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Wayne State University  
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Yale University

\* Denotes charter members



## Coalition for Networked Information

### An Introduction & Program Plan 2007-2008

#### Mission

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

## ABOUT CNI

### Background and History

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 digital content and advanced applications to create, share, disseminate, and analyze such content in the service of research and education. 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 digital 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 digital information in the networked environment. 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>.

Libraries/Claremont University Consortium	Princeton University*
Library and Archives Canada*	Public Library Association
Library and Information Technology Association	Purdue University
Library of Congress*	Queen's University
Library of Virginia*	Rhodes College
Los Alamos National Laboratory Research Library	Rice University*
Luther College	Rochester Institute of Technology*
Marquette University	Rutgers University*
Massachusetts Institute of Technology*	Simon Fraser University Library
Mayo Foundation	SirsiDynix Corporation
McGill University	Smithsonian Institution Libraries*
McMaster University	Southern Illinois University at Carbondale*
Metropolitan New York Library Council (METRO)	Southern Methodist University*
Miami University of Ohio*	Stanford University*
Michigan State University*	State & University Library (Aarhus, Denmark)
Microsoft Corporation	State University of New York at Albany
Midwest Instructional Technology Center (MITC)	State University of New York, System Administration*
MINITEX Library Information Network	State University System of Florida*
Mississippi State University	Stony Brook University
Mitre Corporation	Sun Microsystems, Inc.
NCAR (National Center for Atmospheric Research)	SURF
National Agricultural Library*	Syracuse University*
National Archives and Records Administration	Temple University
National Institute for Technology and Liberal Education (NITLE)	Texas A&M University
National Institutes of Health Library	Texas Christian University
National Library of Australia	Texas Tech University
National Library of Medicine	Thomson Scientific
New Media Consortium	Tufts University
New York Public Library - Research Libraries*	United States Department of Education, National Library of Education
New York State Library*	United States Government Printing Office
New York University	Université Laval
North Carolina State University	Universiteit Van Amsterdam
Northeastern University	University at Buffalo, State University of New York*
Northwestern University*	University of Alabama
OCLC, Inc.*	University of Arizona*
Ohio State University*	University of Arkansas
Ohio University	University of British Columbia
Oregon State University	University of California, Berkeley*
Pennsylvania State University*	University of California, Davis*
Portland State University	University of California, Irvine*

# MEMBERSHIP LIST

(As of November 2007)

American Library Association	Connecticut State University
American University*	Copyright Clearance Center
Andrew W. Mellon Foundation	Cornell University*
Arizona State Library, Archives and Public Records	Council on Library and Information Resources
Arizona State University*	Countway Library of Medicine
ARTstor	Dartmouth College
Associated Colleges of the South Technology Center (ACSTC)	Denmark's Electronic Research Library (DEFF)
Association of College and Research Libraries*	Deutsche Forschungsgemeinschaft (DFG)
Auburn University	Digital Library Federation
Australian Partnership for Sustainable Repositories	Duke University
Baylor University	Eastern Michigan University
Binghamton University, State University of New York	Elsevier Science Publishers B. V.*
Boise State University	Emory University
Boston College	Enoch Pratt Free Library
Boston Public Library*	Ex Libris (USA), Inc.
Brandeis University	Five Colleges, Inc.
Brigham Young University	Florida Atlantic University
British Library	Florida State University
Brown University*	George Mason University
Bryn Mawr College	George Washington University*
Bucknell University	Georgetown University*
California Institute of Technology	Georgia Institute of Technology*
California State University, Office of the Chancellor*	Georgia State University Library
Cambridge Information Group (CIG)	Harvard University*
Canada Institute for Scientific & Technical Information	Illinois Wesleyan University
Canadian Heritage Information Network	IMS Global Learning Consortium
Carnegie Mellon University*	Indiana University*
Case Western Reserve University*	Indiana University-Purdue University at Indianapolis
Center for Educational Technology (CET)	Internet2
Center for Research Libraries	Internet Society
Centers for Disease Control and Prevention	Iowa State University*
City University of New York	Ithaka
Clemson University	J. Paul Getty Trust
College Center for Library Automation	John Wiley & Sons, Inc.
Colorado State University*	Johns Hopkins University*
Columbia University*	Joint Information Systems Committee
Connecticut College	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 digital information resources. CNI also furthers the development of economic, policy, social and legal frameworks to sustain the creation and management of networked information and facilitate its access.

### • Transforming Organizations, Professions, and Individuals

The pervasiveness of ubiquitously accessible digital 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 digital information on the Internet. 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 2007-2008 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 digital 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 *2007-2008 Program Plan* should be viewed as a snapshot of our thinking about priorities and opportunities as of late 2007 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 digital information and its role in transforming organizations and scholarly activities. This is accomplished through our participation in the ongoing scholarly dialogue; 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; through contributions to standards efforts and standards organizations; 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 Council on Library and Information Resources (CLIR) on scholarly communication, cyberinfrastructure, and preservation issues; with the Digital Library Federation on standards and technical issues in digital libraries; with the New Media Consortium on the exploration and use of new media and new technologies in higher education; and with the IMS Global Learning Consortium on interoperability between learning management systems and 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 education and research partnership organization for network services and information and communications technology.

## RECENT PUBLICATIONS BY CNI STAFF

- Clifford A. Lynch, "A Matter of Mission: Information Technology and the Future of Higher Education," to appear in *The Tower and the Cloud*, Richard Katz (Ed.), 2008.
- Clifford A. Lynch, "Repatriation, Reconstruction and Cultural Diplomacy in the Digital World," *EDUCAUSE Review*, vol. 43, no. 1 (January/February 2008).
- Joan K. Lippincott, "Student Content Creators: Convergence of Literacies," *EDUCAUSE Review*, v. 42, no. 6 (Nov/Dec 2007).
- Clifford A. Lynch, "Digital Libraries, Learning Communities and Open Education," *Opening Up Education*, Toru Iiyoshi and M. S. Vijay Kumar (Eds.), (Cambridge, MA: The MIT Press, 2007).
- Clifford A. Lynch, "The Shape of the Scientific Article in the Developing Cyberinfrastructure," *CTWatch Quarterly* (August 2007).
- Joan K. Lippincott, "Assessing Information Commons," *Linking the Information Commons to Learning: How to Measure Success*, Vantage Point (Ipswich, MA: Ebsco, 2007). An earlier version of this paper appeared in *Proceedings of the Library Assessment Conference*, September 25-27, 2006, Charlottesville, VA.
- Joan K. Lippincott, "Beyond Coexistence: Finding Synergies between Print Content and Digital Information," *Journal of Library Administration*, 46:2 (2007).
- 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).

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

development of technical infrastructure, with a particular focus on large-scale storage and data management, and on collaboration tools and environments.

#### • **Authentication, Authorization and Access Management**

CNI 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.

Building on work in the 2006-2007 program year, we will continue 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 and disciplinary repositories, advanced bibliometrics and webmetrics, and similar developments are clearly bringing them into closer alignment. CNI will convene a workshop in the spring of 2008 to examine the potential avenues for progress.

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 10-11, 2007, in Washington, DC, and April 7-8, 2008, in Minneapolis, MN, 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 July 10-11, 2008 in Belfast, Northern Ireland. 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. CNI also acts as a co-sponsor for other meetings relevant to the CNI agenda. This year these events include the 3rd Annual Digital Curation Conference, entitled "Curating Our Digital Scientific Heritage: a Global Collaborative Challenge," to be held on December 11-13, 2007 in Washington, DC. The Digital Curation Centre (UK) sponsors this event, which will also be co-sponsored by the US National Science Foundation (NSF). ARL and CNI will co-sponsor a forum on "Enhancing Graduate Education: A Fresh Look at Library Engagement," on October 12, 2007, in Washington, DC.

In addition, CNI will co-sponsor the European Conference on Research and Advanced Technology for Digital Libraries in Budapest, Hungary, September 16-21, 2007; Open Repositories 2008 in Southampton, UK, April 1-4, 2008; the EDUCAUSE Policy Conference, to be held in Arlington, Virginia, May 7-8, 2008; the Joint Conference on Digital Libraries, scheduled for June 15-20, 2008, in Pittsburgh, PA, and the IS&T Archiving Conference, June 24-28, 2008, in Bern, Switzerland.

## PROGRAM PLAN 2007-2008

### 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 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 managing the wealth of new content through the 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.

In 2007-2008, as well as continuing our ongoing 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 inter-institutional issues that arise from large scale research collaborations and virtual organizations.

standards and technologies into operational infrastructure for the research, higher education and library communities.

In addition to the specific program initiatives described here, CNI 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. Additional support from Microsoft has followed. This effort, which builds upon and complements earlier work on the Open Archives Protocol for Metadata Harvesting, will run through late 2008. During 2006-2007, the focus has been on establishing functional requirements and developing draft standards documents; in 2008 the focus will move to implementation efforts to validate the specifications and provide practical experience with implementations and interoperability. A March 3, 2008 United States public launch event is scheduled to be held at Johns Hopkins University; an April 2008 European launch event is planned in conjunction with the Open Repositories 2008 meeting at the University of Southampton in the UK.

#### • 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 re-centralization 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 laboratories or virtual organizations). Complementing the organizationally oriented work on e-research already described, CNI is also concerned with the institutional and cross-institutional

recently mapped out a number of similar questions from a library perspective, and with the EDUCAUSE Cyberinfrastructure Task Force.

#### • 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 and technical models for scholarly publishing, security issues and questions about digital curation and preservation strategies to institutional strategic planning in new ways.

#### • New Organizational Issues in Records Management and Institutional Archives

The intellectual and organizational terrain of records management and long-term institutional archives has changed radically in the last decade. Practically speaking, the deployment of enterprise management systems means that information technology groups have taken charge of operational business records for our universities, often with limited consideration of how this relates to permanent institutional archives. At the same time, the nature of the academic record has changed radically with the introduction of learning management systems, institutional repositories, and other scholarly support systems; the roles of libraries and institutional archives are blurring in this area. At some institutions, responsibility for the organizational archive is shifting to the library. It is time to reconsider organizational roles and responsibilities in these areas; we will start this discussion with an Executive Roundtable on the topic in the spring of 2008.

#### • 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 first day of the Task Force meeting. Past topics have included institutional repositories, learning management system strategies, identity management, learning spaces, funding innovation, and infrastructure to support research, which brought together vice presidents or vice provosts of research, in addition to the usual Roundtable organizational representatives from libraries and information technology. The fall 2007 Executive Roundtable will focus on collaborative models of information/technology support for faculty. The spring 2008 Roundtable is expected to focus on organizational issues involving records management and archiving.

### 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

#### • 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 e-science, with a primary focus on data sharing and data curation issues.

In the 2007-2008 program year CNI will continue to engage e-research developments both in the sciences and the humanities. The US National Science Foundation is launching major programs addressing data curation (the DataNet initiative, and also the Community-based Data Interoperability Networks program), and we will be highlighting these in our Task Force meetings. Following on the report of the ACLS Commission on Cyberinfrastructure for the Humanities & Social Sciences, there is a major ongoing discussion about how to frame strategies for effective investment in digital humanities work such as the potential development of a national system of digital humanities centers.

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. We will also continue to explore and document 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), the National Science Foundation, JSTOR, the UK Digital Curation Centre (DCC), and RLG Programs at OCLC on the full range of technical, economic, and strategy issues surrounding digital preservation. In 2007-2008 we will

participate in the newly established Blue Ribbon Task Force on Sustainable Digital Preservation and Access. We will co-sponsor the DCC's 3rd International Digital Curation Conference, following our Fall Task Force meeting in Washington, DC on December 11-13, 2007. 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.

#### • **Electronic Theses and Dissertations**

CNI has been involved with the movement towards electronic theses and dissertations (ETD) since the beginning, and has continued to help advance this international movement. In the 2007-2008 program year, we will take a snapshot of ETD deployment progress among our United States member institutions in order to better understand the current state of acceptance and how progress in the US compares to parallel developments internationally.

### **Transforming Organizations, Professions and Individuals**

The pervasive nature of digital content has led to transformations in the way that the research and education community does its work. In this program area, we focus on the impact of digital content on organizations, including the changing nature of teaching and learning, the need for new services and skills in the professions, and the pressure on physical facilities to accommodate changing needs of user communities. CNI 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 fostered collaborations with electronic publishers, electronic records managers, archivists, and others. Our work on organizational and institutional issues includes a focus on evaluation and assessment strategies, recognizing the continuing need to understand the effects and contributions of advanced information technology and digital content.

#### • **Today's Users and Digital Content**

A cross-cutting theme informing our work on teaching and learning in recent years has been understanding the growing population of students who have grown up with computer and information technologies as part of their lives from their earliest ages. 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 our users 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. A variety of literacies — information, technology, and visual — are converging as students, faculty, and others produce innovative digital content. All of these trends affect the work of graduate students as well, and ARL and CNI will co-sponsor a Fall Forum, "Enhancing Graduate Education: A Fresh Look at Library Engagement," on October 12, 2007 in order to explore the needs of graduate students and understand the broader context of graduate education today.

#### • **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 help identify best practices, and to assist institutions in developing programs that enhance the learning and research functions of the physical space.

CNI's work focuses on learning spaces that have a particular connection with information organizations and professionals, such as libraries, learning or information commons, 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 2007-2008 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 and we will identify and disseminate information about trends and best practices. We will continue our 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, new conceptualizations and models for computer labs, and the need for users to have a combination of skills — information, technology, and visual — to develop rich content for the digital environment.

#### • **Organizational Implications of E-Science and E-Research**

As part of our ongoing exploration of the institutional implications of the emergence of e-science and e-research, we will continue to look at organizational and staffing questions. These include: how to appropriately combine and balance centralized and departmental support resources to most effectively support faculty and students; new information technology/library collaborations required by the e-research environment; and the staffing needs of data curation programs. In this endeavor we will work closely with ARL, where an e-science task force has