University of California, Riverside

University of California, San Diego*

University of California, San Francisco*

University of California, Santa Barbara*

University of California, Santa Cruz

University of Central Florida

University of Chicago*

University of Colorado at Boulder*

University of Connecticut

University of Delaware*

University of Denver

,

University of Florida

University of Georgia

University of Hawaii

University of Houston

University of Illinois at Chicago*

University of Illinois at Urbana-Champaign*

University of Iowa*

University of Kansas

University of Kentucky*

University of Louisville*

University of Manitoba*

University of Maryland at College Park*

University of Massachusetts Amherst

University of Miami*

University of Michigan*

University of Minnesota*

University of Mississippi

University of Missouri at Columbia

University of Missouri-Kansas City

University of Nebraska at Lincoln*

University of Nevada, Las Vegas

University of New Mexico*

University of North Carolina, Chapel Hill

University of North Dakota

University of North Texas

University of Notre Dame*

University of Oklahoma*

University of Oregon*

University of Pennsylvania*

University of Pittsburgh*

University of Rochester*

University of San Francisco

University of South Carolina*

University of Southern California*

University of Tennessee*

University of Texas at Arlington

University of Texas at Austin*

University of Toronto

University of Utah

University of Vermont

University of Virginia

University of Washington*

University of Wisconsin at Madison*

University of Wisconsin System

University System of Georgia*

Vanderbilt University*

Virginia Commonwealth University

Virginia Polytechnic Institute and State University*

VTLS, Inc.

Washington University*

Wayne State University

Wesleyan University

Yale University

* Denotes charter members

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Coalition for Networked Information

An Introduction & Program Plan 2006-2007

Mission

The Coalition for Networked Information (CNI) is an organization to advance the transformative promise of networked information technology for the advancement of scholarly communication and the enrichment of intellectual productivity.

ABOUT CNI

Background and Leadership

The Coalition for Networked Information (CNI), a joint initiative of the Association of Research Libraries (ARL) and EDUCAUSE, promotes the use of networked information technology to advance research and education. In establishing the Coalition under the leadership of founding Executive Director Paul Evan Peters, these sponsor organizations recognized the need to broaden the community's thinking beyond issues of network connectivity and bandwidth to encompass networked information content and applications. Reaping the benefits of the Internet for scholarship, research, and education demanded — and continues to demand — new partnerships, new institutional roles, and new technologies and infrastructure. CNI seeks to advance these collaborations, to explore these new roles, and to catalyze the development and deployment of the necessary technology base.

Since its founding in 1990, CNI has addressed a broad and diverse array of issues related to the development and use of networked information in the research and education communities. As the premier organization fostering connections and collaboration between library and information technology communities, we represent the interests of a wide range of member organizations from higher education, publishing, networking and telecommunications, information technology, government agencies, foundations, museums, libraries, and library organizations.

A Task Force of about 200 dues-paying member institutions supports CNI. Membership in the Coalition is open to all organizations — both for-profit and not-for-profit — that share CNI's commitment to furthering the development of networked information. We view our members as partners in advancing the Coalition's mission. Fall and spring Task Force meetings are CNI's flagship events, bringing together hundreds of representatives for a comprehensive update on critical issues.

CNI's program is guided by a Steering Committee chaired by Richard West of the California State University system. As sponsor organizations, ARL and EDUCAUSE each appoint three representatives to the Steering Committee drawn from their member leadership. Three "at large" representatives on the Steering Committee contribute additional perspectives. The chief executives of ARL, EDUCAUSE, and CNI serve as ex officio members of the committee. CNI's Executive Director, Clifford Lynch, has led the organization since 1997. Joan Lippincott, CNI's Associate Executive Director, has served since fall 1990. For more information about the Coalition's history and contributions, visit our website at http://www.cni.org.

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Library and Archives Canada* Queen's University
Library and Information Technology Association Rhodes College

Library of Congress* Rice University*

Library of Virginia* Rochester Institute of Technology*

Los Alamos National Laboratory Research Library Rutgers University*

Marquette University SirsiDynix Corporation

Massachusetts Institute of Technology* Southern Illinois University at Carbondale*

Mayo Foundation Southern Methodist University*

McGill University

Stanford University*

McMaster University State & University Library (Aarhus, Denmark)

Metropolitan New York Library Council (METRO)

State University of New York at Albany

Miami University of Ohio*

State University of New York, System Administration*

Michigan State University*

State University System of Florida*

Microsoft Corporation Stony Brook University

Midwest Instructional Technology Center (MITC)

Sun Microsystems, Inc.

MINITEX Library Information Network SURF

Mississippi State University

Mitre Corporation

Temple University

National Agricultural Library*

Texas A&M University

National Archives and Records Administration Texas Christian University

National Institute for Technology and Liberal Texas Tech University

Education (NITLE) Thomson Scientific

National Institutes of Health Library Tufts University

National Library of Australia UCAR (University Corporation for National Library of Medicine Atmospheric Research)

New York Public Library - Research Libraries*

United States Department of Education, National

Universite Laval

Universiteit Van Amsterdam

University of California, Merced

University of Alabama

University at Buffalo, State University of New York*

New York State Library*

Library of Education

New York University

United States Government Printing Office

North Carolina State University

Northeastern University*

Northwestern University*

Publishers Licensing Society

OCLC, Inc. *

Ohio State University* University of Arizona*
Ohio University University University of Arkansas

Oregon State University

Pennsylvania State University*

Portland State University

Princeton University*

University of California, Berkeley*

University of California, Davis*

University of California, Irvine*

Public Library Association

University of California, Los Angeles*

Purdue University University University of California, Office of the President*

MEMBERSHIP LIST

(As of November 2006)

American Library Association

American University*

Andrew W. Mellon Foundation

Arizona State Library, Archives and Public Records

Arizona State University*

ARTstor

Associated Colleges of the South Technology

Center (ACSTC)

Association of College and Research Libraries*

Auburn University

Australian Partnership for Sustainable Repositories

Baylor University

Binghamton University, State University of New York

Boston College

Boston Public Library*

Brandeis University

Brigham Young University

British Library

Brown University*

Bryn Mawr College

Bucknell University

California Institute of Technology

California State University, Office of the

Chancellor*

Cambridge Information Group (CIG)

Canada Institute for Scientific & Technical

Information

Canadian Heritage Information Network

Carnegie Mellon University*

Case Western Reserve University*

Center for Educational Technology (CET)

Center for Research Libraries

Centers for Disease Control and Prevention

City University of New York

Clemson University

College Center for Library Automation

Colorado State University*

Columbia University*

Connecticut College

Connecticut State University

Copyright Clearance Center

Cornell University*

Council on Library and Information Resources

Countway Library of Medicine

Dartmouth College

Deutsche Forschungsgemeinschaft (DFG)

Dickinson College

Digital Library Federation

Duke University

Eastern Michigan University

Elsevier Science Publishers B. V. *

Emory University

Endeavor Information Systems, Inc.

Enoch Pratt Free Library

Ex Libris (USA), Inc.

Five Colleges, Inc.

Florida Atlantic University

Florida State University

Gates Center for Technology

Access/Bill & Melinda Gates Foundation

George Mason University

George Washington University*

Georgetown University*

Georgia Institute of Technology*

Georgia State University Library

Harvard University*

IMS Global Learning Consortium

Indiana University*

Indiana University-Purdue University at Indianapolis

Internet Society

Iowa State University*

Ithaka

J. Paul Getty Trust

John Wiley & Sons, Inc.

Johns Hopkins University*

Joint Information Systems Committee

JSTOR

Kansas State University

Kent State University*

Las Vegas Clark County Library District

Program Themes

CNI's work is structured around three central themes that we believe are the essential foundations of the vision of advancing scholarship and intellectual productivity:

• Developing and Managing Networked Information Content

The Coalition has played a central role in ensuring that the network richly engages the needs of scholarship, teaching and learning. We bring together many diverse communities that create and manage content, and work with these communities to advance the deployment of networked information resources. CNI also furthers the development of economic, policy, social and legal frameworks to sustain the creation, management, and preservation of networked information and to facilitate its access.

• Transforming Organizations, Professions, and Individuals

The pervasiveness of networked information is transforming institutions, professions, and the practices of learning and scholarship. CNI focuses on the unprecedented need for collaboration among libraries, information technology and instructional technology groups, faculty, museums, archives, university presses, and other units in order to achieve success in this environment. In addition, we promote new alliances and partnerships with publishers, information technology and network service providers, scholarly societies, government, and other sectors. Organizations must develop and share new strategies, policies, and best practices. Professions need to develop new competencies and enter into new dialogues that cross traditional disciplinary boundaries. CNI seeks to facilitate these collaborations and dialogues and to help professions and institutions work together in program strategy formulation.

• Building Technology, Standards, and Infrastructure

The networked information environment relies on the development and deployment of standards and infrastructure components in order to enable the creation, discovery, use, and management of networked information. The ability to use collections of resources in a unified, consistent fashion is essential and requires a continuing focus on interoperability of services. At the same time, promising new technologies need to be explored, assessed and tested, and sometimes adapted to the needs of the CNI community. No one institution acting alone can build the needed infrastructure or explore the full range of new technologies as they become available; it requires a coordinated community-wide effort that also reaches out to other communities, such as the world of e-research. CNI seeks to highlight links between technology and policies at all levels, to offer a context for collaborative experiments and test beds, and to serve as a focal point for sharing knowledge about new technologies.

The specific program initiatives that further CNI's themes evolve from year to year. The initiatives and strategies planned for 2006-2007 are described in the Program Plan portion of this

publication; most build upon and continue efforts already underway. Many of the initiatives seek to make strategic progress relevant to more than one theme.

It is important to recognize that the networked information environment is still changing rapidly. CNI is continually adapting its activities in response to new developments and opportunities. Indeed, the Coalition believes agility is essential in the current environment and invites a continuous dialogue with its members on the need for additional program initiatives. Because of this, the 2006-2007 Program Plan should be viewed as a snapshot of our thinking about priorities and opportunities as of late 2006 that will inevitably develop further during the coming year.

Policy and Consultative Activities

In addition to specific initiatives to address CNI's overarching program themes, the Coalition actively conducts an ongoing program of collaboration and advocacy to advance the development of networked information and its role in transforming organizations and scholarly activities. This is accomplished through our participation in the ongoing scholarly dialogue; through contributions to standards efforts and standards organizations; through collaboration with key funding agencies, such as the National Science Foundation, the Institute of Museum and Library Services, the National Endowment for the Humanities, the Department of Education, and The Andrew W. Mellon Foundation; and through participation in organizations such as the Internet Society.

Of particular note in this area are our contributions to the Library of Congress's efforts to map out a National Digital Preservation Program, to various studies and programs conducted by the U.S. National Research Council, and more recently, to the Commission on Cyberinfrastructure for the Humanities and Social Sciences, established by the American Council of Learned Societies (ACLS).

As a contributor and participant within a complex ecosystem of organizations that share common interests, CNI works with Internet2 on advanced networking applications and standards; with the IMS Global Learning Consortium on interoperability between learning management systems and digital libraries; with the Council on Library and Information Resources (CLIR) on scholarly communication and preservation issues; and with the Digital Library Federation on standards and technical issues in digital libraries. CNI works with the American Library Association (ALA) on policy and professional development activities. Our contributions extend to the programs of our sponsor organizations, ARL and EDUCAUSE, particularly to the EDUCAUSE Learning Initiative (ELI) and Net@edu.

On an international level, we collaborate with other organizations concerned with networked information, including the U.K. Office for Library Networking (UKOLN) and the Joint Information Systems Committee (JISC) in the United Kingdom, the German Initiative for Networked Information (DINI), the German Research Foundation (DFG), and the SURF Foundation, the Dutch higher

RECENT PUBLICATIONS BY CNI STAFF

Clifford A. Lynch, "Improving Access to Research Results: Six Points," ARL: A Bimonthly Report on Research Library Issues and Actions from ARL, CNI, and SPARC, no. 248 (October 2006), pp.5-7.

Clifford A. Lynch, "Open Computation: Beyond Human-Reader-Centric Views of Scholarly Literatures," Open Access: Key Strategic, Technical and Economic Aspects, Neil Jacobs (Ed.), (Oxford UK: Chandos Publishing, 2006), pp. 185-193.

Clifford A. Lynch, "Copyright Law, Intellectual Property Policy, and Academic Culture," *The Center for Intellectual Property Handbook*, Kimberly M. Bonner and the staff of the Center for Intellectual Property (Eds.), (NY, NY: Neal-Schuman Publishers, 2006), pp. 153-174.

Kimberly B. Kelley, Kimberly M. Bonner, Clifford A. Lynch and Jaehong Park, "Digital Rights Management (DRM) and Higher Education: Opportunities and Challenges," *The Center for Intellectual Property Handbook*, Kimberly M. Bonner and the staff of the Center for Intellectual Property (Eds.), (NY, NY: Neal-Schuman Publishers, 2006), pp. 107-122.

Joan K. Lippincott, "Learning, Engagement and Technology," *Student Engagement and Information Literacy*, Craig Gibson (Ed.), (Chicago: Association of College and Research Libraries, 2006).

Joan K. Lippincott, "Linking the Information Commons to Learning," Learning Spaces, Diana G. Oblinger (Ed.), (EDUCAUSE, August 2006).

Joan K. Lippincott, "Institutional Strategies and Policies for Electronic Theses and Dissertations," ECAR Research Bulletin, 2006:13 (June 20, 2006).

"Advancing Scholarship and Intellectual Productivity: An Interview with Clifford A. Lynch," conducted by EDUCAUSE president Brian Hawkins, appearing in two parts in *EDUCAUSE Review* (part one, March/April 2006; part two, May/June 2006).

Clifford A. Lynch, "Research Libraries Engage the Digital World: A US-UK Comparative Examination of Recent History and Future Prospects," *Ariadne* 46 (February, 2006).

Joan K. Lippincott, "Where Learners Go: How to Strengthen the Library Role in Online Learning," *Library Journal*, October 1, 2005.

Clifford A. Lynch and Joan K. Lippincott, "Institutional Repository Deployment in the United States as of Early 2005," *D-Lib Magazine*, 11:9 (September 2005).

Gerard van Westrienen and Clifford A. Lynch, "Academic Institutional Repositories: Deployment Status in 13 Nations as of Mid 2005," *D-Lib Magazine*, 11:9 (September 2005).

Clifford A. Lynch, "Where Do We Go from Here? The Next Decade in Digital Libraries," *D-Lib Magazine*, 11:7/8 (July/August 2005).

Joan K. Lippincott, "Libraries, Information, and Course Management Systems," Course Management Systems for Learning: Beyond Accidental Pedagogy, McGee, Carmean, and Jafari (Eds.), (Information Science Publishing, 2005).

Joan K. Lippincott, "Net Generation Students and Libraries," *Educating the Net Generation*, Oblinger and Oblinger (Eds.) (EDUCAUSE, February 2005).

Clifford A. Lynch, "Keynote Address: Digital Rights Management Systems and Scholarship," Colleges, Code and Copyright: The Impact of Digital Networks and Technological Controls on Copyright and the Dissemination of Information in Higher Education; Conference Proceedings (Chicago, IL: Association of College & Research Libraries, 2005).

Clifford A. Lynch, "The New Dimensions of Learning Communities," Threshold (Winter 2004).

Clifford A. Lynch and Neil McLean, "Interoperability Between Information and Learning Environments—Bridging the Gaps," a white paper produced jointly by IMS Global Learning Consortium and the Coalition for Networked Information (May 2004).

Most publications, as well as selected presentations and interviews, are available online via http://www.cni.org/publications.

• Institutional Infrastructure to Support Research

There is a renewed focus on campus infrastructure to support research programs. Developments include: policy, technical and economic influences that are leading to a partial recentralization of computing functions; radically new high performance network and distributed computing technologies; a rethinking of storage functionality and economics; requirements for long-term data management, curation and preservation; and growing faculty demands for informatics support services. An additional dimension of these needs involves information and technology intensive collaborations among groups at multiple campuses (sometimes characterized as collaboratories or virtual organizations). CNI, working closely with EDUCAUSE, is trying to understand those trends, and particularly their implications for the development of new collaborations involving libraries and information technology units.

Authentication, Authorization and Access Management

The Coalition takes a broad view of security, integrity and access management issues as they relate to the management of licensed resources and the stewardship and preservation of digital content. New technological capabilities — peer-to-peer resource sharing and the ability for users to amass and maintain massive personal digital libraries which include large amounts of copyrighted material drawn from licensed databases — continue to raise complex questions with both technological and policy dimensions. CNI believes that we must continue to explore these new behaviors and practices and to reflect this broad view in the focus on systems and network security within the higher education community.

Authentication and authorization are now established as essential infrastructure components for network-based services and have become a particularly critical need as institutions increasingly rely on site license agreements with information providers, implement online and distance education initiatives, and form consortia for resource sharing or educational initiatives. The Coalition has been pursuing a program to define technology approaches, standards, best practices and policy and business issues for such an inter-organizational authentication and authorization infrastructure, and to help early adopter Task Force member organizations structure pilot projects, explore interoperability issues and share implementation experiences. Working in partnership with Internet2, EDUCAUSE's Net@edu program, and the Digital Library Federation, we continue to seek to advance progress in this area. Of particular interest is the ongoing development and deployment effort surrounding the Shibboleth distributed authorization system and related technologies and organizational issues, federated identity initiatives, functional requirements and policy issues surrounding access management for digital content, and public key infrastructure.

In the 2006-2007 program year, we will also do some initial exploration of the potential future convergence or at least linkage between identities as established by campus-based identity management systems on one hand, and personal names as used in the context of scholarly communication, citation, and bibliographic control and name authority on the other. Historically, these two worlds have been completely separate, but the emergence of sophisticated author rights retention strategies, institutional repositories, and similar developments are clearly bringing them into closer alignment.

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education and research partnership organization for network services and information and communications technology.

CNI works to provide our community with frameworks for understanding key networked information issues so that institutions can develop strategies to address these issues on the local, regional, or national level. We write white papers and articles, present talks at conferences, and make institutional visits, which may involve meetings with campus leaders and presentations at public events and seminars.

The Coalition also contributes to the development of the networked information community by acting as a distribution point for materials via its Web site, the CNI-ANNOUNCE e-mail list, and the CNI RSS news feed.

Meetings

The Coalition's semiannual Task Force meetings, scheduled for December 4-5, 2006, in Washington, DC, and April 16-17, 2007, in Phoenix, AZ, allow CNI to highlight activities related to its program themes, focus attention on significant new thinking and technology developments, and provide opportunities for members to showcase and discuss a wide range of emerging issues and developments in networked information. Some participants have developed knowledge communities within CNI and use the meetings as an opportunity to share ideas on a particular aspect of networked information and incubate new initiatives. Each member organization is invited to send two delegates, typically a senior information technologist and a senior librarian. Meeting participants are introduced to new developments that may reshape institutional plans in a forum that encourages collaborations and dialogues with others who share common interests. The meetings provide an opportunity for representatives to receive briefings on current network topics, to learn about specific projects and emerging issues, and to provide suggestions on directions for Coalition initiatives.

CNI regularly co-sponsors a conference in partnership with JISC and UKOLN as part of our ongoing collaboration with these programs. The next conference will be in 2008. The previous conference, *Envisioning Future Challenges in Networked Information*, was held July 6-7, 2006, in York, England.

CNI occasionally convenes invitational or public workshops to advance specific elements of its program plan. On October 20, 2006, ARL, CNI, and SPARC (the Scholarly Publishing and Academic Resources Coalition) co-sponsored the forum *Improving Access to Publicly Funded Research: Policy Issues and Practical Strategies* in Washington, DC. In addition, CNI acts as a co-sponsor for other meetings relevant to the CNI agenda. This year these events include the European Conference on Research and Advanced Technology for Digital Libraries in Alicante, Spain, September 17-22, 2006; Open Repositories 2007 in San Antonio, Texas, January 23-26; the EDUCAUSE Policy Conference, to be held in Arlington, Virginia, May 16-17, 2007; the IS&T

Archiving Conference, May 21-24, 2007, in Arlington, Virginia; and the Joint Conference on Digital Libraries, scheduled for June 17-23, 2007, in Vancouver, British Columbia.

first day of the Task Force meeting. Past topics have included institutional repositories, learning management system strategies, identity management, learning spaces, funding of innovation, and infrastructure to support research (which invited chief research officers along with the usual roundtable representatives from libraries and information technology). The fall 2006 Executive Roundtable will focus on campus planning strategies for institutional cyberinfrastructure. The spring 2007 Roundtable is expected to focus on implications for central organizations of the diffusion of information technology and informatics support across campus.

Building Technology, Standards and Infrastructure

CNI continues to be actively engaged in key areas of standards and infrastructure development. The Coalition is particularly concerned with facilitating the difficult and delicate transition of standards and technologies into operational infrastructure for the research, higher education and library communities.

In addition to the specific program initiatives described here, the Coalition participates in and tracks a wide range of developments in areas as diverse as identifiers, digital books, metadata standards, distributed and federated network services, harvesting technologies, recommender systems and personalization technologies. We also continue to be particularly interested in how learning management systems can be most effectively integrated into a broader information resource environment, and to collaborate with efforts such as the IMS Global Learning Consortium and the Sakai project in these areas.

As we look at an evolving landscape that includes commercial web search engines, traditional library automation tools such as online catalogs, stand-alone abstracting and indexing databases, systems deployed by scholarly publishers, museums, and other content providers, and learning management systems, the Coalition is concerned with architectural and standards frameworks that can facilitate integration and interoperation. This perspective has motivated much of our work over the last few years on institutional repositories, the Open Archives Initiative, and learning management systems.

• Open Archives Initiative Object Reuse and Exchange Program

In the spring of 2006, CNI joined with Microsoft, the Andrew W. Mellon Foundation, DLF, and JISC to sponsor a workshop on repository interoperability issues. Building on the outcome of this meeting, the Mellon Foundation has funded a major effort led by Carl Lagoze and Herbert Van de Sompel to develop, validate and begin the deployment of object reuse and exchange standards. This effort, which builds upon and complements earlier work on the Open Archives Protocol for Metadata Harvesting, will run through late 2008, and CNI and our community will be involved both as a source of input and guidance in the development of the standards, and later as part of the dissemination, review, and deployment strategy for the output of the work.

• Learning Spaces — Services and Environments for Today's Users

Many educational institutions are offering public service points or facilities where library and information technology staff share responsibilities to serve users; sometimes these facilities incorporate teaching and learning centers that bring together instructional technologists, faculty, information technologists and librarians. Often these service points and centers are developed in conjunction with building renovations, expansions, or new building projects. CNI seeks to share experiences of institutions' projects, to assist institutions and to abstract out best practices from the community's work.

CNI's work focuses on learning spaces that have a particular connection with information organizations and professionals, such as libraries, computing centers, multi-media centers and centers for teaching and learning. Such learning spaces may incorporate formal classroom spaces but classrooms are not our primary focus. CNI also highlights learning spaces that have a cross-sector component, such as multi-media studios or information commons administered or staffed jointly by the library and information technology groups.

In 2006-2007 we will continue to feature our work on learning spaces, partnering with other organizations such as the EDUCAUSE Learning Initiative (ELI) and the National Institute for Technology and Liberal Education (NITLE), and working closely with the Association of Research Libraries initiative on the role of research libraries in teaching and research. We will offer sessions at several national meetings, including an ARL-sponsored assessment conference, where we will present our ongoing work on developing a framework for the assessment of learning spaces. We will also explore such topics as linking the services offered in these facilities more closely to the teaching and learning program of the institution and developing services that have both in-person and virtual components.

• Risk Management Implications of Digital Content

The wide-scale adoption of networked information services and shift to digital content raises a set of new questions about risk management and business continuity planning for libraries and higher education institutions, connecting developments in new business models for scholarly publishing, security issues and questions about digital preservation strategies to institutional strategic planning in new ways. The catastrophic hurricanes of fall 2005 have given new urgency and depth to these questions. CNI continues to probe this new and poorly explored territory and expects to prepare an EDUCAUSE ECAR Bulletin in the coming program year.

• Executive Roundtable

At the Fall 2003 Task Force meeting, CNI launched the Executive Roundtable, a new program, which builds on the theme of collaboration between librarians and information technologists that has been at the foundation of the Coalition. The Executive Roundtable assembles executive teams (usually the chief librarian and chief information technology officer) from about ten institutions for a focused two-to-three hour discussion of a specific topic of interest on the morning of the

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PROGRAM PLAN 2006-2007

Developing and Managing Networked Information Content

The Coalition has broad interests across all forms of digital content that can be used to support research and education. We provide a forum for information on leading projects in this arena, including a showcase at the CNI member meetings for innovative faculty projects from our member institutions. In addition, we track developments and promote strategies for the creation of digital collections, digital libraries, and federated services in support of digital content. Further, because digital content cannot be divorced from the processes of teaching, learning, and scholarship that both create and rely upon that content, CNI is deeply involved in issues involving changing practices of scholarship, the restructuring of scholarly publishing and the broader transformation of scholarly communication, and innovation in teaching and learning. Through our membership meetings, specialized conferences and workshops, collaborative initiatives with other organizations, and publications, we provide leadership on digital content policy and scholarly communication.

• Institutional Content Resources and Repositories

A centerpiece of CNI's work on networked information is built around the broad theme of the stewardship of institutional content resources — materials created by members of the institutional community, or that document the work, processes or intellectual and cultural life of an institution. The practice of such stewardship, which includes management, preservation, and access, is a central role for higher education and cultural memory organizations in the digital age. Our work here has two major components. One is to understand and help to advance and structure the wealth of new digital content. The program includes our continuing efforts to understand and highlight experiments in the creation of new types of scholarly works for the digital medium, such as successors to the scholarly print monograph or the development of electronic theses and dissertations; the implications of mass digitization of materials to support scholarship; and the availability of digital surrogates for existing collections of physical materials. The second major effort focuses on approaches to manage the wealth of new content through development of strategies such as the deployment of institutional repositories. Here CNI is addressing the full range of issues from policy and strategic planning through system architecture and standards for the management of complex digital objects (for example, the Metadata Encoding and Transmission Standard [METS] effort, approaches to the documentation of rights associated with content objects, or standards and architectural models for object reuse and exchange).

In 2006-2007, as well as continuing our focus on institutional repositories, we will be working to better understand how a variety of institutional units, including university museums, archives, and audio and video production groups, can leverage institutional infrastructure and build collaborations to make their content resources more accessible for scholarship, teaching and learning. We will also explore ways in which institutional strategies and systems need to connect to national and disciplinary-level data management and curation activities (such as

those developing through the e-research initiatives described below), and some of the interinstitutional issues that arise from large scale research collaborations and virtual organizations.

• Institutional and Disciplinary Implications of E-Research

The Coalition has long been engaged in efforts to chart, understand and facilitate the transformation of scholarly practice through the use of digital content and advanced information technology as part of its fundamental mission. In the arts and humanities, CNI, in collaboration with partners such as the J. Paul Getty Trust, the American Council of Learned Societies (ACLS), the National Research Council (NRC) and ARL, has provided leadership in computing and the humanities and outreach to build collaborations with the museum community. In the sciences and engineering, CNI has recently been heavily involved in helping the higher education and library communities understand and frame emerging issues in cyberinfrastructure and escience, with a primary focus on data sharing and data curation issues.

There are several key developments that will shape much of CNI's work in 2006-2007. The first is the release of the final report of the ACLS Commission on Cyberinfrastructure and the Humanities and a range of efforts to advance the recommendations in the report. This will build upon CNI's work in promoting the dissemination and discussion of the draft report in the 2005-2006 program year. The second set of developments deal with the management, curation, preservation and dissemination of datasets produced by scholarly work; perhaps the most important initiatives here are being driven by the United States National Science Foundation Cyberinfrastructure program. Of central importance are the evolving roles and relationships of disciplinary and institutionally based data management strategies, and we will continue examining experience with disciplinary data archives to inform this question. Also key are the changing roles of libraries and other organizations in meeting data curation needs; CNI was active in the work around the September 26-27, 2006 ARL/NSF Workshop New Collaborations: the Role of Academic Libraries in the Digital Data Universe, and we have also recently begun to explore workforce issues in this area.

CNI is concerned with questions about availability of data related to scholarly work, and has been engaged in a number of discussions around open access, open science, and open data as they relate to this question, as well as discussions about disciplinary norms for data sharing. Along with ARL, the Association of American Universities (AAU), SPARC, and the National Association of State Universities and Land-Grant Colleges (NASULGC), CNI served as a co-sponsor of the recent symposium *Improving Public Access to Publicly Funded Research: Policy Issues and Practical Strategies* on October 20, 2006.

We will also continue to explore the ways in which data and computationally intensive scholarship are altering the nature of scholarly communication; the issues here include the legal and technical barriers to large-scale text and data mining; appropriate organizational, policy and technical strategies for linking articles and underlying data; and ways to construct scholarly works that are amenable to various combinations of human and machine use.

Connecting our work in e-research directly to our program focus on institutional content resources, CNI will continue to examine institutional policy and planning implications of cyberinfrastructure initiatives in both the sciences and humanities, and consider how these can complement disciplinary-based activities.

• Digital Preservation

Closely related to the programmatic focus on stewardship of institutional content resources is the Coalition's continuing work on more broadly based preservation of digital content. This is a central issue not only in the shift to network-based scholarly communication, but also in ensuring the continuity of cultural and scholarly memory in the digital age. It also continues to emerge as a fundamental social and public policy issue with wide-reaching implications. CNI works closely with ARL, DLF, CLIR, the Andrew W. Mellon Foundation, the Library of Congress National Digital Information Infrastructure and Preservation Program (NDIIPP), JSTOR, and RLG Programs at OCLC on the full range of technical, economic, and strategy issues surrounding digital preservation. One focal issue that will receive continued attention is systemic strategies for preserving scholarly journals in digital form. Digital preservation progress will continue to receive extensive coverage at the CNI Task Force meetings.

Transforming Organizations, Professions and Individuals

The Coalition has a longstanding commitment to highlighting and advancing organizational initiatives that facilitate collaborations across institutional units and professional cultures, with particular emphasis on collaboration between librarians and information technologists. We have also done extensive work in evaluation and assessment strategies, recognizing the continuing need to understand the effects and contributions of advanced information technology and digital content.

A cross-cutting theme informing our work on teaching and learning in recent years has been understanding the ever-increasing population of students who have grown up with computer and information technologies as part of their lives. While these students are often described as very different from older generations in their use of technology, many of the characteristics of their uses of information and technology — such as multi-tasking, active learning, working in groups, and production, not just consumption, of digital resources — have also been incorporated into the lives of most adult professionals. We help institutions understand the need to reconfigure some of their services and their physical and virtual spaces to reflect the ways in which students and faculty work with technology and information today. As both students and faculty increasingly produce new digital information, sometimes incorporating parts of others' work and often in complex social software contexts, they have a pressing need to understand a wide range of issues including format standards, metadata, intellectual property, privacy, and preservation.