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* Denotes charter members



Coalition for Networked Information

An Introduction & Program Plan 2008-2009

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 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 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 research and education environments. 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.

More than 200 dues-paying member institutions, known as the Task Force, 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 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 the CNI website at <http://www.cni.org>.

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

(As of November 2008)

American Library Association
 American University*
 Andrew W. Mellon Foundation
 Arizona State Library, Archives and Public Records
 Arizona State University*
 ARTstor
 Association of College and Research Libraries*
 Auburn University
 Australian Partnership for Sustainable Repositories
 Baylor University
 Binghamton University, State University of New York
 Boise State University
 Boston College
 Boston Public Library*
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 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*
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 Centers for Disease Control and Prevention
 City University of New York
 Clemson University
 Colby College
 College Center for Library Automation
 Colorado State University*
 Columbia University*
 Connecticut College
 Copyright Clearance Center

Cornell University*
 Council on Library and Information Resources
 Countway Library of Medicine
 Dartmouth College
 Denmark's Electronic Research Library (DEFF)
 Deutsche Forschungsgemeinschaft (DFG)
 Digital Library Federation
 Duke University
 Eastern Michigan University
 Elsevier Science Publishers B. V.*
 Emory University
 Ex Libris (USA), Inc.
 Five Colleges, Inc.
 Florida Atlantic University
 Florida State University
 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
 Internet2
 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
 Libraries, Claremont University Consortium
 Library and Archives Canada*
 Library and Information Technology Association
 Library of Congress*

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 we work with these communities to advance the deployment of digital information resources. We encourage the stewards of information to take a broad view of the types of digital content that may be valuable for disciplinary and interdisciplinary research. 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 understand their constituencies and adapt their services and facilities to current needs; they 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 2008-2009 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 *2008-2009 Program Plan* should be viewed as a snapshot of our thinking about priorities and opportunities as of late 2008 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, and The Andrew W. Mellon Foundation; through work on advisory groups of organizations such as Ithaka, RLG Programs of OCLC, and Portico; through contributions to standards efforts and standards organizations such as the National Information Standards Organization (NISO); 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 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.

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, reports, and articles, we present talks at conferences, and we make institutional visits that may involve meetings with campus leaders and presentations at public events and seminars.

RECENT PUBLICATIONS BY CNI STAFF

- Lynch, Clifford A. "The Institutional Challenges of Cyberinfrastructure and E-Research." *EDUCAUSE Review* 46, no. 3 (November/December 2008).
- Lynch, Clifford A. "A Matter of Mission: Information Technology and the Future of Higher Education." In *The Tower and the Cloud*, edited by Richard Katz. Boulder: EDUCAUSE, 2008.
- Lynch, Clifford A. "Big Data: How Do Your Data Grow?" *Nature* 455, no. 7209 (September 2008).
- Lippincott, Joan K. "Libraries and Net Gen Learners: Current and Future Challenges in the Mobile Society." In *M-Libraries: Libraries on the Move to Provide Virtual Access*, edited by Gill Needham and Mohamed Ally. London: Facet Publishing, 2008.
- Lynch, Clifford A. "Digital Libraries, Learning Communities and Open Education." In *Opening Up Education*, edited by Toru Iiyoshi and M. S. Vijay Kumar. Cambridge, MA: The MIT Press, 2008.
- Goldenberg-Hart, Diane. "Enhancing Graduate Education: A Fresh Look at Library Engagement," *ARL: A Bimonthly Report on Research Library Issues and Actions* 256 (February 2008).
- Lynch, Clifford A. "Repatriation, Reconstruction and Cultural Diplomacy in the Digital World." *EDUCAUSE Review* 43, no. 1 (January/February 2008).
- Lippincott, Joan K. "Student Content Creators: Convergence of Literacies." *EDUCAUSE Review* 42, no. 6 (November/December 2007).
- Lynch, Clifford A. "The Shape of the Scientific Article in the Developing Cyberinfrastructure." *CTWatch Quarterly* (August 2007).
- Lippincott, Joan K. "Assessing Information Commons." In *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.
- Lippincott, Joan K. "Beyond Coexistence: Finding Synergies between Print Content and Digital Information." *Journal of Library Administration* 46, 2 (2007).
- Lynch, Clifford A. "Improving Access to Research Results: Six Points." *ARL: A Bimonthly Report on Research Library Issues and Actions* 248 (October 2006).
- Lynch, Clifford A. "Open Computation: Beyond Human-Reader-Centric Views of Scholarly Literatures." In *Open Access: Key Strategic, Technical and Economic Aspects*, edited by Neil Jacobs. Oxford, UK: Chandos Publishing, 2006.
- Lynch, Clifford A. "Copyright Law, Intellectual Property Policy, and Academic Culture." In *The Center for Intellectual Property Handbook*, edited by Kimberly M. Bonner and the staff of the Center for Intellectual Property. New York: Neal-Schuman Publishers, 2006.
- Kelley, Kimberly B., Kimberly M. Bonner, Clifford A. Lynch and Jaehong Park. "Digital Rights Management (DRM) and Higher Education: Opportunities and Challenges." In *The Center for Intellectual Property Handbook*, edited by Kimberly M. Bonner and the staff of the Center for Intellectual Property. New York: Neal-Schuman Publishers, 2006.
- Lippincott, Joan K. "Learning, Engagement and Technology." In *Student Engagement and Information Literacy*, edited by Craig Gibson. Chicago: Association of College and Research Libraries, 2006.
- Lippincott, Joan K. "Linking the Information Commons to Learning." In *Learning Spaces*, edited by Diana G. Oblinger. Boulder: EDUCAUSE, 2006.
- Lippincott, Joan K. "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).
- Lynch, Clifford A. "Research Libraries Engage the Digital World: A US-UK Comparative Examination of Recent History and Future Prospects," *Ariadne* 46 (February, 2006).

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

• 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 DLF, 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 like InCommon, functional requirements and policy issues surrounding access management for digital content, and public key infrastructure.

• Identity and Research Management Systems

Building on work in the 2007-2008 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 convened a workshop in the spring of 2008 to map some of these developments, and will release a synthesis of these in the 2008-2009 program year. One additional area of exploration emerging from the workshop is the growing use of name, biographical, and prosopographical databases as infrastructure for additional scholarly work and how these relate to developments in name authority and identity.

The 2008 CNI workshop also surfaced a great deal of work on various systems to help track and make visible faculty research interests and achievements as manifest in publications, grants, patent awards and similar events. We will also be working with the EDUCAUSE ECAR program and ARL to frame an architectural taxonomy of emerging faculty research and publication management systems, with some emphasis on their interactions with identity management, and expect to have the initial work on this completed in the 2008-2009 program year.

The Coalition also contributes to the development of the networked information community by acting as a distribution point for materials via the CNI 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 8-9, 2008, in Washington, DC, and April 6-7, 2009, 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 in 2010. The previous conference, *Transforming the User Experience*, was held July 10-11, 2008 in Belfast, Northern Ireland.

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 included the 4th Annual Digital Curation Conference, entitled "Radical Sharing: Transforming Science?" held on December 1-3, 2008 in Edinburgh, Scotland. The Digital Curation Centre (UK) sponsored this event, which was also co-sponsored by the UK's National e-Science Centre. ARL and CNI co-sponsored the forum "Re-inventing Science Librarianship: Models for the Future," on October 16-17, 2008, in Arlington, VA.

In addition, CNI co-sponsored the European Conference on Research and Advanced Technology for Digital Libraries in Aarhus, Denmark, on September 14-19, 2008; and will co-sponsor the IS&T Archiving Conference, May 5-8, 2009, in Arlington, VA; Open Repositories 2009 in Atlanta, GA, May 18-21, 2009; and the Joint Conference on Digital Libraries, scheduled for June 15-19, 2009, in Austin, TX.

PROGRAM PLAN 2008-2009

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 2008-2009 we will continue to work 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.

A resurgent priority for the 2008-2009 program year is a focused re-examination and re-assessment of institutional repository (IR) services. The concept of the IR is more than five years old; CNI was deeply involved in the initial conceptualization of these services and the development of implementation strategies for them. Platform alternatives have multiplied and matured, and understandings about costs, as well as barriers to successful deployment, have become much clearer. Indeed, we are seeing significantly different deployment trajectories

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. We expect that the 2008 report of the NSF Task Force on Cyberlearning will focus renewed attention on platform and integration issues related to the support of teaching and learning.

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 IRs, 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 2008. During 2006-2007, the focus was on establishing functional requirements and developing draft standards documents; following the October 2008 release of the first production version of the standard, the focus moves to practical experience with large-scale implementations and interoperability.

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

• 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. CNI continues to be deeply interested in these risk management issues, and in 2008-2009 we will be exploring so-called “cloud” storage systems and their implications for robust storage and digital preservation.

• 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, IRs, 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 started this discussion with an Executive Roundtable on the topic in the spring of 2008. The recent work of the ARL Special Collections Task Force—in which CNI has participated as a corresponding member—has shed a great deal of additional light on these issues, and we hope to produce a publication in this area during the 2008-2009 program year.

• Executive Roundtable

CNI’s Executive Roundtable series assembles executive teams (usually the chief librarian and chief information technology officer) from about 10 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. Launched at the Fall 2003 Task Force meeting, the Executive Roundtables build on the theme of collaboration between librarians and information technologists that has been at the foundation of the Coalition. Past topics have included IRs, 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 2008 Executive Roundtable will focus on the development of institutional strategies for the dissemination of research and scholarship, building on the work of the August 2008 joint ARL/CNI/Association of American Universities (AAU)/National Association of State University and Land-Grant Colleges (NASULGC) sponsored discussion on the same topic. The spring 2008 Roundtable is expected to focus on what has been learned by early adopters of IR strategies, in support of our broader initiative to revisit these strategies.

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

in different nations (as our 2005 joint studies with our partners at the Joint Information Systems Committee [JISC] and SURF of IR deployment internationally suggested) but also interesting hints of potential future convergences among these national strategies. We are particularly interested in ways in which the impact of IRs might be measured, and their interactions with virtual organizations, faculty movement from one institution to another, and, in particular, with stewardship of scholarly work associated with faculty retirements.

• 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, continues to provide 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 2008-2009 program year, CNI will continue to engage e-research developments both in the sciences and the humanities. The US National Science Foundation (NSF) 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, CNI is participating in ongoing discussions 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), NSF, 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 2008-2009 we will participate in the second year of the Blue Ribbon Task Force on Sustainable Digital Preservation and Access. We will co-sponsor the DCC's 4th International Digital Curation Conference, which will take place in Edinburgh on December 1-3, 2008, and the Imaging Science and Technology (IS&T) Archiving 2009 meeting, scheduled for May 4-7, 2009 in Arlington, VA. 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 2008, we collected a snapshot of ETD deployment progress among our United States member institutions to assist us in understanding the current state of acceptance and to examine how progress in the US compares to parallel developments internationally. We presented initial results of this work at the 2008 Electronic Thesis & Dissertation conference, and expect to publish a more complete analysis in this program year.

Transforming Organizations, Professions, and Individuals

The pervasive nature of digital content and networks has led to transformations in the way 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. 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. The implications of mobile platforms on content and service delivery strategies is a new aspect of this challenge we will highlight through presentations and publications in 2008-2009.

• **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 2008-2009 we will continue to feature our work on learning spaces, partnering with other organizations such as the EDUCAUSE Learning Initiative (ELI), the National Institute for Technology and Liberal Education (NITLE), the Council of Independent Colleges, and working closely with the ARL 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 work on developing a framework for a planning process for information and learning commons, incorporating good practices for assessment. 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.

• **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 issues include: the development of new service models for faculty and graduate students in newly designed spaces; 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 recently mapped out a number of similar questions from a library perspective, and with the EDUCAUSE/Net@EDU Campus Cyberinfrastructure Task Force. Along with ARL, CNI co-sponsored a symposium on e-science and the future of science librarianship in October 2008.