certain that within two decades we will reach a state of development in which electronic networked access to scholarly information is the norm. That does not free us from critical analysis of the facts which may lead to better understanding of the problems and realistic decisions about what should be done to support libraries and scholarly information in the meantime. While there is cause for much optimism about the future of digital libraries, there is no cause for us to be “cockeyed optimists.” These conclusions, based as they are on the facts of our experience, are offered to temper optimism with reality.

However the rate of publication for serials and books is estimated, the plain fact is that electronic publication, which will be required to support the virtual library, is in its infancy. There are many inhibitors, both technical and human, to the process of converting to electronic publication. Thus, the answer to the question, "Should we build more library space in the next 15 years?" is "you bet." In addition, to fully understand the dynamics of cost, one must make comparisons between the various forms of storage, both print and electronic.

The current publishing environment and the cost analysis of the work at Carnegie Mellon does not support the notion that digital libraries are about to happen. The world of publishing is anything but monolithic, and the comprehensive adoption of SGML-type editors in the near future (five to ten years) is not highly likely, although it is essential if the digital library is to emerge as the dominant paradigm. It is also critical if we are to have the text available for indexing and the application of advanced information retrieval technologies like natural language processing.<sup>10</sup> In addition, the necessity to repeat capital expenditures on servers and storage will not encourage the development of digital libraries, even though hardware is becoming more like a commodity than ever, and storage cost may be trivial in the not-too-distant future.

Moreover, there are serious local information technology issues which must be resolved. The high-capacity telecommunications network at Carnegie Mellon enables the transmission of large image files, with little cost to the user in time waiting for a response. This is not the case on most campuses or, for that matter, on the Internet. In addition, the Library

Information System supports efforts like the Virtual Library Project within the context of basic library access, rather than a stand-alone demonstration.

One final telling conclusion may be drawn from the economic analysis. The traditional model of local ownership, which has dominated the vision of library organization and collection development for a century must change. The access model which is emerging will mean that libraries may subscribe or license access to information formerly packaged as a book or a journal, but it is not likely that they will store much of it on the local campus network. It only makes sense to share information technology resources among libraries and the cost of shared access to databases. Emerging networks like OhioLink are good examples of the opportunities which are presented. Smaller consortia like the Oakland Library Consortium may equally take opportunities for sharing such efforts. It also seems likely that the library vendor and publishing community will provide some forms of access. For instance, University Microfilms has already begun experimenting with ProQuest Power Pages Direct, a server which will provide access to the journal information they now provide on CD. Similarly, a large publisher such as Elsevier has opportunities to provide its own servers. OCLC is also working on this problem. However, these are all new relationships. They mean that the nature of ownership must be carefully redefined and this will take time and it may not be very easy to accomplish. Publishers will want to know that their materials are being used appropriately. They will expect that access is for the campus community, that ILL and reserve reading conform to "fair use" and that authentication and authorization prevent the significant access to information for those who have not paid for it. Libraries will want to

know that a subscription to a title gives them permanent access to the contents over time, that the server on which it is found will be consistently available, that the technology will be robust and stable, and that if the supplier (e.g., consortium, publisher, network) ever withdraws the service, then there is a plan for giving them the data they paid for. If such relationships are properly worked out, we may expect opportunities for new types of subscribed access. For instance, a library may subscribe to a "block" of pages for electronic access to journals not in "core" collecting areas, but which faculty and students may need occasionally.

Whatever the model for shared access, the needs of the user for seamless, easy access must be given high priority. This means that the local library systems must be interoperable with remote servers. It is library users who will, in the end, play the key role in deciding how digital libraries are implemented. Systems which are not an improvement over current print organization, give inadequate information, or cost exorbitantly will not be used. Therefore, it is the user studies which are part of the UMI and TULIP projects which we must count on to give us a real test. They are beginning in the fall of 1995 and will establish the best insights into the future and the clearest idea of the way to shape digital libraries.

### Table 1: Print Storage Cost

Element	Explanation	TULIP cost
Library Binding	85 volumes per year @ \$7.10 each	\$604.00
Compact Shelving	69 volumes per sq. ft. @ \$52/sq. ft.*	\$64.00
Library Building	Construction \$200 per sq. ft.*	\$246.00
Annual Cost	Subtotal	\$914.00
Project Cost	5 Years	\$4,570.00

### Table 2: Magnetic Storage Cost

Element	Explanation	TULIP cost
Server	DEC Alpha 200 \$7400	\$4,895.00
Disk Space	Seagate 9.1 GB @ \$3400 x 5 = \$17,000	\$11,246.00
Computer Room	Construction \$250 per sq. ft.**	\$500.00
Project Cost	3 Years	\$16,641.00

### Table 3: Jukebox Storage Cost

Element	Explanation	TULIP cost
Juke Box	Kinotronics 240 CD Capacity	\$15,500.00
Computer Room	Construction \$250 per sq. ft.**	\$1,000.00
Subtotal	Cost for 154 GB Box	\$16,500.00
Project Cost	600 GB Utilized	\$3,928.00

### Table 4: Annual Building Maintenance

Element	Explanation	cost
Library	4.3 sq. ft. x \$4.50 sq. ft.	\$19.37
Computer Room	4 sq. ft. x \$6.00 sq. ft.	\$24.00

\* Storage for 85 TULIP volumes will require 1.23 sq. ft.

\*\* Floor space for either magnetic or CD storage requires approximately 4 sq. ft., but racks will allow stacking thus reducing real requirements for space.

**DRAFT**  
**GOVERNMENT INFORMATION & SERVICES PRINCIPLES**  
**Mega Project I**  
**(6/5/95)**

**Preamble:**

Democracy requires public access to government information and services. The National Information Infrastructure provides the opportunity to enhance the public's participation in government by promoting an informed and knowledgeable populace through increased access to government information. Information infrastructure technologies will also transform the effectiveness and efficiency of government services and their delivery.

The free flow of information between the government and the public enables the public to meet their civic responsibilities, protect their rights, and provide for their consent. Government information belongs to the people, is owned by them, and should be accessible to them. These principles have been fundamental tenets of this nation since its inception.

The NII will provide all levels of government - federal, state, local, tribal - with the opportunity to contribute to information infrastructure development. However, it must be recognized that different levels of government operate within differing jurisdictions, each with their own requirements, assumptions, and practices. Different jurisdictions often have differing interpretations over the creation, use, ownership, dissemination, and disposition of government information. Despite these differences, cooperation and partnering among all levels of government are essential to efficient management, use, and delivery of government information and services.

The NII will fundamentally transform the public's interactions with their governments, providing new opportunities for enhanced accountability, access, and service.

**Principle 1:** *Government information, including records of the actions of government, should be accessible to all persons, utilizing information infrastructure capabilities wherever feasible and appropriate.*

**Principle 2:** *Government services should be accessible to all persons eligible for such services, utilizing information infrastructure capabilities wherever feasible and appropriate.*

**Principle 3:** *Government should encourage the widest possible cost-effective dissemination of government information in a wide diversity of formats and sources.*

- Principle 4:** *Government should encourage the private sector to take the lead in providing value-added information and services over information infrastructures.*
- Principle 5:** *Government entities must ensure and protect the quality, integrity, and security of government information and services over information infrastructures and provide appropriate preservation and archiving of government information to ensure continued usability and availability.*
- Principle 6:** *Consistent with existing law, government should safeguard the privacy of persons about whom information exists in government records, as well as persons who use or request government information.*
- Principle 7:** *Government employees, and ideally all individuals, should be educated and trained regarding their rights and responsibilities under existing information laws.*
- Principle 8:** *The public should be given an opportunity to contribute meaningfully to decisions affecting government information and services over information infrastructures.*

#### **Definitions:**

**Government information** means information, regardless of format, which is created, collected, processed, disseminated, or disposed of by or for a government entity, at either the federal, state, local, or tribal level, according to the applicable laws of the relevant jurisdiction.

**Government services** are services provided by government entities as required by legislative mandates, including, for example, provision of social services, public safety, criminal justice, etc.

**Government records** are documentary materials, regardless of format, made or received by a government entity under law or in connection with the transaction of public business and preserved or appropriate for preservation by that entity or its legitimate successor as evidence of the organization, functions, policies, decisions, procedures, operations, or other activities of a government entity or because of the informational value of the data in them.

**Private sector** includes, for the purposes of these principles, for-profit, not-for-profit, and non-profit entities.