Good afternoon. Thank you for the opportunity to describe NC LIVE (North Carolina Libraries for Virtual Education), a project that provides residents of North Carolina with online access to a core group of electronic resources. These include complete articles from over 10,000 newspapers, journals, magazines, and encyclopedias; indexing for over 20,000 periodical titles, and over 24,000 electronic books. NC LIVE is available free of charge to library users, students, and educators from four communities of interest (or COIs)—public libraries, the state’s university system, community colleges, and independent colleges and universities. NC LIVE resources can be accessed from an affiliated library or remotely by users from their homes or other locations (You can get more information about NC LIVE at www.nclive.org).

Before describing the NC LIVE approach to providing electronic access for the citizens of North Carolina, let me provide a little context. I am not offering NC LIVE as a model, but as an example of how one set of arrangements for providing free access to electronic resources works in a specific situation. Programs such as NC LIVE are influenced by their scale, by the type of content licensed, by the size of the population served, the funding mechanisms of the political entities of which they are a part, the relationships of
the various partners in the enterprise, and perhaps most of all, by successful negotiations with the owners or vendors of the information content provided.

North Carolina is a state in the southeastern United States that lies between Virginia and South Carolina and is bordered on the west by Tennessee. It is traditionally said of North Carolina that it is a “vale of humility between two mountains of conceit.” There is enough truth to this metaphor that one of the state’s trademark sources of pride is its bootstrapping, “we try harder” approach symbolized by a progressive, low-cost system of higher education to improve the lives of its citizens. The University of North Carolina is the oldest public university in the United States, mandated by the state’s constitution to provide higher education to the state’s citizens at the lowest possible cost. The NC LIVE project lies firmly in that tradition.

The population of North Carolina is 8.4 million. Its economy is both agricultural and manufacturing, with its principal industries being tobacco, furniture manufacturing, textiles, tourism, and banking—with emerging high-tech strengths in biotechnology, pharmaceuticals and electronics. The population is 72% White, 22% African American, and 5% Hispanic, with the Hispanic population having grown more than 400% in the past decade, and currently constituting 25% of the state’s annual growth.

The underlying purpose of NC LIVE is to serve the various educational goals of its diverse population, to provide for their cultural enrichment, to help them in their personal lives in matters such as job seeking and health care, and to be a strong positive force in the economic development of the state. These factors are considered in the selection of resources to be offered, along with the specific needs defined by the four communities of interest. The communities of interest are the basic representational units of the NC LIVE organization, determining membership on committees, votes in the selection of resources, and contributions to budgets. The communities of interest and their constituencies are as follows:

- The University of North Carolina System—16 campuses—164,000 FTE enrolled students
- All private colleges and universities—36 campuses—over 72,000 FTE enrolled students
- All community colleges—58 campuses—93,000 FTE enrolled students
- Public libraries—75 library systems—serving a population of 8.4 million

In practical terms, we must account for the fact that while the numbers in each community of interest are very different, there are also great variations in the intensity of use that the members of each COI make of electronic resources. Thus, we have adopted a working number of 5% of the population of the state to represent a figure for public libraries that would be comparable to those for the educational communities of interest, resulting in a figure of 420,000 predicted active user equivalents for the public sector. We realize this number is arbitrary, but it has been accepted by the COIs and the information vendors.
Several distinguishing features of NC LIVE are important for determining the content that the project licenses.

- First, NC LIVE is a multi-type library organization, unlike some other state-based projects in the United States which involve only one type of library, such as academic only, or public only. OHIO LINK and the California Digital Library (or CDL) come to mind as examples.
- Secondly, NC LIVE licenses access to the same set of resources for all types of libraries, unlike some other multi-type consortia which license different sets of resources for different types of libraries. In NC LIVE all resources are available to all libraries and users.
- Third, NC LIVE resources are meant to complement the electronic content that individual libraries license on their own with their own funds. NC LIVE provides a baseline level of access and participating libraries acquire in-depth resources to meet the more specialized needs of their users. Later I will illustrate how this arrangement plays out with a research university in the UNC System, the University of North Carolina at Chapel Hill.

NC LIVE resources are selected though a collaborative and inclusive process involving all Communities of Interest. The scope of the collection is intended to encompass the wide range of interests of individuals, communities, businesses, and organizations, and attempts to meet their needs at home, school, at work, and in daily life. In addition NC LIVE content is evaluated in terms of quality, relevance, and levels of use. The types of resources to be found in NC LIVE include the following:

- Standard reference works
- Academic journals essential to undergraduate programs
- Research journals that are essential to university-level institutions
- Magazines and other resources that assist the public
- Information about North Carolina government history, and culture
- Materials to support business, industry, job creation, and work force development
- Literary resources and reader’s advisory materials
- Medical and health information
- Maps and geographic resources
- Electronic books, including a subject concentration on information technology
- Information about American government, economy, politics, public policy, social issues, technology, and current affairs

Areas that current evaluations indicate need to be upgraded are genealogical information and test preparation guides. Evidence also indicates that the number of electronic books offered should be increased. Electronic books are much more popular in public libraries than anticipated, somewhat to the surprise of the public librarians. We also will explore the possibility of offering audio books through NC LIVE.

As noted earlier, NC LIVE resources include complete articles from over 10,000 newspapers, journals, magazines, and encyclopedias; indexing for over 20,000 periodical titles and access to over 24,000 electronic books. A complete list of current vendors and
collections may be found in the appendix. Keep in mind that these titles will change when news contracts are implemented.

The past year’s cost for the resources in this list was approximately $4,600,000 with contributions from the Communities of Interest roughly as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Universities</td>
<td>$1.9 million</td>
</tr>
<tr>
<td>The State Library (for the public library sector)</td>
<td>$1.6 million</td>
</tr>
<tr>
<td>Independent Colleges and Universities</td>
<td>$600,000</td>
</tr>
<tr>
<td>Community Colleges</td>
<td>$500,000</td>
</tr>
</tbody>
</table>

With the exception of the independent colleges and universities, these contributions do not come from the funds of the participating libraries but through line items in the State appropriations that do not displace funds in the individual library budgets. They are not “top-sliced,” to use the terminology of my co-speaker Dr. Shaffler. Thus, NC LIVE can be viewed, at least for the State-supported libraries, as a supplement to their library materials budgets.

As already noted, NC LIVE is approaching the end of a contract cycle and is at the present time preparing for negotiations for new contracts. We are evaluating all of our current resources for possible renewal or elimination and assessing a number of other products that we may be interested in licensing for the first time. As part of this process we are doing in depth overlap studies of the aggregator products and analyzing extensive use data by Community of Interest. We also have some usability study data, and we have extensive anecdotal evidence from the reference librarians and others who are expert in the use of these products.

The differences in the current cycle of selection and negotiation and the original one six years ago are notable. We now of course have more experience with the products, including their actual performance in serving real information needs; and we have a more informed understanding of users’ needs, especially how the various needs of users in the Communities of Interest differ and overlap. This collaborative assessment of information products has been very valuable. But even more important, the successful combining of perspectives among the Communities of Interest has resulted in a more refined appreciation of just what resources best serve the overall needs of the State, regardless of sector, resulting in a more focused and better grounded negotiating position with vendors. The idea of a core set of electronic resources for all classes of users, which was doubted by some at the beginning of NC LIVE, has for the most part been proven viable.

Let me now describe briefly the technical operation of NC LIVE. In addition to licensing content, NC LIVE operates two server sites that serve as gateways to NC LIVE resources. The primary site is at North Carolina State University in Raleigh and the second site is at the University of North Carolina at Chapel Hill. The sites are fully redundant for purposes of load balancing and maintenance. A test server is also operated. The main purposes of these sites are to:
- Provide a gateway to resources for all traffic directed from the participating libraries’ web pages
- Host all NC LIVE web pages, documentation, lists and descriptions of resources etc.
- Operate a locally developed system that we call E-Z Search which allows simplified searching across all databases
- Compile information on use from all sectors
- Provide a help desk service

A total of six staff operate the two sites. The help desk operation is especially valuable in providing quicker answers and more relevant responses to questions than can be provided by the vendors. The service is also useful to vendors by offloading a number of questions or complaints that they might otherwise have to deal with. The NC LIVE technical staff also assists libraries in developing systems that provide transparent and seamless access to all electronic resources offered by the libraries, so that NC LIVE content can be part of an integrated package of offerings by each library. The NC LIVE server sites are an essential part of the project’s success, illustrating that projects such as NC LIVE can represent much more than consortial licensing of commercial information resources. The combination of consortial licensing and a focused, well-conceived technical program can result in a powerful public service.

The libraries that participate in NC LIVE vary greatly in size, mission, and clientele. For some, NC LIVE is the only electronic content available to them. For these smaller libraries and their users NC LIVE is an enormous benefit. For some other classes of libraries, such as the medium sized public and academic libraries, NC LIVE is a major supplement to their resources that provide significant content that they otherwise could not afford. For others, the largest libraries, NC LIVE allows them to redirect materials funds to more specialized research collections and databases.

As an example I will describe how this works for one of two flagship research universities in the University of North Carolina system, the University of North Carolina at Chapel Hill. In fiscal year 2003-04, UNC-Chapel Hill expended almost $12 million for library materials. Of this $2,775,000 was spent for electronic resources. We calculate that the approximate cost of licensing NC LIVE content for the University of North Carolina at Chapel Hill alone to be in the range of $500,000. Of course we would not necessarily choose to license all of this content if it were necessary to use our own funds, but I do expect that we would acquire 85-90% of the NC LIVE resources with institutional materials budgets.

In that regard, I must admit that we at the large public universities originally thought that our users would have little interest in some of the materials promoted by the public librarians, such as Novelists, a readers’ advisory product. Our experience, however, has been that our users do indeed use these materials, perhaps not as intensively as the more academic products, but it is now clear that these general, popular resources do in fact serve a need in the academic community. At the same time, public librarians have found
that the general public is more interested in some academically oriented databases than they had assumed would be the case, *PsychInfo* being one example.

At Chapel Hill, we have also found that having access to the same set of resources as public, community college, and smaller academic libraries is very useful to telephone reference services, which are provided to anyone who calls in. It also supports the state-wide chat reference service, NC Knows, by providing a baseline set of materials that we can refer any user to. It is also beneficial for our own students to have access to the same information resources they will depend on for life-long learning in their post-university lives. There are a number of unanticipated benefits of NC LIVE that derive principally from the fact that all resources are available to all classes of users.

Finally, at Chapel Hill, NC LIVE is just one of several arrangements by which the Library leverages it dollars for electronic resources. Through the Triangle Research Libraries Network, for example, we have consortial contracts for research oriented materials such as those provided by Wiley, Springer, and Cell Press (We have allowed the Elsevier group contracts to lapse and now acquire Science Direct on an a-la-carte basis). TRLN is an interesting example of a consortium of a different type—a local research library consortium with a wide range of cooperative activities of which group licensing is but one program among many. TRLN represents successful leveraging with a different set of electronic information vendors that would not be appropriate for a multi-type consortium such as NC LIVE. The UNC-Chapel Hill Library also participates in consortial agreements as far-flung as NERL, the Northeast Research Libraries Consortium, through which we acquired the Siku Quanshu database.

Thus, at UNC-Chapel Hill, access to electronic resources is delivered through a patchwork of consortial arrangements, of which NC LIVE is the core program. While individual licenses still represent the largest component of our expenditure for electronic content, collaborative arrangements have greatly extended the depth, range, and quality of what we are able to acquire with available materials funds.

As noted earlier, it is estimated that the cost of subscribing to NC LIVE content for a single library, the University of North Carolina at Chapel Hill, would be approximately $500,000. When you calculate the theoretical cost across all NC LIVE libraries—16 campuses of the University system, 75 public library systems, 58 community college campuses, and 36 private university and college campuses—it is obvious that the content licensed at the cost of $4,600,000 is a tremendous value. How does this work for the vendors of the resources licensed by NC LIVE?

The principal factor, of course, is that the large majority of libraries in NC LIVE would never be able to license this content using their own financial resources. In exchange for scattered and meager sales to a few libraries across the state, vendors serve a consolidated and much larger user base, but with greatly reduced income per library served. The commercial viability of this trade off must be determined by each vendor. Efficiencies are also realized for vendors as a result of the single point of contact for negotiation and the operation of the NC LIVE help desk. Thus, the economies of scale and consolidation
operate in both directions, for NC LIVE as well as the vendors, creating a classic “win-win” situation. It is a model that both librarians and vendors can take pride in as an endeavor that jointly creates a great public good. When this equation does not work for a given vendor, it simply does not bid for an NC LIVE contract or offers terms that will inevitably be rejected.

It would not be accurate to say the NC LIVE is an unqualified success. There are inherent problems to overcome in any cooperative program involving libraries of such varying types and sizes. There remain some prickly governance and management issues to be resolved, but great progress has been made in all areas, especially in the process of coming to agreement on the content to be licensed. This success is due to the fact that all of the communities of interest agree on an underlying common goal—to bring the widest possible range of electronic resources to all North Carolinians at the least possible cost—and that shared commitment has overcome our traditional territorial squabbles and long-standing differences of professional opinion.

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APPENDIX

NC LIVE VENDORS AND COLLECTIONS

Alexander Street Press
   North American Women's Letters and Diaries

Bowker
   Books in Print
   Patron Books in Print

Chadwyck-Healey
   African-American Poetry
   American Poetry
   English Poetry
   Faber Poetry Library
   Twentieth Century African-American Poetry
   Twentieth Century American Poetry
   Twentieth-Century English Poetry

CQ Press (enabled 2/2005)
   CQ Researcher Online
   CQ Weekly

EBSCO NoveList
   NoveList
   NoveList K-8
EBSCOhost
  Academic Search Elite
  American Humanities Index
  Business Source Elite
  CINAHL
  Clinical Pharmacology
  Communication & Mass Media Complete
  Encyclopedia of Animals
  ERIC (Education)
  Funk and Wagnalls New World Encyclopedia
  Health Source: Consumer Edition
  Health Source: Nursing/Academic Edition
  MAS Ultra - School Edition
  MasterFile Premier
  Middle Search Plus
  Military & Government Collection
  Newspaper Source
  Primary Search (Children's Magazines)
  Regional Business News
  Searchasaurus
  Serials Directory

Gale
  Books in Print with Reviews
  Expanded Academic ASAP
  Gale Virtual Reference Library
  General Reference Center Gold
  InfoTrac Custom Newspapers
  Infotrac Junior Edition
  Infotrac Kid's Edition
  InfoTrac Kids InfoBits
  InfoTrac OneFile
  Infotrac Student Edition
  LegalTrac
  Professional Custom Journals
  Scribner Writers Series
  What Do I Read Next?

Greenwood
  American Slavery: A Composite Autobiography
  Critical Companions to Popular Contemporary Writers
  Daily Life Through History
  Historic Events of the 20th Century
  Literature in Context
Grolier
America the Beautiful
Grolier Multimedia Encyclopedia
Lands and Peoples
New Book of Knowledge
New Book of Popular Science

Kiplinger
Kiplinger Finance & Forecasts

NetLibrary
24,000 Titles

OCLC FirstSearch
GPO Monthly Catalog
WorldCat

Ovid/SilverPlatter
PsycINFO (Psychology)

ProQuest Company
ABI/INFORM Archive
ABI/Inform Complete
ABI/Inform Dateline
ABI/INFORM Global
ABI/Inform Trade & Industry
Hoover's Company Records
New York Times
North Carolina Newsstand
ProQuest Newspapers
Wall Street Journal

Sanborn Maps North Carolina
Sanborn Maps North Carolina

Consumer Health Resources (free)
Centers for Disease Control and Prevention
Consumer Health Resources
Healthfinder
HealthLink Plus
HealthWeb
HIV InSite
Mayo Clinic Health Oasis
Medem
MEDLINEplus
National Women's Health Information Center
NC Health Info
NOAH: New York Online Access to Health
Oncolink: A University of Pennsylvania Cancer Center Resource
PubMed
The Division of Public Health of the NC Dept. of Health and Human Services

NC Government Resources (free)
Bills from the NC General Assembly
Crime in North Carolina (Uniform Crime Report)
Economic Development Information System
Government Employee Telephone Directory
Job Openings
Legislative Directory
NC Department of Agriculture Kid's Page
NC Public Schools Statistical Profile
North Carolina Agricultural Statistics Service

NC Government Resources (free) (cont'd.)
North Carolina Business License Information
North Carolina Community Newspapers
North Carolina Curriculum
North Carolina Driver's Manual
North Carolina Education Directory
North Carolina Encyclopedia
North Carolina Homepage
North Carolina Information Resources
North Carolina Tax Forms
North Carolina Teacher Academy
Regional Accounts Data - Local Area Personal Income
Start Squad
State Center for Health Statistics
State Data Center
State Demographics
State of North Carolina Kid's Page
Teaching Positions in North Carolina