

REFERENCE

Proceedings of the 8th Annual Federal Depository Library Conference



April 12 – 15, 1999

Library Programs Service
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**U.S. Government Printing Office
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**Library Programs Service
Gil Baldwin, Director**

**Library Division
Sheila M. McGarr, Chief**

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Holiday Inn-Bethesda
Bethesda, MD

U.S. GOVERNMENT PRINTING OFFICE
LIBRARY PROGRAMS SERVICE (OL)
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Washington, DC 20401

1999

Marian W. MacGilvray
Editor

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Agenda

DEPOSITORY LIBRARY COUNCIL & FEDERAL DEPOSITORY CONFERENCE

April 12 - 15, 1999

Holiday Inn-Bethesda
8120 Wisconsin Avenue
Bethesda, MD

Sunday, April 11

All day meeting of regional librarians

Morning

- 8:45 Welcome
- Sheila M. McGarr, Chief, Depository Services, LPS, GPO
 - Francis J. Buckley, Jr., Superintendent of Documents
- 9:00 Developing Regional Web Pages for Selectives
- Steve Beleu, Director, U.S. Government Information, Oklahoma Department of Libraries
 - Suzanne Holcombe, Assistant Documents Librarian, Oklahoma State University
 - Jan Swanbeck, Head, Documents Department, University of Florida
- 10:00 Break
- 10:30 Incorporating the NRC Legacy Collection Into the FDLP
- Elizabeth J. Yeates, Chief, Public Documents Room, U.S. Nuclear Regulatory Commission
 - George D. Barnum, Electronic Transition Specialist, LPS, GPO
- 11:15 Regional Manuals/Superseded Electronic Publications
- Daniel C. Barkley, Interim Director, Government Documents Department, University of New Mexico
- 12:00 Lunch

Afternoon

- 1:30 Videoconference: For Training and Communication
- Sandra Fritz, Federal Documents Coordinator, Illinois State Library
- 2:45 Wrap Up
- Sheila M. McGarr, LPS, GPO
- 3:00 Adjourn

Orientation

- 4:00-5:00 Orientation to the Depository Library Council and Federal Depository Library Conference
- This session is designed to acquaint first-time attendees with how Council works and to preview Conference activities over the next 3 ½ days.
- Cynthia L. Etkin, Library Inspector, LPS, GPO, Facilitator
 - Gail Snider, Library Inspector, LPS, GPO, Facilitator
- 6:00 Informal pre-dinner get-together to network by food preference

Depository Library Council & Federal Depository Conference

Monday, April 12

Morning

- 8:00 Registration and Coffee with Council and GPO Staff
- 8:30 Welcome & Remarks
- Sheila M. McGarr, Chief, Depository Services, LPS, GPO
 - Thomas K. Andersen, Council Chair
 - Michael F. DiMario, Public Printer
- 9:00 GPO Update
- T.C. Evans, Assistant Director, Office of Electronic Information Dissemination Services (EIDS), GPO
- 10:00 Break
- 10:30 GPO Update (continued)
- Gil Baldwin, Director, Library Programs Service, GPO
 - Robin Haun-Mohamed, Chief, Depository Administration Branch, LPS, GPO
 - Thomas A. Downing, Chief, Cataloging Branch, LPS, GPO
 - George D. Barnum, Electronic Transition Specialist, LPS, GPO

- 11:30 GPO Speakers: Council and Audience Q & A
- 12:00 Lunch
- Afternoon*
- 1:30-4:00 Depository Library Promotional Materials, Order Forms, and Upcoming Marketing Efforts
- Staff, Promotion & Advertising, GPO
- 2:00-3:15 Depository Library Council
- Committee Reports and Recommendations for Council Action
- 2:00-5:00 New Documents Librarians
- Informal session to answer questions from mundane to complex about depository operational issues. For new documents librarians or those who feel “new” to any aspect of depository librarianship. Veteran documents librarians from a variety of backgrounds plus LPS staff will be available.
- Vicki A. Barber, Chief, Depository Distribution Division, LPS, GPO, Facilitator
 - Sheila M. McGarr, Chief, Depository Services, LPS, GPO, Facilitator
- 2:00-3:15 Introduction to DVD
- Carol F. Cini, Associate Director, Institute for Federal Printing and Electronic Publishing, GPO
- 2:00-3:15 GPO Access (demonstration): All Databases
- Part I: Introduction and Overview
- Selene T. Dalecky, Analyst, EIDS, GPO
 - Karie T. Lew, Analyst, EIDS, GPO
- 2:00-3:00 LPS Tour
- 2:00-3:00 NOAA Central Library Tour
- 2:00-3:00 U.S. Senate Library Tour
- 2:00-4:00 STAT-USA/Internet Demonstration
- 3:15-3:45 Break
- 3:45-5:00 Partners in GIS: Establishing Partnerships to Provide Access to Government Data and Metadata to Citizens
- Kenwood E. Giffhorn, Deputy Secretary, Management and Technical Services, Pennsylvania Department of Environmental Protection
 - Maurie C. Kelly, Project Coordinator, Pennsylvania Spatial Data Access, Environmental Resources Research Institute
 - Todd Bacastow, GIS Coordinator, Pennsylvania State University
 - Christopher Pfeiffer, PASDA Metadata Specialist, Pennsylvania State University
 - Archie Warnock, Federal Geographic Data Committee Secretariat, U.S. Geological Survey
- 3:45-5:00 NTIS/GPO Depository Library Electronic Image Pilot Project
- Walter L. Finch, Associate Director for Business Development, National Technical Information Service, U.S. Department of Commerce

- 3:45-5:00 GPO Access (demonstration)
Part II: New Products and Q & A
- Selene T. Dalecky, Analyst, EIDS, GPO
 - Karie T. Lew, Analyst, EIDS, GPO

3:45-5:00 Depository Library Council Working Session

Tuesday, April 13

Morning

- 8:00 Coffee with Council & GPO Staff
- 8:30 Depository Library Council: Plenary Session
Assessment of Electronic Government Information Products: Final Report
- Woody Horton, Consultant, National Commission on Libraries and Information Science
- 9:30 Depository Library Council: Plenary Session
DOE Virtual Library of Energy, Science, and Technology
- Dr. Walter L. Warnick, Director, Office of Scientific & Technical Information, U.S. Department of Energy
- 10:30 Break
- 11:00 Building the FDLP Electronic Collection
- Judy Andrews, Electronic Transition Specialist, LPS, GPO
 - Laurie B. Hall, Program Analyst, LPS, GPO
- 12:00 Lunch

Afternoon

- 1:30-4:00 Depository Library Promotional Materials, Order Forms, and Upcoming Marketing Efforts
- Staff, Promotion & Advertising, GPO
- 2:00-5:00 Depository Library Council Working Session
- 2:00-3:15 Federal Agency Update Session, Part I
DOE Information Bridge: One Year Later
- Don Altom, Product Manager, Office of Scientific & Technical Information, U.S. Department of Energy
- 1997 Economic Census and Decennial Census
- John C. Kavaliunas, Chief, Marketing Services Office, Bureau of the Census, U.S. Department of Commerce
- STAT-USA Products
- Ken Rogers, Director, STAT-USA, Economics and Statistics Administration, U.S. Department of Commerce
- 2:00-3:15 Digitizing Collections of Government Information: Options, Processes, Costs
- Cathy N. Hartman, Documents Librarian, University of North Texas
- Electronic Resource Library of Plutonium Information: Vision and Reality (demonstration)
- Karen Ruddy, Director, Electronic Resource Library Project, Amarillo College

- 2:00-3:15 GPO Access (demonstration): Advanced Search Techniques
- Selene T. Dalecky, Analyst, EIDS, GPO
 - Karen E. Sieger, Analyst, EIDS, GPO
- Tracking Legislation through GPO Access' Congressional Databases
- Karie Lew, EIDS, GPO
- 2:00-3:15 Spreading the Riches Around: Administering Selective Housing Arrangements from the Law Library Perspective
- Robert C. Richards, Jr., Technical Services and Documents Librarian, University of Colorado Law Library
 - Sharon Blackburn, Government Documents Librarian, Texas Tech University School of Law Library
 - Martha Jo Sani, Assistant Librarian, Business Library, University of Colorado
- 2:00-3:00 LPS Tour
- 2:00-3:00 U.S. Senate Library Tour
- 3:15-3:45 Break
- 3:45-5:00 Federal Agency Update Session, Part II
- A Digital Library of the State of the Environment; How To Use on the Web and on a Web-connected CD-ROM (demonstration)
- Brand L. Niemann, Digital Librarian and Computer Specialist, U.S. Environmental Protection Agency
- Federal Emergency Management Agency (demonstration)
- Marc W. Wolfson, Public Affairs Specialist, Office of Emergency Information and Public Affairs, Federal Emergency Management Agency
- Elaws: Employment Laws Assistance for Workers and Small Businesses (demonstration)
- Roland G. Droitsch, Deputy Assistant Secretary for Policy, U.S. Department of Labor
- 3:45-5:00 PURLS: What Do I Need to Know? Working With PURLS in Your Local Catalog
- Nan L. Myers, Government Documents Librarian, Wichita State University
 - Arlene Weible, Government Documents Librarian, Willamette University
- 3:45-5:00 GPO Access (demonstration): Advanced Search Techniques (continued)
- Selene T. Dalecky, Analyst, EIDS, GPO
 - Karen E. Sieger, Analyst, EIDS, GPO
- 3:45-5:00 American FactFinder (DADS) (demonstration)
- Barbara J. Aldrich, Assistant Chief, Marketing Services Office, Bureau of the Census, U.S. Department of Commerce
 - Robert D. Clair, Senior Training Specialist, Marketing Services Office, Bureau of the Census, U.S. Department of Commerce

Wednesday, April 14

Morning

- 8:00 Coffee with Council & GPO Staff
- 8:30-12:00 Depository Library Council Working Session
Draft Recommendations and Action Items
- 8:30-10:00 Open Forum: Sales Program
- James T. Cameron, Acting Chief, Promotion & Advertising, GPO
 - Alan E. Ptak, Chief, Sales Management Division, GPO
 - Denise L. Thompson, Chief, Order Division, GPO
- 8:30-10:00 Federal Agency Update Session, Part III
National Partnership for Reinventing Government (demonstration)
- Patricia B. Wood, Web Manager, National Partnership for Reinventing Government
- O*NET (demonstration)
- Donna Dye, O*NET Project Manager, Employment and Training Administration, U.S. Department of Labor
- National Park Service (demonstration)
- David Nathanson, Chief of Library and Archives Services, National Park Service Harpers Ferry Center
- 8:30-10:00 Disasters: Plans, Clean-up, and Recovery
- Mary M. Finley, U.S. Documents Librarian, California State University, Northridge
 - Gail Fithian, Coordinator of Government Documents, Boston Public Library
 - Fred C. Schmidt, Government Documents Specialist, Colorado State University
 - Joan Loftus, U.S. Government Documents Bibliographer, Stanford University
- 8:30-10:00 Improving Quality of Documents Reference Service
- John W. Graham, Head, Public Documents and Patents, Public Library of Cincinnati and Hamilton County
 - Lillie J. Dyson, Public Libraries and State Networking Branch Chief, Maryland State Department of Education
- Web Pages for Training and Reference
- Kay Collins, U.S. Government Information Librarian, University of California, Irvine
- 8:30-10:00 Engaged Institutions: Using the Federal Depository as a Community Service to Address Regional and Community Needs
- Timothy L. Sutherland, Government Information Librarian, Indiana University, Northwest
- 10:00 Break
- 10:00-11:00 LPS Tour
- 10:00-11:00 Library of Congress Serial and Government Publications Division Tour

- 10:00-11:00 National Library of Medicine Tour
- 10:00-11:00 NOAA Central Library Tour
- 10:30-12:00 USDA Digital Publications Preservation Framework
- Pamela Q. André, Director, National Agricultural Library, U.S. Department of Agriculture
 - Donald Waters, Director, Digital Library Federation, Council on Library and Information Resources
- 10:30-12:00 How to Manipulate Federal Bulletin Board Files
- Greta J. Boeringer, Documents Librarian, Pace University Law Library
 - James M. Mauldin, Publications Management Specialist, LPS, GPO
 - David J. Nuzzo, Acquisitions Librarian, State University of New York at Buffalo
- 10:30-12:00 Hints on Writing the GPO Self-Study
- Stephen Henson, Documents Librarian, Louisiana Tech University
 - Gail Snider, Library Inspector, LPS, GPO
- 10:30-12:00 GPO Access Open Forum
- T.C. Evans, Assistant Director, EIDS, GPO, Facilitator
- 10:30-12:00 FDLP Administration Web Pages (demonstration)
- Joseph P. Paskoski, Analyst, LPS, GPO
- 12:00 Lunch
- Afternoon*
- 2:00-5:00 Depository Library Council Working Session
- 2:00-3:15 Atlas of Knowledge Project: Further Opportunities for Digital Community Information Building
- John A. Shuler, Head, Documents Department, University of Illinois, Chicago
 - Eliot J. Christian, U.S. Geological Survey
- 2:00-3:15 Federal Agency Update Session, Part IV
Department of Veterans Affairs (demonstration)
- Walter R. Houser, Webmaster, U.S. Department of Veterans Affairs
- National Climatic Data Center (demonstration)
- John Hughes, Outreach Coordinator, National Climatic Data Center, National Oceanic and Atmospheric Administration
- National Cancer Institute
- Nancy Brun, Chief, Information Resources Branch, National Cancer Institute
- 2:00-3:15 CD-ROMs in a Webbed World
- Cynthia L. Etkin, Library Inspector, LPS, GPO
- 2:00-3:15 Future Colleagues: Documents Education in Library and Information Science Programs
- Timothy C. Hartnett, Associate Librarian, Plattsburgh State University
 - Judith S. Robinson, Associate Professor, School of Information and Library Studies, State University of New York at Buffalo
 - Cassandra Hartnett, U.S. Documents Librarian, University of Washington
 - William Sudduth, Reference Librarian, University of Richmond

- 2:00-3:15 GPO Access (demonstration): All Databases
Part I: Introduction and Overview
- Selene T. Dalecky, Analyst, EIDS, GPO
 - Karie T. Lew, Analyst, EIDS, GPO
- 2:00-3:00 LPS Tour
- 2:00-3:00 National Library of Medicine Tour
- 2:00-3:00 U.S. Senate Library Tour
- 3:15-3:45 Break
- 3:45-5:00 Federal Agency Update Session, Part V
Bureau of Labor Statistics (demonstration)
- Deborah P. Klein, Associate Commissioner for Publications and Special Studies, Bureau of Labor Statistics, U.S. Department of Labor
- Bureau of Justice Statistics (demonstration)
- Kathleen Quinn, Project Supervisor, Bureau of Justice Statistics Clearinghouse
- National Center for Education Statistics (demonstration)
- Gerald Malitz, Webmaster, National Center for Education Statistics, U.S. Department of Education
- 3:45-5:00 The Ins and Outs (Literally) of Documents Processing
- Vicki A. Barber, Chief, Depository Distribution Division, LPS, GPO
 - Robin Haun-Mohamed, Chief, Depository Administration Branch, LPS, GPO
- 3:45-5:00 Tools Persons with Disabilities (PWD) Use to Interact with the Web
- Robert Neff, Intranet Project Manager, U.S. Mint
 - Joseph Roeder, Access Technology Specialist, National Industries for the Blind
 - David Poehlman, Independent Consultant in Information Technology Access by PWD
 - Jeffrey Pledger, President, Able Channel
 - Mark Hakkinen, President, Productivity Works, Inc.
 - Ray Ingram, Vice-President, Productivity Works, Inc.
- 3:45-5:00 GPO Access (demonstration)
Part II: New Products and Q & A
- Selene T. Dalecky, Analyst, EIDS, GPO
 - Karie T. Lew, Analyst, EIDS, GPO

Thursday, April 15

Morning

- 8:00 Coffee with Council & GPO Staff
- 8:30 Partnerships on the Web: FDLP Partnering to Provide Access to Electronic Resources
FDLP Partnerships: Origins and Underlying Issues
- Duncan M. Aldrich, Head, Business & Government Information Center, University of Nevada, Reno
- DOSFAN: Launching the Partnership System
- John A. Shuler, Head, Documents Department, University of Illinois, Chicago
- Constructing a Partnership: Nuts and Bolts Perspective
- Donna P. Koeppe, Head, Government Documents & Maps Library, University of Kansas
- GPO and FDLP Partnerships: Coordinator's Perspective
- George D. Barnum, Electronic Transition Specialist, LPS, GPO
- 10:00 Break
- 10:30 Depository Library Council: Plenary Session
Report of Draft Recommendations and Action Items (including audience response and comments)
- 11:30 Closing Remarks
- Michael F. DiMario, Public Printer
- 12:00 Adjourn

Developing Regional Web Pages for Selectives

Suzanne Holcombe

Oklahoma State University
Stillwater, OK

Steve Beleu

Oklahoma Department of Libraries
Oklahoma City, OK

Our regional depository Web sites should include information for the selective depository libraries that we are responsible for assisting. In states like Oklahoma in which there are two regional depository libraries, we suggest a "one-stop shopping" approach in which selectives can access one Web site for services and resources available to them from both regionals. Each regional continues to maintain its own Web site. Another option is to put a link on the regional's Web site pointing to pages listing services and resources for its selectives.

We will look at and suggest for your use some of the features that could be placed on such a Web site or Web page. These include features on Web sites that have been developed for serving selectives (I) and noteworthy links on regional Web sites in general (II-III).

In January and again in March we attempted to survey the Web sites of every regional depository. In most cases we successfully reached the right page. But there were a few cases in which we could never find a regional page. So our first obvious suggestion is this: your department page should be available on the first level of your institution's Web site if at all possible; if not, have it accessible on the second level. But if a selective has to navigate down to a third level or beyond to search for your page, you may as well forget about it: nobody will find it.

1. The joint Oklahoma State University / Oklahoma Department of Libraries and the University of Kentucky Libraries Regional Web pages are sites that have been developed to serve their selectives.

[http://regdocs.okstate.edu/
www.uky.edu/Libraries/deprds.html](http://regdocs.okstate.edu/www.uky.edu/Libraries/deprds.html)

Following are current features of these Web sites, and ones that we recommend for a regional site serving its selectives.

OK State University Library (OSU) / OK Department of Libraries (ODL)

1. Links to the general pages of OSU and ODL and access to government information on the Internet
2. A map of the Federal depository system in Oklahoma, with directory information keyed to the map
3. Discard list guidelines for our state
4. A gateway to GPO Access
5. Information about the OKDOCS-L listserv
6. Federal information guides in PDF format
7. Links to the Federal Depository Library Program Administration
8. Links to Federal depository library information
9. The Oklahoma State Plan for the FDLP
10. Online articles
11. Information about the Oklahoma Library Association's GODORT
12. A meeting calendar
13. A "Contact Your Congress" link so that depository librarians can easily lobby their

Congressional representatives about legislation that affects them

Upcoming features will include a news section and a guide about Native American resources in Oklahoma's depository libraries.

University of Kentucky Libraries

1. Government Information Gateway
2. Location map of Federal Depository Library Community Libraries in Kentucky
3. U.S. Government Resources
4. Kentucky State Plan
5. Exchange List Guidelines
6. Collection Development Policy
7. Federal Depository Library Program Administration
8. "Let's Talk Documents" newsletter

II. Notable features of Regionals' Web sites. We recommend these types of features to include on a Regional Web site serving its selectives or on Web pages for selectives.

1. State plans
Louisiana State University
www.lib.lsu.edu/govdocs/laplan2.html

OK State University Library / OK Department of Libraries
<http://regdocs.okstate.edu/statpln.html>

University of Kentucky
www.uky.edu/Libraries/dep.html

2. Discard / exchange list regulations
OK State University Library / OK Department of Libraries
<http://regdocs.okstate.edu/discard.htm>

University of Kentucky
www.uky.edu/Libraries/depelg.html

University of Minnesota
www.lib.umn.edu/gov/disposal.html

3. Local listserv information
OK State University Library / OK Department of Libraries
<http://regdocs.okstate.edu/listserv.htm>

University of Minnesota
www.lib.umn.edu/gov/minndocs.html

4. Directory of depositories within state
Louisiana State University
www.lib.lsu.edu/govdocs/director.html

New Mexico State Library
www.stlib.state.nm.us/gpo/gponmlib.html

Newark Public Library
www.npl.org/Pages/Collections/njdepositories.html

North Dakota State University
www.lib.ndsu.nodak.edu/govdocs/nddeplib.html

OK State University Library / OK Department of Libraries
www.odl.state.ok.us/usinfo/usdepsys.htm

University of Georgia
www.libs.uga.edu/govdocs/listlb98.html

University of Kentucky
www.uky.edu/Libraries/depframes.html

University of Minnesota
www.lib.umn.edu/gov/fedmn.html

5. Newsletters
University of Kentucky—"LTD: Let's Talk Documents"
www.uky.edu/Libraries/dep ltd.html

6. Identification of Federal information in the news
University of Memphis—"Hot Docs in the News"
www.lib.memphis.edu/gpo/hotcool.htm

7. Link to the University of Memphis' "Migrating Government Publications" www.lib.memphis.edu/gpo/mig.htm
Many regionals.
 8. A map of depositories within their state
OK State University Library / OK Department of Libraries
www.odl.state.ok.us/usinfo/usdepsys.htm

University of Kentucky
www.uky.edu/Libraries/depframes.html
 9. Links to the Federal Depository Library Program Administration
Many regionals.
 10. Links to Federal depository library information
Many regionals.
- III. Other notable features of Regionals' Web sites
1. Links to various Federal information sources, including a link to "Resources of Use to Government Documents Librarians" from the University of California at Berkeley at <http://library.berkeley.edu/GODORT/>
Many regionals
 2. Links to the National High School Debate Topic
University of Kansas
www.ukans.edu/cwis/units/kulib/docs/debhome.html
 3. Gateways to GPO Access and other Federal information sources
Many regionals
 4. Government information search engines
University of Colorado at Boulder
www-Libraries.colorado.edu/ps/gov/gd/search.htm
- University of Georgia
www.libs.uga.edu/govdocs/internet.html
 5. Links to Web sites of other depositories
Louisiana State University
www.lib.lsu.edu/govdocs/ladeposi.html

University of Idaho
www.lib.uidaho.edu/govdoc/otherdep.html#ID
 6. Bibliographies and guides, including links to the "GODORT Handout Exchange"
Auburn University
www.lib.auburn.edu/madd/docs/docbib.html
 - University of Colorado at Boulder
www-Libraries.colorado.edu/ps/gov/gd/search.htm

University of Georgia
www.libs.uga.edu/govdocs/guides.html

University of Memphis
www.lib.memphis.edu/gpo/refgde.htm
 7. Their own regional collection development policy
University of Kentucky
www.uky.edu/Libraries/depcoldev.html
 8. A map of the regional depository within their city
University of Colorado at Boulder
www-Libraries.colorado.edu/ps/gov/map.htm

University of Minnesota
www1.umn.edu/tc/around/directions-mpls.html
 9. Descriptions and lists of CD-ROMs
Auburn University
www.lib.auburn.edu/madd/docs/cdlist.html

University of Georgia
www.libs.uga.edu/govdocs/microdat.html

10. Electronic information citators
University of Colorado at Boulder
www-Libraries.colorado.edu/ps/gov/gd/cite.htm
11. Links to election information Web sites
University of New Mexico
www.unm.edu/~govref/election.htm
12. Freedom of Information (FOIA) Reading Room link
University of New Mexico
www.unm.edu/~govref/foia/index.html
13. Information on historical Federal publications about their state
Newark Public Library
www.npl.org/Pages/Collections/retrodocs.html
14. Information on current Federal publications about their state
New Mexico State Library (project is currently under development).
www.stlib.state.nm.us/gpo/gpomain.html
15. Lists of Federal agencies whose depository publications the regional receives—recommended for states with a shared regional such as North Dakota
North Dakota State University
www.lib.ndsu.nodak.edu/govdocs/govndsu.html

University of North Dakota
www.lib.ndsu.nodak.edu/govdocs/govund.html

Four Powerful Features of the University of Memphis Web Site:

Home of “Migrating Government Publications”
www.lib.memphis.edu/gpo/mig.htm

“Hot Documents in the News”
www.lib.memphis.edu/gpo/hotcool.htm

“Internet Resource Guides” (subject guides to Federal info)
www.lib.memphis.edu/gpo/refgde.htm

“Instructional and Class Resources”
(information for classes at the University; an electronic reserve room)
www.lib.memphis.edu/gpo/class.htm

FEFDL: Florida Electronic Federal Depository Library

Jan Swanbeck
University of Florida
Gainesville, FL

In April of 1998 the Documents Department of the University of Florida submitted a grant proposal to the State Library of Florida (LSTA) to fund the creation of the Florida Electronic Federal Depository Library. The stated need for this Web page was: *Equitable, no-fee access to Federal Government information for all citizens of the State of Florida.*

An analysis of the location of the Federal depository libraries in Florida showed that the citizens of the State of Florida do not have equal access to a depository library. Of the 67 counties in the State, less than one third have a depository library within their boundaries. One half of all the depositories in the State are located in 5 counties. Citizens in counties without depository libraries in Florida, most of them rural areas with a low income population, must travel a great distance to reach the nearest Federal depository library, pay for a long distance phone call, or depend on interlibrary loan from their local library.

An examination of the widely varying percentages of available Federal publications selected by depository libraries in Florida points out additional inequities in access to Federal information. Citizens of Putnam County have access to only 8% of the Federal publications distributed by the Government Printing Office. Citizens of Alachua County and Leon County, on the other hand, have close to 100% of the information readily available.

While the Federal Depository Library Program was created to ensure equal access to Federal

information, the reality for the citizens of the State of Florida is quite different. Access varies according to proximity to a depository library and the completeness of the depository library's holdings. An additional factor impacting equality is the migration of Federal publications to the Internet. The lack of a statutory obligation to make this information available to depository libraries has created an untenable situation. Library staff and users are dependent on unsatisfactory search engines, which return thousands of hits and databases such as GPO Access, which have only a portion of available Federal information.

FEFDL (Florida Electronic Federal Depository Library) was the proposed solution. This free, one-stop Web interface will provide:

- Access to 100% of the Federal publications distributed to depository libraries
- Single source of links to thousands of Federal Web sites
- Easy to use subject index
- Search capability
- Clickable map of Florida to find nearest Federal depository library along with a listing of county libraries with electronic contacts (e-mail and Web pages) and information about school districts and county government

- Interactive electronic services such as interlibrary loan, reference, and duplication requests
- Federal statistical data for the State of Florida in GIS format

The primary rationale used in the grant proposal came from the State Library's long-range plan ACCESS FOR ALL which states: "Ninety-five percent of public library outlets will have direct digital public access with full graphical interface to the Internet/World Wide Web by 1999." FEFDL would provide access to Federal information in 95% of the libraries in Florida.

The site would have a link to the University of Florida's online catalog, which has bibliographic records for 10% of the documents distributed to depository libraries since 1976. A patron will be able to initiate a request for the material directly via e-mail or use the holdings information for other depository libraries in the State to find a closer location. The site will also provide a link to GPO's sales program, enabling citizens to order material online.

The proposal goes on to state that Federal information migrating to the Internet is not cataloged and libraries can no longer depend on traditional access points. FEFDL is described as an attempt to establish bibliographic control of this electronic material for the entire state. The effort is likened to the development of OCLC, a cooperative cataloging project established to prevent duplication of effort. This site will hopefully prevent every library in the state from attempting to create links to the same Web pages for Federal information.

The proposal went on to describe some added benefits such as publicity for the Federal Depository Library Program, the provision of geographic representations of frequently requested Florida county statistical data, and

no cost, rapid communication among the 40 depositories in Florida. In reality, the depository administration benefit was one of the driving forces of this grant. This is not a convincing argument, however, for a State Library, which does not normally fund academic institutions. In fact, no one could remember exactly when the University of Florida had last had a proposal funded by the State.

Happily, the grant was funded and we are now half way to the completion date. We are not, however, half way to completion.

Not surprisingly, things have not gone as smoothly as described in the proposal. Getting the funds transferred to the correct account was a nightmare. At one point it had been placed in another department's account but fortunately these kind people brought it to the Library's attention. Ordering the hardware has been equally as difficult. The original specs called for an NT Server but the Head of Systems in the end insisted on Linux. This was very ironic because the proposal had originally been written for a UNIX server in order to accommodate the GPO Gateway software.

The bulk of the funding was for staff. Currently two graduate students are working ten hours a week. One, a geography graduate student, is creating the county maps using ArcView. The other, a computer science graduate student, is creating the county links.

One aspect of the grant, the publicity phase, has not been addressed at all. As outlined in the proposal, this will involve a mailing to all public libraries in the state, articles in appropriate newsletters, and a detailed announcement on the Florida public library list-serv. This is, by far, the most critical component of the grant. If people don't know about our page it may as well not exist. The final task will be the mailing of a survey to all Federal depositories and public libraries in the State to determine if they have linked to FEFDL

and if they have evaluative comments to share on its content. This will tell us in no uncertain terms if our efforts were worth it!

Check out our progress at:
<http://depo.uflib.ufl.edu>.

Incorporating the NRC Legacy Collection into the FDLP

George Barnum

U.S. Government Printing Office
Washington, DC

Elizabeth Yeates

Nuclear Regulatory Commission
Washington, DC

U.S. Nuclear Regulatory Commission (NRC)

Mission: To ensure that nonmilitary uses of nuclear materials in the United States are carried out with proper regard for the protection of public health and safety. NRC accomplishes its mission through:

- licensing the construction, operation, and decommissioning of commercial and research nuclear reactors, nuclear fuel cycle facilities, and uranium enrichment facilities;
- licensing the possession, use, processing, and exporting of nuclear materials, including certain aspects of transporting and disposing of nuclear materials and wastes;
- licensing the siting, design, construction, operation, and closure of low-level radioactive waste disposal sites and a geologic repository for high-level radioactive waste;
- safeguarding nuclear materials and facilities from theft, damage, and sabotage;
- supporting U.S. national interests in the safe use and nonproliferation of nuclear materials; and

- conducting inspections and developing and enforcing regulations governing these activities.

The NRC Public Document Room

Mission: To facilitate the public's access to NRC publicly available documents.

Through its comprehensive document release policies, the NRC has made available more than two million documents for public viewing and copying in the Public Document Room (PDR) since its transfer to NRC from the former Atomic Energy Commission (AEC) in 1975. The holdings include documents from the regulatory activities of the AEC.

PDR librarians assist members of the public in defining their information needs; and in identifying, evaluating, and accessing relevant NRC documents from various resources (PDR collections, GPO, Web, distribution lists, etc.)

The NRC Local Public Document Rooms (LPDRs)

Mission: To give citizens living or working near nuclear power reactors and certain other nuclear facilities access to the records used by the NRC in licensing and regulating those local facilities.

Documents made publicly available in 1981 and thereafter are represented in the majority of LPDRs as 48X microfiche (referenced as "1981 + 48X microfiche").

LPDRs are situated in academic, public, and State libraries. There are currently 86 LPDRs and 73 of these have the 1981 + 48X microfiche collections. Reference support to the LPDRs is now provided by the PDR.

Agency Documents Access And Management System (ADAMS)

Definition of ADAMS

The policies, processes, and software tools to manage unclassified, official program and administrative records of lasting business value to the NRC in an electronic rather than paper based environment.

Importance of ADAMS

- Will be installed on the desktop of every employee
- Natural tool that will be used in everyday work: like the telephone or e-mail
- Each employee and the NRC will achieve productivity gains with its use
- It will improve communication within the NRC and with licensees and other stakeholders
- Will make public documents available to the public via the Internet
- Submittals to the NRC can be in electronic form via the Internet (in lieu of paper)

LPDR Host Library Responses to NRC Request for Non-Binding Indication of Interest in Retaining 1981 + 48X Microfiche Collections after Proposed Termination of NRC Funding

71/73 had responded by April 2.

54/71 (76%) replied affirmatively, 17/71 (24%) replied negatively.

22/24 (92%) selective depository libraries responding replied affirmatively; 2 (8%), negatively. (2 selective depository libraries have not yet responded.)

5/6 (83%) Regional depository libraries replied affirmatively- 1 (17%), negatively.

Of 34 states* currently with one or more of these collections (from a total of 38 states with LPDRs), 5 do not have a library indicating interest in retaining a collection (Iowa, Maryland, Minnesota, Mississippi, and Vermont). The Maryland and Vermont nuclear facilities are within 50 miles of, respectively, the NRC Public Document Room and a Massachusetts library indicating interest in retaining a collection.

* (AL, AR, AZ, CA, CT, FL, GA, IA, IL, KS, LA, MA, MD, ME, MI, MN, MO, MS, NC, NE, NH, NJ, NV, NY, OH, OR, PA, SC, TN, TX, VA, VT, WA, WI)

GOAL:

Permanent Retention of at least One (1) 1981 + 48X Microfiche Collection in Each State Currently Holding One

Options:

Regional depository libraries, strategically placed, assume the 17 rejected collections?

Regional depository libraries develop Selective Housing Agreements with one or more libraries retaining the collections?

Videoconferencing

Sandra Fritz
Illinois State Library
Springfield, IL

I have been asked to give a talk on videoconferences, and while I am more than happy to do this, I can only tell you what we do in Illinois. Please remember that what you do in your own states and agencies will vary. My perspective is from a State Library in the Midwest. Our abilities will not be the same as yours. I plan to tell you three things:

1. How conferences are organized in Illinois.
2. Personal experiences
3. Do's and don'ts of videoconferences as we have experienced them in Illinois

How Conferences Are Organized

The Illinois State Library has been doing videoconferences since 1992. Our teleconferencing is not solely limited to government information. As a matter of fact, we have only done one dedicated solely to government information, mainly GPO Access, though documents have been included in other videos dealing with reference work.

The videoconferences have covered a variety of subjects. Past conference titles have included "Promoting Libraries: Telling Your Story to the Media and Public," "The Road Less Traveled: The Americans with Disabilities Act," "First Step in Digitizing," "Back to Basics: Kids and Reading," and "Grants and Grantmanship: How to Design a Successful Grant Application."

The Illinois State Library has sponsored over 35 videoconferences since 1992. The idea is to get the information out to the library community statewide. The best way to do that

seemed to be the use of teleconferencing. We found this to be a very beneficial and cost effective way of reaching many members of our library community.

All of the money is provided by the State Library. Funds are budgeted to produce four to six conferences a year, and, due to the success statewide, there has been no problem getting funds for the conferences.

There is one thing that is most important to realize before the library can sponsor a conference or allow them to be shown at various locations throughout the state. There can be no cost to the user. The entire cost is fronted by the State Library.

The conferences are shown in locations throughout the state. We also have taped them for posterity, and the videos can be borrowed through interlibrary loan. The conferences happen because the State Library has the cooperation of the Illinois Information Services agency. This agency tapes the video footage and runs the show when it is live.

Most of our conferences have taped and live footage. This can prove to be a challenge but it seems to work best.

The person at the Illinois State Library who organizes and coordinates the conferences, and thus keeps all of the statistics and contact information, is Jill Heffernan. Jill is the administrative assistant in the Library Development section of the library. I have included her e-mail and phone number on the handout so you can contact her with any

questions you may have that go beyond my scope today.

Library Development is primarily responsible for videoconferencing at the State Library. They are in charge of organizing the conferences, coming up with the ideas and carrying them through. More importantly, the money comes out of their budget.

Now to get the statistics out of the way. I have been given information on 27 of the videoconferences sponsored by the State Library. Please be aware that this information is not completely current, it is just used to give you some idea of the costs involved. The average cost of sponsoring a conference has been around \$2,256.00, with the highest price paid of \$3,585.69 and the lowest being \$1,562.50. The average cost per viewer has been \$6.30 (about the price of a movie in Springfield), the high being \$13.98 and the low being \$2.37.

The average number of attendees is 412. The lowest number attending was 135 (that was early on in the records) and the most so far has been 903. The average number of downlink sites is 27, with the most being 32 sites. I will get to that just a little bit later.

This is basically how it works. Development checks the calendar and chooses the dates. Right now their goal is to do six a year, three in the spring and three in the fall. They do not do them in the summer because they feel they will lose the school librarians, and the goal is to reach as many librarians in the state as possible.

Next they contact the "satellite guys" over in the Illinois Information Services office. They confirm the dates with them and then move on to publicity. I am not very good at this next part and if you have any real "technical" questions, I would contact Jill, but here goes. They choose their downlink sites. The sites must have a satellite that is KU Band capable

and they must do it free of charge to the State Library as well as the attendees. The only thing I know about KU Band capable is that is the width of the broadcast signal. To find out more please ask your own technical specialist.

Jill then sets about getting the sites for registration and typing up the form. Every library in the state gets information about the conference. The list covers about 4,000 people, including some 20-30 people outside of Illinois who have asked to be put on the mailing list. The information is also put out on our Web site at <www.library.sos.state.il.us/>. I have included that on the handout as well.

People are asked to mail, e-mail or fax their confirmation. The downlink sites have a code that is given to them by Development. The code number is also a way to know when a site is calling in with a valid question. We know it is from a registered site and where that site is.

Some people receive the conference through cable access channels or can receive the videotape through interlibrary loan. The list of conference titles can also be found on our Web page.

The final process is an evaluation form. Jill compiles the information including any suggestions for future programs or topic areas.

Our videoconferences have reached over 11,000 people, with an average audience of around 412 people. We have been contacted by many people outside of Illinois, including people from Texas, Colorado, California, Virginia, Michigan, Missouri and Florida. Lest you think we are limited to the people of the United States, we have heard from people in Ireland, Australia, Canada, South Africa and the Virgin Islands.

We have already done two conferences this year. Our first one was entitled "Metadata." Our second "Partnerships for the Future:

Librarians and Vendors Working Together” was in March with our next conference, the “4th Annual Trustee Satellite Videoconference: Legal Issues dealing with Library Trustees” on April 24. There are four more in the process of being planned this year.

Personal Experiences

As you probably know, a great deal of work goes into what some might call a little two hour videoconference. It may look easy but believe me it is not. I don't have any statistics to back up what I am about to say, but it takes an average of 10-12 hours of work for every half-hour on tape. Depending on how you work it or what your conference entails, you may have a great deal of writing to do or if you have more of a “live” format, you will need to have conference calls, and plenty of time for electronic mail.

What I am going to do now is talk about planning and implementing a videoconference. I will share my own experiences as well as those of two other members of the Illinois State Library staff who have planned these conferences. They are Anne Craig, head of our new Digital Imaging Program at the State Library who recently completed a conference on Metadata, and Barbara Alexander, network consultant at the State Library. Some of you may know Barb, as she was the Federal documents librarian at Illinois State University before joining us at the State Library. Barb has been heavily involved in the most recent conferences sponsored by the library.

Let's start with me since I know me best. In 1995, I was called by my supervisor to help brainstorm some ideas for a videoconference on technology. I have a background in local theater and tend to be somewhat of a goofball at work. Perhaps these are the qualifications necessary to begin a career with teleconferencing, I don't know.

Anyway, three of us sat around and came up with some ideas. What resulted was “The Technology Game” videoconference. We came up with a game show idea and based it on Jeopardy! Our host was Dick Dos, and we had three contestants. We bullied three other members of the staff to be the contestants, and the game begins.

We came up with questions and answers, some correct, some not, some funny we hoped, and some probably not. When the question was answered, we cut away to the two “geeks” who took the question and answered it in greater detail. It covered the basics; it was 1995, after all. After the script was approved, we went to the studio to film it.

We had it all: TelePrompTers, lights, cameras, microphones, the highest quality of sets and props. The podiums were made out of plastic with little hotel clerk bells. We were warned not to hit them too hard as they may fall over, and, let me just say, one did. One woman hit the bell with great force and saw it go falling through the plastic down to the ground. Needless to say a cut was necessary. The other blooper that needed a cut dealt with Dick Dos and the answer of hard disk drive.

The filming of little two to three minute segments took all day long. The geeks had the look of being in a lab, this was done with some special effects from the studio guys. One word of advice: stay on the good side of these guys. They can make ya or break ya.

You can come up with an idea, and they can come up with better ones. They have the wizardry and know-how to improve on what you already have written and can be helpful in lending a prop or two.

I was not involved with another conference until 1996 when we had a our re-inspection. Since we had personnel coming from GPO (Sheila), it seemed the perfect opportunity to do a conference on government information

and to use her knowledge for a videoconference. So we combined the geeks from the "Technology Game" and, after some brainstorming, with a superhero character we called "GPO Man."

He could help a floundering librarian answer a Federal question in a single bound. GPO Access was his greatest tool, and at the time, GPO Access was new. We cooked up some scenarios for GPO Man to come and rescue the information specialist. We had Dorothy Gale from Kansas seeking information on Bob Dole. We had a Russian spy ask for CIA documents, and a CIA agent getting some help from the Economic Report of the President.

When the librarian gave a cry for help, she called for GPO Man who came zooming in. I will now show you a clip or two from the videoconference including the stunningly attractive GPO Man. Needless to say, our GPO Man was not too thrilled with his costume but at least he doesn't wear tights!

After the somewhat amusing skit humor, we had a question and answer session. When you have a Q&A, it is necessary to come up with questions on your own in case nobody calls in. As you know, you can talk to a whole room and not have anybody ask any questions. It's bad enough when this happens in a room full of people but when this happens in a videoconference, you have dead air, which nobody likes. I recommend that you have a few members of your staff that are not "on camera" to call in with questions you have previously written up and hope that this sparks questions for those watching.

Our GPO conference seemed to be quite popular and one response told us GPO Man was dreamy. OK, it was John Shuler, but it was funny nonetheless. The filming and script writing took up a great deal of time. Once again, it takes a great deal of work to pull off a two-hour show. The first hour of the conference was prerecorded at the State Library

over two evenings. The second hour was a live panel discussion with the documents coordinator, Jim Edstrom, as moderator.

I will also give you a warning that, while you should have a core group who writes your script, leave a person or two to critique your work when it is done. As you probably know, after a while it all seems funny to you and also seems to make sense, when that may not be the case.

The third and final conference I have been involved with was called "Strengthening Your Strategy: Advanced Techniques for Reference on the Web." We wised up a little on this one and went beyond our own resources for assistance. This proved to be one of our most successful videoconferences, due partly to the subject matter. 903 people tuned into this one. We received calls from around the country as well as Ireland and Australia for this one.

The conference dealt with the different types of search engines on the Web and the strengths and weaknesses of each. Anne Craig coordinated with other members of ILLINET, our statewide library network, to come up with scenarios about using different search engines. She posted messages to our statewide reference list-serv to get a fresh perspective from people outside the State Library. Since we are a special library, it was useful to have input from academic and public libraries.

Combining the scripts of different people proved to be a challenge. While the whole burden of writing the script did not fall to us, we had to be sure it was something we could film in one or two evenings and that the scripts would address the questions we were asking. For the most part, it worked out well. We did come up with a problem or two in filming.

For most of the scenes someone who worked at the State Library was the "librarian." Since we were familiar with the space and had done a conference before, it would be a little easier

when it came to filming. One of the people we had write a scenario did so and scripted himself as the librarian which was fine, we figured that we wouldn't have to worry about it because he would know it because he had written it. WRONG!

When it came time to film, this person decided that each time he did the scripted search, he would search it in a slightly different manner. It seemed to us, that he did not realize that this was not a real reference interview, but a scripted one with a beginning, middle and end and a point to make. It was very difficult to edit his section into anything usable because he did not repeat himself. Otherwise, it was a relatively painless shoot; we even did a few commercials for search engines like Excite and Yahoo!

This was the last conference I was directly involved in. I have talked to others who have done them recently and now I would just like to share with you some of the do's and don'ts of videoconferences as we have discovered in our seven years of doing them.

DO

- Use humor
- Rehearse as much as you can
- Get your PowerPoint or whatever presentation you are using to your technical people a few days ahead of the conference
- Be on good terms with your technical people. They make or break you.
- If using a panel discussion, give each member a "moment" to shine.
- Get a good moderator
- The more specific the topic the better the conference

- Screen your phone calls
- Use a change of pace: Nobody wants to see 2 hours of talking heads
- Keep it to two hours. The attention span will wander

DON'T

- Revise or improve your script on a daily basis
- Wait for the Internet to load. Use a canned demo for filming
- Leave things to chance: script as much as you can, but leave a little room for improv
- Leave time for "dead air"
- Wait till the last minute; it will show

A few of the other lessons learned are, no matter how good a public speaker your presenter is, there is a difference between public speaking and on camera speaking. Given the limitations we sometimes encounter, i.e., we are not a Hollywood studio, big movements and wandering around the room are not kosher on camera. Your movements are limited. Remember you are reaching a large group but the camera is the one person to whom you are talking.

If possible, try to get someone experienced. Life is so much easier when you have someone who knows what they are doing. Good organization skills are a must as well.

Remember, there is work to do after the conference. Thank you notes, and in our case, we send tapes out to the participants. There are follow-ups to do and evaluation forms to assess.

Remember the difference between tape and live broadcasting. With videotape, you can

film it more than once and if worst comes to worst, you can edit. This is not possible with live on camera work as any blooper television show can attest.

Believe your would-be speakers if they tell you that they a) aren't any good on camera, b) are shy about being on camera, or c) are not good public speakers.

We have had folks in our tapes who have not felt comfortable on camera and believe me it shows! Once you get through the normal, "oh, not me, I can't!" to the really serious, "NO REALLY!", believe them. Your conference will be better for it.

To the best of your ability, try to get compatible people for a panel discussion. When your panel members clash, your live

discussion will pay the price. Sometimes, of course, this cannot be avoided. In the preliminary, try to feel out your panel members as much as possible.

Satellite time is expensive, so use it!

Something is going to go wrong, so **BE PREPARED** and don't let it upset the apple cart.

In conclusion, I would say, get a good group together, have a solid idea and have fun with it. It is a learning process. The Illinois State Library has sponsored many conferences and lessons are learned on each one. Be open and learn. It has been an excellent way to communicate throughout the state and reach thousands of people with technology that is readily available.

Introduction to DVD

Carol Cini

U.S. Government Printing Office
Washington, DC

DVD started out standing for Digital Video Disc, then Digital Versatile Disc, and now it's just plain old DVD. It is essentially a bigger and faster CD that is being promoted for entertainment purposes (movies) and some computer applications. It will eventually replace audio CDs, VHS and Beta tapes, laserdiscs, CD-ROMs, and video game cartridges as more hardware and software manufacturers support this new technology.

DVDs and CDs look alike. A CD is a single solid injected molded piece of carbonate plastic that has a layer of metal to reflect data to a laser reader and coat of clear laminate for protection.

DVD is the same size as a CD but consists of two solid injected molded pieces of plastic bonded together. Like CDs, DVDs have a metalized layer (requires special metalization process) and are coated with clear laminate. Unlike CD's, DVD's can have two layers per side and have 4 times as many "pits" and "lands" as a CD.

There are various types of DVD, including DVD-ROM, DVD-Video, DVD-Audio, DVD-R, and DVD-RAM. The specifications for these DVD's are as follows: for prerecorded DVD's; Book A - DVD-ROM, Book B - DVD-Video, and Book C- DVD-Audio. For recordable DVD's, there is Book D - DVD-R, Book E - DVD-RAM. The official DVD specification books are available from Toshiba after signing a nondisclosure agreement and paying a \$5,000 fee.

The storage capacity of a DVD in relation to a CD is immense. For prerecorded DVD's, the

storage capacity is as follows: DVD-5 (1 side, 1 layer) 4.7 Gb, DVD-9 (1 layer, 2 sides) 8.5 Gb, DVD-10 (2 sides, 1 layer) 9.4 Gb, and DVD-18 (2 sides, 2 layers) 17 Gb. For recordable DVD's, the capacity as of today is as follows: DVD-R, 3.8 Gb per side, and DVD-RAM, 2.6 Gb per side.

Now, let's take a look at each type of DVD, starting with DVD-Video. A DVD-Video can hold up to 17 Gb of video. However, no one to date has produced a DVD beyond a DVD-9, which holds up to 270 minutes of high quality video using MPEG2 compression. DVD-Video also supports up to 8 tracks of digital audio including Dolby Surround Sound. I will demonstrate the multi-language capabilities at the end of the presentation by having Mel Gibson speak perfect French.

DVD-Video also supports up to 32 subtitles or karaoke tracks. This feature is a great benefit to those who want to be ADA-compliant. You can also have nine different camera angles. If you are watching a DVD-Video of a football game from the 50-yard line, you could switch the camera angle and watch from the end zone. Same concept the networks use, except you have control. Unfortunately, I won't be able to demo this feature as the only movies currently available with multi-angle features are from the pornography industry. DVD-Videos offer menus and simple interactive features as well as parental locks. If you have an R-rated movie, you can easily make it G-rated by locking out all R and PG frames. Other features such as fast forward or still frames plus more are available. DVD-Video supports widescreen and movies reconfigured for television viewing.

DVD-Videos came into the market in 1997 after the DVD manufacturers convinced the movie industry that copying movies would require very expensive equipment and would be extremely hard to accomplish (unlike VHS and Beta movies!). Eventually, DVD-Video will replace the VHS and Beta formats as more movies become available and more players are sold. Blockbusters is now stocking DVD movies in some of its stores as they also foresee the future. Movies are available for rent or can be bought for prices from \$12.00 to \$30.00. These prices will drop when the demand increases.

There is another product similar to a DVD called DIVX. These can be bought at Circuit City for about \$5.00, which entitles you to view the movie once. With the DIVX player you can dial a phone number and request another viewing of the movie for another charge. I personally think that DIVX is the Beta version of DVD and will probably not survive as the prices of DVDs continue to drop.

Of greater interest to those in the library community is the DVD-ROM which will affect the publishing industry. A DVD-ROM can hold 4.7 to 17 Gb of data and has a transfer rate of 1.3 Mb per second. DVD-ROM supports both the micro universal disc format and the CD ISO9660 format. You can view CD's in a DVD drive but not the reverse. Naturally, high quality video, audio, and interactive features can be added to a publication making it very dynamic.

Video on CD-ROM was very limited considering the limited space. At this point there are not many DVD-ROM's available. One of the first DVD-ROM's was the United States white pages containing all the phone numbers in the U.S. These were originally sold on 5 CD-ROM's but now are available on one DVD.

DVD-ROM publishing in the Government is in its infant stage and very few have been

published. One agency that is going to benefit greatly from the DVD technology is the U.S. Patent and Trademark Office (PTO), represented today by Mr. Cox, who will talk about the PTO and DVD following this presentation.

Some uses for DVD-ROM include training, large databases, and of course the games for kids and some adults like me. The Navy came out with a DVD in 1998 for medical training in the event of chemical warfare. It runs a trainee through a series of video scenarios, and the trainee must look at each video for clues to help determine if a chemical attack has occurred, the severity of the injuries, and the proper way to respond. The Air Force also came out with a DVD in 1998 on the subject of ethics.

Basically there are seven steps for making multimedia DVD-ROM. One has to create or collect the data, video, and audio. A menu and navigational tree has to be developed. The media elements, such as compressing the video, must be prepared. All the data must be formatted for DVD and then a test disc is created. Copy protection can be added if required and then the discs are replicated and packaged.

The cost for authoring a DVD-ROM can run from \$2,000 to over \$50,000 depending on the features to be included on the disc. The replication costs, which are dropping, run about \$2,000 for mastering the disc and \$1.80 to \$4.50 per disc (depending on the number of layers used).

There were some initial problems with DVD-ROM. In the summer of 1997 there was a "plug fest" organized by the International Multimedia Association where 40 DVD titles in development or in distribution were tested on DVD-ROM playback systems. Two thirds of the DVD-ROM titles that used MPEG2 video did not work, while 95% of DVD-ROM titles without video worked properly. Today's

generation of DVD-ROM playback systems should have no problems running DVD-ROM with video. I have the first generation laptop with DVD and, unfortunately, I am unable to play any of the Government-produced DVD-ROMs.

The next type of DVD is the DVD-R or DVD-Recordable. The recorders are very expensive (\$17,000); however, a \$5,000 unit will be out shortly. The DVD-R discs cost approximately \$50 per disc and currently hold 3.95 Gb per side (this will increase to 4.7 Gb by this summer). I suspect the cost of the media will also drop in time.

DVD-RAM, which is a rewriteable disc (in a cartridge), costs \$25 to \$40. The drives are less than \$800 and can hold up to 2.6 Gb per side. At this time, many people have opted for the DVD-RAM as the costs are lower than the DVD-R. There are other rewritable formats such as DVD-RW and DVD-RW+ but it appears that DVD-RAM will lead the pack.

DVD-Audio, which will provide high fidelity, surround sound, and obviously longer playing features, will be coming out soon. The

specification version 1.0 was just recently released.

Why bother with CDs when DVD is now available? In 1998 the projected sales of DVD-Video players was 1.2 million and 6.5 million for DVD-ROM players. According to the industry, CDs and DVDs will coexist until the year 2001, at which point the DVD player will become a standard for desktop and laptop units and more DVDs will be sold than CDs.

If you want more information on DVD, I suggest the following sources: DVD Forum <www.dvdforum.org>, Optical Video Disc Association <www.ovda.org>, SIGCAT <www.sigcat.org>, and for industry and market information <www.dvd.net>. GPO's Institute for Federal Printing and Electronic Publishing is also offering a one-day class given by Ralph LaBarge, who is an expert in this area.

At this point, let me demonstrate some of the DVD-Video features and answer any of your questions.

Partners Providing Public Access

Pennsylvania Spatial Data Access: A Partnership to Provide Access to Government Data

Kenwood Giffhorn

PA Department of Environmental Protection
Harrisburg, PA

Introduction

- This presentation
 - The nature of geographic data
 - The PASDA partnership
 - Creating metadata
 - The Library's opportunity

Geographic Data

- Example: USGS Digital Orthophoto Quarterquad (DOQ)
 - Approx 45 Mb each
 - 4 per 7.5 min quad
 - 3600 for PA
 - 162 Gb for the state
 - 300 CDs
 - A stack over 6 feet high
- Locally developed more detailed

Partnership

- PA Department of Environmental Protection
- Penn State University
 - Environmental Resources Research Institute
 - Department of Geography
 - Cataloging Department of PSU Library
- Numerous participating groups, such as
 - PA Topographic and Geologic Survey
 - County governments
 - Non-governmental organizations

PASDA

- Spatial Data Library Approach
- Data-related tasks include
 - identification
 - storage
 - documentation
 - retrieval and distribution

PASDA is a spatial data clearinghouse that provides organized access to spatial data from government, business, academia, and non-governmental organizations in a repository for easy query, analysis, and display. It is an easy to use system that catalogs and serves spatial data critical to the decision making processes.

PASDA Results

- Over 7000 datasets documented
 - 3000 Digital Orthophoto Quads
 - 1800 Digital Raster Graphics
 - 900 Digital Elevation Models
 - 1500 Locally Developed Digital Datasets
- "Pull" approach for metadata collection
- 200 Gb of "native" format data
- Over 1.6 million hits per year
- Over 1 terabyte of data served

- Close working relationships with Federal, state, and local gov't agencies and public, private, nonprofit groups
- High use and satisfaction from GIS professionals

Data Documentation

- Metadata is the often unappreciated crucial element
- Cataloging Department of PSU Library is a key partner

Partners Providing Public Access

The Library's Role in the PASDA Partnership

Chris Pfeiffer

Pennsylvania State University Libraries
University Park, PA

Why Metadata?

- Standardized metadata is the backbone of the Spatial Data Library
 - Makes possible a catalog of available data
 - Describes content and relevance of data
 - Allows integration into larger scale services
 - Documents authenticity and reliability
 - Provides necessary usability information
 - Identifies distribution mechanisms

Participation Barriers

- No sense of need
- Resistance to data sharing
- Lack of cataloging skills
- Quantity of undocumented data

Making Contact

- Create relationships with data producers
- Overall benefits of participation
- Organizational benefits of metadata
- Provide basic guidance about metadata
- Gather information about data

Process

- Metadata creation
- Review with data provider
- Changes and additions
- Validation and XML mark-up
- Incorporate into Web site and index

Follow-up

- Continue relationships
- Tools for update
- Validation of updates
- Pursue additional sources

Results

- Doesn't reinvent the wheel
- Wide variety of participants
- Direct input of professional users
- Increased value on data documentation
- Support from broad governmental base

Partners Providing Public Access Focusing the Library's Contribution

Todd Bacastow
Pennsylvania State University
University Park, PA

What Has Been Successful?

- Data library service
 - identification
 - storage
 - documentation
- Service to GIS professionals
 - search and retrieval of spatial metadata
 - storage and distribution in "native" format data

Lessons Learned

- Technical assistance is key
- Data integration important
- Update of data cannot be ad hoc
- 10% of the data is used 90% of the time
- Need to meet the needs of the non-expert user
- Web-mapping becoming an essential component

Future PASDA Enhancements

- Integration of tabular and spatial data
- Agreements with data providers for update
- Standardized "base" themes
- Web-mapping application server

- Non-expert data viewing through a Web browser

PASDA is not

- a store of day-to-day operational data
- a one-stop GIS shop

Focusing the Library's Contribution Possible Roles

- Do GIS
 - Provide data viewing capabilities
 - Provide desktop GIS capabilities
 - Provide fully functional GIS capability
- Metadata development
- Spatial data management
- Do a little of all the above
- Do nothing

The Library's Challenge

- Coping with the volume of digital spatial data
- Few capabilities
- Limited resources
- Minimal expertise
- Providing data access

- Increasing patron's expectations

What Does the Customer Need?

- Basic nourishment? or
- Haute cuisine?

Go for the BigMac!

- Get out of the paper map business
- Build on the library's strengths (and I am not suggesting full GIS services)
- Exploit Web-based GIS technologies

Why?

- "Desktop GIS" and a "Fully Functional GIS" are essentially the same
- Never-ending expense of GIS hardware and software
- Current cost of skilled GIS people
 - B.S. - Over \$40,000
 - M.S. - Over \$50,000
 - Ph.D. - Over \$100,000

More Reasons!

- A basic purpose of a GIS is synthesizing data to create new information
- Librarians don't write papers for patrons - why should you write a "spatial document?"
- Others are staffed and equipped to provide GIS services

My Suggestion!

- Put your resources where you can maximize the impact
 - Data acquisition
 - Cataloging (Metadata development)
 - Customer service

National Geospatial Data Clearinghouse

Archie Warnock

U.S. Federal Geographic Data Committee Secretariat
Reston, VA

What is Clearinghouse?

- Distributed service to locate geospatial data based on their characteristics expressed in metadata
- Clearinghouse allows one to pose a query of all or a portion of the community in a single session
- Like a spatial AltaVista

Components of Clearinghouse

- There are three functional areas that interact to create the Clearinghouse:
 - Metadata preparation and indexing
 - Metadata service
 - User Access via Gateway forms

Clearinghouse Design

- The Clearinghouse in its distributed form includes a registry of servers, several WWW-to-Z39.50 gateways, and many Z39.50 servers
- A primary goal of Clearinghouse is the ability to find spatial data throughout the entire community, not one site at a time

Clearinghouse Method

- User downloads query form
- User sends query to Web server
- Gateway passes query to clearinghouse servers

- Gateway receives and collates response as list of "hits"
- Client receives results summary as HTML by default
- Client can request a specific metadata record for viewing

Metadata Solutions

- Numerous software solutions available
- Commercial and free-ware
- Standalone, DB-linked, GIS-linked
- Permit collection and structuring of FGDC-compatible metadata
- Present metadata as HTML, XML, or text

Server Solutions

- Z39.50 Protocol is used
- "GEO" Geospatial Metadata Profile is published for Z39.50 implementors to understand FGDC metadata structures
- Supports search across numeric, text, date, and spatial extent and full-text
- Freeware and commercial solutions
- User Interfaces

- HTML-based forms hosted at Gateways are the primary access method
- Java map-based interface from MEL allows more sophisticated search
- Inclusion of search capabilities in GIS client software is possible

Who's in Clearinghouse?

- 109 Nodes (servers) online as of 3/1/99
 - 28 Federal, national scope
 - 35 State/University state-wide scope
 - 28 International scope or location
 - 18 Local or Regional scope

Federal Participation

- NOAA (10)
- USGS (6)
- FEMA (sampler)
- NRCS climate and soils
- CIESIN/EPA
- CIESIN/NASA
- DOT NTAD
- National Park Service
- Army Corps of Engineers
- Tri-Services Center
- National Wetlands Inventory
- Census (sampler)
- Minerals Management Service

State Participation

- New York (2)
- North Carolina
- Oklahoma
- Kansas
- Texas
- Montana (3)
- Vermont
- Pennsylvania
- West Virginia
- Washington
- Wisconsin
- Wyoming (2)

- Florida
- Alabama
- New Mexico
- Arizona
- Georgia
- Illinois
- Minnesota
- Alaska
- California
- Delaware
- Nebraska
- New Jersey

Regional/Local Participation

- McKinley Co, NM
- City of Santa Fe, NM
- North Texas GIS
- Research Planning
- Sabine R Authority, TX
- San Francisco Bay
- S Florida Ecosystem
- SW Natural Resources
- Olympic Peninsula, WA
- Greater Yellowstone
- Helena NF
- Ecological Reserves, KS
- MIT/Mass Boston DOQs
- Great Lakes EIS
- Eastern Sierra

International Participation

- NOAA/Japan GOIN
- South Africa (2)
- ESA AVHRR sampler
- GELOS, Italy
- PAIGH, Mexico
- S57 Hydrography, Canada
- NRL MEL
- Africa DDS
- Inter-American Geospatial Data Network
- Hong Kong
- CIESIN/USDA Global Environmental Change
- Australia (10+)
- Costa Rica

- Caribbean CEPNET, Jamaica

Planned or Funded Nodes

- Mt. Desert Island, ME
- SW Washington COG
- NASA GCMD
- CODEPLAN, Brazil
- Iowa
- Missouri
- Kentucky
- South Dakota
- Oregon
- Louisiana
- Ohio
- Connecticut MAGIC
- Colorado
- NW Ecosystems

For more information:

Visit the FGDC Web site:
<http://www.fgdc.gov>

Contact the Clearinghouse Coordinator,
Doug Nebert
ddnebert@usgs.gov

NTIS-GPO Depository Library Imaging Pilot Project

Walter L. Finch
National Technical Information Service
Springfield, VA

NTIS Mission

To collect and disseminate technical information produced by U.S. Government and foreign sources in order to support the nation's economic growth and job creation.

NTIS Statutory Funding

Title 15, U.S. Code 1151-7 - Directs NTIS to recover its costs from the sale of its products and services

NTIS Receives Approximately 100,000 Products Annually

- U. S. Government and foreign technical reports
- Conference proceedings and journal articles
- Non-Print/Multimedia products
- Standards and military specs
- Private sector publications

NTIS Bibliographic Database

- 1964 – Present
- 2 million+ records
- Available through several online/CD-ROM services

NTIS Web Site

- www.ntis.gov
- 500,000 records-Titles only
- 1990 – Present
- Several special collections
- Online ordering

NTIS Bibliographic Database Coverage

- Physics 11%
- Environment 10%
- Nuclear Science 10%
- Medicine and Biology 9%
- Energy 8%
- Chemistry 7%
- Material Science
- Natural Resources 5%
- Computers and Information Theory 4%
- Social Science 4%

Objective of Imaging Pilot Project

Determine the feasibility of online dissemination of Full-Text Scientific Technical and Engineering Information (STEI) in image format to selected depository libraries.

Proof of Concept Pre-Pilot, Fall 1997

- Linda Kennedy, Head, Federal Depository Library, UC-Davis
- Search OrderNow database
- Online ordering of documents

- Electronic image delivery via FTP

NTIS/GPO Interagency Agreement December 1997

- Laid groundwork for conducting pilot project with 22 depository libraries
- NTIS to provide a fully automated document search, order and image delivery system at no charge
- Pilot started January 1999 for one year

Selection of Project Participants

- Volunteers chosen by GPO (FDLP)
- Selection reflects diverse clientele and services
- Tests functionality in a multitude of settings

Documents Available in Pilot Project

- Must be stored in image format
- October 1997 - Present
- Approximately 44,000 titles

- U. S. Government reports: non copyright, not color dependent or with foldouts, fewer than 300 pages

How the Pilot Works

- Authorized users at participating libraries access NTIS Deplib Web site (deplib.ntis.gov)
- Access to fully searchable bibliographic database within library
- Document request and order transmittal to NTIS
- NTIS retrieves document image, converts from TIFF to PDF if necessary
- PDF image transmitted for download to selected location

Project Evaluation-3 Months

- 121 documents ordered
- 82 average number of pages
- TAT for conversion greatly reduced
- Need for IP recognition
- Further evaluation needed

Assessment of Electronic Government Information Products: Final Report

Forest Woody Horton
NCLIS
Washington, DC

Background

- 1996 GPO/FDLP Electronic Transition Report Recommendations
- 1997 Phase I: NAS/CSTB Review
- 1998 Phase II: Data Collection & Analysis
- 1999 Phase III: Long Term Evaluation

Survey Objectives: Phase II

- Identify Medium & Format Standards Most Appropriate for Permanent Public Access
- Assess Cost-Effectiveness of Alternative Mediums and Formats
- Identify Public & Private Standards for Use Throughout Information Life Cycle

Product Selection Guidelines

Agencies Were Asked to Select Products that Meet One or More of the Following Criteria:

1. Increasing Emphasis on Electronic Dissemination
2. Replacing Older Technologies with Newer Ones
3. Adopting Standard Formats or Mediums
4. Making Plans to Adopt Preferred Formats or Mediums

5. Exemplifying Cost-Effective Alternative Formats or Mediums

6. Exemplifying Improved Permanent Public Access, Authentication and/or Security Encryption Protection

Agency Participation

- Twenty-Four Different Federal Entities Including Supreme Court, Several Committees of Congress, One Regulatory Commission and Nineteen Executive Branch Agencies
- Seventy-Four Percent of Survey Forms (242 out of 328) Returned Completed

No Surprises or Magic Bullets

- Findings Will Not Surprise People Aware of Long-Standing Problems of Coping With:
 1. Multiple Mediums and Product Formats
 2. Rapidly Changing Technologies
 3. Absence of Widely Agreed-On Standards
 4. Very Few Cost Effective Alternatives
- No Magic Bullets to Make Problems Go Away Overnight

KEY FINDINGS

Policy and Planning Issues

1. Serious Weaknesses in both Government-wide and Individual Agency Electronic

Publishing, Dissemination, Permanent Public Access and Information Life Cycle Management Policies And Planning

2. Responsibility for Agency Electronic Publishing Decentralized, Diffuse and Unclear. Agencies Cannot Always Easily Identify Product Managers.
3. Some Agencies Monitoring Information Needs of Users to Enhance Current Access to Electronic Products
4. Lack of Specific Planning for Future Product Development and Technological Migration
5. Lack of Planning for Web Design Approaches that Comply With Americans with Disabilities Act

Permanent Public Access

6. Permanent Public Access Concept Not Well Understood. Confusion between that Concept and NARA's Permanent Records Retention Concept
7. Metadata and Role of GILS Not Well Understood. Only 27% Respondents Reported Metadata Records
8. Host Disseminators like GPO Access are Assisting Agencies to Provide Permanent Public Access

Ensuring Authenticity

9. Lack of Understanding of How to Ensure Authenticity

Product Characteristics

10. Most Surveyed Products in Public Domain
11. Most Prevalent Types of Mediums are the Web, Paper, CD-ROM, and Bulletin Board

Systems; Most Prevalent Types of Formats are HTML, PDF, GIF, JPEG, TIFF and ASCII

12. Most Prevalent Types of Data in Surveyed Products are Textual, Numerical, and Bibliographic And Graphical

Standards

13. Lack of Standardization for Using CD-ROM to Produce Products (e.g. Installation Instructions)
14. Most Prevalent Medium and Format Standards are Common Agency Practice, Not Agency-Mandated
15. Some Agencies have Guidelines or Best Practices for Presenting/Organizing Products on Web, But Full Compliance not yet Achieved
16. Some Agencies Exploring Range of Innovative Formats and Web Design Approaches

Next Steps

1. WESTAT, Inc. Delivered Final Report March 30, 1999
2. NCLIS Published the Executive Summary on its Web Site
<www.nclis.gov/news/news.html#gpo>
3. GPO Published the Complete Final Report on GPO Access <www.access.gpo.gov/su_docs/nclisassessment/report.html>
4. GPO will Print Limited Copies. All Federal Depository Libraries will receive a copy.
5. Agency Coordinator Meeting scheduled for 9–12 noon, May 11, 1999 at Benton Foundation

6. Advisory Committee Meeting scheduled for 9-12 noon, May 20, 1999 at Benton Foundation

7. NCLIS Begins Phase III Follow-on Activity to Formulate Recommendations for Congress and President (Summer 1999)

Selected Questions

The Optimal Media Mix for Government Information Products

Question #11: How do individuals and organizations gain access to Government information?

Question #12: What are the factors that affect an individual's or organization's easy access to Government information?

Question #13: How does the transition to primarily electronic dissemination affect access to Government information?

Information Formats and Standards

Question #17: What are the issues in ensuring the authenticity and integrity of Government electronic information?

Technological Aspects of Permanent Accessibility

Question #31: How are agency WWW pages and other on-line information managed to ensure permanent accessibility? What are agency plans?

Managing Access to Electronic Government Information

Question #36: Besides the development of format standards for information producers and the format conversion alternative, what are other ideas (with respect to formats) to simplify access to electronic Government information?

Costs of Electronic Information Products

Question #43: What are the elements and costs associated with user access to electronic Government information?

The Larger Policy Context

Question #46: Which agency(ies) should have the responsibility to ensure that Government electronic information is reasonably locatable across agencies? What alternatives are there to achieve this outcome?

Question #47: Which agency(ies) should have the responsibility to ensure that the appropriate set of information is maintained for permanent accessibility? What are the roles of agencies that produce information as compared to Government information intermediaries?

Question #48: How does the role of the Federal depository library change in the electronic environment?

Question #49: Based on the findings in this study, what are the potential changes in the role of private sector publishers in the electronic environment?

It Would Be Helpful If:

1. You Prioritize Your Recommendations
2. You Segment Implementation Recommendations into Three Timeframes: Short (1999), Medium (2000-2001), and Long (After 2001) (action begins and ideally is completed)
3. You Identify Key Decision/Action Agents (e.g. Congress, OMB)

Contractor Contact

Westat, Inc. A Rockville, MD, firm
specializing in survey research is doing the
data collection & analysis

Contact Denise Glover
Phone: (301) 251-2269
Fax: (301) 517-4134
E-mail: gloverd1@westat.com

NCLIS Contact

Contact Forest Woody Horton
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Fax: (202) 606-9203
E-mail: whorton@nclis.gov
Web Site www.nclis.gov

DOE Virtual Library of Energy Science and Technology

Dr. Walter L. Warnick
U.S. Department of Energy
Germantown, MD

All of us in the information business are living through a revolution – the digital revolution.

If we were to resist and make peaceful revolution impossible, we would make violent revolution inevitable.

Supporting the Science Mission

- Department of Energy operates a system of National Labs which do basic and applied R&D.
- Principal deliverable from R&D is scientific and technical information.
- OSTI collects, preserves, and disseminates the output of R&D.
- Using Information Age technology, OSTI is reaching more people—at a lower cost per person served.

Supporting the Science Mission

OSTI maintains the world's most comprehensive collection of energy-related scientific and technical information, including over . . .

- 1.5 million reports
- 5 million electronically accessible bibliographic references
- World's largest historic collection of information on nuclear energy

Expanding the Energy Science Universe

Using Technology to Support the Science Mission

Information Age technology is revolutionizing the way OSTI supports the science mission by bringing science information to the desktop. OSTI:

- Leads scientific and technical information program, policies, and business practices costing \$200 million at multiple sites
- Connects multiple sources of electronic information
- Coordinates Departmental access to electronic science journals
- Manages the world's most comprehensive collection of classified and sensitive energy-related information
- Gains access to over 80,000 foreign research summaries per year

Result—Information delivered to the desktop, reaching thousands more people at a lower cost per person served

Internet Access to OSTI Products

Includes access to EnergyFiles, DOE Information Bridge (both Web sites), DOE Reports Bibliographic Database, R&D Project Summaries, Energy Science and Technology

Software Center, OSTI Home Page, and OpenNet

How OSTI is Expanding in the Energy Science Universe

OSTI has developed and assembled a suite of Internet resources.

- Collectively, we call these resources EnergyFiles, The Virtual Library of Energy Science and Technology <www.doe.gov/EnergyFiles>
- EnergyFiles is organized by subject area and contains an alphabetized Resource List.
- EnergyFiles contains over 400 energy-related collections and databases, electronic journals, preprints, conference information, related resources, and workspace tools.
- EnergyFiles will be searchable by April 1999.

EnergyFiles The Virtual Library of Energy Science and Technology

Subject Areas: Topics and Disciplines of Concern to DOE

- Biology and Medicine
- Chemistry
- Energy Storage, Conversion and Utilization
- Engineering
- Environmental Sciences, Safety and Health
- Fission and Nuclear Technologies
- Fossil Fuels
- Geosciences
- Materials Science
- Mathematics, Computing and Information Science
- Physics
- Plasma Physics and Fusion

- Power Transmission, Distribution and Plants
- Renewable Energy

EnergyFiles The Virtual Library of Energy Science and Technology - Contains Several Desktop Resources

DOE Information Bridge

www.doe.gov/bridge

- Provides instant free access to over 32,000 DOE R&D full-text reports and bibliographic records, providing over 2.5 million pages of searchable text.
- Content has increased from 1.3 million to 2.5 million full-text pages in its first year of operation and is projected to grow by another 1 million each year.
- Legacy files contributed by Fermi Lab and Los Alamos.

DOE R&D Project Summaries

www.doe.gov/rnd/rdhome.html

- Internet Web site contains current information on over 14,000 Department of Energy R&D projects currently ongoing within the DOE from 1995 forward.

OpenNet

www.doe.gov/opennet

- Contains recently declassified full-text documents about early nuclear weapon testing, human radiation experiments, and health and environmental safety issues.

DOE R&D Accomplishments Database (Prototype)

www.doe.gov/accomplishments

- Provides a central forum for information about the outcome of past DOE R&D that has had significant economic impact,

improved people's lives, or been widely recognized as a remarkable advance in science.

DOE Reports Bibliographic Database

www.doe.gov/dra/dra.html

- Contains citations for DOE-sponsored scientific and technical reports covering the period Jan. 1, 1994, to the present. Developed for the Depository Library Program via an interagency agreement between GPO and DOE.

Energy Science and Technology Software Center (ESTSC)

www.osti.gov/html/osti/estsc/estsc.html

- Serves as a repository for and the source from which to purchase software funded by DOE. The center's inventory is contained in a searchable database to help locate software of interest.

Current Awareness Electronic Publications

www.doe.gov/html/osti/products/publics.html

- Provides electronic access to current energy-related, subject specific collections of bibliographic citations with abstracts compiled from a variety of available resources. Links to full text of bibliographic records will soon be available via the DOE Information Bridge Web site.

Under Development

PubScience – Electronic Science Journals

- Searchable bibliographic database of journals that cover DOE R&D with hyperlinks to full text
- Provided on a prototype basis to DOE Headquarters on-line, potentially saving \$8 million annually in duplicative paper subscriptions after full implementation

- Goal is to create an energy-related database comparable to PubMed to access literature citations with links to full-text journals at Web sites of participating publishers
- Use of collaborations and partnerships for obtaining the best price for multiple-site access

New technology opens up the possibility that, together, we can conquer text.

But it is not enough for a thing to be possible for it to be achieved.

The Future

User Expectations:

Whatever the survey question, the answers are:

- full-text
- searchable
- online

Designing the Future: Collaboration

- Interagency agreements between GPO/DOE OSTI have provided free public access to DOE information for 20 years.
- GPO/OSTI brings solutions that incorporate Information Age technology to provide better access to DOE science.
 - DOE Information Bridge public Web site through GPO access
- DOE's expanding science universe includes new collaborative possibilities
 - Model of virtual reference service
 - Expansion of DOE's Legacy collection of DOE Information Bridge
 - PubScience – DOE's electronic journal Web site

Designing the Future: Mutual Interests/Goals

- Guarantee of efficient, effective public access to Federal Government information

- Inform the public about the policies and programs of the Federal Government
- Support of initiatives and programs that increase availability, use and control of government documents
- Provide access to a comprehensive collection of current and retrospective Federal Government information
- Assist in locating particular fields in government collections
- Provide bibliographic/full-text access to Federal collections
- Increase public awareness of the depository library program and the availability of government information

Making Our Case

- Our costs are real and easily quantified.
- The benefits we produce are equally real but are not easily quantified.
 - Cost benefit is tough to do.
- There is no such thing as a self-sustaining library.

- Those who want a self-sustaining library want something that has never been and never will be.
- Not even the most ardent enthusiast for cutting government can cite an exception.
- Andrew Carnegie is famous for building buildings; he did not operate libraries.

How We Can Help Each Other

- Build on mutual interest and goals
 - support future collaborations
 - share ideas and provide user input and needs
 - spread the word that DOE works for America
 - actively support OSTI's role in making DOE information publicly available
- Use DOE electronic capabilities to help FDLP more effectively access and manage DOE information
- We can conquer text
- The prospect of conquering text is animating and ought to excite the exertions of all of us

Building the FDLP Electronic Collection

Laurie B. Hall
Judy Andrews
U.S. Government Printing Office
Washington, DC

Good morning, I'm Laurie Hall. Today Judy Andrews and I are going to talk about LPS' ongoing efforts to build the Federal Depository Library Program (FDLP) Electronic Collection.

This process began with the publication of *Managing the FDLP Electronic Collection: A Policy and Planning Document (the Plan)* in mid-October, 1998. In November, a group of LPS staff was tasked with investigating the implications of building this collection within the broader context of the goals and mission of the FDLP.

Recognizing the important work that was being carried out by the group, LPS management formed the Electronic Collection Team. The Team is a permanent working group and is tasked with building the electronic collection and recommending policies and developing procedures to make the collection a reality.

The team's efforts are guided by three important goals:

- 1) The need to provide for permanent public access to Government information,
- 2) The recognition of the reference needs of our user community
- 3) The importance of providing quality cataloging for Government information resources.

The goals identified follow the policies outlined in the plan and are reasonable extensions of the authority mandated in Title

44, Chapter 19, and Chapter 41, the GPO Access Law.

FDLP Electronic Collection

The Plan divides the collection into four categories:

- 1) Core legislative and regulatory GPO Access products which will reside permanently on GPO servers
- 2) Other remotely accessible products managed by either GPO or by other institutions with which GPO has established formal agreements
- 3) Remotely accessible electronic Government information products that GPO identifies, describes and links to but which remain under the control of the originating agencies
- 4) Tangible electronic Government information products distributed to Federal depository libraries

The team's efforts are currently focused on category 2 and 3. Category 2 consists of the remotely accessible products managed by either GPO or other institutions with which GPO has established formal agreements; and category 3 includes the remotely accessible electronic Government information products that GPO identifies, describes and links to but which remain under the control of the originating agencies.

Current Focus for the FDLP Electronic Collection

- Outreach: Enlarging and Improving Communications
- Processing: Developing Transition Procedures
- Cataloging and PURLs: Evaluating Procedures
- Archive: Investigating Storage Options

The Team is moving beyond the analysis and exploratory phase of building an electronic collection. We are beginning to focus on developing new procedures and modifying existing processes to fully incorporate Government electronic resources into the FDLP.

An overview of our early investigations was presented before the GODORT Federal Documents Task Force meeting at the American Library Association Midwinter Conference in Philadelphia. Our presentation today will update you on our efforts to accomplish these objectives and introduce some new endeavors.

We will describe some of our outreach activities, our current experiments with archiving and our proposed changes to cataloging processes and procedures.

We are still in the early stages of this phase of our task, so be patient as we work through this project. This collection is unique and some of the standard techniques we have employed in providing information to the depository community in the past do not work as well as they should. We have to be inventive. And in this dynamic environment it's difficult to agree on the best approaches to take.

Outreach: Enlarging and Improving Communications (Judy Andrews)

Enhancing communications is a priority. Our outreach efforts are focused on the:

- 1) FDLP depository community
- 2) Publishing agencies
- 3) Peer institutions, such as the National Archives and Records Administration (NARA) and the National Libraries
- 4) Partners
- 5) Internal GPO offices

FDLP:

Communicating with the FDLP depository library community about our plans for the electronic collection is the reason we're here today. LPS and GPO actively solicit feedback through such channels as the Depository Library Council Committees, askLPS, and conferences. Your active participation in Browse Topics, partnership arrangements and other proposed electronic initiatives are always appreciated. We welcome your suggestions and comments concerning our plans for the electronic collection as outlined here.

Agencies:

Agencies are publishing Government information in electronic format at an astounding rate, as you are well aware. By establishing contacts with the agency management personnel, we can explain the importance of providing permanent public access to agency electronic resources and make others aware of the FDLP.

Recently, members of LPS staff gave presentations about the FDLP Electronic Collection and the efforts of the Electronic Collection Team to such diverse groups as:

- 1) Health and Human Services (HHS)
Internet Information Management
Council Work Group
- 2) Office of Chemical Environmental
Preparedness and Prevention of the
Environmental Protection Agency
- 3) The Institute of Federal Printing and
Electronic Publishing

Both GPO and Federal publishing agencies share the common challenges of electronic distribution and permanent access. These presentations help to emphasize the similarities in purpose and goals of Federal Web publishers and the FDLP and allow for exchanges of ideas and information.

Agencies are encouraged to notify GPO when new electronic products become available. One method developed is the "Internet Information Product Notification Form." We are investigating other methods to simplify this process.

Peer Institutions:

LPS staff continue to be involved with the work of the National Agricultural Library (NAL) Digital Publications, Preservation Steering Committee. George Barnum coordinates the Subcommittee of User Services for this Committee. Recently, several members of the Electronic Collection Team met with representatives from the National Transportation Library to discuss their electronic initiatives. Valuable information was exchanged and follow-up meetings are planned to discuss issues related to online transportation resources and permanent access.

Partners:

The role of partnerships in providing ongoing access to Government information is evolving. Continued dialog with present and potential partners is a focus of our work in this area. Currently, we are drafting a new model agreement in which GPO plays a more active role in identifying, "acquiring," providing access to information products, and facilitating permanent storage either here at GPO, or with an institutional partner such as a library or university. Our initial model for partnerships was a three-way agreement between an agency, a cooperating institution, and GPO, with GPO in the role of facilitator and safety net. The new model will better position GPO to offer a useful service to agency publishers and to gain the benefits of permanent access for the FDLP and the public.

Internal:

Communication with other GPO offices is essential in providing services and products that support the Electronic Collection. Team members are discussing challenges related to software for archiving, authentication and server platforms for storing electronic resources in the collection. Just recently, experimental server space was designated to store test samples of archived resources.

Selecting Material for the Electronic Collection

As our communications efforts continue, our team is also refining the guidelines for analyzing and selecting electronic resources. FDLP collection development is guided by the mission and goals as outlined in Title 44, Chapter 19, U.S. Code, Section 1902. "...Government publications... except those required for official use only or for strictly administrative or operational purposes... shall be made available... for public information."

Evaluation includes analyzing the resource to determine if it meets these basic tenets. Is it official, authentic Government information? Does it present a major activity of the agency, or is it the product of a major activity of the agency?

Once the selection has been made, the team examines the item's presentation and content. Oftentimes, we may e-mail the Webmaster or call the agency for additional information. We try to determine how valuable and useful this product is to the FDLP community, and which current locator service would best provide the bibliographic control for this resource.

Non-selection:

Most collection plans allow for the non-selection of materials that do not meet the scope of the institution. In the case of the FDLP, Title 44 provides guidance for allowing the exclusion of official use only or administrative material. The LPS team has identified some items that we will not include in the FDLP Electronic Collection. These items are: events/announcements, biographies, job announcements, some news releases, organizational charts, sales/promotional literature, posters and items of low informational content. We may expand this list as we continue to review new online resources.

Processing: Developing Procedures for the Transition

All resources selected for the FDLP Electronic Collection require processing. Staff make decisions such as item number assignment, classification, appropriate cataloging treatment, PURL designation and/or locator service and whether to archive selected resources on the GPO Archive test site. The Team's efforts are focused on modifying existing processes and developing new procedures. We are working with Depository Administration Branch staff to identify candidates for migration from

microfiche distribution to electronic access only.

Migration to Electronic Only Distribution

These candidates for migration from microfiche distribution to electronic access only are analyzed using the following criteria:

- 1) Are there significant differences between the tangible and online product?
- 2) How many libraries select this item number?
- 4) How does the agency present this material online?
- 5) Does the agency retain previous issues? For how long?
- 6) Can LPS provide permanent back-up issues for long term access?

Archiving

Another processing issue is archiving. The Electronic Collection Team expects the collection to be housed utilizing a combination of server space at GPO, at agency sites and at institutional partners.

Selected agency online resources that meet the criteria for inclusion are now being stored in test server space in what will become the FDLP/EC Archive. We are testing several archive software products and exploring additional archiving options.

The initial organization of archived files will be in an agency-based directory structure. Presently, we are considering having the PURL direct users to the agency version until the agency link is permanently broken and cannot be reestablished. Then users will be directed to the archived version stored on GPO servers.

You will know that you are using an archived version from the FDLP/EC when you receive a message or screen presentation, which includes the date the resource was archived. This might be an answer to part of the challenge of providing permanent public access.

Cataloging & PURLs

As LPS continues in our transition to a more electronic depository, many of our current policies and procedures that were established for tangible products are being reexamined. Two proposals concerning Availability Records and the Periodicals Supplement are being presented this week before the Council Cataloging Committee. They discuss the need to eliminate unique local practices and investigate alternative products that would better serve the depository community.

We are formalizing our PURL policy and documenting practices. As many of you are aware, PURL and URL maintenance is a resource-intensive activity for the Team. Whether to utilize a PURL or URL in cataloging or Pathway Locator services records still generates a lot of discussion in LPS. The choice of PURL or URL may ultimately solve itself with technological advances, but we continue to investigate alternatives.

Locator Services

Our major goal is to provide the services that are easy to use, easy to manage and give the best possible access to the electronic resources in the collection. We are currently focusing on Browse Electronic Titles (BET) and Browse Topics.

BET

After hearing user input from various groups, we are working on some major improvements to the BET. Users want the ability to browse, but also the ability to search all the entries on

the BET. One approach might be to create a separate database of electronic resources. However, maintaining a stand-alone database is not an efficient use of resources. A consolidated database which integrates all of the FDLP information resources regardless of format is the ultimate goal.

Browse Topics

We are also investigating additional ways to present Browse Topics. We are talking with depository librarians who currently provide a topical approach to Government electronic resources. Maintaining Topics is very labor intensive for LPS staff. The Electronic Collection Team is reviewing the use of the Subject Bibliography thesaurus and evaluating options. We are open to developing a partnership arrangement for Topics and welcome any suggestions from the community.

In Conclusion

We continue to work on a broad spectrum of issues related to building the FDLP Electronic Collection. We still have a lot of work to do. This is a very time consuming process. There will be technological innovations and possibly, policy changes that cause us to alter our course. The team members should be congratulated for all of their hard work. LPS does not do this job alone. The FDLP Electronic Collection benefits the documents community and we appreciate your contributions.

We want to thank you for allowing us the opportunity to speak with you this morning about our progress on building the electronic collection. Be sure to give us your input!

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Federal Agency Update Session

DOE Information Bridge: One Year Later

Don Altom
U.S. Department of Energy
Washington, DC

Background

- GPO/DOE relationship to provide public access to DOE report literature – microfiche
- GPO/DOE Interagency Agreement in December 1997 to provide Web access to full text DOE report literature from January 1996
 - Leverage existing DOE system
 - Access through GPO Access system
- Incorporated GPO requirements
 - Eliminate passwords
 - Provide PDF full text for download to user desktop
- “Roll out” in April 1998 with Web access to 23,422 bibliographic and full text DOE reports

Growth/Utilization

- Increased full text information collection by 50%; 35,006 bibliographic and full text records available on 12 April 1999
- Utilization
 - Document downloads - performance measure
 - 55,942 downloads through 10 April 1999 by all user communities: depository libraries, US and international publics, DOE, other government agencies, etc.

Recent Enhancements

- Customer driven
- Option to download full text in native formats
 - PDF, Word, WordPerfect, SGML, HTML, XML, Postscript, TIFFG4
- Links to full text posted at remote sites scattered throughout the DOE Complex
 - ASCII-based formats

Future Directions

- Customer driven
- Convert to Oracle/UNIX environment
- New functionality
 - Date range searching
 - Search downloaded PDF documents
- Legacy data
 - Assessment pending; determine interest in Web access to full text prior to January 1996
 - Encourage participation

Honors/Awards

- DOE Information Management Quality Award for Technical Excellence in October 1998

- Hammer Award presented by National Partnership for Reinventing Government in February 1999

GPO/DOE partnership continuing success story

For more information:

Kathy Chambers
DOE Information Bridge
Product Manager
<http://www.doe.gov/bridge>

Digitizing Collections of Government Documents: Options, Processes, and Costs

Cathy Nelson Hartman
University of North Texas Libraries
Denton, TX

Introduction

Good afternoon. My name is Cathy Hartman, and I am the electronic resources coordinator for government information at the University of North Texas (UNT). My journey down the path to digitization began in 1997 at the ALA Midwinter Meeting in Washington, DC. Duncan Aldrich, then working as an expert consultant in GPO's electronic transition effort, mentioned in an update at GODORT's Federal Documents Task Force meeting that GPO needed depository library partners to assume responsibility for providing access to electronic documents. Depository libraries have provided access to documents in tangible media for more than a hundred years, so providing access to documents in electronic media seemed to be just another method of fulfilling our responsibilities as a depository library. I volunteered to become a partner.

In October 1997, the University of North Texas Libraries entered into an agreement with the U.S. Government Printing Office to provide permanent public access to the electronic records of the Advisory Commission on Intergovernmental Relations (ACIR). As the only site for access to the ACIR electronic records, we frequently received requests for historical publications of the agency from researchers, government administrators, students, and others who found the UNT Libraries' electronic collection by searching the Internet. We proposed to enhance the ACIR electronic collection by making the most important serial titles published by the agency available as electronic documents accessible

via the Internet, so in the spring of 1998, I wrote a grant proposal for a pilot project to begin the digitization process. In May of 1998, AMIGOS Bibliographic Council notified me that they were funding the project and then the real work began.

Today, I will be talking about questions you should ask yourself before beginning a digitization project. For each question, options will be discussed and our decisions and processes for the ACIR project will be presented.

Question 1: What Collection Will Be Digitized?

For most of you this question will not be difficult. Being from Texas, the comedian, Jeff Foxworthy, of the "you might be a redneck IF" jokes, is a personal favorite of mine. (Most Texans can connect to "redneck" jokes.) Following his style and my experience with documents librarians, I can confidently say, "If you find you have an uncontrollable urge to digitize everything in your collection and make it all 'permanently publicly available,' you just might be a documents librarian." Your problem will probably be focusing on only one collection as the most likely candidate for digitization. Consider such issues as:

- Uniqueness or rareness of the collection - few Federal documents in our collections are unique, but some may be rare.

- Significance of the collection - many will be an integral part of the history of our country.
- Benefits of electronic access to the information - even if it is not unique or rare, there may be real benefits for electronic access to a collection, including searchability, Internet access, preservation, etc.

Items considered for digitization should also be examined for copyright. This will not be an issue for most collections of government documents. However, if it is an issue, be certain that your copyright information is very current. There are constant changes in the copyright laws, especially with respect to digitizing documents and making them available on the Internet.

Question 2: How Will Funding Be Obtained for the Project?

This question is more difficult to answer than the first. Digitizing any collection requires personnel time (frequently the most expensive element), training, hardware, software, possibly funds for outsourcing parts or all of the project, and many various small expenses. Since funding was not available in my library for a pilot project, I decided to request grant funding. It seemed a reasonable thing to do at the time.

However, if you are writing your first grant proposal, here are a few tips that I learned the hard way. First, be prepared for the significant effort involved in writing the grant proposal and then later writing the grant report. Second, be certain that you check with the grants office on your campus or in the city government before sending out a grant proposal. This will save you many problems over the life of the project. They may add hidden budget costs for various items, such as benefits for project staff. Such costs can affect the amount of money you think you have to spend on the project. They

may also ask penetrating questions such as, "If your plan to complete the project is not successful, what is your secondary plan to fulfill the requirements of the grant?" Also, the record keeping must be carefully done so that expenditures are clearly documented.

Question 3: Depending on the Level of Funding Acquired, How Will We Balance Level of Access to the Digitized Documents with Cost of Digitization?

If you found major funding and costs are not an issue, you may want to provide the very best access to thousands of pages of documents by scanning, OCR-ing, marking them up in HTML, and verifying every word of text for accuracy. We considered this option. However, the costs stated in the project report of the AMIGOS funded study at Oklahoma State University, *A Digital Challenge: Bringing Kappler's Indian Affairs: Laws and Treaties to the World Wide Web*¹, clearly showed that we could not afford the expensive, time-intensive efforts required to create HTML files from the scanned text, even though we believed that with current technology, HTML files would offer the best Web access.

I stated in my grant proposal that our digitization project would be accomplished by outsourcing high-speed, quantity scanning of approximately 4,200 pages of text. Our goal was to develop a process that balanced level of access with the cost of digitizing and making the data available on the Internet. The objectives included:

- A. Providing researchers and the public with electronic access to important publications of the ACIR.
- B. Developing a cost-effective process for presenting, on the Internet, extensive collections of PDF files produced from large-quantity, high speed scanning of documents.

Selecting a Vendor

Part of our strategy for controlling costs of scanning included hiring a vendor with the appropriate high-speed scanning equipment to scan the documents. Several vendors were contacted and asked to supply samples of their work. Two vendors agreed to do so and were shipped an issue of an ACIR periodical and a volume of Significant Features of Fiscal Federalism for the test. One vendor supplied us with TIFF files and offered a very low price of 22 cents per page for the black and white scanning. It took several weeks to receive the test scans and several more weeks to retrieve the loaned documents that they scanned. The contact person lacked knowledge about the scanning process and could answer few of my questions about the files.

The other vendor, the Electronic Resource Library Project Lab based at Amarillo College, test scanned the documents and supplied us with TIFF files and with PDF image-plus-text files. The test files and our documents were returned quickly. Their bid was 22 cents per page for TIFF files or 26 cents per page for PDF image-plus-text files. Color scans were offered for document cover pages for an additional 4 cents per page. The director of the lab, Dr. Karen Ruddy, was knowledgeable and prompt with answers to our questions about the files.

The PDF image-plus-text files provided both good quality image files that could be viewed in the free Acrobat Reader and searchable text files. The PDF files were created using the Adobe Capture software, which added the additional benefit of Optical Character Recognition (OCR) to create searchable text. The image file was displayed, but the text file existed and could be searched or copied and pasted. Much of the scanned text was readable by the OCR software.

Pages containing simple text with plain fonts were translated more successfully by the OCR software than non-text material or unusual

fonts were. Since the PDF image-plus-text files would allow the additional access of searchable text, they deserved thorough investigation. We viewed the test files, searched them, copied and pasted from the text, and checked printability. The results exceeded our expectations, so we decided that the PDF image-plus-text files were our best option.

When our experiments showed that the in-house personnel and computer time needed to move TIFF files to PDF image-plus-text files was significant, the decision was made that the extra 4 cents per page charged by the vendor to provide PDF image-plus-text files would be well worth the small extra cost. The PDF image-plus-text files seemed to be our most cost-effective method of balancing issues of access and costs.

Also important influences in our decision to go with the PDF image-plus-text files included:

- Security provided by PDF files.
- Growth in the number of PDF documents offered by Congress and the executive agencies of the Government.
- Health of the Adobe company and the expanding features of the free Acrobat Reader software.

The vendor selected was the Amarillo College Electronic Resource Library Lab. The Lab had previously received grants from the Federal Government to purchase high-speed scanning equipment to digitize documents related to plutonium research. The Lab had also worked with the Department of Energy's "Energy InfoBridge" project, scanning many thousands of pages. Dr. Walter Warnick, director of the Energy Resource Library, highly recommended the Lab. Dr. Ruddy, the Lab director, was interested in outside contracts to keep the Lab personnel and equipment busy. The ACIR scanning project would serve as a pilot project

for the Lab to determine if bringing in outside work would be economically feasible.

Question 4: Are All Documents Needed for Digitizing Part of Our Collection, and If Not, How Will They Be Obtained?

This question is particularly relevant if the items are out of print or will be damaged in the scanning process.

My grant proposal stated that approximately 4,200 pages of the most important serial publications of the Advisory Commission on Intergovernmental Relations would be digitized. The ACIR collection at the University of North Texas Libraries was assessed to determine if all issues of our selected serial titles were available in the collection. We estimated that the 1990 – 1995 volumes of Significant Features of Fiscal Federalism and volume 10 – volume 20 of Intergovernmental Perspective would approximate the 4,200 pages.

Since high-speed quantity scanning makes use of an automatic paper feeder, any item sent to the Lab would have its binding shaved. The decision was made that retaining a paper copy of each item scanned would be important, so Offers Lists published by the Federal Depository Library Program were monitored frequently to attempt to collect duplicate copies of as many of the publications as possible. When a duplicate could not be located, the publication would be re-bound after scanning. Duplicates of many of the items were collected when one depository library gave up its depository status and offered all of its collection to other depositories. A few other items were collected at random.

One copy of all volumes of the Significant Features of Fiscal Federalism, except for the 1993 volumes, was in the UNT collection in paper format. The 1993 volumes were in microfiche with the microfiche obviously created from a copy of the original publication.

Even though fiche scanners exist, the quality of the fiche copy must be high for the scanned file to be acceptable.

When an inquiry sent to the Texas Library Association Government Documents Round Table listserv showed that all depository libraries had received the 1993 volumes in microfiche, other groups were contacted. The issues were eventually located in the collection of a professor of public administration on the UNT campus. Only a few issues of the periodical, Intergovernmental Perspective, volumes 10 - 12, were missing and were happily supplied by depository librarians at Texas Christian University and the Texas State Library and Archives Commission. As we expanded our scanning back to volume one, other issues were supplied by depository libraries across the country when a request was posted to GOVDOC-L.

Issues or volumes of the titles that were borrowed from individuals or other libraries could not be sent to the Lab to have bindings shaved, so it was determined that these publications would be scanned on an available flat-bed scanner in the UNT Libraries. In July 1998, the first 2,164 pages were shipped to the Lab. An additional 1,436 pages were shipped in August for a total of 3,600 pages. In October, when the UNT Libraries offered additional funding for the project, we shipped an additional 1,872 pages to the Lab. TEXPRESS, the courier system connecting many colleges and universities in Texas, allowed us to ship all documents at no charge to the project.

Question 5: How Will Skilled Personnel Be Found and Training Provided for All Project Participants?

For those of us in academic libraries, students provide a wonderful resource for project personnel. For institutions with library and information science programs, especially skilled graduate students may be found. Our

grant proposal included funding to hire a project assistant, so faculty and students who had expressed an interest in the project were notified that we were accepting applications. We were interested in hiring a student who could begin work on the first of August and continue into the fall semester. Interviews were conducted and an extremely well qualified graduate student from the School of Library and Information Sciences was hired.

Training for you as the project manager and for other personnel can be an expensive part of the project. I enrolled in an intensive, three-day class to learn to use the Adobe Acrobat software required to alter and enhance the PDF files. The \$450 cost for the class is not an unusual fee and is another cost to include in your grant request. I then instructed the project assistant in the basics of using the software.

The project assistant and I developed a process to create links within the documents, bookmarks, and other enhancements. Since borrowed items would be scanned on-site, a process for scanning was also created, and the project assistant wrote a procedures manual outlining the process for others to use. As the scanned files were completed by the Lab and sent to us, we enhanced the files by adding bookmarks for the contents of each title, links from the contents pages, and links from indexes when an index was included in the volume. Every page was also checked for readability and printing quality. The procedures manual was edited as needed throughout this process.

Question 6: Do We Have the Technical Skills, Or Access to Qualified Staff, To Solve the Technical Issues of a Digitization Project?

In any digitization project, technical decisions must be made. If you are not fluent in the language of servers, file types, and technical problem solving, be certain that

knowledgeable staff are available for consultation.

As we prepared volumes for loading to the Web server, several technical issues required solutions.

- Large file sizes created issues for downloading time.
- Searchable files required a search engine that would index and search PDF files.
- Meta tags had to be defined and entered.
- An overall assessment of the ACIR site was required to integrate the new files effectively.
- Americans with Disabilities Act (ADA) issues were investigated.

File Size

The scanned documents ranged in pagination from approximately 30 pages to over 300 pages. File sizes ranged from 1.8 mega bytes (Mb) to 20 Mb. Downloading such large files over the Web can take considerable time, especially if access is via a modem. When saving the enhanced files, we were careful to use the Acrobat Exchange software's "optimize" function, which helped reduce the size of the files. This, however, did not make the files small enough to have an acceptable download time.

We examined the option of making each page or a few pages into separate files, then creating some type of navigation system to allow the user to move on to the next file (next page of the document). We visited two sites that use this method. Even though it did reduce download time, we felt it was cumbersome for the user, and it would increase our costs significantly by requiring additional time to prepare our files for the Web.

Searching for other options, we discovered in a mailing list archive called the "PDF Archive," a possible solution called "byteserving."² It involved setting up the files correctly and having Web server software that supports the "Byte Range Retrieval Extension to HTTP" protocol. This server software has the capability to "serve" to the user only one page at a time of a PDF file. This method requires the user to change only one setting in the Acrobat Reader Preferences to disallow "background downloading."

The user can then move through the document using the Acrobat Reader's functions or the links and bookmarks we created. Since the UNT Libraries' Web server already had one of the software packages that supports byteserving, we tested this option and decided it would be the best option for us. On our Web interface page, we asked the user to link to another page to find out about "Faster Downloads."³ There we explained byteserving and how "preferences" in the Acrobat Reader could be easily altered for faster downloading of the files.

Searching PDF Files

From the beginning of the project, our goal to make the ACIR Web site searchable was an important part of maximizing access to the digitized collection. We quickly learned that many of the well-known search engines would not index and search PDF files. We spent a considerable amount of time viewing and reading about our options. The project assistant created a table outlining our most promising options. Infoseek's Ultraseek Server, Microsoft Index Server, and Verity Search were our best options.

Infoseek was reasonably priced, had automatic re-indexing, supported sophisticated search queries and responses, and was Y2K compliant. Microsoft Index Server was free with our Windows NT 4.0 server software and had automatic re-indexing. However, it did

not rank search results or detect duplication, and it often included HTML characters when creating summaries. The Microsoft Index Server did offer a PDF filter that could be installed so that PDF files would be indexed. The Verity search engine provided a special filter to search over 200 file formats and used Meta tags to control summaries, so responses to a query were controlled by the metadata entered for each PDF file. Our investigation also revealed that the Netscape Compass Server used the Verity search engine software.

Since the University used the Netscape Compass Server without cost, it was our best option. It required the addition of a PDF filter for indexing PDF documents. However, Netscape recently made the announcement that educational institutions would no longer have free access to their Netscape Compass Server software. It is unclear at this time how this will affect installation of the software. There will undoubtedly be problems to solve as we activate it or our second choice, the Microsoft Index Server, and create the appropriate CGI scripts.

Search engines examined but rejected for various reasons included:

- SWISH-E, because it runs on a Unix platform and we run Windows NT.
- Excite for Web Servers, because it does not search PDF files.
- Harvest, because it also runs on a Unix platform and the project appeared to be bankrupt.
- Sage (NUD*IST 4), because it is a project-based search for personal computers.
- Excalibur RetrievalWare, although it has many wonderful features, because it is very expensive and really more than we needed.

Metadata

Metadata are used to describe an information resource. Whatever the file type used in a digitization project, Meta tags are important for accurate retrieval of documents. The Acrobat Exchange software allows entry of four Meta tags for each PDF file created.

The Meta tags are very important because this is the information used to build the index list when searching PDF files. Without Meta tags, the index list often contains the URL as the title of the document and the first few words of readable text in the document as the description. Such a list may not be an accurate description of the document, and if the OCR software was unable to read the first few words, the information may even be unreadable. For this reason, the decision was made to include metadata for every PDF document.

Much of the data entry for the Meta tags is awaiting the activation of the search engine. Until we see how the selected search engine builds the indexes and displays the index lists, we cannot know what information to enter on each line of the Meta tags.

All accompanying HTML pages were created with title, keyword, and description Meta tags. Our search of the literature found articles outlining research that showed HTML documents with title, keyword, and description Meta tags were ranked higher on index lists built by some Web search engines. Also, most Web search engines use the title and description Meta tags to build the index list. When the Meta tags are not present, the title displayed is often either the URL of the page or "No Title," and the first few words of the document become the description.⁴

Integrating Digitized Files Into a Web Site

Whatever file type chosen for a digitization project, Web access must be provided in an

organized and varied manner. As librarians, our skills as organizers of information certainly assist with this part of the project. Support pages that may be required include pages for browsing by topic or by title, bibliographies, help pages, or pages with historical or related information. Specialists or experts may be consulted for input for this part of the project.

Realizing that the hyperlink properties of HTML documents could assist us with offering multiple access points to the full-text PDF files, we examined the overall design of the ACIR Web site. Already contained on the site were the electronic files of the ACIR as they appeared when the ACIR closed in 1996, and the UNT Libraries agreed to provide permanent public access to the files. This part of the Web site could not be altered from the way the files appeared when the agency closed.

To enhance the original files, we added a brief history of the ACIR and a bibliography of the publications of the ACIR. Relevant dates and citations for laws that created or affected the ACIR were collected for the history of the agency, and the bibliography of ACIR publications was compiled and added.

Additional Web pages created to provide access to the PDF documents and to provide technical information about the site included:

- A "Browse Titles" page to allow access to the PDF documents from an alphabetical listing of titles
< <http://www.library.unt.edu/gpo/acir/browsetitles.html> >
- A page to explain byteserving and to describe the simple steps to allow for faster downloads of the files
< <http://www.library.unt.edu/gpo/acir/technicaldoc.htm> >

Users without the Acrobat Reader software were linked to the Adobe Web site so that they could download the free software.

In addition to offering a searchable site as discussed above, we decided to make the bibliography an important additional access point to the full-text documents. To improve access, the organization of the bibliography needed to follow the way researchers and experts in the field of intergovernmental relations search for information. The project assistant examined a bibliography published by the ACIR in the periodical, *Intergovernmental Perspective*,⁵ and then made suggestions for the reorganization of our Bibliography of the Publications of the ACIR page.

Intergovernmental relations expert and Assistant Professor of Public Administration at the University of North Texas, Dr. Michael McGuire, reviewed the suggestions for reorganizing the bibliography. Working with his comments we created a final plan for the reorganization. Each title in the bibliography will link to the full-text document as it is added to the site and to the corresponding MARC record in the UNT Libraries' online catalog to provide additional metadata about each title. In time MARC records in the Libraries' catalog will link to the electronic full-text document.

ADA Concerns

Access to the PDF files for persons with impaired vision was a concern that required considerable research. The project assistant discovered that the text readers commonly used by persons with visual impairments would not read PDF files. He also discovered that Adobe offered a free program that would translate PDF files into HTML files which text readers can translate.

T.V. Raman, a senior computer scientist at Adobe Systems, created the program, called Acrobat Access.⁶ Mr. Raman is blind and created the program for his own use. The computer program works best on documents composed of simple text, since graphics and other visually rich features do not translate well. The free software was available for

downloading from the Adobe site. However, when we tried to download and install it, a number of problems arose. We discovered that the program was designed to run in Windows 3.1 and had not been updated since 1996. There were some conflicts with running it in Windows 95.

Even though the problems were not insurmountable, a user would have to be technologically skilled to install and operate the program effectively. Adobe offered for sale for about \$100 another software package called Genus HTML. It is compatible with Windows 95, Windows NT, and Macintosh operating systems and translates PDF files to HTML. Like the Acrobat Access software, Genus HTML works best with PDF files containing simple text.⁷

When the free Acrobat Access software was tested, the PDF image-plus-text files on our site were readable by the visually impaired text readers, but only the text that could be captured by the OCR software was available to the user. This meant that words not read by the software in the OCR process were not readable by the text reader programs. To fix this problem, every word of the text would require verification and correction by a person, which would require many hours of work at high costs. The purpose of this project was to develop a method of digitizing a collection that would balance access and costs. At this point, we have not discovered a solution for this problem.

As you can see from these examples, it is imperative that project staff possess excellent technical skills.

Question 7: Can a Digitization Project Be Accomplished at a Reasonable, Predictable Cost?

Hoping to answer this question, we kept statistical data about each step in the process during the first four months of the project.

Times were logged for downloading the files from the Lab's server and for each step in the enhancement of the files. Later, as we scanned in-house several issues of the periodical title, times were noted for both the scanning and the OCR process.

The first 3,600 pages scanned by the vendor cost \$938.44. This included 3,539 black and white scans and 61 color scans. Nine volumes of Significant Features of Fiscal Federalism accounted for 2,164 pages, with thirty-seven issues of the periodical, Intergovernmental Perspectives, accounting for the remaining 1,436 pages. (See Figure 1 and Figure 2) Enhancements for each volume/issue included creation of bookmarks, creation of links from the "contents" pages, and, for Significant

Features of Fiscal Federalism, creation of links from the index. (See Figure 7) For a graphical display of the data, see Figures 3, 4, and 8.

As the in-house work progressed on the files, we noticed a significant increase in the speed of completion of each title. The project assistant became very proficient with the Acrobat Exchange software. The first two volumes of Significant Features of Fiscal Federalism required an average of about 240 minutes each to complete compared with about 125 minutes each to complete the last two volumes, even though the files sizes were similar. (Figure 9) Later in the project, the speed of completion became static, with each periodical issue requiring about 28 minutes. The average time and costs per page were:

No. of Pages Scanned	In-house Time Per Page	Scanning Cost Per Page	Total Cost Per Page
1,432 pages of Inter-governmental Perspective scanned by vendor	.74 minutes per page @ \$10 per hour = .12 per page	.26 per page	.38 per page
356 pages of Inter-governmental Perspective scanned in-house	3.23 minutes per page @ \$10 per hour = .54 per page	N/A	.54 per page
2,188 pages of SFFF scanned by vendor	.85 minutes per page @ \$10 per hour = .14 per page	.26 per page	.40 per page
Average minutes per page	1.61 minutes per page	Average cost per page	.44 per page

The data for in-house time spent with Significant Features of Fiscal Federalism files (SFFF) indicates that the average cost per page would be lower if the first two documents were excluded. As proficiency of the project assistant with the software increased, the amount of time required to complete a document decreased considerably. This is clearly illustrated by Fig. 9. After completion of the SFFF files, the periodical files were enhanced with little variation in time per page. (Figures 5 and 6) Figure 6 also illustrates the widely varying time required for in-house scanning of Intergovernmental Perspective. This time variation can be credited to several factors including:

1. Experience of the person scanning documents.
2. Speed of the scanner.
3. Speed of the computer and available memory in the computer.
4. Speed of moving the data over the network.
5. Condition of the document to be scanned.

With training and with the purchase of suitable hardware, most of the factors can be overcome. However, the condition of the document

cannot be predicted. Some documents have detailed graphs; others have color print on a differently colored background. Some have very small font size; others may have unreadable text. The condition of the document brings unpredictability for scanning times.

The 15-cents-per-page difference in the in-house scanning cost and the out-sourced cost is significant only when a large project is undertaken. For a 100,000-page project, outsourcing would result in a significant savings of \$15,000. Also, when outsourcing the scanning, the vendor would deal with the problems encountered with the condition of each document. However, for small projects, in-house scanning is a reasonable alternative.

As the project manager, my hours are difficult to calculate because much of the management of the project was integrated with the other tasks common to our academic librarian's day. I supervised the project assistant, facilitated the workflow, and coordinated with the Libraries' LAN/PC Management department. Additional hours were spent with problem solving and attempting to "see the big picture," e.g., determining how all the pieces would fit together to create the Web site. Since projects that increase knowledge and growth as a professional are considered an important part

of a UNT librarian's activities, this project was included as part of the workload.

According to the project report from the AMIGOS funded study, *A Digital Challenge: Bringing Kappler's Indian Affairs: Laws and Treaties to the World Wide Web*,¹ pages of text were scanned, then the text was verified and marked up in HTML requiring an average of 66 minutes per page of staff time plus an average of 32.5 minutes per page of student assistant time. Comparison with our average total of 1.61 minutes per page makes it clear that the use of vendor scanning and PDF image-plus-text files can significantly reduce the cost of digitizing a collection while still providing good access. Of course, creation of PDF image-plus-text files by high-speed vendor scanning is a production digitization method that is not appropriate for all types of documents, but when appropriate, the cost savings are notable.

Current Status of the ACIR Project

Now available on the Web site are more than 7,000 pages of ACIR documents. Excluding the initial training, our average cost per page was 44 cents. In the short term, we continue to add individual ACIR documents as requests for specific titles are received. Currently available are:

Intergovernmental Perspectives

1975:	Vol. 1	Issue 1				
1976:	Vol. 2	Issue 1	Issue 2	Issue 3	Issue 4	
1977:	Vol. 3	Issue 1	Issue 2	Issue 3	Issue 4	
1978:	Vol. 4	Issue 1	Issue 2	Issue 3	Issue 4	
1979:	Vol. 5	Issue 1	Issue 2	Issue 3	Issue 4	
1980:	Vol. 6	Issue 1	Issue 2	Issue 3	Issue 4	
1981:	Vol. 7	Issue 1	Issue 2	Issue 3	Issue 4	
1982:	Vol. 8	Issue 1	Issue 2	Issue 3	Issue 4	(Included with Vol. 9, Issue 1)
1983:	Vol. 9	Issue 1	Issue 2	Issue 3	Issue 4	
1984:	Vol. 10	Issue 1	Issue 2	Issue 3	Issue 4	
1985:	Vol. 11	Issue 1	Issue 2-3	Issue 4		
1986:	Vol. 12	Issue 1 & 2	Issue 3			
1987:	Vol. 13	Issue 1	Issue 2	Issue 3 & 4		

1988:	Vol. 14	Issue 1	Issue 2	Issue 3	Issue 4
1989:	Vol. 15	Issue 1	Issue 2	Issue 3	Issue 4 (Includes bibliography of ACIR Publications-- 1961-1989)
1990:	Vol. 16	Issue 1	Issue 2	Issue 3	Issue 4
1991:	Vol. 17	Issue 1	Issue 2	Issue 3	Issue 4
1992:	Vol. 18	Issue 1	Issue 2	Issue 3	Issue 4
1993:	Vol. 19	Issue 1	Issue 2	Issue 3	
1994:	Vol. 20	Issue 1	Issue 2	Issue 3	Issue 4 (Includes bibliography of ACIR Publications - 1960 - 1994)

Significant Features of Fiscal Federalism

1979 - 1980
1980 - 1981
1981 - 1982
1982 - 1983
1984
1985 - 1986
1988 Vol. 1
1989 Vol. 1 Vol. 2
1990 Vol. 1 Vol. 2
1991 Vol. 1 Vol. 2
1992 Vol. 1 Vol. 2
1993 Vol. 1 Vol. 2
1994 Vol. 1 Vol. 2
1995 Vol. 1 Vol. 2

The expertise we gained during the project is also being put to good use. Within the UNT Libraries, the processes developed by our project were shared with the Music Library's staff. They digitized eighteen volumes of Jean-Baptiste Lully's scores using the method we developed for in-house scanning and processing of files. Their project was funded by a TEXSHARE grant and completed quickly using our process. Our technical assistance support page was also adapted and used for their project.

Future plans for the project

Using the results of this pilot project, UNT Assistant Professor and specialist in intergovernmental relations, Dr. Michael McGuire, and I are writing a grant proposal to obtain funding to complete the digitization of

the ACIR publications. We are communicating with other scholars and researchers in the field for advice and assistance and for the purpose of publicizing the collection. If funding becomes available, approximately 60,000 additional pages will be digitized and made available to the public.

Notes:

1. See the report at: <www.library.okstate.edu/kappler/intro.htm>
2. Read about "byteserving" at: <www.adobe.com/prodindex/acrobat/byteserve.html>
3. View the Technical Assistance page at: <www.library.unt.edu/gpo/acir/technicaldoc.htm>
4. See the Web site: Search Engine Features Chart <www.searchenginewatch.com/webmasters/features.html>

See article:

Turner, Thomas P. and Lise Brackbill. "Rising to the Top: Evaluating the Use of the HTML Meta Tag to Improve Retrieval of World Wide Web Documents Through Internet Search Engines," *Library Resources and Technical Services*, Vol. 42 (4), 1998, p. 258 - 271.

5. See the Bibliography at: <www.library.unt.edu/gpo/acir/periodical/ipsfv20n4.pdf>

6. To read about the Acrobat Access software, go to: <www.adobe.com/supportservice/custsupport/LIBRARY/3b7e.htm>
7. To read about Adobe's Genus HTML software, go to: <www.pluginsource.com/acrobat/genushtml.html>

Outsourced Scanning of Intergovernmental Perspectives

Title	Down-loading	Bookmark and Page Setup	Contents Linked	Cover Touch-Up	Saving	Total	File Size (M)	Min/M	Pages	Min/Pg
IPSFv10n184	17	6	3	2	2	30	3.52	8.52	40	0.75
IPSFv10n284	18	7	3	1	2	31	2.81	11.03	36	0.86
IPSFv10n384	16	8	5	1	2	32	2.76	11.59	32	1.00
IPSFv11n185	14	4	6	2	2	28	4.40	6.36	48	0.58
IPSFv11n2n385	19	5	5	1	2	32	3.03	10.56	24	1.33
IPSFv11n485	21	6	7	2	2	38	3.55	10.70	40	0.95
IPSFv14n188	8	3	2	X	2	15	2.70	5.56	28	0.54
IPSFv14n288	5	4	3	3	2	17	2.12	8.02	24	0.71
IPSFv14n388	7	5	3	2	2	19	2.35	8.09	28	0.68
IPSFv14n488	6	4	3	2	2	17	2.44	6.97	28	0.61
IPSFv15n189	8	3	2	3	2	18	3.48	5.17	40	0.45
IPSFv15n289	13	4	2	2	2	23	3.04	7.57	36	0.64
IPSFv15n3	10	4	2	2	2	20	3.64	5.49	40	0.50
IPSFv15n4	12	5	5	1	4	27	3.80	7.11	40	0.68
IPSFv16n1	10	6	5	X	2	23	3.28	7.01	40	0.58
IPSFv16n2	10	4	5	X	2	21	4.07	5.16	48	0.44
IPSFv16n3	15	6	6	X	2	29	3.87	7.49	32	0.91
IPSFv16n4	20	7	6	X	2	35	3.36	10.42	40	0.88
IPSFv17n1	8	6	5	X	2	21	4.34	4.84	52	0.40
IPSFv17n2	6	8	7	X	2	23	3.18	7.23	40	0.58
IPSFv17n3	8	8	7	X	2	25	3.95	6.33	48	0.52
IPSFv17n4	20	8	6	2	2	38	4.98	7.63	60	0.63
IPSFv18n1	20	6	4	10	2	42	4.06	10.34	48	0.88
IPSFv18n2	20	6	4	2	2	34	3.40	10.00	40	0.85
IPSFv18n3	20	6	7	6	2	41	2.80	14.64	32	1.28
IPSFv18n4	22	4	3	8	2	39	2.86	13.64	36	1.08
IPSFv19n1	15	8	4	6	2	35	3.57	9.80	40	0.88
IPSFv19n2	12	8	6	8	2	36	3.70	9.73	44	0.82
IPSFv19n3	17	8	5	X	2	32	3.30	9.70	36	0.89
IPSFv20n1	18	4	2	1	2	27	4.38	6.16	48	0.56
IPSFv20n2	23	4	3	6	2	38	3.05	12.46	40	0.95
IPSFv20n3	21	2	2	3	2	30	3.14	9.55	44	0.68
IPSFv12n1n2	15	4	3	1	2	25	3.03	8.25	36	0.69
IPSFv12n3	12	4	2	2	2	22	2.82	7.80	32	0.69
IPSFv13n1	12	3	2	2	2	21	3.07	6.84	40	0.53
IPSFv13n2	14	4	3	4	2	27	6.19	4.36	32	0.84
IPSFv13n3n4	18	4	2	2	2	28	3.20	8.75	40	0.70
Total	530	196	150	21	76	1039	127.24		1432	
AVG	14.32	5.30	4.05	2.35	2.05	28.08	3.44	8.40	38.70	0.74

Figure 1

In-House Scanning of Intergovernmental Perspectives

Title	Scanning	OCR	Bookmark and Page Setup	Contents Linked	Cover Touch-Up	Saving	Total	File Size (M)	Min/M	Pages	Min/Pg
IPSFv10n484	75	40	15	2	1	4	137	5.01	27.35	32	4.28
IPSFv9n183	95	45	9	3	3	3	158	13.20	11.97	48	3.29
IPSFv9n283	40	45	8	3	2	2	100	11.10	9.01	36	2.78
IPSFv9n383	25	25	8	2	1	2	63	6.63	9.50	32	1.97
IPSFv9n483	72	35	4	2	1	2	116	3.51	33.05	32	3.63
IPSFv8n182	55	62	4	2	1	2	126	4.64	27.16	44	2.86
IPSFv8n282	60	72	6	4	2	2	146	3.69	39.57	36	4.06
IPSFv8n382	72	86	4	3	1	2	168	3.01	55.81	32	5.25
IPSFv7n181	30	30	4	2	1	2	69	4.75	14.53	32	2.16
IPSFv7n281	40	50	4	3	4	3	64	3.24	19.75	32	2.00
Total	564	490	66	26	17	24	1147	58.78		356	
Average	56.40	49.00	6.60	2.50	1.70	2.40	114.70	5.88	24.77	35.60	3.23

Figure 2

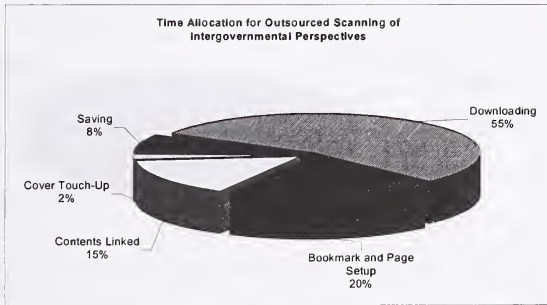


Figure 3

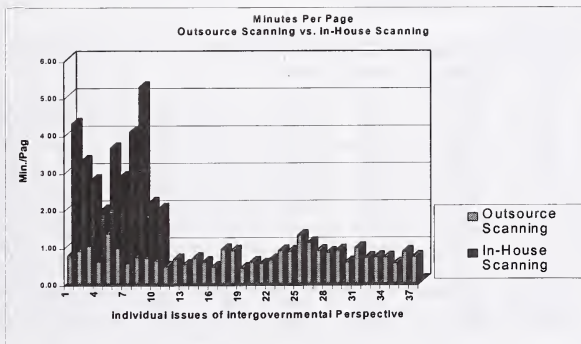


Figure 4

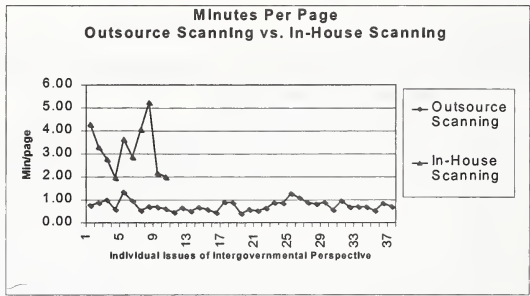


Figure 5

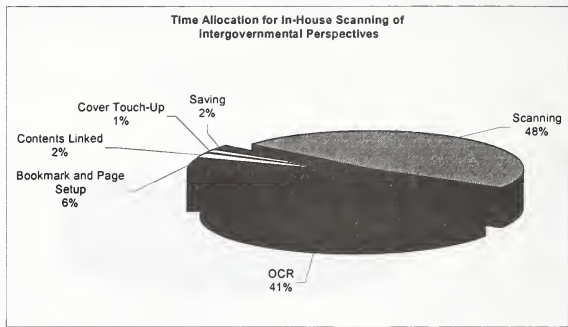


Figure 6

Significant Features of Fiscal Federalism
Time Allocation Statistics

Title	Download Time	Bookmark and Page Setup	Contents Linked	Index Linked	Saving	Total	File Size (M)	Min/M	Pages	Min/Pg
SFFF 1991 V. 1	15	90	45	135	5	290	10.04	28.88	188	1.54
SFFF 1990 V. 1	19	112	25	30	5	191	7.64	25.00	164	1.16
SFFF 1990 V. 2	25	35	65	45	5	175	13.38	13.08	284	0.62
SFFF 1992 V. 1	14	100	30	45	5	194	9.46	20.51	196	0.99
SFFF 1992 V. 2	30	105	55	190	5	385	16.87	22.82	372	1.03
SFFF 1991 V. 2	23	120	30	115	5	293	16.25	18.03	344	0.85
SFFF 1994 V. 1	12	25	10	26	5	78	8.23	9.48	180	0.43
SFFF 1994 V. 2	25	30	43	78	5	181	12.25	14.78	284	0.64
SFFF 1995 V. 1	16	20	8	19	5	68	8.03	8.47	176	0.39
Total	179	637	311	683	45	1855	102.15		2188	
AVG	19.89	70.78	34.56	75.89	5.00	206.11	11.35	18.16	243.11	0.85

Figure 7

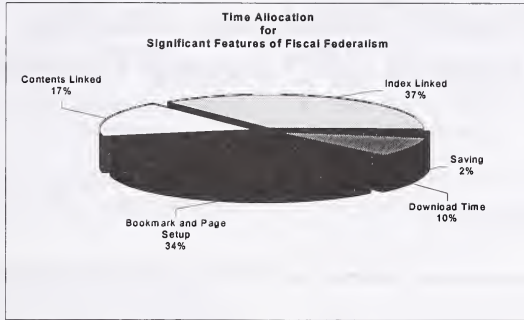


Figure 8

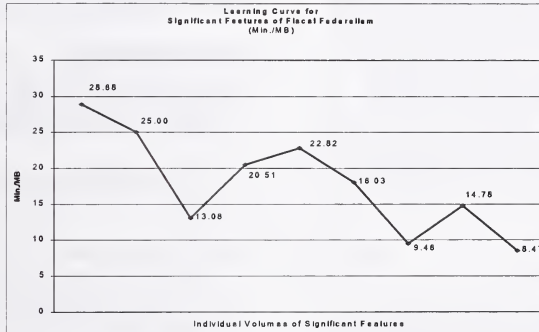


Figure 9

Advanced Search Techniques: Tracking Legislation through GPO Access' Congressional Databases

Karie Lew
U.S. Government Printing Office
Washington, DC

This demonstration showed participants how to track legislation through Congressional databases on GPO Access, highlighting the connections among the Congressional Record, Congressional Bills, Public Laws, U.S. Code, and History of Bills databases. This handout includes general information about the five databases that were covered, as well as searches that track one specific piece of legislation from its introduction as a bill in the Congressional Record to its codification in the U.S. Code.

Selected legislation:

S. 1254 (104th Congress)

To disapprove of amendments to the Federal Sentencing Guidelines relating to lowering of crack sentences and sentences for money laundering and transactions in property derived from unlawful activity.

Public Law 104-38 (104th Congress)

To disapprove of amendments to the Federal Sentencing Guidelines relating to lowering of crack sentences and sentences for money laundering and transactions in property derived from unlawful activity.

28 USC Sec. 994 (1994, Supplement 1)

TITLE 28—JUDICIARY AND JUDICIAL
PROCEDURE
PART III—COURT OFFICERS AND EMPLOYEES

CHAPTER 58—UNITED STATES SENTENCING
COMMISSION

Sec. 994. Duties of the Commission

Database Highlights:

Congressional Record

- Official record of the proceedings and debates of the United States Congress
- Published daily when Congress is in session
- GPO Access contains volumes from 140 (1994) to the present; 1994 is available only on the simple-search page at http://www.access.gpo.gov/su_docs/aces/aces002.html .
- Database for the current session is usually updated daily by 11 a.m., except when a late adjournment delays production of the issue
- New feature: Browse the Daily Digest for the most recent issue
- General search tips:
 - Congresspeople listed by last name and Mr., Mrs., or Ms.
 - Search for bills as "h.r. #" (or "h r #") and "s. #" (or "s #")

Congressional Bills

- All published versions of each bill
- GPO Access contains bills from the 103rd Congress (1993-94) to the present.
- Current database is updated daily by 6 a.m. when bills are published and approved for release.
- List of version abbreviations and some definitions available from Helpful Hints
- Text additions and deletions
 - PDF files: Added text in italics; Deleted text stricken through
 - ASCII text files: Added text in quotation marks; Deleted text marked by <DELETED> and </DELETED> tags
- Search by bill number same as in Congressional Record

Public Laws

- Text of public laws enacted from the 104th Congress to the present
- Updated when the publication of a slip law is authorized by the Office of the Federal Register, National Archives and Records Administration

Once a law is signed by the President, it is assigned a public-law number and issued in print as a "slip law." At the end of each session of Congress, the slip laws are compiled into bound volumes called the Statutes at Large, and they are known as "session laws." The Statutes at Large present a chronological arrangement of the laws in the exact order that they have been enacted. There is not a Statutes at Large database on GPO Access; however, the text of laws published in Public Laws and

Statutes at Large is the same. Users may perform a search by Statutes at Large citation in both the Public Laws and U.S. Code databases.

- New feature: Browse catalog of public laws with hyperlinks
- Marginal notes from PDF files are marked by <<NOTE: >> in ASCII text files
- General search tips:
 - Search by bill number same as before
 - Search by public law: "public law #-#" (e.g., "public law 105-198")
 - Search by Statutes at Large citation: "# stat #" (e.g., "112 stat 3280")
 - Search by U.S. Code citation: "# usc #" (e.g., "31 usc 5112")
- If unable to find text of public law, search for enrolled version of bill in Congressional Bills

U.S. Code

- Codification of the general and permanent laws of the United States
- Prepared and published by the Office of the Law Revision Counsel, U.S. House of Representatives, every six years
- GPO Access contains the text from the most recent print revision of the U.S. Code in 1994, which codifies the laws that were in effect as of January 4, 1995, plus supplemental databases, which reflect changes to the U.S. Code on an annual basis.

Supplement 1 contains the laws that were in effect as of January 16, 1996.

Supplement 2 contains the laws that were in effect as of January 6, 1997.

Supplement 3 contains the laws that were in effect as of January 26, 1998.

Supplements 1 and 2 are complete and contain all 50 titles. At this time, supplement 3 contains only titles 1 through 25; titles will be added incrementally as they become available.

- General search tips:

- Search by bill number same as before
- Search by Statutes at Large citation same as before
- Search by public law: "pub. l. #" or "pub l #" (e.g., "pub. l. 103-40")
- Search by U.S. Code citation: "#usc#" (e.g., "7USC511")
- Use truncation to find multiple subsections of U.S. Code (e.g., "7USC511*")

- When a section is affected by a law passed after a supplement's revision date, the header for that section includes a note that identifies the public law affecting it. In order to find the updated information, you must search the Public Laws databases for the referenced public law number.

History of Bills

- Lists legislative actions on bills that are reported in the Congressional Record
- Part of the print version of the Congressional Record Index, which is published biweekly by the Joint Committee on Printing when Congress is in session
- Maintained as a separate database on GPO Access

- GPO Access contains volumes from 129 (1983) to the present.

- Cumulative from the beginning of each Congressional session

- Current database is updated daily, usually the day after publication of the Congressional Record

- Typical entry includes a bill number, title, summary, names of sponsors and co-sponsors, and a chronological list of actions on the bill, each of which references a Congressional Record page number and the date when the action was reported

- General search tips:

- Search by bill number same as before
- Search by public law number same as in Public Laws databases: "public law #"

- The Congressional Record Index (CRI) online is structured the same way as the History of Bills. Hyperlinks are available to the indexed Congressional Record documents in the 1998 CRI.

Ways to Share the Riches: Web-Based Resources for Selective Housing Arrangements

Rob Richards

University of Colorado Law Library
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Selective housing arrangements can be an effective way for law libraries and other smaller selective depositories to improve access to depository information, and simultaneously to increase the percentage of depository materials that they select.¹ By distributing depository materials for storage in other libraries, the selective depository can broaden the potential audience for Federal documents. In addition, selective housing arrangements can relieve shelving congestion in depository print and microfiche collections.

While the advantages of selective housing agreements are clear to many depositories and their patrons, such distributed storage poses considerable administrative challenges. Responsibilities of depository and housing unit personnel must be clearly outlined; documents must be distributed correctly, quickly, and in accordance with GPO's regulations; and housing units must have access to the tools for properly selecting and deselecting the documents to be housed in their facilities. Collection development challenges are among the most formidable for administrators of selective housing arrangements. Until recently, many factors contributed to the complexity of such distributed collection development efforts:

- the geographical distance between the institutions involved;
- the lack of shared catalogs between the depository and the housing units;

- the need to make collective decisions once per year about adding item numbers;
- the difficulty in providing housing units with current and accurate lists of their selections;
- and the availability of many depository selection resources only in printed format.

The University of Colorado Law Library—a 12.4% selective depository library—has encountered all of these obstacles to successful selective housing administration. The Law Library maintains a selective housing arrangement with four other libraries on the Boulder campus of the University of Colorado: the Government Publications Library, the Business Library, the Engineering Library, and the Earth Sciences Library.

The Government Documents Library is a regional depository library, and each of these four housing libraries shares an online catalog which includes GPO depository bibliographic records from 1976 to present, provided by Marcive. This online catalog permits searching by item number as well as SuDocs number, and supports limiting by library location.

The depository personnel at the Law Library consist of the documents librarian and a serials assistant who processes and catalogs depository materials. The Law Library maintains an online catalog that is separate from the one shared by the housing units. The

Law Library's catalog facilitates searching by SuDocs number, but not by item number.

In the past, administration of this housing arrangement required extensive work on the part of the Law Library's limited staff. Because the depository and the housing units did not share a catalog, because the Law Library's online catalog did not offer access by item number, and because it was difficult to maintain and distribute current lists of items stored in each housing library, housing unit personnel frequently needed to contact the Law Library staff to verify that they were supposed to receive a particular title.

Particularly in the two months preceding the depository item selection deadline, the Law Library's depository librarian and serials assistant expended great labor on managing the annual collection development process. The Law Library's duties in this process included:

- distributing multiple copies of printed lists of items stored in the housing units;
- circulating printed copies of the List of Classes;
- copying and distributing information about new depository titles and item numbers from sources such as Administrative Notes and its Technical Supplement;
- answering numerous questions about depository procedures;
- coordinating two or more meetings of personnel from all housing units;
- facilitating communication between housing units – especially about the availability of items no longer desired by one housing unit but of possible interest to others; and
- collating five sets of printed request forms in order to proceed with adding and

deleting the desired item numbers from the depository library's selection profile.

Each year the Law Library incurred very high labor costs, as well as interruptions to workflow on non-depository processing, in order to carry out item selection.

Much of the burden of housing arrangement administration stemmed from the restriction of depository collection development information to the print medium, and from the limitations of telephone communication about highly detailed depository matters. As GPO began to provide Internet access to depository administration tools, and as the libraries involved in the housing arrangement gained access to powerful microcomputer applications and electronic mail, digital resources promised to offer solutions to many of the problems of housing unit administration.

In 1997, Tim Byrne, Head of the University of Colorado Government Publications Library and regional depository librarian for the Law Library, urged the Law Library's documents personnel to offer the four housing units electronic access to item selection information. The Law Library's documents staff then set out to convert their depository item number database from Microsoft Works to Microsoft Access.

Access was part of the Microsoft Office suite of applications loaded on most of the Law Library's personal computers, and it allowed users to convert databases easily to HTML. Access was also written in the SQL database language, which meant that Access databases could easily be transferred to the MS SQL platform for availability via the Internet.

Access allowed the Law Library to choose between two formats for offering item selection information to housing units: a searchable database, or lists presented in HTML documents. For ease of printing by the housing units, the Law Library chose the latter

option. The Law Library's documents serials assistant sorted the Access item number database by location, cut and pasted Access display screens into Microsoft Word, and then saved the documents as HTML. The Law Library's documents librarian then created a Web page with links to item number lists for each of the housing units, along with a link to Item Lister at GPO.

The Law Library's documents staff soon realized that housing units could benefit from Internet access to all of the depository collection development tools available on GPO's servers. The Law Library's documents librarian then created another Web page with links to tools including MOCAT and the List of Classes, as well as current awareness services such as Administrative Notes Technical Supplement, New and Noteworthy Resources from GPO, and New Products and Services Announcements from GPO. Links also gave access to the online catalogs of the housing units and the Law Library.

Instead of juggling several printed sources sent to them by the Law Library's documents staff, housing unit personnel now could manage their own depository materials, and their own collection development process, using electronic resources organized at one location on the World Wide Web. Housing unit personnel particularly appreciated the increased autonomy that Web resources afforded them, and the freedom to schedule depository work in their own time frames.

Further, the Law Library's documents librarian encouraged all parties involved in the housing arrangement to communicate via e-mail. E-mail communication minimized the amount of paper transactions, sped the communications process, allowed accurate and easy transfer of complex data between applications, provided a long-term record of all interactions, and greatly simplified the final work of entering additions and deletions of item numbers. In addition, e-mail facilitated both one-to-one and group

conversations about specific selection and administrative issues.

In the summer of 1998, the Law Library and its housing units for the first time conducted item selection using these Web resources. Results were remarkable. The Law Library's documents staff experienced greatly reduced time spent on administering item selection. This also resulted in fewer interruptions of other technical services workflows at the Law Library.

Housing unit personnel asked fewer questions of Law Library staff during preparation, since housing unit personnel could access most depository collection development information directly through the Internet. The number of group meetings held in person was reduced to one, since all preliminary communication took place via e-mail.

The Law Library's documents staff also felt confident that housing unit personnel were employing the most current and accurate resources available, instead of printed materials that might be out of date or incomplete. Housing unit personnel reported increased satisfaction with the item selection process. This improved morale regarding participation in depository administration bodes well for the long-term continuation – and even expansion – of the selective housing arrangement.

Overall, the provision of Internet-based item selection and collection development resources appears to have reduced costs for all parties, and increased the satisfaction of depository and housing unit personnel with the administration of the housing arrangement. The Law Library's documents staff looks forward to learning whether this model of providing networked resources for selective housing administration produces similar results for other selective depositories.

¹ See, for example, Selective Housing of Documents, in Federal Depository Library Manual, 15-17 (1993); and Cheryl Nyberg, Selective Housing of Federal Government Documents in Non-Depository Libraries, 71 Ill. Libr. 479 (1989).

The author wishes to thank Barbara Bintliff, Director, University of Colorado Law Library, Georgia Briscoe, Associate Director, University of Colorado Law Library, Tim Byrne, Head, Government Publications Library, University of Colorado at Boulder, and Sharon Blackburn, Associate Law Librarian, Texas Tech University School of Law Library, for their support of this presentation. The author also wishes to acknowledge the superb work of Dallas Marshall, Serials Assistant, University of Colorado Law Library, in creating and improving many of the digital resources described in this presentation.

Spreading the Riches Around Administering Selective Housing Arrangements From the Law Library Perspective: An Overview

Sharon Blackburn

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Lubbock, TX

My presentation this afternoon will overview selective housing arrangements, list the advantages of the arrangement to the law library depository as well as the non-depository library, detail the considerations both libraries should take into account, and briefly cover my own experience in sharing a selective housing arrangement with the Geosciences Reading Room at Texas Tech University.

What is a Selective Housing Arrangement?

Quite simply, a depository library may select depository material to house in a non-depository library. The material may be current or retrospective. When the administrator of the depository library does not also administer the non-depository site, then the two libraries must sign a formal selective housing agreement or memorandum of agreement (see p. 17 of the Federal Depository Library Manual). The non-depository library must meet the same retention standards and the same public access standards as the depository library. In essence, the non-depository library must adhere to all Federal Depository Library Program policies.

But, Is a Selective Housing Arrangement Still Desirable in the Age of the Internet?

Certainly, many Federal Government publications are now available over the Internet. Still, not everything currently in the depository system is available, and few agencies have added all of the retrospective

collections that depository libraries hold. Not every patron wants to use materials via the Internet, and not every format works well in electronic form. Finally, receiving Federal documents for a very low cost appeals to most potential selective housing sites. So, yes, a selective housing arrangement has viability even in the age of the Internet.

Why Would a Non-Depository Library Want to Participate in a Selective Housing Arrangement?

As mentioned above, the non-depository library will receive Federal documents at a very low cost. The library will also be able to mold and strengthen its collection to meet the Government information needs of its specific clientele. With added information and resources, the library can better serve its clientele. And, the library will be making an alliance with an expert in government and law—the law librarian.

Why Would a Depository Law Library Want to Participate in a Selective Housing Arrangement?

The Law Library has the opportunity to form a valuable partnership outside the law library community. Such a relationship may very well be a first step in the direction of cooperation and support for the future. More importantly, the law library shows its dedication to fulfilling the Government information needs of the Congressional District or local area. This is the

primary goal of all depositories, and selective depositories not close to a regional or an almost 100 percent selective depository should feel a particular impetus to fulfill their local area's Government information needs.

A law library does not generally collect in the subjects of consumer affairs, business, medical, or scientific information, but a depository law library has the opportunity to make those documents subjects available to its community by establishing a selective housing arrangement with a local public library, special library, or academic library.

Moreover, a law library can alleviate its own space constraints by housing documents in another site. For instance, if a law library has collected environmental impact statements but finds its shelves overflowing, perhaps a local library serving patrons interested in the environment might be willing to house such documents.

A separate housing arrangement also benefits the law library's principal clientele because then attorneys, judges, law professors, and law students will have access to materials that may very well have relevance to their cases or studies with generally more expertise in non-legal areas than a law library may be able to offer. For example, a law school may offer a joint J.D./M.B.A. degree. While a law library may not traditionally select business-related materials, and may have no space to store such materials, perhaps there is a business library on campus that would be delighted to house Federal documents related to business.

Why Would an Administrator Support a Selective Housing Arrangement?

I think any administrator is impressed, especially in tough economic times, when a library can demonstrate cooperative planning and sharing resources. And, the administrator of a law library, as well as the dean of a law school, chief administrator of a court, or county

commissioner, should be pleased with the public relations value of the law library's cooperative venture with another entity in the community. At times, legal institutions may be seen as elite institutions. The law library may help to dispel or quell that perception.

Steps to Achieving a Selective Housing Arrangement

The first step should be that the depository law library make certain that Government information needs are indeed lacking in the Congressional District or local area served by the library. Even if, say, a regional depository or near-full selective depository exists within the same area, the potential housing site may offer subject expertise unavailable in the larger libraries, or the location of the housing site is more appealing to many users. At any rate, the depository library should be certain that gaps exist in the provision of Government information and not merely duplicate materials already in the district.

Both the depository and non-depository should also understand that the selective housing arrangement will require a substantial commitment of staffing and resources. I will discuss this more in depth a little later, but just because the FDLP does not charge for documents does not mean that putting documents on the shelf will have no cost.

Both libraries should also realize that the arrangement requires a long-term, official relationship. Not only must the non-depository keep the Federal documents for at least five years, but also the arrangement requires the participation of two other institutions: the regional library and the Federal Depository Library Program.

Law Library Staffing and Resources

When participating in a selective housing arrangement, the law library must:

- Review its own collection development plan
- Amend item selections
- Process extra documents
- Physically transfer the documents to the non-depository
- Keep in contact with the non-depository regarding claims, changes to call numbers and item numbers, and FDLP news (of course, with the advent of the FDLP Web page, such communication is much easier and more comprehensive)
- Monitor the adherence of the non-depository to the policies of the FDLP

The Non-Depository Library Staffing and Resources

When participating in a selective housing arrangement, the non-depository library must:

- Review its public access and weeding policies and make them compliant with FDLP standards
- Process extra publications
- Promote the documents collection to library staff and patrons
- Promote the professional development of the librarian or librarians responsible for the documents collection
- Identify item numbers that most closely match the information needs of the library's users
- Compile biennial reports, self-study, and statistics

The Selective Housing Agreement

When the two libraries have determined to establish a selective housing arrangement for Federal documents, they must execute a formal agreement, also known as a memorandum of agreement. A sample form may be found in the Federal Depository Library Manual on page 17. The essential elements of the agreement are that the libraries:

- Adhere to the policies of the FDLP
- Justify the transfer of the Federal documents
- Detail the duration of the agreement
- Set out the conditions for terminating the agreement
- Discuss how the housing site will maintain the collection
- Guarantee free access and ILL
- Provide for the disposition of the documents in case the libraries dissolve the agreement

The Texas Tech University Law Library and the Geosciences Reading Room

For decades, the Geosciences map room or Reading Room housed USGS and DMA maps selected by the Texas Tech University Library, a regional depository. In the late 1970s, the University Library elected to house all depository maps together in the library's map room. Understandably, the Geosciences Reading Room desperately wanted to continue receiving the maps, and the law library, a newly designated depository, assumed the housing arrangement with the Geosciences Reading Room.

The Texas Tech Law Library currently selects around 13 percent of FDLP offerings. Of the almost 900 item numbers the Law Library

selects, only 67 are dedicated to the Reading Room. Most items ship directly to the Reading Room from USGS. The Reading Room clerk and her student assistant identify, process, record, and file maps according to FDLP guidelines.

A few items selected, around 10-15 pieces per week, come first to the Law Library. In this case, the Law Library identifies the material with a depository stamp, writes the call number and shipping list number on the piece, photocopies the shipping list for the convenience of the Reading Room, and places the material on a shelf in the documents workroom.

Every other week, the Reading Room clerk drops by the Law Library to examine the materials on the shelf. She usually takes 90 to 95 percent of the materials. The rest either go into the Law Library's collection or into storage.

Back at the Geosciences building, the Reading Room clerk enters a record identifying each piece into a stand-alone database. Usually the clerk waits until a full cataloging record appears on the University Libraries public online catalog before creating the database record in order to ensure correct title and author. The clerk may add subject headings as well.

In future, we hope that the Law Library can include the Reading Room as a location on the University Libraries online catalog and simply attach the Reading Room's holdings onto full MARC records and phase out the stand-alone database. However, because the Reading Room is not an official library, certain policy considerations must be resolved with the administrators of the online catalog.

Usually once a month, I visit the Reading Room to discuss problems and to monitor compliance with FDLP guidelines. At least once a week, though, I am on the phone or e-

mail with the Reading Room clerk answering questions, giving advice, and passing on news about the depository program.

The most frustrating aspect of our arrangement with Geosciences is the frequent turnover in the clerk's position. In the last ten years I have worked with seven different clerks. Typically, the clerks are doctoral graduate students in Geosciences, although one clerk had an M.L.S. (though stayed for only six months). Such a revolving door puts a strain on me to make certain that the clerk understands the importance of the depository program and standards.

Unfortunately, I have little influence to encourage the Department of Geosciences to upgrade the clerk position in order to attract a stable governor for the depository collection, other than the ultimate and very heavy club of ending the arrangement. Neither I nor my administration wishes to wield such a drastic solution.

The Selective Housing Arrangement Benefits the Law Library's Clientele

Despite the headaches of constantly having to train new staff, I am pleased with the Law Library's arrangement with the Reading Room, and my law professors and students certainly benefit from the arrangement. The Reading Room helps support the curriculum and research for

- Land Use Planning
- Environmental Law
- Agricultural Law
- Oil and Gas Law
- Trial Advocacy

Attorneys also benefit from the arrangement. An attorney can use the GIS expertise at Geosciences to craft a map covering intersection accidents, crime incidents, or just about any other map they need to demonstrate evidence in court or to help a client.

Finally, the selective housing agreement benefits the Law Library because our Law School Dean takes great pride in cooperative efforts. He is quite happy to assure University officials that the Law School gives back to the University and surrounding community. And, quite frankly, a happy Dean means a happy law librarian.

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What It Means To Be a Selective Housing Site in This Day and Age

Martha Jo Sani
University of Colorado, Boulder
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The William M. White Business Library has maintained a separate Government publications collection throughout the history of the library. The library was established in 1970 when the College of Business moved into a new building on the University of Colorado, Boulder campus. The library contains over 80,000 monographs, over 160,000 items in microform, and subscribes to over 700 serials. Access to many more full text serials are available through databases the library purchases or accesses through Chinook, the University libraries' Web-based online catalog.

As a branch library, the library continues to receive operating and acquisition funds from the main library, but the serious state underfunding of the library system over the years has prompted the business library administration to turn to the College of Business for equipment and gift money to provide for the research and curricular library needs of the college.

The funds were used to fund serials and monographs as well as new technology. These funds were used and continue to be used for up-to-date technology, including a LAN system and to access ever increasing Web-based resources. A deposit account funded with gift funds was set up in the 1970's to maintain a separately housed Government publication collection. It was used until recently.

In 1994 the selective housing site with the University of Colorado Law Library was created to provide resources in categories related to business. Some of the item selections covered titles the library was

receiving, but most of the selections were CD-ROMs that could be installed on the business library LAN system.

Government publications not available through the depository arrangement were ordered as needed. These and most of the long running serial subscriptions publications are now ordered using the main library deposit account. This arrangement has not worked very well, but we hope the process will improve or the business library will need to explore other options. The business library must have up-to-date information that is readily available and we are pleased the online access has improved this situation immensely, but there are times when we need to have the printed sources available.

The Business Library menu illustrates the wide variety of electronic databases the library subscribes to or accesses through the main library gateways. A click on menu items directly connects the patron to selected databases without going through several layers of screens. This has proved to be a real time saver and less confusing for the patrons and the library staff can concentrate on teaching how to use the resources and not spend time showing patrons how to get into the databases.

STAT-USA and the CIS Statistical Universe listed in the menu have been welcome additions. The business library partially funded STAT-USA and has maintained a collection of the Statistical Reference Index microfiche indexed in Statistical Universe since 1980. The library also subscribes to the NTDB CD-ROM,

which continues to be a useful tool for international marketing students.

The core of the collection is Federal economic indicators that have been collected for approximately thirty years for use by business students for case studies. The selection rate through the law library of about 2% of available depository materials adds about the same number of documents that are withdrawn each year, keeping the collection at about 1368 volumes. This number is derived from counting 8 volumes per square foot. The library adds about 1% through purchases and gifts each year. The collection will continue to be small as older items are sent to the regional depository library and online permanent access continues to improve.

The business library has always had a close relationship with the regional library in the main library. The regional library is heavily used by business and faculty for research and curricular needs and the business library is dependent upon the regional to supply resources that are not readily available in the business library. All Government documents in all formats from any Government entity that are received by the business library are sent to the regional library for cataloging.

The regional library is responsible for adding business library item records to bibliographic records in the Chinook online database that reflect branch holdings. Due to the age of the business library Government publications collection, part of the business library holdings are not accessible in Chinook, but a retrospective project that involves weeding and cataloging the collection should be finished by end of the summer of 1999.

The business library maintains an electronic shelf list of documents and other Federal, state, and international resources. The regional depository library has also developed a Web page that provides an overview of depository holdings and services and guides to the

depository collection. The Web page and the guides to the regional depository collection are particularly helpful. The business library is also developing a Web page that places Web sites in specialized business categories. This Web page will include many of the online Web sites available from the Government.

The Business Library has a historical relationship with the Law Library that goes beyond the depository selection process due to shared curricular needs and research. Some of the Business Library collection development decisions are based upon the availability of resources in the Law Library. Being a selective housing site for the law library was a logical choice. The Law Library is separate from the University Libraries system, but access to the Law Library catalog and Government publications and other resources is available through a link on the Chinook system.

The shared housing arrangement with the Law Library has provided the business library with basic as well as additional Federal Government resources needed by the library. However, our participation in the depository program will continue to be evaluated as access to Government publications changes from printed to online access.

Permanent access to the Government information needed by the library will be the key. This information must be readily available to students, faculty, staff, and public patrons.

The library will continue to provide trained specialized librarians to help our patrons find and interpret information available from the Federal Government using printed, microform, CD-ROMs, and online materials available in the business library and refer patrons to the depository library as needed. The library also purchases printed and online information from commercial entities that provide added value to Government information. Up-to-date technology that is required to access

Government information will continue to be available.

As a rule the library does not provide software applications in the library, except as needed for specialized databases requirements. This may change in the future when the new business library is constructed and increased access is provided for laptop computers.

As the major business library in the state, we are committed to providing information available from the Federal Government to our students and faculty and the public, and we will continue to fulfill that role in the new millennium. Our participation in the Federal Depository Library Program has helped us to fulfill that role.

How to Use the Digital Library of the State of the Environment on the Web and on a Web-Connected CD/DVD-ROM

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Abstract

Since last year's presentation entitled LandView III and the CEIS Digital Library of the State of the Environment <www.access.gpo.gov/su_docs/dpos/98pro41.html>, the Digital Library of the State of the Environment has greatly expanded its content and upgraded the Folio CD-ROM and Web Server technology to version 4.2.

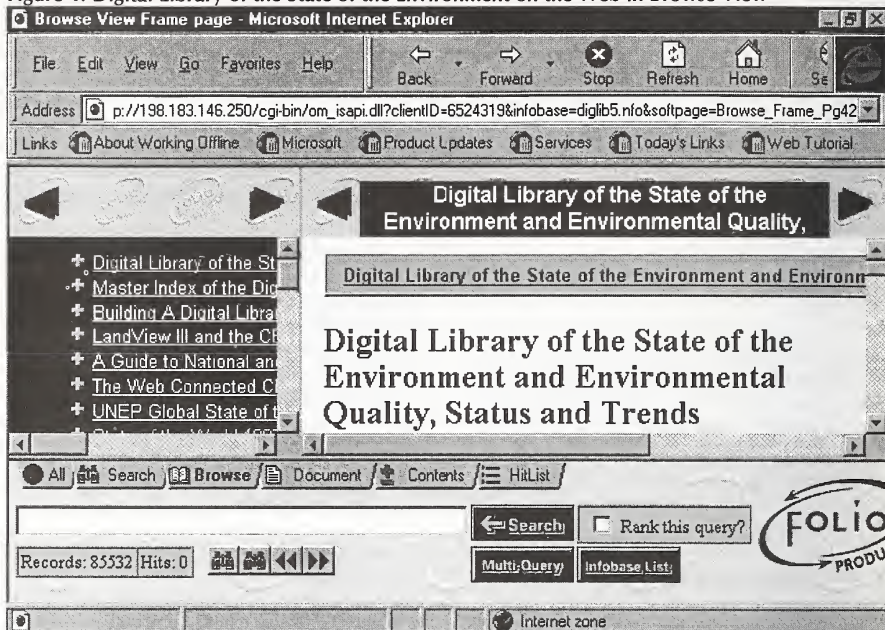
A new Digital Library of the State of the Environment Reading Room is now available <www.sdi.gov/diglib.htm>. The purpose of this demonstration is to provide an introduction to the new content and technology for depository librarians and others attending the conference. Only the first part of the "how to use" information is reprinted here and the

complete file is available on the Web site <www.sdi.gov/bnfdlc99.htm>. The demonstration will show how the same State of the Environment content is available on both the Web and the CD-ROM using essentially the same interface. The Web-connected CD-ROM is available for those who need it and is updated periodically to maintain an archive of the Web site content.

Table of Contents

1. Overview
 2. Query Syntax and Multiple Infobase Query
 3. Web-Connected CD/DVD-ROMs
 4. Introduction
 5. Understanding the User Interface
-
1. Overview

Figure 1. Digital Library of the State of the Environment on the Web in Browse View



Folio delivers the same content with essentially the same interface on both the Web and CD-ROM. All the elements of the interface are defined below.

Figure 1 shows one of six different views of infobases in the digital library, namely, Browse with the Contents in the left side frame and the Reference and the Document frames in the middle. The frames may be resized with the mouse, and the interface may be customized (e.g., simplified with fewer choices for beginning users on both the Web and CD-ROM). The Contents frame contains a hyperlinked table of contents that may be expanded (☏) or collapsed (☐), and together with the Reference frame tells you where you are in the overall structure of the infobase. The All view is best for searching and when you want to see all the information at once. The Search view is best for finding the most

relevant information because it provides the Hit List view at the bottom. The Hit List view allows you to view as many references in the hit list as possible and link to them. The Document view is for reading the information, especially after you have narrowed the search, while the Contents view is best for navigating and scanning the table of contents.

Folio also provides for query templates on both the CD-ROM and the Web distributions to facilitate searching by fields as well as by words and phrases, when the infobase contains fielded information like dates, numeric data, etc. Furthermore, the Folio search results take the user directly to hits in documents or table of contents headings as well as to hit list with relevance ranking.

All of the interface elements are defined below:

Simple Combined View: What you see after doing a word search and selecting the All Tab

Folio siteDirector 4 - User's Guide

Folio siteDirector 4 Users Guide
Searching Infobases

Searching Infobases

If you can't find it, you can't use it. Thankfully, Folio siteDirector is able to tap into the Folio search engine to help you locate the information you need.

Rank	Hit Reference
0	Folio siteDirector 4 Users Guide
0	Folio siteDirector 4 Users Guide
0	Folio siteDirector 4 Users Guide \ Understanding the User Interface \ Hit

Document Tab: When you want to read the document



Simple Document View

Folio siteDirector 4 - User's Guide

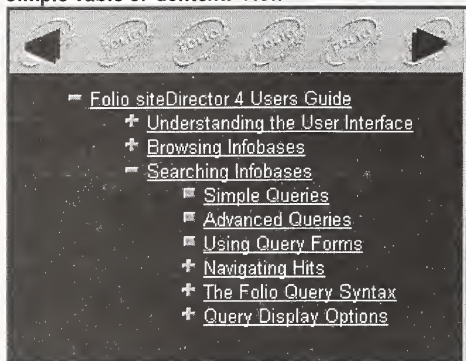
Folio siteDirector 4 Users Guide

Folio siteDirector 4 allows information publishers to deliver mission-critical information over Internets or Intranets. The information is stored in Folio Corporation's infobase format

Contents Tab: When you want to browse and use the dynamic Table of Contents



Simple Table of Contents View



Icon-Plus: Click to expand to see subheadings



Icon-Minus: Click to collapse to hide the subheadings



Icon-Empty: When there are no subheadings



Query Single: Click to enter a query and its specifications



Search Edit Window: Enter a word or phrase and hit Enter



Simple Query Form: Use for field searches (e.g. dates, etc.) when provided with infobase

Select the infobase to query:

FolioHelp

Query for:

Query Clear

Query Multiple: Select multiple infobases to search

Multi-Query

Simple Intermediate Query Results: Help you decide which infobases to look at for search hits

Folio Views 4 Getting Started
Returned a total of 39 Hits

folio - 154 & - 39
help - 45

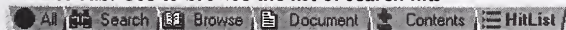
[All View](#) | [Document View](#)

Folio siteDirector 4 - User's Guide
Returned a total of 4 Hits

folio - 19 & - 4
help - 11

[All View](#) | [Document View](#)

Hit List Tab: Use to browse the list of search hits



Simple Hit List View: What you see after doing a word search and selecting the Hit List Tab

Rank	Hit Reference
100	Folio siteDirector 4 Users Guide \ Searching Infobases \
99	Folio siteDirector 4 Users Guide \ Browsing Infobases \ B
98	Folio siteDirector 4 Users Guide \ Searching Infobases \
97	Folio siteDirector 4 Users Guide \ Searching Infobases \
97	Folio siteDirector 4 Users Guide \ Searching Infobases \ (And_Or_Not_XOr) \Or

Left and Right Hit Marks: How the search hits are marked

▶Search Hit◀

Next Hit: Use to jump forward from one hit to the next



Previous Hit: Use to jump backward from one hit to the previous



Next Page-sans cursor: Navigation button to go forward to next page



Next Page-with cursor: Same as previous when cursor is present



Previous Page-sans cursor: Navigation button to go back to previous page



Previous Page-with cursor: Same as previous when cursor is present



Help: Provides customized help when provided with the infobase and/or Web site



2. Query Syntax and Multiple Infobase Query

How to search an infobase

<http://198.183.146.250/cgi-bin/om_isapi.dll?&softpage = Howto42 >

Multiple Infobase or Document Query Interface <http://198.183.146.250/cgi-

bin/om_isapi.dll?&softpage = Multi_Query_Req uest42 >

3. Web-Connected CD/DVD-ROMs

The Web and CD-ROM are evolving as complementary, rather than competing technologies for multimedia electronic

publishing of value added content. Web-connected CD/DVD-ROMs can serve to overcome grid lock on the info highway and deliver Web resources to those whose time is too valuable for the "World Wide Wait." Even more so, Web-connected DVD/CD-ROMs can provide a value added interface to Internet information that is "quirky, transient, and chaotically shelved" and deliver multimedia and interactivity that is beyond the foreseeable future for the Internet infrastructure.

A Web-connected CD-ROM can be used in two ways. First, it can be accessed and examined from a standalone computer with CD-ROM drive. Second, for those with computers having Internet browser capabilities, active Web links allow users to interact with Web sites from the CD-ROM. Web-connected CD/DVD-ROMs like Microsoft's Encarta provide a comprehensive multimedia encyclopedia on the CD/DVD-ROM with connections to many Web resources and periodic updates that are downloadable to the user's PC and work seamlessly with the CD/DVD-ROM.

The SIGCAT (Special Interest Group on CD/DVD Applications & Technology) is the world's largest user group (11,000 members) devoted to the investigation of CD/DVD technology and its many applications in government, business, and education. The SIGCAT has featured the convergence between the Web and CD/DVD-ROMs during its annual conferences the past three years (c.f. The Convergence Hits Home: A Survey of Late Breaking Web-Connected Titles-SIGCAT '98 Conference, May 20, 1998 <www.sigcat.org/meetings/sigcat98/catalog/session/tchh.html> .

4. Introduction

The information is stored in Folio Corporation's infobase format and converted to HTML on-the-fly. The infobase format allows you, accessing this site through your Web browser, to search for and view information in ways that

go beyond traditional HTML indexing and display paradigms.

This help file should provide you with the basics of using Folio siteDirector 4, including:

Understanding the User Interface - Folio siteDirector makes use of several default buttons and views that may be new to you.

Browsing Infobases - Folio siteDirector serves HTML pages in your browser. However, because there is an infobase on the back end of that HTML, there is some functionality available for browsing information that may be new to you.

Searching Infobases - The powerful Folio search engine enables you to find what you need, when you need it.

5. Understanding the User Interface

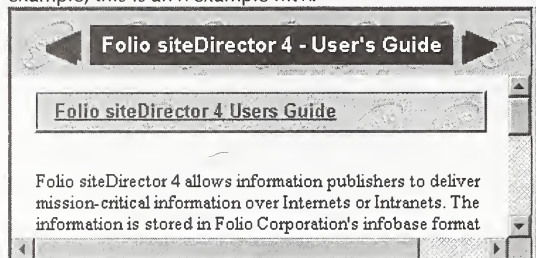
Folio siteDirector allows site administrators to completely customize how infobases are displayed over the Web. As such, the appearance of the site you are currently using may be completely different from any other site running Folio siteDirector. However, typically there are several components that are constant. This section describes those components.

Document View
Contents View
Hit List View
Query Views
Intermediate Query Results
Combined Views
Standard Buttons

Document View

The document view displays the main body of the infobase. Within the document view, you can read the text of the infobase, view images, and follow links to other areas in the infobase. Usually, the document view provides links (either text or graphic buttons) to take you to

the next or previous page of information in the infobase. The document view also highlights the hits from queries on the infobase. Usually, these hits are marked by red arrows. For example, this is an **▶example hit◀**.



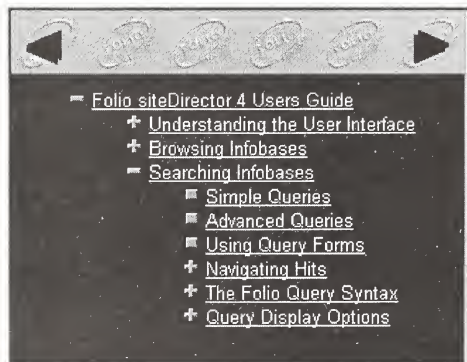
Below is a simple document view. Note the graphics at the top of the page; these are for moving forward and back through the infobase.

Contents View

The Contents view displays the table of contents for an infobase. The table of contents may be expanded or collapsed by clicking the **+** and **-** images next to each heading in the view. Click a **+** to expand a branch of the table of contents; click a **-** to collapse a branch.

Each heading in the contents view is linked to the corresponding information in the body of the infobase. When you follow the link, the information is displayed in a document view.

Below is a simple contents view. Note the **+** and **-** images next to the headings that can be expanded or collapsed. Also note the **+** images next to headings which are fully expanded.



Hit List View

The Hit List view displays a summary of query hits for the infobase. This view is only populated if you have performed a search on the infobase.

The hit list view will have at least one column; often, it will have two or more columns. Text in the first column is always linked to the corresponding information in the body of the infobase. When you follow the link, the information is displayed in a document view.

The hit list view most often displays the relative rank of the hit in the first column and the heading path in the second column. The relative rank only applies to ranked queries (as is done through a simple query and through some custom query forms). The heading path lists the parent headings of the information (such as Chapter 2 \ Section 3 \ Item 47). These are the same headings as are displayed in the contents view.

The hit list may also display a snippet from the body of the infobase, showing a few words around each actual query hit, beneath the heading list. You could use this information to better identify the context of the hit before linking to the full information.

Below is a simple hit list view. Note the information in the columns. Also note that only the first column is linked.

Rank	Hit Reference
100	Folio siteDirector 4 Users Guide \ Searching Infobases \
99	Folio siteDirector 4 Users Guide \ Browsing Infobases \ B
98	Folio siteDirector 4 Users Guide \ Searching Infobases \
97	Folio siteDirector 4 Users Guide \ Searching Infobases \
97	Folio siteDirector 4 Users Guide \ Searching Infobases \ (And, Or, Not, XOR) \ Or

Query Views

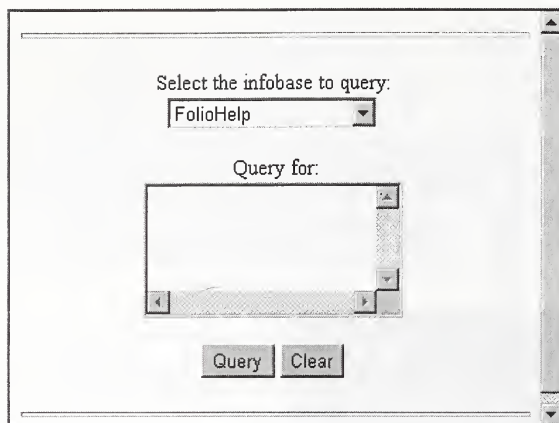
The query views provide a form for you to query one or more infobases. Typically, the form provides a list box to choose the infobases you wish to query and one or more fields to enter the terms you wish to search for. It may also provide a set of options to control how the information is displayed.

There are basically two types of queries: the simple query and the advanced query. The simple query does not require you to know anything about the Folio query syntax and provides ranked results. The advanced query requires that you understand the Folio query syntax and does not provide ranked results by

default. Most single-field query forms use the simple query method; multiple-field query forms usually use the advanced query method. However, most multiple-field query forms attempt to hide the Folio query syntax from you (they make sure the syntax is correct for you), so you do not need to learn it unless you want to.

See Simple Queries and Advanced Queries for more information.

Below is a query view that uses the simple query method. Note the list of infobases to choose from and the single field for entering the terms you wish to search for.



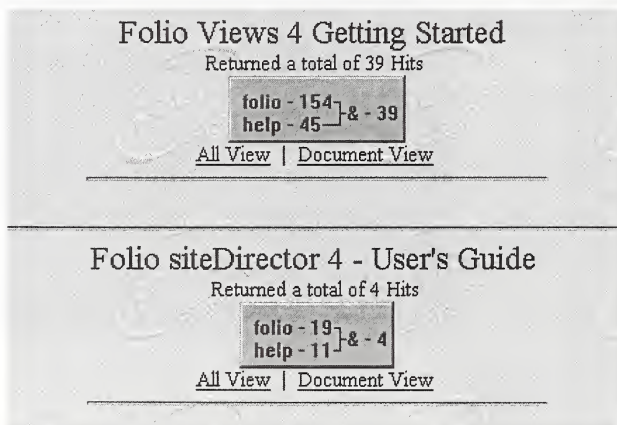
Intermediate Query Results

After performing a search, you may be taken to an intermediate query results page. Rather than taking you to the first hit in the document view, this page shows you the number of hits for each infobase that you searched. Some also display a query map to help you see which terms had the greatest effect on the search. The query map allows you to see immediately

if a structure or term is part of the infobase, as well as which combinations of structures and terms provide hits.

From the intermediate query results page, you can link to the document view to see the first hit in the selected infobase.

Below is a simple query results page.



Combined Views

Using frames, these basic views may be combined on a single page. For example, a common view shows the contents view on the left of the page and the document view on the right. Following links in the contents view updates the document view. Another common view shows the document view on the top of the page and the hit list view on the bottom of the page. Again, as you follow links from the hit list, the document is updated.

No matter what combination of views the site designer creates, simply remember that the primary functionality comes from the Document, Contents, or Hit List views (query views are usually on their own page).

Below is a simple combined view, showing the contents, document, and hit list views. Note that a query hit is highlighted in the document view.

Rank	Hit Reference
0	Folio siteDirector 4 Users Guide
0	Folio siteDirector 4 Users Guide
0	Folio siteDirector 4 Users Guide \ Understanding the User Interface \ Hit List

Standard Buttons

Folio siteDirector includes several standard buttons to aid in navigating through infobases. These include buttons for moving to the next and previous page, moving to the next and previous hit, querying the infobase, or changing to another view of the infobase.

The standard buttons are divided into the following categories:

Navigation Buttons

View Buttons

Query Buttons

Navigation Buttons

Navigation buttons help you move through the infobase. These buttons include:

Next & Previous Page

Next & Previous Hit

Next & Previous Page



Folio siteDirector transfers only a discrete portion of the infobase to the browser for display; this saves time and bandwidth. These buttons display the previous or next portion of the infobase when clicked. Notice that the buttons change when the cursor is placed over them.

Next & Previous Hit



Document



Clicking the Document tab displays the document view of an infobase, allowing you to

Query hits are highlighted with arrow icons (▶▶ query hit◀◀). By clicking the Previous and Next Hit buttons, the browser displays the appropriate hit.

View Tabs

View tabs are displayed in the bottom pane of the browser window and allow you to choose the display you wish to see. These tabs include:

Document Contents Hit List

view the main body of information for the infobase.

Contents



Clicking the Contents tab displays the contents view of an infobase. The contents view contains a fully functional infobase Table of Contents window, complete with expandable

and collapsible branches. You may follow links from the headings in the contents view to the document view.

Hit List



Clicking the Hit List tab displays the hit list view of an infobase. If no query has been performed, the hit list is empty; if a query has been performed, then the hit list displays heading information for each hit. You may follow links from headings in the hit list view to the document view.

Query Buttons

Query buttons display different query forms for you to use.

Query Single or Multiple Infobases



The other tabs – All, Search, and Browse – combine the other views in useful ways.

The query single infobase button displays a form that queries a single infobase. The query multiple infobase button displays a form that allows you to search several infobases at once. These buttons may use the simple query format, which automatically ranks queries by

relevance, or the advanced query format (which allows you to take advantage of the powerful Folio query syntax), or a custom query form which provides you with several fields to fill in before submitting the query.

A horizontal search input field with a dark border. To the right of the input field is a dark rectangular button with a white left-pointing arrow and the word "Search" in white text.

Additionally, you can simply type your query in the query edit box and click the Search button. The query edit box is located in the bottom pane of your browser when viewing an infobase.

Federal Emergency Management Agency

Marc Wolfson

Dave Wellman

Federal Emergency Management Agency

Washington, DC

Federal Emergency Management Agency

- What is FEMA
Who we are and what we do
- Why use www.fema.gov
Successes
Organization

FEMA - Who we are...

- An independent Federal agency
- Director of FEMA, James Lee Witt, holds a cabinet level position.
- Annual Operating Budget - \$420 Million
- 1998 Federal Disaster Costs - \$3.5 Billion
- Employees
2500 Full-time
6000 temporary disaster assistance
employees
- FEMA handles an average of 60 disasters
per year

FEMA - What we do...

- Recommend ways to reduce losses of life
and property in the event of a disaster.
Training, Out Reach, and Partnering
National Flood Insurance Program
Project Impact
- Assist in the response and recovery effort
after a disaster.

Why use www.fema.gov

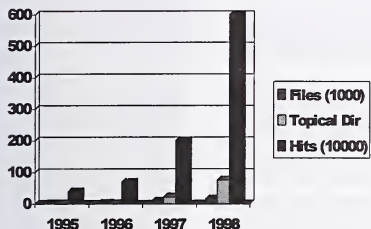
- To obtain accurate, official and timely
information in matters relevant to FEMA's
responsibilities
- To review day by day accounts of major
disasters

How we've grown...

www.fema.gov

Organization Features

- Side navigation
- Banner navigation



- Master Index (A - Z)
- Color Code Scheme (darker to white)
- Search Engine (multiple)
- E-mail Lists

www.fema.gov

Highlights...

- Oklahoma City bombing tragedy
- Tropical Storm Archives
- Disaster Map
- Kids Section - FEMA for Kids
- US Fire Administration
- Special Programs
 - Year 2000
 - Project Impact



Oklahoma City Bombing Archive

In memory of all who perished, with hopes and prayers for those who were injured, and with admiration for all who came to their aid at the Murrah Federal Office Building, Oklahoma City, on April 19, 1995.

- [Oklahoma City Bombing \(April 19th, 1995\)](#)
- [Oklahoma City Bombing News Releases](#)
- [Oklahoma City Bombing Disaster Photo Archives](#)

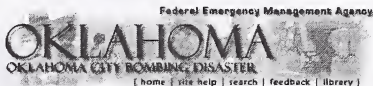
Oklahoma City Updates

- | | |
|----------------------------------|--------------------------------|
| April 21st, 1995 | May 3rd, 1995 |
| April 23rd, 1995 | May 4th, 1995 |
| April 26th, 1995 | May 5th, 1995 |
| April 27th, 1995 | May 12th, 1995 |
| April 29th, 1995 | May 15th, 1995 |
| April 30th, 1995 | May 17th, 1995 |
| May 1st, 1995 | May 24th, 1995 |

Reflections on Oklahoma City Disaster One Year Later, Remarks by James Lee Witt, FEMA Director

Updated: April 9, 1998

Federal Emergency Management Agency



PRESIDENTIAL RADIO ADDRESS
SATURDAY, APRIL 22, 1995

PRESIDENT CLINTON: We are especially concerned about how the children of America are reacting to the terrible events in Oklahoma City

Our family has been struggling to make sense of this tragedy. And I know that families all over America have as well. We know that what happened in Oklahoma is very frightening. And we want children to know that it's okay to be frightened by something as bad as this. Your parents understand it. Your teachers understand it. And we're all there for you. And we're working hard to make sure that this makes sense to you and that you can overcome your fears and go on with your lives.

The First Lady has been very worried about all the children of our country in the aftermath of this tragedy. And she wants to talk with you too today.

MRS. CLINTON: I know that many children around the country have been very frightened by what they have seen and heard, particularly on television in the last few days. And I'm sure that you, like many of the children I've already talked to, are really concerned because they don't know how something so terrible could have happened here in our country.



Archive Hurricane Bonnie Advisories and Tracking Maps

Advisories

- [Advisories for Aug. 20, 1998 - Aug. 27, 1998](#)
- [Advisory for Aug. 23, 1998 P.M.](#)
- [Advisory for Aug. 23, 1998 A.M.](#)
- [Advisory for Aug. 22, 1998 P.M.](#)
- [Advisory for Aug. 22, 1998 A.M.](#)
- [Advisory for Aug. 21, 1998 P.M.](#)
- [Advisory for Aug. 21, 1998 A.M.](#)
- [Advisory for Aug. 20, 1998 P.M.](#)
- [Advisory for Aug. 20, 1998 A.M.](#)

Maps

- [Watch/Warning Map](#)
- [Strike Probability Map](#)

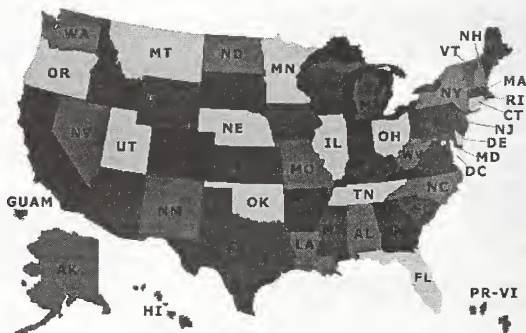
Tracking Maps Courtesy of University of Hawaii

- [Tracking Map for August 24](#)
- [Tracking Map for August 23](#)
- [Tracking Map for August 22](#)



Disasters of 1999

Current Disasters (AL, AR, CA, IL, IN, LA, ME, MI, MS, NY, TN)



Federal Emergency Management Agency

DISASTERS

INFORMATION ON FEDERALLY DECLARED DISASTERS

[home | site help | search | feedback | library]

For This Disaster:
Declared Counties
News Releases
Photographs

About FEMA
Disaster Assistance
Regional Offices
Staff Directory

[Tennessee Emergency Management Agency](#)

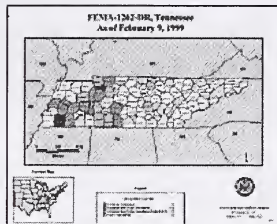
[Real Audio Streaming File of Federal Coordinating Officer Paul Fay](#) 

Federal/Tennessee State Tornado Aid More Than \$16 Million

Nashville, TN March 15, 1999 -- Tornado disaster victims in Tennessee have received a total of \$16.1 million in aid as of today. [More](#)

FEMA/State Disaster Recovery Centers Set to Close


Nashville, February 23, 1999 -- Residents who sustained losses or damage as a result of the recent tornadoes have just




Disaster Recovery Centers to Open Monday in Jackson and Clarksville

Nashville, January 29, 1999 -- State and federal disaster management officials will open Disaster Recovery Centers in Jackson and Clarksville Monday in order to answer questions and expedite information about assistance available to residents who suffered losses in recent tornado strikes. [Details](#)

Federal Grants, Loans in




Federal Emergency Management Agency



Hit Further
of the Storm


Online Safety Rules

Floods, wildfires, hurricanes, tornadoes, earthquakes and winter storms are natural disasters that happen in the United States. The Federal Emergency Management Agency -- FEMA -- helps people who have been in a disaster. We also teach people what to do during a disaster and what to do **BEFORE** a disaster.




FEMA Hotline News

You can help your family prepare for a disaster. With this site, you can also learn about what causes disasters, play games and read stories from children who have been through a disaster. You can also become a Disaster Action Kid!





For the
LITTLE Ones





Follow Me and
Mine Some Fun!


Disasters are a serious subject, but you can have fun learning about them! Click on the tornado and explore the site.




- [Join Our Mailing List!](#)
- [How Schools Can Become More Disaster Resistant](#)
- [World Disaster Reduction Day](#)
- [Parents Guide to the Internet](#)
- [Upcoming FEMA Courses for Administrators and Educators](#)
- [After a Disaster](#)
- [Disaster Resources](#)
- [Curriculum and Activities](#)
- [Earthquake Preparedness: What Every Childcare Provider Should Know](#)
- [Fire Safety Factsheets](#)
- [How to Talk to Children about the Threat of Biological Warfare or Terrorist Attack](#)
- [Viewing Our Site: Helpful Hints](#)
- [How to Submit Student Work to This Site](#)




Kids




Search



About FEMA



E-mail



Main Icons

Y2K

Are you ready?

About USFA
Programs
History
Press Releases
FAQ's
Documents with USFA
Involvement

Fire Academy
About NFA
Resident Curriculum
Distance Education
Training Resources

Data Center
Statistics
NIFES
Reports
Y2K Issues

Fire Safety
Safety Education
Resource Directory
Media Information
Partnerships

Publications
Shop/Order
Contact Us

U.S. Fire Administration

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USFA provides national leadership in fire training, data collection, technology and public education and awareness, supporting the efforts of local communities to save lives and reduce injuries and property loss due to fire.

USFA Home Monday, April 12, 1999

USFA Spotlight On ...

USFA Begins New Smoke Detector Study

WASHINGTON -- USFA is starting a year-long study to examine the impact of smoke detectors on residential fires. Ten states with high residential fire rates have been invited to participate in the study.

New Games and Quizzes Added to Kids Page

The USFA Kids Page now includes a new Home Fire Safety Page, crossword puzzles, an online coloring book, and the USFA Jr. Fire Marshal quiz and certificate.

Learning Resource Center

[search](#) [site help](#) [feedback](#) [e-mail updates](#) [home](#)



Card Catalog

- [Search Card Catalog](#)
- [Hints & Tips](#)
- [Interlibrary Loan](#)
- [LRC Home Page](#)
- [Report Catalog Problems](#)

LRC ONLINE CARD CATALOG

As its name implies, the Online Card Catalog (OCC) is the index that provides *bibliographic access only* to the collection of the National Emergency Training Center's (NETC) Learning Resource Center (LRC). While the LRC is the on-campus library for the staff and students of the National Fire Academy (NFA) and the Emergency Management Institute (EMI), the OCC will function for Internet users as a database on fire service and emergency management topics. Its fundamental service to Internet users is one of *identification*. The OCC identifies published resources on topics of professional interest to fire service and emergency management personnel.

Since the LRC's primary mission is to support the instructional activities of the NFA and the EMI, the OCC reflects that goal. The LRC concentrates on natural and technological hazards but primarily on their social and behavioral sciences aspects. As examples, the LRC has some information on seismology but more on earthquake preparedness; some information on fire protection engineering but more on public fire education. Generally, students at the NFA and EMI are not scientists but practicing emergency managers and first responders. The LRC's collection has been built for these user populations and the OCC will be most useful to them.

What the Online Card Catalog isn't:

The OCC is NOT a full-text database. It contains citations to journal articles, books and reports, not the text of any of these items. At most, some items have abstracts.

Emergency Services
Emergency Response

Press Kit
Bulletin/Consumers Guide
Frequently Asked Questions

Planning
Preparedness
Best Practices

Related News
Related Links

Y2K For Kids



Y2K Best Practices Now Online

Washington, April 12, 1999 -- Find out what your state and local government is doing to plan and prepare for the Y2K computer transition. [More](#)

New York State Moves into Next Fiscal Year With No Reported Y2K Glitch

Washington April 5, 1999 -- On April 1, New York was the first state to move into a fiscal year that spans January 1, 2000. [More](#)

FEMA Mission Critical Systems are all Y2K Compliant

Washington, April 2, 1999 -- Clay Hollister, FEMA's Chief Information Officer, reports all agency mission critical computers are now Y2K compliant. [Audio](#)



FEMA and the Year 2000 Initiative

FEMA supports efforts led by the President's Council on Year 2000 (Y2K) Conversion.

FEMA is also working to ensure that its computer-based systems are Y2K compliant. Reports on FEMA's internal compliance are provided to the President's Council on Year 2000 Conversion through the Office of Management and Budget. [Details](#)

Y2k's Unique Challenges for Emergency Management



Project Impact Partners Communities

Related News
Regional News
Photographs and Video

Updates
Resources
Spring Break

How To...
About FEMA
Mitigation

About Project Impact

In the past 10 years, the Federal Emergency Management Agency (FEMA) has spent \$20 billion to help people repair and rebuild their communities after natural disasters. [Details](#)

Project Impact to clear Licking County logjams

Newark, Ohio April 8, 1999 -- The Licking County Commissioners have contracted with two local companies to remove dangerous logjams in the south fork of the Licking River and in Rocky Fork Creek, a major tributary of the north fork of the Licking River. [Details](#)



Project Impact Update

Washington, March 11, 1999 -- Washington, March 11, 1999 - The first Fannie Mae project loan recipients have installed a hurricane resistant roof to protect their home from possible hurricane damage. [More](#)

FEMA: Allegany County, MD and FEMA WATER DAY - Watershed

Important FEMA Telephone Numbers

- FEMA general publications:
(800) 480-2520
- Y2K Bulletin - A Consumer Guide
(888) 261-6214
- Project Impact - Building Disaster-Resistant
Communities
(800) 227-4731
- Taking Shelter From the Storm - Building a
Wind Resistant Safe Room
(888) 565-3896
- Information Hotlines:
Y2K Information
(888) 872-4925

Map Service Center (for flood insurance
rate maps & related floodplain map
material)
(800) 358-9616

National Flood Insurance Program
(800) 427-4661

Elaws: Using Expert Systems to Deliver Complex Regulatory Information

Dr. Roland G. Droitsch
U.S. Department of Labor
Washington, DC

Background

The Department of Labor (DOL) is one of the largest regulatory agencies in the Federal Government, administering over 180 laws and statutes. The span of regulatory activity is extremely broad, involving a wide spectrum of workplace and workforce activities. At one end of the spectrum are the DOL's child labor regulations, dealing with such issues as the age and conditions under which an employer may hire young workers. At the other end are regulations governing health and welfare benefits to retired employees.

Minimum wage, overtime, workplace safety and health, pension security, the coverage of pre-existing health conditions, and family and medical leave are some of the other areas where DOL has been delegated responsibility for regulating the workplace. The implementing regulations that administer such laws literally fill thousands of pages in the Code of Federal Regulations (CFR).

To enforce these regulations, DOL employs several thousand inspectors, compliance officers and attorneys who respond to complaints, undertake inspections of worksites and, when appropriate, cite and litigate cases where violations have occurred. However, when measured against the number of workplaces in the U.S., it is impossible to reach all but a relatively minor number of these workplaces. Added to this is the increasing complexity of regulatory requirements such that for a large company, it would require a team of inspectors to adequately monitor or

inspect their multiple facilities. For this reason, it has always been a primary tenet of the Department regulatory strategy to rely substantially on voluntary compliance by employers.

The Problem of Providing Compliance Assistance Information

In order to expect employers to voluntarily comply with DOL regulations, employers must be provided with information on what is required of them by these regulations. More importantly, it is critical that they understand what is required of them.

By law, the only information requirement until recently was that all new regulations must be published in the Federal Register. However, except the very largest of corporations, few companies subscribe to or follow the Federal Register.

To further add to the complexity of the problem, even if one were to read the Federal Register, most regulations are difficult to understand, as they are primarily written by lawyers for lawyers. Indeed legally, regulations are a direct extension of a statute defining in greater detail the requirements of the law, and hence they have historically been replete with legalistic terms and formats. Although a number of efforts have been made over the years to simplify regulatory writing, the language is rarely "plain English," tending more to meet the needs of legal sufficiency than of factual comprehension.

To address the need to provide employers with information that they can refer to in plain English, DOL regulatory agencies, over the years, have prepared a variety of compliance assistance materials. These have generally taken the form of pamphlets or fact sheets.

More recently, under the requirements of the Small Business Regulatory Enforcement Fairness Act (SBREFA) agencies are required to prepare comprehensive "Compliance Guides" that are intended to provide complete understanding of major regulations in simple to understand language. However, there are two major problems that make the preparation of useful compliance assistance materials extremely difficult.

First, there is a wide diversity in the demographics of firms. Of the approximately six and one half million firms with employees, a startling percentage fall into the "small business" category. Indeed, 99.7 percent of such business establishments have fewer than 250 employees. An even higher percentage would be found if the Small Business Administration's official cutoff for "small business" of 500 or less were used.

A closer look at these small businesses show that there are very significant differences within this group itself. A "mom and pop" firm of say 3 to 5 individuals, for example, is very different from an establishment of 10 employees, or one of 30 to 50 employees or even 100 to 200 employees. Designing compliance assistance materials that meet the needs of each of these different size firms poses a major problem to providing effective and useful information.¹

The second major problem in preparing compliance assistance materials—and even more problematic than the first—is that the information typically is too general to be of use. When firms need information, it is usually to address a specific situation or problem they are facing. Armed with only general information in the material prepared by DOL,

they are not able to deal with the specific problem they are facing and must seek further clarification or help. To attempt to include such detailed information would only result in preparing huge documents that in themselves would not be useful.

The problem of tailoring appropriate compliance assistance information is exacerbated by the establishment size demographics noted above. Even if the compliance assistance materials were able to provide relatively specific information, addressing this to various sized firms would require a "matrix" of answers to a single question, since the size of the establishment is often a critical factor in how one needs to address the problem.

Elaws: A Solution to Providing Comprehensive Compliance Assistance Information

The emergence of the Internet along with developments in Artificial Intelligence technology provided the Department of Labor with a unique opportunity to provide employers and employees with information on the duties and rights as proscribed by DOL regulations.

In 1995, the Department launched its Web site, which enabled it for the first time to mount a vast amount of information on its regulations. The information mounted included all the regulations as codified in the CFR, along with other useful information such as the preambles to these regulations and the available compliance assistance information. Some agencies also have posted information on legal cases and interpretive letters that seek to clarify further specific aspects of a regulation where questions of interpretation have arisen or where the regulations have not adequately addressed the requirements.

While it was very useful to mount all this information for the first time in one place, the task of ferreting out the specific information

that was needed by a particular company or individual remained a daunting task. For many, especially the smaller employers, the effort to understand how a specific regulation applied to their situation remained as difficult as ever.

In response to this, DOL began to explore the feasibility of using "expert systems" as a method to guide an employer or employee through the maze of regulatory requirements. Starting with an experimental system that dealt with the Federal requirement of Veterans' Preference in the hiring of new employees, DOL launched a program to develop several interactive systems under the banner of Elaws: Employment Laws Assistance for Workers and Small Businesses.

Overview of Expert Systems

An expert system is a computer program that captures valuable knowledge and allows it to be disseminated to others. These systems emulate the interaction a user might have with a human expert to solve a problem. Expert systems are probably the most established form of artificial intelligence technology. Expert systems embed complex information into a computer model. The computer model can then be queried on a fact-specific situation and will give the user an answer to his or her specific question. Based on an individual's response to questions, the expert system provides the user with customized information.²

Each Elaws expert system or "advisor" provides information about a specific law or regulation. The advisors imitate the interaction that an employer or employee might have with a DOL regulatory expert. They ask questions, provide goal information and direct the users to the appropriate resolution based on their responses. The goal of Elaws is to provide the public with better, timely, and most importantly, *specific* information while simultaneously reducing the burden on DOL

personnel of supplying compliance information.

Expert systems technology, which was introduced in the mid-1980's, is an important and successful application of artificial intelligence.³ Until recently, expert systems were deployed on personal computers and to a lesser extent on mainframe computers. In 1996, vendors (e.g. Exsys, 1996) started offering additional software to make expert systems run on servers accessible for client computers via the Web. This opened a range of possibilities for enhancing interfaces and mixing expert system, Web and database technologies.

An expert system performs reasoning using previously established rules for a well defined and narrow domain. An expert system combines a knowledge base of rules and domain-specific facts with information from clients and users about specific instances of problems in the knowledge domains of the expert system. The goal of an expert system is to provide the user or client with an interactive process similar to the experience of interacting with a human expert in the field.

When using an expert system, one is often struck by their simplicity. After being asked a few questions, the computer provides an answer that, in many cases, seems obvious. Providing such correct information in an easily accessible manner is the purpose of expert systems, but it should not suggest that the construction or operation of such systems is in and of itself "simple."

Let us take, for example, the question of whether a firm is covered by the Fair Labor Standards Act (FLSA) that requires it to pay at least the minimum wage and overtime if an employee exceeds working 40 hours in a week. The answer for the vast majority of firms is yes, they are covered. Appendix I is a presentation of the "module" that outlines the decision tree logic of coverage under FLSA.

When represented in all its detail, embedding the knowledge of a sophisticated expert in this field, one is generally surprised at the amount of information that is "packaged" in these systems.

An important advantage of expert systems is the ease with which knowledge bases can be modified. This is a result of the architecture, which separates the knowledge base from the inference engine. As a result, changing the knowledge base does not require programming but can be done via word processing or an editor.

This feature makes knowledge engineering accessible to a wider variety of analysts, end users and experts. Ideally, the reasoning can be explained to help the user understand the questions being asked and the conclusions. Thus, the system can function more like human experts who explain the reasoning process behind their recommendations.

Rule Based Systems

Expert systems are especially good for closed-system applications for which inputs are literal and precise, leading to logical outputs. If this condition holds, then the inputs can be mapped to the outputs using "if-then" rules. By their very nature, government laws and regulations are excellent examples of rule-based closed systems. They typically proscribe specific sets of behavior given specific conditions (e.g., do not exceed a speed limit, stop at a red light).

In order to be truly useful, the expert systems must be consistent with real world practices. Another advantage of developing rule-based expert systems for Government laws and regulations is the availability of experts to explain how rules are actually interpreted (by the courts, by Federal agencies, by the public).

Prototypes are especially useful in gaining the interest and attention of experts as the

knowledge acquisition process is more productive and amicable. A variety of commercial development systems have become available over the last several years. These tools and associated techniques allow exploratory studies rapid prototyping for use in knowledge engineering.

Verification and Validation

A fundamental limitation of the expert system approach arises from the fact that experts do not always think in terms of rules. In these cases, it may be difficult to mimic the actual reasoning process of human experts, resulting in outputs that may be inconsistent with the responses that would be given by the human expert.

The computerized system is an attempt to produce performance that resembles human reasoning in some limited domain. The mechanism, however, may or may not resemble the actual biological or cognitive process. Thus, extensions of any expert system technique may not carry over into behavior that is similar to that of a human. Cognitive science, AI, and expert system research is still needed to produce a fundamental approach that models actual human reasoning.

In the meantime, a comprehensive technique based on a good understanding of human reasoning must be utilized. A practical approach is to use a systematic method to clarify the problem, elicit knowledge and procedures from the expert, organize the knowledge, and develop the expert system. After verification and validation of the computer-based expert the ongoing use of the system is monitored for future changes.

Examples of Current Elaws Advisors

As noted above, the Department has undertaken a systematic program of expert systems advisors for its regulations. The systems that have been developed can be

found on DOL's Web site at <www.dol.gov> or can be directly accessed at the Elaws site, <www.dol.gov/elaws>.

Each Advisor is individually tailored to specific audiences, such as employees, employers, and policy officials. In addition, DOL's Advisor includes links to more detailed information that may be helpful to the user, such as sections of the regulations related to the topic being discussed. Links to Government publications and other organizations are also provided. To provide the reader with a better understanding of the content of these advisors, a summary of three such systems is given below.

The Family and Medical Leave Act (FMLA) Advisor <www.dol.gov/elaws/fmla.htm>

The Wage and Hour Division of the Employment Standards Administration developed the Advisor to answer a variety of commonly asked questions about the Family and Medical Leave Act (FMLA) including employee eligibility, valid reasons for leave, employee/employer notification responsibilities, and employee rights/ benefits.

The Family and Medical Leave Act provides certain employees with up to 12 weeks of unpaid, job-protected leave per year. It also requires that group health benefits be maintained during the leave. The FMLA is designed to help employees balance their work and family responsibilities by taking reasonable unpaid leave for certain family and medical reasons. It also seeks to accommodate the legitimate interests of employers, and promotes equal employment opportunity for men and women.

USERRA Advisor
<www.dol.gov/elaws/userra0.htm>

Veterans Employment and Training Service developed the Advisor to answer questions regarding employee eligibility, employee job entitlements, employer obligations, benefits,

and remedies under the Uniformed Services Employment and Reemployment Rights Act (USERRA) of 1994. USERRA was signed into law on October 13, 1994. USERRA clarifies and strengthens the Veterans' Reemployment Rights (VRR) Statute. The Act itself can be found in the United States Code at Chapter 43, Part III, Title 38.

USERRA is intended to minimize the disadvantages to an individual that occur when that person needs to be absent from his or her civilian employment to serve in this country's uniformed services. USERRA makes major improvements in protecting service member rights and benefits by clarifying the law and improving enforcement mechanisms. It also provides employees with Department of Labor assistance in processing claims.

Specifically, USERRA expands the cumulative length of time that an individual may be absent from work for uniformed services duty and retain reemployment rights. The law is intended to encourage non-career uniformed service so that America can enjoy the protection of those services, staffed by qualified people, while maintaining a balance with the needs of private and public employers who also depend on these same individuals.

USERRA is administered by the United States Department of Labor, through the Veterans Employment and Training Service (VETS). VETS provides assistance to those persons experiencing service-connected problems with their civilian employment, and provides information about the Act to employers. VETS also assists veterans who have questions regarding Veterans' Preference.

For more information, please visit the Veterans' Preference Advisor. The USERRA Advisor answers questions about the rights and responsibilities for both the employee and employer. The system helps veterans to initiate claims if they feel their rights have been violated.

MSHA Form7000-2 Advisor
< www.dol.gov/elaws/msha.htm >

This system allows electronic filing of the MSHA Form 7000-2, Quarterly Mine Employment and Coal Production Report. Each operator of a mine in which an individual worked during any day of a calendar quarter must complete and submit MSHA Form 7000-2 within 15 days after the end of each quarter, (i.e., April, July, October and January). In addition, each contractor performing work at a mine site for any one day of a quarter must file MSHA Form 7000-2.

This Advisor permits the forms to be completed and submitted to MSHA directly via the Internet. After all data is entered, the system asks the person to review the data to assure its accuracy. After they are satisfied with the data they can transmit it to MSHA. When MSHA has received the data, the person receives an e-mail confirmation.

Future Directions

The Department of Labor has approximately 20 systems operating and another 10 under development. DOL will continue to "fill-out" more and more of its regulations over the coming years. As more and more systems are created, we hope to develop meta-systems that build on the individual advisors.

Ultimately, it should be possible to develop a system that begins by asking the employer a number of questions about the firm's size, its SIC codes, the state in which it is located, whether it has Government contracts, etc., and the system will tell the employer which regulations appear to apply the his or her establishment. The system would then list the individual advisors that apply to the firm and the preferred order in which they should be executed. Upon executing the systems, the employer would then be provided with a complete and succinct listing of the specific

requirements for which he or she is responsible.

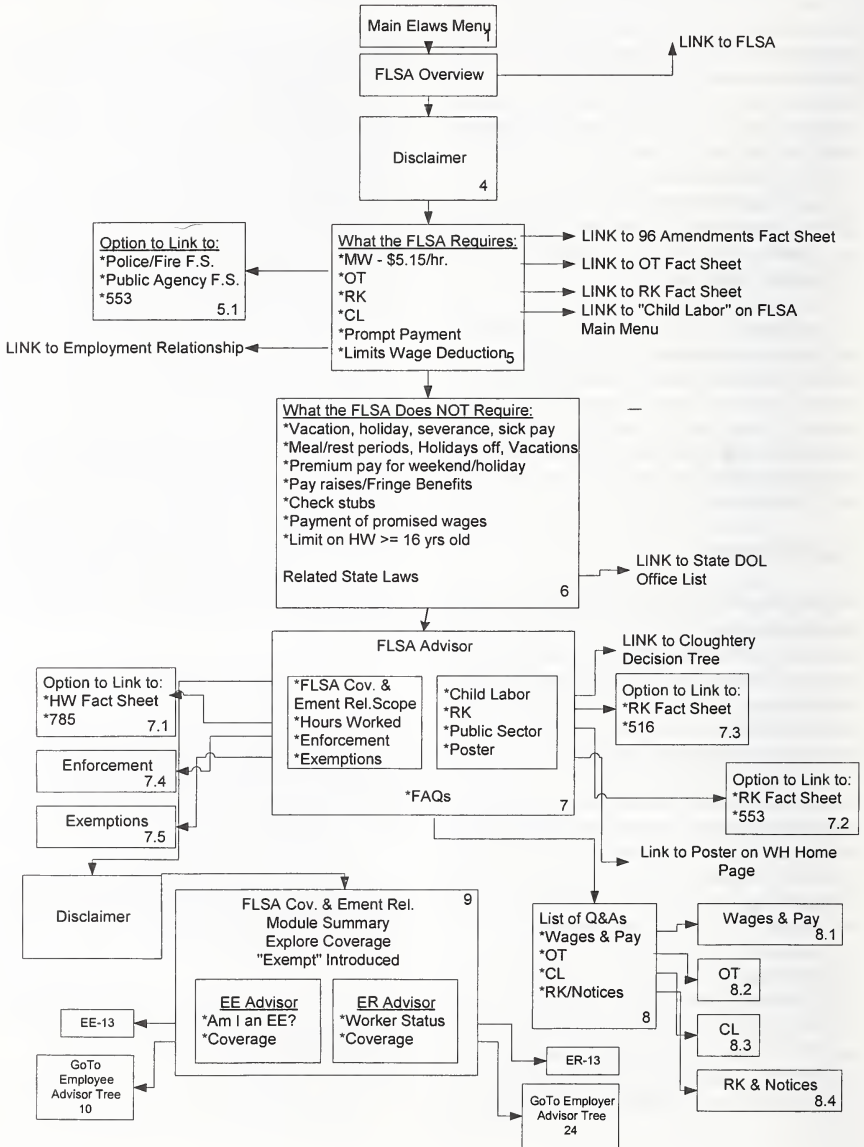
As bandwidth expands and it is possible to deliver real-time video efficiently via the Web, it will also be possible to integrate visual aids into the advisors. For example, in some of the more technical regulations dealing with safety and health, it will be feasible to show the viewer visually how a respirator "fit test" is to be executed, or how a trenching operation should be accomplished. Similarly, required training as required by many regulations could easily be accomplished by packaging a series of downloadable training advisors that would accompany that particular regulation.

Maintaining the advisors and various assistance modules on the Web would allow for appropriate updates as needed and eliminate the problems associated with systems that use CD-ROM or floppy disks, where the user would need to know if the information is up-to-date. In short, the vision that such a fulsome architecture offers is a complete "knowledge management" approach to providing regulatory information to our clients—both employers and employees.

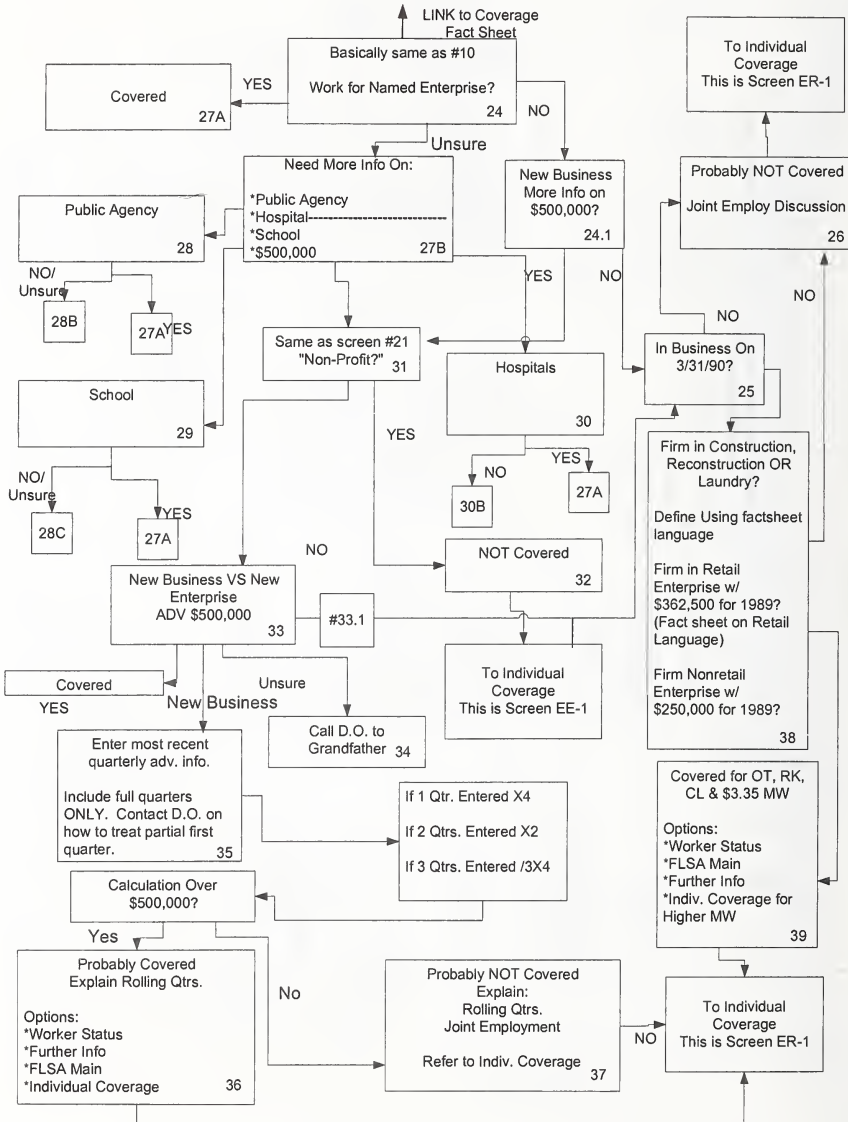
Notes

1. See Droitsch, R.G. The Dilemma of Regulating Small Business: The Need for a New Policy Framework, 33 Villanova Law Review, 6 (1988)
2. This section draws substantially on Mario DiStasio, Roland Droitsch and Larry Medsker, "Web-Based Expert Systems for Elaws," draft paper submitted for publication, 1999.
3. See L.R. Medsker and J. Liebowitz, Design and Development of Expert Systems and Neural Networks, MacMillan, New York, 1994.

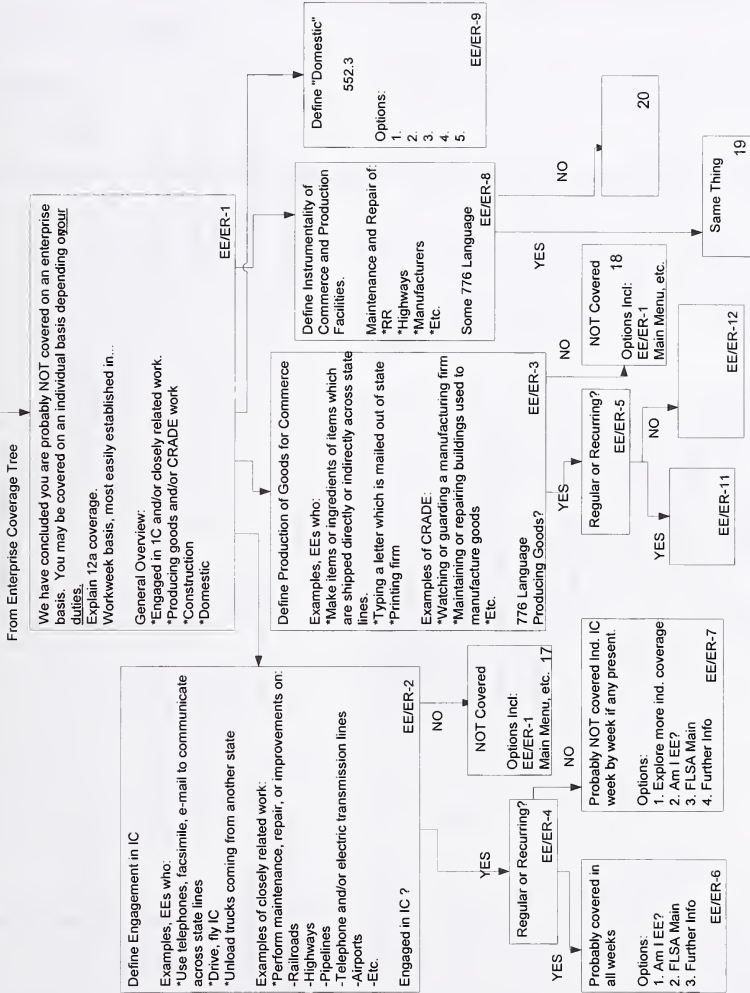
FLSA Coverage and Employment Status



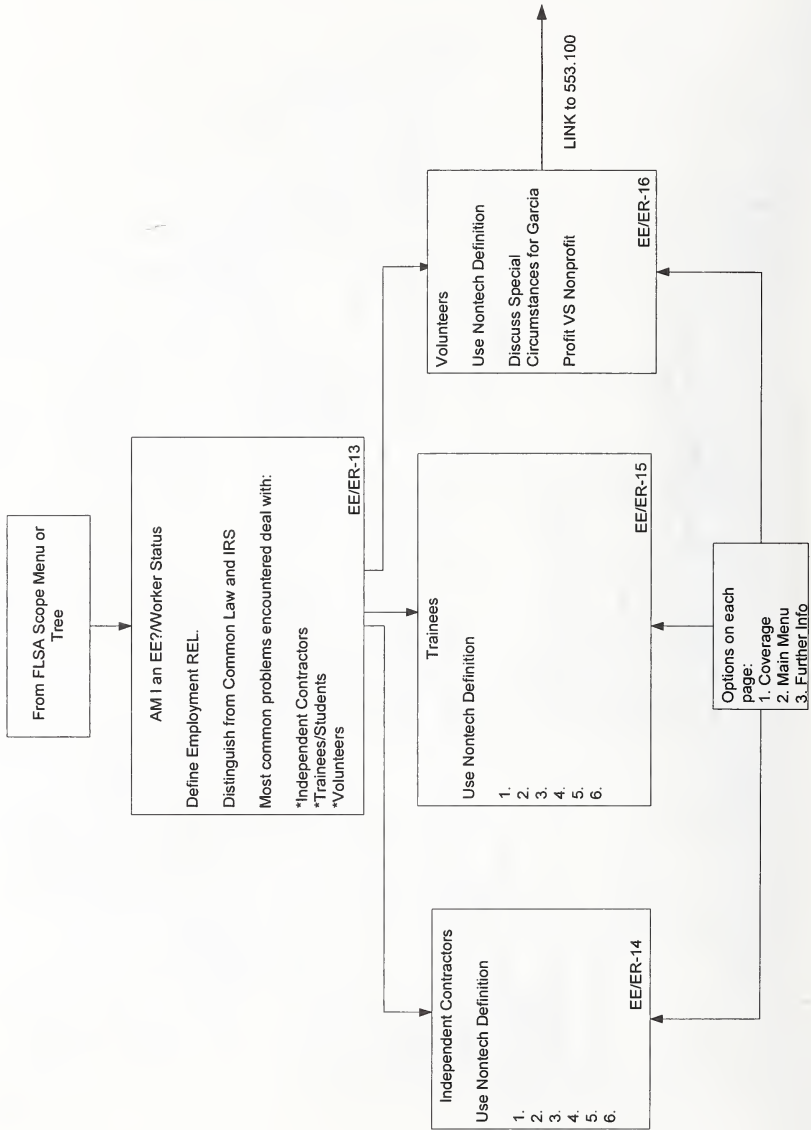
FLSA Coverage and Employment Status



FLSA Coverage and Employment Status



FLSA Coverage and Employment Status



PURLs: What Do I Need to Know? Working with PURLs in Your Local Catalog

Background on PURLs and Link Maintenance in the Local Catalog

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Nan Myers and I are pleased to be with you today to talk about Persistent Uniform Resource Locators, also known as PURLs. As part of our work on the GODORT Cataloging Committee, Nan and I have been talking about PURLs for what seems like forever, but it's actually been just over a year. As a result of the work of the Cataloging Committee and the efforts of Tad Downing, Chief of GPO's Cataloging Branch, the depository community has been provided with quite a bit of information from GPO about their implementation of PURL technology.

What Nan and I would like to do today, however, is bring the discussion of PURLs into the library, and try to address some of the issues that need to be considered when working with PURLs in the local library catalog. We cannot promise to solve the particular problems that each library and library catalog system may face; however, we do hope to provide you with some information about the questions you need to ask, and resources that you can turn to when making decisions for your own library.

In order to get this discussion started, we do need to provide a little bit of background on PURLs and GPO's use of them. I'll begin with a definition, and then describe how GPO is using PURLs in their management of the FDLP Electronic Collection and cataloging activities. I will then discuss what PURLs will and will

not do, which will lead me to some of the issues related to link maintenance in library catalogs. Nan will then take over and report some of the results of a survey she conducted on library procedures, and provide a checklist for local decision making.

Let's start with a definition. Described simply, a PURL is an actual URL. However, instead of pointing directly to the location of an Internet resource, a PURL points to an intermediate resolution service. This service associates the PURL with the actual URL and returns that URL to the user. The information required to make this redirection possible is maintained in a record located in a resolution or PURL server. OCLC developed this technology in 1996, and was the first to implement its use with its Interact project. I don't have enough time to get into a more detailed explanation of the technology behind PURLs, but if you are interested, you can find more information about the development and technical details of the service on OCLC's PURL Service Web page, available at <<http://purl.oclc.org>>.

While PURL technology had been around for awhile, it wasn't until early 1998 that depository librarians found themselves face to face with the technology. This is when GPO first implemented the PURL Resolution Service to assist in the maintenance of URL information in the bibliographic records and Web pages they create. When resources are identified for

inclusion on the Browse Electronic Titles Web page, or are identified for cataloging treatment, GPO staff create a PURL for the resource on the GPO PURL server. GPO utilizes an automated naming process, which assigns unique, consecutively assigned accession numbers to each PURL created.

Once the PURL record is created, the PURL is used as the link to the resource on the Browse Electronic Titles page, and is sent to the GPO Cataloging staff for inclusion in the resource's bibliographic record. GPO catalogers add PURLs to the records currently created, and will add a PURL to existing records as they come up in the regular review process. Right now, GPO has no plans to systematically add PURLs to all records that contain URLs, although they have made an effort to add PURLs to all records for the resources listed on the Browse Electronic Titles page.

Another way to gain a better understanding of PURLs is to examine what they will and will not do. Let's start with what they will do. PURLs may be used as a tool to maintain a constant link to an Internet resource, regardless of changes to the location of that resource. Once a PURL record is created, the PURL associated with the resource will remain constant. As the location of the resource changes, the PURL record may be updated to reflect the change, so the end user does not have to make note of the new location. Also, the PURL record retains the history of changes to the location, serving as a "travel diary" of sorts for a particular resource.

This is an example of a PURL record and the information it contains: <www.willamette.edu/~aweible/dlc/purlrec.htm>. You can see the PURL, the current URL, and the dates of maintenance. We can also see the different URLs this resource has had since it was first entered last July. As you can see, this resource has done a bit of traveling. One of GPO's primary goals in implementing the PURL Resolution Service was to prevent the time

consuming task of updating URL information in catalog records. The obvious advantage to using PURLs in catalog records is that records do not have to be edited each time a location changes, only the PURL record on the GPO PURL server needs to be changed.

PURLs clearly offer advantages, but there is an important issue that PURLs do not address. PURL records may only work to maintain a constant link to a resource if they remain up to date. Identifying Internet resources that have changed location remains a challenge. GPO has made a commitment to maintain the PURLs they create with current URL information. This is accomplished by the use of OCLC software that provides the ability to check for valid links. GPO runs this software on a weekly basis to identify broken links. Because this is an automated process, however, it has its limitations. For example, while software may be able to report that a URL exists, it cannot determine if the content of the resource remains the same.

Maintenance of PURLs, while automated to some degree, still requires human intervention. GPO has reported that they currently use at least 2 FTE to maintain accurate records in the PURL server. They are assisted by reports of incorrect URLs/PURLs via the askLPS service. In fact, it is vitally important that the automated process of link validation be supplemented with human oversight to assure that the PURL Resolution Service remains effective.

At this point, I should also mention the role of catalog record vendors in the process of keeping links up to date. While it is true that vendors are making efforts to keep the links valid in the records they distribute to libraries, it is my understanding that they are not using a systematic process, such as automated link validation software, to accomplish this task. While they accept reports from users who identify broken links, they primarily rely on the maintenance activities of GPO to keep the records up to date. I think it is important that

libraries using vendors for the delivery of GPO catalog records verify exactly what the vendor is doing to keep links valid, and determine if their efforts are sufficient for the needs of your local library.

Link maintenance is an important topic I'd like to take some time to discuss. While it is clear that GPO has taken seriously its commitment to keep PURLs accurate, I feel very strongly that libraries must also undertake link validation activities. Since GPO is not systematically going back to every catalog record it created to add a PURL, it is going to be awhile before all GPO records have PURLs. And, because it is such a large task, GPO also needs help with maintaining accuracy in PURL records. In my opinion, libraries must also do what they can to check not only the existing URLs, but also PURLs. This will help to ensure that the links provided in library catalog records remain viable access points to Internet-based information resources.

If the links aren't valid, users won't consider the catalog to be a good access tool, and all this effort to provide links from the catalog will be wasted. So, to help encourage you, I'd like to show you what my library does to maintain accurate links in our catalog. I will also discuss some of the issues that must be considered when working with PURLs in this process.

Let me start with just a few words about our library. We have a depository item selection rate of about 25%. The process I am about to describe is done on a monthly basis, with the help of the library's systems assistant.

The first step is to extract the records that contain URL/PURL information in the 856 field. We have to do this because our system, Innovative Interfaces, does not currently have an automated link checking component. It is my understanding that they currently have a program in beta test, but until this is available, we have developed an interim procedure that works for us.

Using our system's list making features, we are able to create a file of records that can be exported from the catalog. The next step is to convert this file to HTML format. We are indebted to Tom Tyler from the University of Denver, who has created what he calls MARC-X-GEN software to help convert this file of MARC records to HTML. This has saved a tremendous amount of time, since the previous method we used involved a lot of manual editing. This software was designed to work with files generated from Innovative systems, but Tom has indicated that the software should work with files from any system, as long as the records are in MARC format.

You can find more information about the MARC-X-GEN software in Tom's paper on maintenance issues in the Web-accessible OPACs <www.du.edu/~ttyler/cil99/proceedings.htm>. The file that is generated looks something like this <www.willamette.edu/~aweible/dlc/purl.htm>. The software converts the URL or PURL into an active HTML link, making the title of the resource the text. It also records the OCLC number, and additional note information contained in the 856 field.

Once this file is created, we use a software program called LinkBot to check the file to verify the validity of the URLs and PURLs we've exported from the catalog. As far as choosing this software over the other link validation programs available, I have to say that I relied on the expertise of my library's systems staff. They were already using this software to maintain the links in the library's Web pages, and it seems to work well for the task at hand. I have provided on the handout some Web sites that have more information about link validation software. While I don't want to discourage anyone from exploring the various options available, I do suggest that you investigate what the Webmasters at your own institutions are using. It is likely that they are using some kind of program, and its nice to have some systems support when trying to

negotiate software with this level of sophistication.

This is what a typical LinkBot report looks like: <www.willamette.edu/~aweible/dlc/testpgprt.htm>. This report is based on a different file I created to help illustrate how the software validates PURLs. In relation to PURLs, the important aspect of link validation software that needs to be determined is how it handles redirected links.

In the case of LinkBot, PURLs are listed under the heading "Warnings." In this section of the report, we see that the software is alerting us to the fact that the PURL is actually going to the URL. After checking with the company, we were able to determine that the software does then go on to check the validity of the links it is directed to from a PURL. If there is a problem with the URL connected to the PURL, it will appear in the appropriate section of the LinkBot report, usually under Broken URLs. What constitutes a broken link in this report varies, from "source not found" to "server down" to "timed out."

I use the information found in the LinkBot report to follow up on problem links. This requires the sometimes time-consuming process of searching for the new URL for resources that have been moved. I usually approach this task by surfing the agency's Web page, playing with variations in the URL address, and if necessary, sending an e-mail to the agency's Webmaster. Once I locate the correct location, or determine that the resource no longer exists, I then correct the information in the library's catalog record. I also make a special attempt to alert GPO, via askLPS, when I find PURLs that need to be updated.

While this process works relatively well in helping to identify broken links, it should be obvious that link validation software can only go so far in determining whether links in the library's catalog remain accurate. At their best, they can tell you whether there is still a valid

file associated with a particular address. They still cannot tell you if the content of the file is the actual resource described in the bibliographic record.

A good illustration of this problem can be seen in one of GPO's old practices related to PURLs. According to my sources at GPO, this is no longer the current practice, but originally, when a link was identified as broken, and no alternate location for the resource could be found, GPO updated the PURL record so the user will be redirected to a Web page that looked like this: <www.willamette.edu/~aweible/dlc/deadlink.html>. This "deadlinks" page is a valid link. Since LinkBot can't read the content of this page, it will not recognize the URL as "broken." This was a problem because in my own library, I do not want to direct a user to a page like this. I would prefer to remove a broken link completely from a catalog record, or remove the whole record, if appropriate. But, because LinkBot could not identify this as a problem, I was not alerted to the status of the link, and could not perform my own maintenance to resolve the problem. This is why I had chosen, in most cases, to use the URL, rather than PURL, in our library's catalog records.

It is my understanding that GPO no longer places a link to the deadlinks page in PURL records, but instead places notes on both the Browse Electronic Titles page and the catalog record when a dead link is identified. From the perspective of my own link maintenance activities, I think this is a positive change. I have a bit more confidence that the LinkBot software will identify the broken links within a PURL, and as a result, I will be more likely to leave a PURL in our catalog records, instead of replacing it with the original URL, as had been my previous practice.

I do hope that GPO is able to go back and revise the PURL records that still point to the deadlinks page, so that the records conform with current practices. As we heard in the

conference program earlier today, the Electronic Collection Team appears to be working on refining policies and procedures related to the management of the Electronic Collection, and I hope this includes a review of PURL creation and management activities.

This leads me to one final observation about link maintenance activities. Remember when I said earlier that one of the reasons GPO implemented PURL technology was to save the labor costs associated with editing catalog records? Well, I think GPO staff would agree that any labor savings they may have gained is quickly being lost in the truly labor intensive activity of keeping links up to date. Without a completely automated system to accomplish this work, and it doesn't look like there is a magic software solution just around the corner, it is clear that considerable effort needs to be expended to ensure the validity of links to resources in the FDLP Electronic Collection.

Who is actually responsible for this work remains an issue, but I would like to advocate that the depository community has a vested interest in sharing the burden of this work with GPO. It is absolutely necessary that librarians report broken links to GPO as they are discovered, for there is no automated process that will ensure that the links will always be identified.

At the same time, I believe that GPO needs to consider opening up the process of link maintenance, so that libraries with established processes for link verification can contribute more directly to the work that needs to be done. One suggestion would be to add a link to askLPS directly on GPO's PURL Server pages, to help facilitate the reporting of broken links.

Improvements to the search capabilities of the PURL server, as well as the addition of more data fields like OCLC number or title, would help librarians to use the server more effectively in link maintenance activities. It

would also be helpful to have a direct e-mail link to the staff members who work with PURL maintenance, again to help facilitate communication.

Another possibility would be to have GPO authorize particular libraries with the ability to access and edit records in their PURL server, so that records can be directly updated without having to go through the sometimes cumbersome process of reporting information through askLPS. At the very least, GPO needs to share information about current policies and procedures, establish as much consistency as possible, and work to bring old records into compliance with new policies. Libraries must also share what they know about link maintenance, and communicate their needs to GPO.

So, in conclusion, I'd like to summarize the points I have tried to make in my comments about link maintenance activities. There is no question that link maintenance is a labor intensive activity, and it is essential that before these activities are undertaken at the local level each library discuss the importance of accurate links, and evaluate this in terms of the labor costs involved in pursuing such a goal.

An important fact to consider in this discussion is that GPO's implementation of PURL technology does not guarantee depository libraries that all the links provided in GPO catalog records will remain accurate, and even vendors, at this time, do not provide an absolute solution to the problem. Based on the information Nan, Tom Tyler, and I have collected, it is clear that link maintenance procedures depend on so many local variations in systems and Web support services that it is nearly impossible to recommend anything but the most general suggestions for link validation activities. I hope that the description of my own institution's procedures are helpful in that regard.

Finally, I want to remind you that all this hard work can pay off. By undertaking link maintenance activities on the local level, and especially if you communicate the results of this work to GPO, you also provide a benefit to the rest of the depository community. Building a partnership with the depository community is probably the only way that GPO can realistically accomplish its goal to keep links to Web resources accurate.

As partners, both sides need to work together to make sure that the policies adopted by GPO work with both GPO and library procedures. More work and communication needs to be

done, but given that we are all learning how to make do until technology catches up, I think we can be pretty proud of GPO and the depository community's leadership in trying to find solutions to the issues associated with link maintenance in library catalogs.

I also want to put in a final plug for Tom Tyler's fine article, "URLs, PURLs & TRULs: Link Maintenance in the Web-accessible Catalog" <www.du.edu/~tyler/cil99/proceedings.htm>. It addresses some issues I've just touched on in more detail, and has more evaluative information about particular library catalog systems and link checking software.

PURLs: What Do I Need to Know? Working with PURLs in Your Local Catalog

Nan Myers
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Now that Arlene has provided some background on PURL technology, GPO's use of PURLs, and issues related to link-checking, I am going to move on to the second topic we want to address: "Working with PURLs in Your Local Catalog." Actually, in many ways, this portion could be titled: "Working with URLs and PURLs in Your Local Catalog," since so many issues involving one of them are intertwined with the other, when it comes to daily application in a library's workload.

Because my portion of our presentation is very much about the nuts and bolts issues of daily survival, I've prepared a handout titled "Suggested Checklist for Local Decision-Making: Working with URLs/PURLs in Your Local Catalog." The other page of our handout features useful online sites for: Background on PURLs, Link-Checking Software, Guidelines for Using MARC Field 856, and Local Cataloging Procedures available on the Web. The online procedures were reported to us as a result of a survey.

Survey Conducted in March 1999: "Issues in Cataloging PURLs"

At the beginning of March, I posted a Survey to the GOVDOC-L discussion list titled: "Issues in Cataloging PURLs." I wanted to obtain feedback from depository librarians and staff regarding their own "real life" experiences dealing with issues of working with PURLs. Prior to my cut-off time of April 2 for figuring statistics, I did receive 54 responses, with several coming in last week as well.

As I tabulated the data from these surveys, I was struck by the variety in the responses. There are only a handful of institutions which have really dedicated significant resources to preventive maintenance through the use of PURLs.

Two libraries which have addressed their commitment to PURLs are California State University at Fullerton and the University of Delaware. They both replace URLs in catalog records with GPO PURLs to support persistent access. By the way, they also both have working procedures online, which you may want to review. The List of Resources is online at: <www.willamette.edu/~aweible/dlc/index.htm> .

PURLs... Yea or Nay?

In the survey responses, about 60% of responders stated they do accept the use of the PURL convention as a resolution to the link-checking problem. There is probably a considerable range of interpretation as to what this means exactly, but from responses to other questions, it seems clear to me that many libraries are eager for a viable solution to the URL stability problem which does not cost them much in terms of investment of resources.

- Yea = 60%

Hoping for "magic" solutions

Understand the potential of the technology

Essential to eliminate extra workload

- Nay = 40%

Lack of understanding of PURL concept

Issue of deadlinks

Concern that GPO may not sustain effort

Fears of additional workload

On the other hand, 40% of survey responders stated either: "No, they do not accept the PURL solution," or that they are undecided. Once again, there are various reasons why librarians hesitate to buy into the PURL, ranging from a lack of understanding of the PURL concept, to the deadlink issue, to concerns that reporting efforts on broken URLs will prove insufficient, to fears that their libraries will not be able to sustain the workload on problem records.

The fear of additional workload is very real. Many of us have had to establish cumbersome "work-arounds" to make up for deficiencies in our systems. But, it is still fair to say that a significant percentage of libraries are simply waiting to begin when the technology and the rules are clearer. In fact, if I have to characterize what all of us are doing regarding PURL technology, I would express it thus: 20% of us are just waiting and 80% of us are doing a little bit of everything... and also waiting!

I'm going to talk just briefly about a statistical breakdown of who responded, and then go on to discuss items in the Checklist. Along the way, I will offer response data gathered from the survey. I do want to make it clear that this is an informal survey. It only provides an overview of the topic, even though it posed some very specific questions.

In a couple of instances it seems that those taking the survey interpreted the questions

differently, and occasionally there were answers given by people who seemed not to really understand the question. Overall, however, the survey feedback was extremely useful to me in preparing the Checklist; and, even though 54 depositories are a fraction of the total, I think the responses provide a very good bellwether system for looking at the issues we are all facing.

A. Number of responses by Library Type

39	Academic General Library
6	Public Library
3	Academic Law Library
2	Community College
1	State Library
1	Special Library
1	Federal Agency

While 72% of the responders were from Academic General Libraries, there was useful feedback provided by most of the library types designated by the GPO.

B. Number of Responses by Depository Type:

Seven regional depositories and 47 selectives responded. The regionals were:

New Mexico State Library
Newark Public Library
University of Hawaii - Manoa
University of Iowa
University of Kentucky
University of New Mexico
University of North Dakota

C. Number of Responses by Depository Size:

29	Large
17	Medium
8	Small

Once again, there is representation from all sizes of libraries, with the larger depositories providing over half of the responses.

D. Number of Responses by Depository Selection Percentage:

0	-	20%	=	13
21	-	40%	=	10
41	-	60%	=	13
61	-	80%	=	09
81	-	100%	=	09

The breakout of figures shows a reasonable five-way split among responders.

E. Library Systems Vendors:

Most of the major vendors are represented, with Innovative (III) being the majority system used by responders, and NOTIS running second. (**Ameritech is a vendor representing potentially three systems. The three responses under that vendor may belong to DYNIX, HORIZON, or NOTIS.)

15	-	Innovative (III)
10	-	NOTIS
06	-	SIRSI
05	-	DYNIX
04	-	DRA
03	-	Ameritech**
03	-	PALS
02	-	GEAC
01	-	Horizon
01	-	CARL

This leads to our first point in the Checklist:

Step 1. Initial Considerations:

A. Technology: Does Your Library Cataloging System Have Hotlinks (Or Web Browser Interface?)

Yes	39 depositories (72%)
No	15 depositories (28%)

Or, do you plan to have a hotlinked system in the near future?

Yes = 7 of the 15 currently without hotlinks

Timing is everything! The usefulness of the 856 field data takes on entirely different meaning when a simple "click" transports your patrons to the title online. If the technology is there, you are not only obligated to use it, you are probably excited at the prospect of making it all happen for your users... and you are also probably feeling the obligation to make it happen "right."

In the survey, 72% of those responding say "Yes," they do have Web browser access in their library catalog. Of the remaining libraries who do not yet have this feature (28%), about half of those stated that they have upcoming plans to implement it.

A related issue: Is Your Library Currently Cataloging Internet Resources?

Yes	43 (80%)
No	11 (20%)

When did you begin?

1994	01
1995	03
1996	08
1997	14
1998	11
1999	02
Not sure	4

As you see, 80% of those responding said they are currently cataloging Internet resources. While only 4 stated they had begun prior to 1996, the desire to manage Internet resources within the library catalog gathered steam in 1996 and the majority of responses indicated they had begun in 1997. Several have just begun this year. If you do not yet have hotlinks, you should probably engage in some pre-planning and perhaps develop preliminary strategies for your institution.

Since many more resources must be considered than just having the proper technical equipment for working with Internet records, you should early on ask yourself question number 2 from the Checklist:

B. Is There Administrative Support for Cataloging Internet Resources at Your Library?

Yes	45 (82%)
No	09 (18%)

Over 80% of the survey responders stated that "yes" they do have administrative support for the cataloging of these resources. Frankly, it would be hard to envision proceeding with such a task without at least the philosophical support of your institution. Financial support in terms of commitment of time and staff resources are important as well.

Of the 9 survey libraries who stated they do not currently have administrative support, half had requested support and had it denied. One librarian stated "I never requested support because I knew it wouldn't be given. I'm expected to do it all." Altogether, however, reasons given by administrators for non-support are really quite reasonable:

- We don't have the staff.
- It's too expensive.
- We don't have Web access.
- We have no utility to deal with all the changing or dead URLs.
- Technical Services is not trained or prepared - we want to wait for a reorganization.
- We anticipate a change in our system and want to wait.

There are three important points to keep in mind regarding administrative support:

1. Cataloging Internet resources is a library-wide issue and requires the support of the administration to survive

the ongoing changes in technology and commitment of library resources.

2. Once you have administrative support, leave little to chance. Use resources wisely by setting goals before you begin the work.
3. If you do not currently have administrative support, do not play dead. Learn as much as you can about the issues of URLs and PURLs, and re-evaluate your options periodically. When the time comes to receive administrative support, be ready to go.

So, to review, your initial considerations should be:

1. Technology: Is your OPAC hotlinked?
2. Administrative support: Do you have it?
3. Resources: What can you commit in terms of staff, time and maintenance?

Step 2. Planning:

A. Scope

Who will be involved?
What Level of Commitment Will We Have?
What Goals Should We Set?

B. Tag All the Players

Govdocs? Cataloging? Ref? CD? Systems?
Students? Paraprofessionals? Librarians?

C. Standards

Single vs. Multiple Record Cataloging?
PURL Protocol or Not?

D. Organization of the Workload

Who Will Manage the Work?
Who Will Do the Work?

E. Pilot Project - A Useful Option**F. Write a Mission Statement****G. Prepare for Change; Be Flexible****A. & B. Scope and Tagging the Players:**

The steps I suggest for planning are probably familiar to you who are old hands at managing library projects. When you discuss the scope of the project and who the players will be, I suggest that you think big. PURLs are a larger issue than just for cataloging - there are many collection management considerations. The workload may extend to staff in Systems Departments and the selection issues will impact on both Collection Development and Reference. So, try to tag all the "players" at the outset.

C. Standards:

Regarding standards, perhaps you are a large library and will build on existing policies for your standards regarding cataloging of Internet resources. However, even what seems like a simple question can lead to extensive discussion, or even become controversial. For example, the survey posed this question:

Are you using single or multiple record cataloging for Internet resources?

Here are the responses:

- 29 libraries say they are using single record cataloging - although some characterize this as "whatever GPO does" and a few of these added "so far!"
- 12 responders left this blank.
- Only 2 indicated they have chosen the multiple record standard.

- 11 institutions are using both single and multiple records when necessary, and my prediction is that this will become even more prevalent.

Some of the rationales are as follows:

- "Use single record for serials, separate records for monographs."
- "We maintain separate records for paper and microfiche...adding the URL to both paper and microfiche records."

When you begin adding URLs to more than one record for a title, you are doubling or tripling your workload. Libraries which did not chose single-record cataloging for the duplicate physical formats of paper and microfiche have some thinking to do. While we adhere to single-record cataloging at Wichita State, it is not unusual for us to have more than one record for a title. For example: the CIA World Factbook. We select this in both paper and CD-ROM, and the CD-ROM has its own record. So, when there is also a record for a title in CD-ROM format, there could be a second or third record with an 856 to manage.

At my institution, if there is more than one cataloging record for a title, I provide an additional record for the online title. The index makes it clear to the patron that there is online access. And, my staff does not have to manage the URL/PURL in more than one record. We do add the 530 note to the records for the physical formats stating: "Also available online."

Because we do not use tape-loaded records, we do not have to worry about the implications of overlaying records where the 856 field has been amended by GPO. Since an overlay tags an OCLC number, there are workload implications for libraries with more than one record per title in their databases.

D. Organization of the workload:

The outcome to the workload planning at your library will, of course, be determined largely by your available resources in staffing, other project commitments, and your current culture. In my opinion, the push to manage Internet resources in a library catalog system has the potential to blend departments in ways not typical in traditional library workflows. For example, when asked in the survey: "Who is responsible for cataloging Internet resources?" only 10% of responders said that it is handled in Government Documents. Forty percent stated that Cataloging is responsible. And, significantly, nearly 50% of answers show that this is a combined departmental effort. I think this movement across departmental lines is healthy, in that there can be a flexibility introduced which can lead to higher productivity.

Moving to the staffing resources in terms of FTE (or time) allotted to cataloging Internet resources, there is also quite a variance in commitment, according to survey responses. On the "haves" side, one library has 2 FTE handling this task, 1.5 in Cataloging and .5 in Documents. Five responses showed 1 FTE assigned to this project. On the flip side, there were also five libraries who answered "none." Far more typical is an assignment of 8 to 10 hours weekly to this task.

E. Consider Beginning with a Pilot Project:

As I mention in the checklist, if you or your administration are uncertain about the level of resource commitment to this effort, start small. You can then evaluate the time and talent required, as well as discover problems and rewrite procedures. In Arlene's half of this presentation, she described the commitment to link checking at her institution. In contrast to Arlene's institution, my university is in a "wait and see" mode. I'll explain why in a minute. However, a year and a half ago, we were all ready to tackle the issue of Internet resources,

and the Principal Cataloger and I received permission to conduct a pilot project to determine the following:

- To identify problems associated with cataloging Internet resources.
- To develop and test a plan for selecting Internet resources
- To have Cataloging provide access to the selected resources
- To determine costs for selection and cataloging
- To select a method of testing the links electronically
- To explore maintenance issues

The project was divided into phases over a six-month period of time, with an initial reporting phase half way through and a final project analysis. It was an elaborate but rewarding process. We were able to establish policies and procedures for all our work with Internet resources, both in government documents and for other resources. We also chose a link-checking package (for us, it was InfoLink Link Checker 1.9), which required some customization and ran this once. Our plan had been to run the package weekly, but this did not happen.

I stated earlier that we are now in a "wait and see" mode. Perhaps our situation is not unusual. Here is what has happened in the past year.

1. The Computing Center withdrew support for running the link checking package weekly, due to other commitments.
2. The Library Administration did not pressure the Computing Center to cooperate.

3. The Library Dean retired and other priorities took precedence.
4. The add-on module providing Web interface to our library's online system (WebPac), went down. As a NOTIS site, we had purchased WebPac in order to provide hotlinks.
5. The Vice President of Academic Affairs arranged funding for a new library system, which resulted in RFPs and directed attention away from the ailing WebPac module.
6. The Interim Library Administration did not pressure the Computing Center to find the problems with WebPac and now, seven months later, WebPac hotlinks still do not function, or at least not every day.
7. The focus now is on waiting for the new system, which will have a Web interface and we won't have to worry about WebPac.
8. In addition, we now want to wait and see how the library database migrates to the new system before we work in any intentional way on Internet resources. Since we do not currently have tapeloaded government document records, we can survive this. And, the pilot project we conducted over a year ago will still provide us with useful insights for working with the new system.

F. Mission Statement:

To complete your planning, it would be useful to write a mission statement to articulate your vision. Such a statement should be simple and straightforward. On the screen, you can see what the member libraries of VIVA, the Virtual Library of Virginia, wrote as their mission:

"VIVA's mission is to provide, in an equitable, cooperative and cost

effective manner, enhanced access to library and information resources for the Commonwealth of Virginia's academic libraries serving the higher education community."

I gleaned this piece of information from looking over the online procedures shared with me in the survey, and, again, I commend them to you from our handout.

G. Prepare for change and be flexible:

This statement could be the mantra of the electronic transition! Most of us who have been involved with managing organizational change are well aware of the need for preparation and flexibility, but it bears repeating in any planning outline.

Step 3. Cataloging Considerations:

A. What Will Be the Source of the Records?

Tapeloads, Bibliographic Utility, Combination?

What expectations do you have of your vendor?

How will updates be received?

Is there a concern for overlay of local information?

What Are the Cataloging Issues for Us?

Will we accept records as received or enhance them?

Will we add fields or notes?

Are we concerned about any inconsistencies in GPO records?

Will we change or amend URL addresses if necessary?

As I said earlier, 80% of the libraries responding to the survey indicated they are currently cataloging Internet resources. This probably means everything from vendor tapeloads of government document records to careful scrutiny from professional catalogers. However, there seem to me to be two primary considerations with regard to cataloging: "What will be the source of the records?" and "What are the cataloging issues for us?"

The survey asked "What is the source of your records for government documents?"

Vendor tapeloads = 50%
Bibliographic Utility = 30%
Both = 20%

More than half of the libraries responding use vendor tapeloads, with the overwhelming majority using Marcive. The only other vendor mentioned was the OCLC tape service and the ratio was 35:2 - Marcive. The remainder of the libraries are using the bibliographic utility OCLC. However, more than half of the libraries using vendor tapeloads also use OCLC, so there is cross-over activity.

It is very important if you are using a vendor to determine what expectations you have of them and to be clear about the issues which can or cannot be controlled by a vendor. I received voluminous feedback to the question: "Do you have issues with the 856 fields in tapeloaded records?" Many, many of these related as much to the insufficiencies of library systems as they did to vendor concerns. These issues are usually intertwined. I will share a few of these responses with you later when I talk about systems considerations.

Further cataloging-related concerns which produced many comments were "GPO policies" and "GPO cataloging." Some of the comments batched are:

- Maintenance Issues
"Deadlinks"

"Invalid links"
"No mechanism yet to check for changed URLs."

- Point of entry Issues
"PURL addresses used by GPO tend to be too broad and retrieve agency Web page rather than a specific item."
"Editions"
- Consistency of Records
Cataloging of Field 856 is inconsistent. Typing input errors in the 856 cause retrieval problems.

Field 856 Data Elements: Another question I asked in the survey related to the 856 field was: "How have you managed your 856 fields when a PURL was placed in the same field with a URL? Thirty-five libraries responded:

24 are retaining both
10 are manually changing the data
1 has a created a program to amend the data

When manually changing the data:

Some libraries are moving the PURL to the first subfield u,

Some are deleting the URLs and retaining only the PURLs,

Some search InterCat for a PURL if one is not in the record,

Some are deleting all the PURLs, and

Some say they keep only one link and, as for which one: "it depends."

There has been considerable debate recently as to the placement of the URL, when replaced by the PURL. Since MARBI has now limited the number of |u's to one in each 856 field and Tad Downing announced yesterday that GPO cataloging policy will adopt this as a standard,

the problem of display should be minimized in the future; however, most of us have hundreds of records in our databases which have multiple delimiter u's. For any amendment of these, we will either have to wait for record updates or manage manually. Thirty-five libraries responded to the question of where the URL should be placed in a three-way tie between: subfield x (non-public note), subfield z (public note), and other. Several prefer an additional 856 and several requested the 538 field. GPO Cataloging has just announced that they are preparing to use the 530/538 fields for URLs replaced by PURLs.

Step 4. Collection Development Considerations:

- A. Will we evaluate the point of entry for a URL/PURL?**
- B. How much evaluation will be required and who will do this work?**
- C. Will we accept URLs/PURLs as they appear in records, or actively seek out sites of value to our patrons?**

Evaluation:

There are two issues I want to discuss which fall into the category of "evaluation:"

- 1. Site evaluation: Checking the URL for point of entry and validity; and
- 2. Resource evaluation: What additional Internet resources should we add to our electronic collection?

Even if you are used to obtaining records from a vendor and pretty much accept them without amendment, questions of evaluation are bound to come up sooner or later.

For example, will you evaluate the point of entry for a URL or PURL? In the survey, over 50% of responders say they are evaluating their

856 fields for point of entry and content. Sixty percent say they check sites for accuracy at the time they initially work on their records.

Is it a problem to you that clicking on an 856 field might take a patron to an agency home page rather than going directly to a specific title? Or, perhaps you prefer the more general entry point for the patron. If the agency home page has a useful list of titles to choose from, the patron could actually benefit from seeing what else is published by them. Too, if the specific electronic address to the title is ever amended, or disappears, you will already be directing the patron to the broader list of choices, so there is a better chance of their not being confused by disappearing resources.

Another example: Perhaps you learn that a URL which used to lead to the 1996 annual report of an agency is now the 1997 report. However, the URL has not changed. The electronic address still has the 1996 included in it. There is no choice between 1996 or 1997—the 1996 annual report is no longer there. AND the 1996 report does not appear to be posted at the agency Web site anywhere.

This happened to me last fall. Clearly, to this agency, Web space is Web space, no matter what the designation on the URL, or they would have created a URL for their 1997 report with the 1997 in it. I e-mailed the agency to inquire about the 1996 report. Where was it? They responded that they had taken it down from the Web, but that it was still available for purchase in paper format. However, they said, 1996 is the last year for which the report will be published in a physical format. I then inquired as to whether they would leave 1997 up when they released the 1998 edition, especially as 1997 would no longer be archived anywhere if they took it off the Web. They responded that they did not know yet.

Now, these comments are not intended so much to complain about the inconsistencies of agency protocols as they are meant to point to

the amount of time and thought one has to give to just one decision set when dealing with a hot-linked database record. The magic of electronic access has brought us additional workload. At least books don't fly around the room to other shelves and microfiche don't leap from drawer to drawer, although there are times when I think they mate in the night and reproduce themselves!

Staffing:

As a fourth example, your library may set a course of adding electronic resources outside your normal profile for physical items. Perhaps you are downsizing or perhaps you are taking advantage of the virtual library world to provide your patrons with added value. You will need to ask yourselves: Who will do this work? Going back to survey responses on the question of "Who is responsible for evaluating sites?", answers were varied and sometimes point to a group effort. The most typical answers are the "Government Documents Librarian" or the "Cataloger" or the two together. But, others are also assigned to this task:

Serials Librarian
Subject Selectors (or, CD Liaison Librarians)
Media Librarian
Reference and Cataloging Team
Selectors and Cataloger together
Group Support Staff (Cataloger,
Maintenance Department, Selectors)
Students, and
"All of us"

It is useful to note that twice as many libraries are addressing evaluation of resources for inclusion in the catalog with a team or cooperative effort as those just assigning one person to this task. Clearly, there are inter-departmental ramifications to this decision-making.

Step 5. Library Catalog System Considerations

- Display of Field 856
Study Your System's Display
Work With Programmers to Amend
- Or, Devise Working Strategies for Problems ("work-arounds")
- Potential for System Migration
- Upgrades from System Vendors

It is extremely important to study how your system displays the 856 field, because some of the potential problems associated with the 856 are system vendor-related. Some of these issues may be resolved by working closely with your programmer or systems staff. At Wichita State, where we currently have the NOTIS system, we have worked with our programmer to pull the 856 into the short view of the patron record, because we know that typically a patron does not even look at the long view.

In other cases, you may have problems which will only be fixed by a new release for your system. An example of this is the Innovative system, which currently will only display to the public the first |u in an 856 field. The majority of Innovative libraries which responded to my survey indicated that they are manually moving the PURL to position it first, when the PURL has been added after the URL was placed in a record.

In addition, there are several systems, including CARL, which do display multiple URLs from a single 856, but often run them together into a single and totally unusable link. SIRSI has been known to repeat identical 856 fields when records are loaded. PALS cannot be set for overlay of individual fields.

In the NOTIS patron display, we can designate the Location as "Internet" and instead of a Call Number, we can input "Electronic Resource."

However, we cannot amend the Status, which is "Check Shelf." Of course, this is not what we want to have our users do for an Internet resource, or they could report that the item must be missing from the shelf; but the programming is not amendable for this category.

The good news, of course, is that eventually some of our frustrations will be lessened either because our libraries will migrate systems to one better designed for Web interface, or because systems vendors will develop tools to help us manage display and link-checking issues.

Step 6. Maintenance issues:

- How important is absolutely accurate URL information in your catalog?
- If accuracy is a priority, how will records be kept up to date?
- Will you systematically check URL/PURL links for validity?
- How will you check links? System-generated or link checking software? Manually?
- How often?
- Who will do the work?
- What will you do with the data you collect?
- Will you have staff and time to be consistent?

Arlene has covered the technical aspects of link checking, so I will say just a few words about the management aspect of maintenance issues. It is important that each institution decide at the outset just how important it is to have absolutely accurate URL information in their catalog. The Checklist handout suggests a range of considerations if your library

establishes accuracy as a priority. Primarily those are: how will the records be kept up to date? Which link checking software will you choose, or do you have a system-generated software for this purpose? How often will you run the link checker? What staff will be involved? What will you do with the data you collect? Will you have sufficient staff and time to complete this work periodically?

According to my survey, slightly more libraries are NOT systematically checking URLs than are. There were 24 responders saying "Yes, they do." and 26 saying "no." There was also one that stated "Yes...somewhat," which probably reflects what is true of many libraries: they are doing their best to manage the problem, but on more of an ad hoc basis.

Only three link checking packages were mentioned in the survey: LinkBot (the most popular), MomSpider, and "homegrown." More libraries reported checking URLs manually than those who are using link checking software. Of those conducting the checking on a regular basis, the favored timing is monthly, followed by quarterly. Some reported checking only when problems are reported.

Step 7. Policies and Reporting:

- Develop written policies and procedures.
- Report regularly to your staff and administration on your progress.
- Take advantage of your system's reporting capabilities, especially for tracking the 856 fields available in the catalog's records.
- Report broken links you discover to GPO.

Finally, the last step in your process: reporting. Do keep both your administration and your staff advised of problems and progress. As most of you know from experience, written procedures are crucial in dealing with complex

technologies. And, finally, I will re-emphasize Arlene's comments regarding reporting of broken links to GPO.

In Conclusion - What Do We Want from the GPO?

Finally, my survey comments would not be complete without mentioning the information gathered as to what depository librarians want from the GPO. There is much positive feedback about PURLs. Librarians stated that they are "counting on them" and that they are "essential" if we are not to duplicate work constantly and waste our resources of staff and time. There is an appreciation that GPO determined to take responsibility for record problems by embracing the PURL technology. Librarians also shared their expectations of GPO at this point:

- Make it easier for us to report broken links and other problems.
- Move rapidly to convert the old URLs to PURLs.
- Provide regular online reports listing PURLs assigned.
- Allow depository librarians to assist in maintenance of links on the PURL server.

Thank you very much for your presence here today listening to the issues involved with embracing a new technology: PURLs. At this time, Arlene and I would like to open up the session for questions and answers.

American FactFinder

Barbara Aldrich
Robert Clair
Bureau of the Census
Washington, DC

American FactFinder Technical Information

- Developed for Use with Netscape or Internet Explorer Version 3.0 or higher
- Java Script Enabled
- Must Accept Cookies
- Access Problems? FactFinder@census.gov

Data and Features Now Available

- Related Data Product Information
Additional Information about Products Accessed through American FactFinder
- Maps
Reference Maps
Lower Level Geography Currently Available for Dress Rehearsal Areas

Thematic Maps
Predefined Maps on Selected Topics

Overview

- The Software Previously Known as "DADS"
- Release 1 Became Publicly Available in mid-March 1999
- Additional Data and Features will be Added

Data and Features Now Available

- Community Profiles
Data from the 1990 Census
- Population and Housing Facts
Quick Tables
1990 Census Data

Detailed Tables
1990 Census Data
American Community Survey Data - Selected Areas

Data and Features Available Soon

- Industry Quick Reports
1997 Economic Census Data
Released on a Flow Basis Beginning in April 1999
- Geography Quick Reports
Economic Data by Geographic Area
Released on a Flow Basis Beginning in April 1999
- 1990 Public Use Microdata Sample
Scheduled in June
- More Detailed Geography for Mapping
Available on Flow Basis Through the Summer
- Building a Query
Available for the Economic Census

Features Available Later

- Custom Tabulation Capability
 - Full Microdata File
 - Post 1999
- Downloading Capability for Large Files
 - Part of the Census2000 Version of FactFinder
- Our home page – www.census.gov

Reinvention Web Sites: Tools, Documents, and Services

Patricia B. Wood

National Partnership for Reinventing Government
Washington, DC

Hello. It's a pleasure to be here. I come not only to share information with you, but also to find out what you and your depository library customers would like to see from government Web sites. In fact, I would like for us to explore ways we can continue this discussion after this session ends.

I value your mission of providing free public access to Federal documents and your effort to use the rapidly evolving Web technologies that are expanding the definition of "publish" and "publication."

Free people need free access to what government says and does. The Web is helping government provide not only information and services, but it is also helping us reinvent government.

"Information technology," Vice President Gore said, "was and is the great enabler for reinvention. It allows us to rethink, in fundamental ways, how people work and how we serve our customers."

Today's Topics

This morning I will talk briefly about:

- Government-wide reinvention,
- How we are using the Web and Information Technology (IT) to get the job done, and
- Enlisting you—depository librarians—as our partners in changing government forever.

Reinvention and Trust in Government

I think we all know that 30 or 35 years ago, people in this country mostly trusted government to do the right thing most of the time. Polls in the early 60s showed more than 70 percent of the people believed that way.

Much of that trust eroded as the years passed. Our government got so full of rules, so full of procedures, that it was hard for one person, or one small group of people to make any difference at all. Red tape didn't just strangle the American people, it hindered those of us on the inside just as much.

By the early 90s, only about 20 percent of the American people believed that they could trust their government to do the right thing, according to a Pew Foundation study completed late in 1997. It revealed a slight upward trend in recent years in the number of Americans who trust their government. Thirty-nine percent of the public basically trusts the Federal Government to do the right thing, an 18-point gain since an all-time low of 21 percent in 1994. The figures have dipped just slightly since those figures were released in early 1998, but the general trend is very encouraging. We believe reinvention had something to do with this trend.

In March of 1993, President Clinton asked the Vice President to lead what was then called the National Performance Review, or NPR. We changed our name last year to the National Partnership for Reinventing Government, but kept the acronym NPR. Sometimes we call

ourselves the OTHER NPR when people confuse us with National Public Radio.

Vice President Gore believed Federal employees were good people trapped in a bad system. He went to them first. He asked Federal workers how things could be better and they told him. Then he asked them to fix things—to reinvent. And that’s what many Federal workers, with their partners in state and local government and the private sector, have been doing for the last-6 years.

Our vision today is America @ OurBest and our mission is to create a government that works better, costs less, and delivers results the American people care about.

Accomplishments

Reinventing Government is the longest-running and most successful government reform effort in U.S. history. Here are the major accomplishments:

- Savings total \$137 billion.
- Federal agencies have published more than 4,000 customer service standards for more than 570 organizations and programs. When we started, most Federal agencies didn’t think government had “customers.” Now it isn’t unusual to hear bureaucrats planning to “excite” or “thrill” their customers.
- Agencies have eliminated more than 16,000 pages of regulations.
- Federal employees are now writing rules and other public documents in plain language.
- Regulatory agencies like the Occupational Safety and Health Administration (OSHA), the Food and Drug Administration (FDA), and the Environmental Protection Agency

(EPA) now partner with business around mutual goals.

- Reinvention has resulted in the smallest civilian workforce since JFK’s administration, with a reduction of 351,000 positions. Reductions occurred in 13 of 14 departments. (Justice increased crime fighting.)
- More than 1,200 Hammer Awards have been presented to teams of Federal workers and their partners in industry and state and local governments. This is the Vice President’s award to teams for using reinvention principles to create a government that works better.
- About 340 reinvention labs are reengineering government processes and using technology to unleash innovations that excite customers and employees alike with more flexible internal systems and improved services to the public.
- The Congress has passed and President Clinton has signed more than 80 laws so far enacting NPR recommendations.

Of course, the American public doesn’t much distinguish where one level of government drops off and another kicks in. Since December, we have been working with state and local governments in Kansas City, Dallas-Fort Worth, and Seattle to create hassle free communities. Now hassle-free communities are starting in the state of Minnesota (Partnership Minnesota is starting Hassle-Free Minnesota), in the Borough of Manhattan with the New York Federal Executive Board, and in Chattanooga, TN.

In this tax season, in rural communities of Kansas and Missouri, where few if any Federal Government offices exist, the Internal Revenue Service is using a bus to deliver hassle-free services to taxpayers. The bus has made its rounds every other week since mid January.

IRS also created a partnership with both states so that state income tax services are included.

Our shared success in reinventing government at every level matters very, very much. We must press on to the ultimate goal for reinvention – to restore the trust of the American people in their government at every level.

A major culture change is underway in government, even though we still have a long way to go. Our aim is nothing less than to do things today that will change government forever.

Reinvention Sites

Let's look now at some of our reinvention Web sites.

If we substitute "Web site" for "government" in NPR's mission, we've got a basic premise for government Web sites:

Create a Web site that works better, costs less, and delivers results the American people care about.

Today, government agencies, like businesses, realize that a Web site is a strategic resource. It can save an agency money by reducing calls and postage, replacing hardcopy printing, and in conducting the agency's business.

This is certainly true for NPR. For example, NPR's site is for reinventors and their partners, but we reach students, researchers, and the general public. We post all official reinvention documents, long or short, and much reinvention news, including agency activities. NPR is a task force, not a government agency. We are frugal. Our 40 or 50 staff members represent Federal agencies, usually on loan for 3 months, 6 months, a year. We have not published a hardcopy annual report since 1997. We update our Web site frequently so

that it's almost a "daily report" of what's happening.

We overhauled our site last summer, asking a focus group of Federal workers what they wanted and needed. They wanted news on the home page. They wanted as many topics on the home page as possible and wanted to see as many topics as possible without having to scroll. They told us to reduce the size of our logo and other graphics. They said they didn't want to hunt for information. We went from a menu of 10 topics on our previous home page to 41 in the new design.

NPR-sponsored Web sites have been a major reinvention tool since 1993 and some have been spun off. As examples:

- **FinanceNet** <www.financenet.gov/> is the Internet's home for public financial management worldwide. It has many features. For example, you can go to this site to find out what government – Federal, state, local or international – has for sale or auction. It's a lot—all manner of public assets and surplus from real property and loans to planes, boats, cars, jewelry. FinanceNet is operated by the National Science Foundation.
- **Acquisition Reform Net** <www.arnet.gov/> supplied information across agency lines and provided an electronic forum so a network of procurement professionals could discuss issues. This electronic tool played a big role in procurement reform.
- **Reinvention Lab/Waiver Clearinghouse** Federal employees in Reinvention Labs sometimes need waivers to deviate from internal agency policies and procedures so they can improve internal operations. This online database, hosted by the Alliance for Redesigning Government, lets reinventors share information and tools.

- **Plain Language** is another Gore government-wide initiative that is being implemented with the help of a one-stop site <www.plainlanguage.gov>. It includes the President's Executive Order, samples, tools, tips, and other aids for Federal workers who are writing and re-writing government regulations and other documents so people can understand them.

Access America: Delivering Services Electronically

Many Federal Web sites are virtual storefronts of government services. It's where customers interact with government. As more and more American households go online, more and more government sites don't just sit there—they do something. They deliver services.

Delivering services electronically and using IT to improve government productivity is the vision of the Vice President's 1997 report, "Access America: Reengineering Through Information Technology."

This vision includes working across agency lines to identify customers and collect information, forms, and services suitable for customer groups on one-stop sites. Many agencies together can achieve what no one agency can achieve alone.

- **The Business Advisor** <www.business.gov> was NPR's first interagency Web site targeted toward a specific customer group. NPR developed it in 1995 with partners from government and the private sector. The site will soon be sponsored by the Small Business Administration. We are redesigning the site to make major improvements and updates.
- NPR worked with 17 agencies, including Housing and Urban Development, to open the **US State and Local Gateway** <www.statelocal.gov> in January 1998.

This site provides Federal information that state and local government employees over the country need to do their jobs.

- Over the last several months, NPR worked with Social Security and many agencies to create a one-stop site for **seniors** <www.seniors.gov>, announced in February.
- In January, NPR, the Department of Education and other agencies announced a demo in partnership with several colleges for a one-stop site for **students** <www.students.gov> to open soon.

That same month, NPR worked with the United States Information Agency to convene the Vice President's Global Conference on Reinventing Government. Its attendant Web site <www.21stcentury.gov> shares reinvention documents and tools from that conference and from governments around the world.

The Access America initiative also includes a Center of Excellence in Information Technology site <<http://centerofexcellence.gov>> that is being developed.

Electronic Stories about Electronic Government

Last summer when we were redesigning the NPR site, I was also working with a wonderful interagency team sponsored by the Government Information Technology Services Board—GITSB — <<http://gits.gov>> to develop a new site focused on IT, Access America Online Magazine. Co-sponsors are NPR, the CIO Council <www.cio.gov/>, and the Federal Communicators Network <www.fcn.gov>.

The magazine is the brainchild of Greg Woods and Jim Flyzik. Greg is Chair of the GITS Board and a former Deputy Director of NPR. He is now the director of the first performance-based organization in government, the Office

of Financial Assistance at the Department of Education. Jim is Vice Chair of the GITS Board and Deputy Assistant Secretary for Information Systems and Chief Information Officer at Treasury.

GITS Board members champion the 18 recommendations in Vice President's Access America report. Until last summer, champions wrote periodic online reports on the status of each recommendation, such as using IT to improve the government's access to services and to establish the Intergovernmental Wireless Public Safety Network. The reports were fairly standard government reports, that—how shall I say it?—made less than compelling reading. That is, if anybody even knew about the reports.

Greg and Jim thought the American people needed to know about these electronic services—not from reports, but from easy-to-read, illustrated stories on the Web.

I am thrilled to be editor of Access America Online Magazine. Our interagency team opened it as a prototype last October and the Vice President announced it by press release on March 9. We've organized the magazine site around the 18 topics in the Access America report. We publish a new issue every Monday and we have more than 100 stories about electronic government at the Federal, state, and local level. These stories tell Americans how they can go online to:

- Find a lost pension.
- Identify workplace hazards.
- Compare nursing homes nationwide.
- Apply for student aid.
- Start and build a woman-owned business.
- Find out about and apply for government jobs.

- Change an address with the U.S. Postal Service.
- Manage industrial size waste disposal.
- Apply for Peace Corps.
- Download and print hundreds of forms—including tax forms, something many Americans will probably have to do tonight.

We also have stories about the environment, geography, space technology, international trade, public safety, criminal justice, passports, business services, medicine, health care, and more.

For example, one story describes the National Library of Medicine's partnership with 39 public library organizations with more than 200 locations in nine states (Alabama, Georgia, Maryland, New York, Pennsylvania, South Carolina, Tennessee, Texas and Virginia) and the District of Columbia. These libraries are taking part in a pilot project to let people learn how to get health information on the Internet. The project features an easy-to-understand Web site called *MEDLINEplus*.

Let's Partner

I invite you to support reinventing government and to help the public know about reinvention and the services that agencies are making available online.

I can give you examples right now. Last week, the hassle-free community team in Dallas-Fort Worth talked with Housing and Urban Development (HUD) about expanding their new kiosks to libraries in that area. HUD's new electronic kiosks – located in Federal buildings, shopping malls, libraries, transportation centers, city halls, grocery stores and other public places around the country—allow citizens access to basic HUD information, 24 hours a day, 7 days a week,

much the way they would use an ATM at the bank.

Dallas-Fort Worth is also ready to ask their local libraries to let their customers know about an adoption Web site. I understand they also have adoption kiosks they would like to have in libraries. The hassle-free coordinator told me they would love to get the support of the Depository Library Association—or all library organizations. I can put you in touch with these reinventors. ☺

We also need reinvention partners who can host satellite downlink sites or can access a cybercast. Last January, Vice President Al Gore moderated a televised satellite summit with national business, labor, education, government and local community leaders on "21st Century Skills for 21st Century Jobs." We had some libraries participating and we would like to get more involved in future broadcasts and community meetings on this and other topics.

For example, the 8th Annual Family Reunion Satellite Conference moderated by Vice President and Mrs. Gore will be June 21 and 22. This annual event features discussions around the country on issues affecting families and communities. Conference planners invite

sponsors for downlink sites. For more information, visit <www.familyreunion.org>.

Also, the Department of Labor invites libraries to play a role in its "Career Kit" and "virtual one stops" with career counseling, job referral and placement through the Web. I can get you a contact, or you can start with the DOL site at <www.dol.gov>.

Likewise, I need story ideas or stories about using information technology to reinvent government at any level. And, if you have Web sites, I urge you to link to Access America Online Magazine.

I invite your comments, suggestions, questions, and involvement today and in the future.

Thank you for having me here today.

Send your reinvention and information technology stories to Pat Wood at <pat.wood@npr.gov> or call (202) 694-0063.

National Partnership for Reinventing
Government
www.npr.gov

Access America Online Magazine
www.accessamerica.gov

O*NET: Keeping Pace with Today's Changing Workplace

Donna Dye
U.S. Department of Labor
Washington, DC

What Is O*NET?

O*NET, the Occupational Information Network, is an easy-to-use database that runs on a Windows-based personal computer. It contains comprehensive information on job requirements and worker competencies. O*NET replaces the Dictionary of Occupational Titles and offers a more dynamic framework for exploring the world of work. With O*NET, employers of all sizes and across all fields have a powerful means for accessing critical information that impacts their bottom-line every day.

O*NET Data

O*NET currently contains information developed by job analysts using the O*NET skill-based structure. Future data will come directly from workers and employers themselves, describing the work they do, the skills they need, and the knowledge they use on the job.

Expert researchers will collect and classify this empirical information to guarantee that O*NET data is accurate, current, consistent, and comprehensive.

Who Uses O*NET?

- Human Resources personnel
- Students exploring career options
- Business forecasters
- People changing jobs
- Organizational consultants
- Training facilitators

- Efficiency experts
- Managers
- Industry analysts
- Rehabilitation counselors
- Workforce researchers
- Career counselors
- Displaced workers
- Program directors
- Software developers
- People seeking new jobs, better jobs or first jobs

What Others Have Said

- O*NET will give schools and training organizations the information they need to prepare workers to succeed in our industry.
Deborah Masten, J.C. Penney Company
- O*NET is the best thing that has come around in the last 50 years, and will probably be the easiest thing to keep up-to-date, and add new skills.
Kenneth Edwards, International Brotherhood of Electrical Workers

O*NET Is a Collaborative Effort

O*NET is a collaborative effort, joining the public and private sector interests. Input at all levels and from all sectors is needed and actively encouraged.

For More Information Contact:

O*NET Project
U.S. Department of Labor
ETA/Office of Policy and Research
200 Constitution Avenue, NW, Room N5636
Washington, DC 20210
Telephone: 202/219-7161
Fax: (202) 219-9186
E-mail: O*NET@doleta.gov
<http://www.doleta.gov/programs/onet/>

The National Park Service Library Program

David Nathanson
National Park Service
Harpers Ferry, WV

The aim of this session is to provide you with some basic information about the library program of the NPS. I'm going to talk about what it is, what some of our problems are, and what we are doing about it. I'm also going to talk about some of the collections and bibliography programs that we maintain.

The Components

- The NPS Library Program office
- NPS Library Advisory Council (LAC) and the LAC Steering Committee
- NPS Library System

The NPS library program is made up of a program coordinator, an advisory council and the NPS library system itself. The program coordinator works for our Information and Telecommunications Center in Washington - the computer folks. Amalin Ferguson is the coordinator and she is duty-stationed in San Francisco. The last slide in this presentation provides her name, phone number, and her e-mail address.

The Library Program's plans and activities are described in an article written by Amalin Ferguson in CRM magazine (vol.21:6, Summer 1998) which is available on the WWW at: <<http://tps.cr.nps.gov/crm/archive/21-6/21-6-11.pdf>> .

NPS Library Advisory Council and Steering Committee

- NPS Library Advisory Council (LAC) - includes non-librarians

- Steering Committee (LAC-SC) - NPS library managers
- Members combine resources to maximize professional service to field staff and the public and to ensure access to NPS-related information

The NPS Library Advisory Council is made up of librarians and library users, as well as information managers from other NPS program areas, including archives management, records management, etc. The planning and policy development for libraries is carried on by a subset of the LAC which we refer to as the Steering Committee, which is made up of the few professional librarians in the NPS, chaired by the coordinator.

Members of the Steering Committee combine resources to maximize professional service to field staff and the public and to ensure access to NPS-related information. We do that by listening to the non-librarians of the Advisory Council and other users, to librarians outside the NPS and to each other, and by collaborating with other information specialists to link datasets and develop coordinated information management policies. We develop cooperative programs that are designed to stretch the existing library expertise in NPS so that the many non-librarian caretakers of NPS libraries can benefit.

The NPS Library System

- Park libraries
- NPS Technical Information Center

- Center and Support Office libraries
- HFC, DSC, WACC, CCSO, etc.
- Servicewide Bibliography Programs (CRBIB, NRBIB)

The NPS Library System is made up of the park libraries, central and support offices like my library - Harpers Ferry Center (HFC), Denver Service Center (DSC), the Western Archeological and Conservation Center in Tucson (WACC) and our network of support offices, some of which are staffed with professional librarians and try to support the park libraries in their region, like the Columbia Cascade Support Office in Seattle (CCSO) and the Southwest Support Office in Santa Fe. The system also includes the Technical Information Center at DSC and the various servicewide bibliography programs. I'll discuss all of these in a moment.

The NPS Libraries

- Almost 400 NPS libraries
- Average size of a park library collection is about 3000 volumes
- Wide range of nonbook formats
- Many unpublished and unique items
- Comprehensive, narrowly focused collections
- A significant resource for NPS staff, researchers, educators, and public

As this slide shows, there are almost 400 libraries in the NPS. Keep in mind that there are almost 380 areas in the National Park System and every area has some sort of library for the use of its staff or outside researchers. Some of these libraries are fairly large, like the 40-50,000 volumes at Morristown NHP in New Jersey, or the several thousand volume

libraries in some of the older parks like Yellowstone, Grand Canyon and Yosemite. The size goes down to a few hundred volumes in many of the parks. Two things are usually true: first, the park libraries, especially in the the older parks, very often constitute the best collections that exist on the subject of the park. For example, if a researcher wants to write about the history of Yellowstone, he/she really needs to visit that park's library and archives. Second, some of the park libraries - again especially in the older parks, very often have unpublished and sometimes unique items in their collections. The park libraries are a significant resource for NPS staff, researchers, educators, and the public.

Planning Issues

- Most NPS libraries are managed by nonlibrarians on a collateral duty basis
- Individual library budgets are minimal
- Majority of materials not cataloged to facilitate access and sharing

The biggest problem we have is the shortage of professional librarians, or even full-time library caretakers. Most of our libraries are managed by nonlibrarians on a collateral duty basis.

There are also few parks that have an adequate budget for the library. We have a system of private, cooperating associations that operate the bookstores in park areas. They are very supportive of the library function in the parks, providing money for books, and sometimes - as in the case of Yellowstone - library staff.

It has only been in the last few years that a concerted effort has been made to catalog park libraries in any standard library system. Park libraries are classified, if at all, in LC, Dewey or some home-grown system.

Impacts on Information Seekers

- Loss of materials due to inadequate accountability controls
- Retrieval is confined to local site and is generally inefficient
- Sharing of information across organizations, applications and formats is severely hindered

So what does all this mean, for us, and for researchers who need to use our resources?

We lose materials because we don't have adequate accountability controls.

Retrieval of information from the collections is confined to the local site and is generally inefficient in areas without full-time library managers.

Because of lack of bibliographic standards, sharing of information across organizations, applications and formats is severely hindered.

What we are doing about it

- Policies and standards
- Outside partners and funding - LSTA
- Software - ProCite / BookWhere
- Site licenses for Web-based reference services (e.g., FirstSearch)
- NPS Union Library Catalog - Voyager / WebVoyage
- ParkNet Library Link
- Preservation and access for NPS-produced documents

We are establishing standards - like the use of the LC classification system (although we continue to support Dewey at parks that use it), a standard bibliographic software for use in our libraries, the use of MARC records in our centralized systems, etc.

We are looking at Library Services and Technology Act (LSTA) funding. It is being used in Colorado to catalog some park libraries in that state.

We are funding the servicewide use of ProCite software for libraries to manage their collections. We are also funding BookWhere, a Z39.50 client, that parks can use to acquire MARC format copy-cataloging from all the library catalogs available on the WWW so that we can feed our union catalog—I'll talk about that in a moment.

We have developed a program that will print out spine labels from ProCite records for use in the parks.

We are also concerned with bibliographic control of NPS-produced publications and reports through our Technical Information Center and our bibliography programs. I will talk about those in a moment, also.

Components of the NPS Union Library Catalog

- Catalog records from all NPS libraries, NPS Manuscript Collections, NPS publications
- NPS Technical Information Center (TIC) records
- NPS Servicewide Bibliography records

In many ways, the centerpiece of our efforts is the NPS Union Library Catalog which we are in the process of assembling.

The catalog will ultimately include records from every one of the almost 400 NPS libraries.

Of course this will take time to accomplish for reasons I have already given. But we have started by putting several of the large library collections into our Voyager database. We have almost 150,000 records in it now.

Voyager, a product of Endeavor Information Systems, as some of you may know, was recently selected by the Library of Congress to manage all their vast collections. Just to give you a comparison of the scope of our respective projects, the implementation team for LC includes 300 names - we have three people on ours - including me.

Voyager has a Web search capability which they call WebVoyage. Our implementation of it is up and running (on the NPS intranet), but not yet publicized to the rest of the NPS. It works very well and we are happy with it so far. It offers "easy" and "expert" search levels, it supports "hot" links from records to digital resources described and, we are told, it supports simultaneous searching of multiple library catalogs on the Internet from our Voyager front end.

Products of the NPS Union Library Catalog

- Research / retrieval
- "ThemeCats" (e.g., Civil War)
- Location subsets (e.g., YOSE)
- Format subsets (oral history, trade literature, etc.)
- Interlibrary Loan

The products and some of the benefits we hope to derive from the union catalog include more than just better access to the NPS library collections. There are themes that are of great interest to groups of park areas, e.g., Civil War, African-American history, biodiversity, etc. Our union catalog will allow park researchers

to find out what other resources exist on a particular subject in NPS areas. We will also be able to search within a single park only, e.g., HFC Library.

We will also be able to search by specific formats which are of interest to us (if they have been catalogued that way).

Finally, we hope to integrate Servicewide interlibrary loan into the Voyager system.

ParkNet Library Link: the NPS Library Program Web site

- Library management guidelines, policies, procedures and other user aids for NPS staff
- Access to WebVoyage and other library catalogs
- Government Information Locator Service (GILS) - NPS, DOI and others
- General reference services, literature search services (non-NPS databases)
- Document delivery services, and ILL
- Thematic "pathfinders"

Our Web site is under development. It will be available, at least at first, only to the NPS domain. It will serve as an up-to-date source of library information and guidance, as well as a portal to our union catalog, FirstSearch and other online services. It will also house a directory of NPS libraries and contacts.

In fact, our aim is that our Web site will become a gateway to all NPS-generated and NPS-related research. We will do this via links to other sites, as well as a GILS-type database.

The target date for unveiling the Web page and NPS access to WebVoyage is this week—National Library Week.

Special Collections and Bibliography Programs

- Park collections
- National Park Service Historical Collections
- Cultural Resources Bibliography
- Natural Resources Bibliography
- NPS Technical Information Center

Let's talk a bit about some of the collections and bibliography programs in the NPS.

I have already mentioned the significance of some of the larger park library collections. I'll just mention two more:

Morristown National Historical Park in New Jersey has one of the finest collections of 18th century Colonial and Revolutionary war materials in existence. (I love to describe their collections because they are so interesting. The main collection was the gift of a rare book collector. In addition to Revolutionary War era books, pamphlets and manuscripts, they have such things as a 1494 copy of the Nuremberg Chronicle, some of George Washington's Mount Vernon account books and personal library, and a notebook containing documents signed by every king and queen of England since Henry II.)

San Francisco Maritime National Historical Park has a large library and historic documents collection which covers U.S. maritime history of both coasts.

NPS Historical Collections

- Located at Harpers Ferry Center
- NPS History Collection
- NPS Historic Graphics Collection
 - Thomas DuRant, Photoarchivist, NPS Historic Graphics Collection
 - Phone: (304) 535-6707

➢ E-mail: tom_durant@nps.gov

You have a handout from HFC Library which describes these collections.

I do want to point out that our huge photographic resource is the best collection anywhere on the National Park system before 1980.

Cultural Resources Bibliography

- Over 12,000 reports
- Archeology, architecture, history, ethnography, cultural landscapes, etc.
- Reports at HFC, WASO, parks, regions
- NTIS and Chadwyck-Healey
- ProCite database

The CRBIB is an inventory of over 12,000 reports on park cultural resources. It was developed in the early 1970s and initially included reports that were in the Washington office headquarters (WASO) repository. It was later expanded to include reports at the parks and regional offices. The original WASO repository is now located at HFC and includes about 7,000 of the reports. Parks, regions and the Park Historic Architecture Division, WASO account for the remaining 5,000.

Some of the reports are available through NTIS. In 1985 a commercial firm, Chadwyck-Healey, in agreement with NPS, placed the reports available at that time on microfiche and copies were made available to each park and region at no cost. The company still markets the microfiche.

The database, which is maintained in ProCite by the Park Historic Architecture Division, is available for search on the NPS intranet on Reference Web Poster, a Web front-end for ProCite software.

Natural Resources Bibliography

- NRBIB
- Natural resources information on NPS areas
- Searchable on the Web
- No repository - materials are at the parks
- More information: www.nature.nps.gov/nrbib/

You have a one-page handout on the NRBIB. Resource management staff in NPS identified bibliographies as a high priority.

The need exists because this information is scattered, difficult to find, easily lost, and often not available anywhere else except at the parks where a lot of it was generated.

Unlike the CRBIB, there is no repository. The reports and other materials are all located at the parks or regional offices.

There is a Web site available to the public which provides more information and also allows you to search the bibliography.

NPS Technical Information Center

- The Technical Information Center (TIC) is the central repository for planning, design, and construction documents for the National Park Service
- More information: www.nps.gov/dsc/tic

You also have a handout on the TIC which gives you the salient facts about its history.

That handout is also reproduced at: www.nps.gov/dsc/tic/tichist.html.

TIC Collections

- 700,000 drawings and maps
- 85,000 technical reports
- 2,000 aerial photographs
- 300,000 photographs & slides
- videos

The important thing to remember about the TIC is the breadth and depth of the collection.

I mentioned the CRBIB and the Chadwyck-Healey microfiche. Keep in mind that all of the drawings and reports in TIC have been microfilmed. The drawings and maps are stored on 35mm chips on aperture cards which are the old IBM cards with windows that hold pieces of microfilm. The reports are on microfiche.

The numbers are impressive. The reports include cultural reports, like those in the CRBIB, some natural reports, like those in the NRBIB, management reports, like master plans, general management plans, etc., and infrastructure reports, like bridge inspections, etc. The overwhelming majority of the reports are NPS-produced. The TIC also provides copies of these products for a very reasonable cost.

I should also mention that the HFC Library, which holds the CRBIB repository, also has microfiche copies of the 80,000 TIC reports, and also has its own circulating collection of about 6,000 NPS reports.

A lot of overlap among all these collections of reports is inevitable, but there are still many reports unique to one collection or another.

The Amoeba Project

- Internet access to TIC Database
- Listings of drawings, reports, etc.
- Image enhanced for browsing
- Download files for easy printing
- Online ordering
- Electronic submittal of new files

The Amoeba project is the TIC's method of bringing its collections to the NPS and the public over the Web. As of right now, it is only available to the NPS domain, but plans include placing it as a link on the NPS public Web site.

"Dead" Libraries of the NPS

- Recreated and restored libraries
- Some examples
 - Frederick Douglass NHS
 - Carl Sandburg NHS
 - Eisenhower NHS
 - Edison NHS

Before I leave you, I want to tell you about an interesting category of library which is widespread in the National Park System: what I refer to, tongue in cheek, as the "dead" library. As you know, a library is like a living organism - it grows and gives off waste. When it stops doing these things, it dies, it gets frozen in time. There are several significant examples of "dead" libraries in the National Park System. They are found in historically restored structures - like Carl Sandburg's home in North Carolina, President Eisenhower's home in Gettysburg, Frederick Douglass' home in Washington, Thomas Edison's labs in New Jersey. These are libraries that these people actually used, but that are now museum pieces.

I would be remiss if I didn't put in a plug for these sites and encourage you all to visit these parks and the over 375 other areas in the National Park System.

Contacts

Here are some names that you can contact for more information.

- Program Coordinator - Amalin Ferguson
Phone: (415) 556-0238
E-mail: amalin_ferguson@nps.gov
- NPS Historical Collections, etc. - David Nathanson
Phone: (304) 535-6262
E-mail: david_nathanson@nps.gov
- TIC - Jannette Wesley
Phone: (303) 969-2130
E-mail: jannette_wesley@nps.gov
- NRBIB - Marilyn Ostergren
Phone: (206) 220-4153
E-mail: marilyn_ostergren@nps.gov

Also:

- Thomas DuRant, Photoarchivist, NPS Historic Graphics Collection
Phone: (304) 535-6707
E-mail: tom_durant@nps.gov

Disaster Planning for Libraries: Lessons from California State University, Northridge

Mary M. Finley

California State University, Northridge
Northridge, CA

In Northridge we learned that a university with facilities for over 25,000 students can be changed in less than thirty seconds into a university with no usable buildings, no electrical power, no water, and no telephone service. California State University, Northridge (CSUN) is about a mile from the epicenter of the Northridge Earthquake of January 17, 1994 and the damage total for the campus stands at over 400 million dollars. The earthquake happened at 4:31 a.m. on a holiday during semester break, so only a few people were in university buildings during the quake. Fortunately, no one was seriously injured on campus. All of the buildings on campus were damaged, some beyond repair.

When the extent of the damage caused at the university was clear, a decision was made to establish alternative classrooms and offices using hundreds of temporary structures located on lawns, athletic fields, and parking lots. Classes began four weeks after the quake, just two weeks later than originally planned.

The Delmar T. Oviatt Library was closed for almost eight months due to structural damage. Images that illustrate earthquake damage to the Oviatt Library are available on the internet at <http://library.csun.edu/mfinley/quake.html> > . Two wings of the library building were eventually torn down and are still being rebuilt.

How did we provide library services without our library building or access to our collection? During the spring 1994 semester, our students used other libraries. Instructional packets

about cooperating libraries were prepared and distributed to students. A shuttle bus service was provided between our campus and UCLA, the nearest large university. Our reference librarians worked at other libraries to help lighten the workload created there by the influx of additional users. A toll-free telephone number was set up for database access; Lexis-Nexis, CARL Uncover, and FirstSearch were available to all CSUN students and faculty who had computers.

Operating out of a trailer, our library became a test site for document delivery. They built two dome structures and renovated an old fairgrounds exhibition building as temporary library space. These opened four months after the quake. Some of our employees and collections have endured being in temporary facilities for over five years.

What happened to government documents while this larger drama unfolded? For several months documents shipments were processed at staff members' homes. We were not allowed into our offices in the library to retrieve what we needed until two months after the quake.

Fortunately, a department chair was able to salvage one vital notebook for us when she was in the building as part of a damage evaluation team. The Government Printing Office sent us a copy of our selection profile and other paperwork. We bought some essential supplies and coped as best we could. We had to do things like walking to a specific place each morning and waiting for up to an

hour for the UPS truck to appear so that we could receive our packages. Then we'd go to a different location to get our mail and yet another place to get packages from other shippers. This, of course, was after we figured out where the packages were being delivered and that we needed to be there when they arrived if we wanted to keep them out of storage.

Our Government Documents unit got computers and temporary office space in May 1994, four months after the earthquake. At the end of August, the documents unit moved back into the Oviatt Library. We spent another very difficult year as we coped with a variety of problems and backlogs. Recovery from the scale of disaster we experienced requires years of work, but planning in advance of a disaster can improve recovery.

Examples of disaster planning done before the quake

The most expensive planning done by our library before the quake involved building construction and shelving. The Oviatt Library has three parts: the large original core building built in the 1970's, and two wings that add another 90,000 square feet and a storage facility. The wings were built in the early 1990's, one wing on the east side and the other on the west. The Oviatt wings were deliberately constructed in a different manner than the core to be more earthquake resistant (steel frame versus reinforced concrete).

Unfortunately, this did not turn out as planned. Instead, the Northridge Earthquake gave the engineers an education about steel frame buildings. The older core had damage which engineers expected because of the code standards in effect at the time it was constructed. This included structural damage to concrete, damage to drywall, and damage to nonstructural elements like ceiling tiles. A table collapsed in the Reference Room. Some asbestos contamination occurred. Plus, of

course, almost all of the books fell off the shelves and offices were a mess. There was damage to the roof and windows where the wings and core building met, but that had been expected.

The engineers thought at first that the wings, as planned, had escaped serious damage. Several weeks later they discovered that the 4-story high girders in the wings were no longer fastened to their respective foundations; most of the four-inch thick steel base plates had cracked where the girders fastened into the foundation. After three years of figuring out how to fix the wings, at the point when contractors were preparing to bid on the repairs, the slope of the floors was checked again. The engineers discovered that the slope of the floors was increasing and the unstable wings might collapse. So, add another year to our recovery for demolition of the wings and a couple more years for design and construction of new wings. We hope to move into them by the end of 1999. While this experience can be summed up as "the engineers were wrong," nonetheless the attempt to have an earthquake resistant library building was an appropriate action for the library to have undertaken in advance.

Another thing done ahead of time was to reinforce and brace library shelving to meet the latest shelving standards. This was expensive and inconvenient, but we did it anyway. Why did we worry about making the wings more quake resistant and bracing shelving? The answer is the San Fernando Earthquake of 1971, whose epicenter was about twenty-five miles from our campus. Our shelving in an earlier library building had been damaged by that quake. This time the shelving survived the quake intact. This saved money and time in our recovery. Approximately 600,000 volumes had fallen off the shelves, but we had shelves to place books on when they were picked up off the floor.

We also had what we call our “earthquake book”, a record of what call numbers should be shelved where, section by section, in our main collection. This represented another lesson learned from the earlier San Fernando Earthquake and greatly simplified the task of getting books back on the shelves with minimal shifts required as they were shelved.

We knew about the potential of water damage and acted to limit its effect. We had rain damage from roof leaks after the quake. Damp books were packed and sent for freeze drying.

One of our library’s most unique features is the Automated Storage and Retrieval System (ASRS). Located in the basement of the east wing, the ASRS is designed to store low-use volumes and provide access to them through robotic warehousing technology linked to the library’s online catalog. The storage facility survived the quake undamaged, so when the east wing was demolished, it was taken down to the ASRS level and is being rebuilt over the ASRS. During this process we have had water damage in the ASRS because the fail-safe temporary roofing system failed. We are currently checking 500,000 volumes in the ASRS for water damage and mold. Ironically, more books have been destroyed by the water damage during reconstruction than by the earthquake. After the quake some 15,000-20,000 books had to be rebound, but only a small number were damaged beyond repair.

What should be learned from our library’s experience?

Disaster planning and hazard mitigation can reduce damage and help a library recover more quickly. However, there is always more to learn. During the Northridge Earthquake, microform cabinets moved, fell over, and opened despite self-locking drawers. Out of 148 microform cabinets, fewer than ten escaped without damage. Approximately half of the cabinets (70) had to be replaced due to damage which rendered them unusable. We

had some piggyback microfilm cabinets to use floor space more efficiently. Almost all of these piggyback cabinets became airborne during the earthquake, despite having been purchased to fit the cabinets that they were mounted on and having been bolted to both the wall and the base cabinets. In addition, the self-locking mechanism failed on many microfiche cabinets designed to allow only one drawer to open at a time, thereby permitting all the drawers to come open. Cabinets with drawer latches also came open, but each latch had to fail separately.

Think about the space between rows of cabinets when you plan microform areas. Before the quake, the aisles in our Microform Room were more than wide enough for wheelchair access when cabinet drawers on both sides were open. However, after the cabinets moved during the quake and the drawers opened, there was little room left between the rows of cabinets for people. Anyone caught between the rows of cabinets or in the way of the airborne piggyback cabinets at the time of the quake could have been killed or very seriously injured. It is clear that libraries need to find ways to make microform areas safer during earthquakes.

There are three additional suggestions relevant to disaster planning that I want to discuss. Lists of examples and actions for each of these points are included.

First, remember that stuff is just stuff—and I say that with a full understanding that libraries collect and protect stuff and act like stuff is important. But stuff is still just stuff. Plan first for the safety of people. Practice evacuation techniques until they are habits. Learn to practice hazard mitigation as a way of life.

Actions:

- Have your building evaluated by a structural engineer, get recommendations of what should be strengthened or changed

to bring the building up to or beyond current code requirements, then find the money, and make those changes.

- If your library has lead paint or asbestos containing materials, abate them. If they are present in your library at the time of a disaster and are exposed, they will be a health risk to all and you could lose your collection due to contamination.
- Read the books that tell you how to make your workplace safer through hazard mitigation and follow the suggestions given. Shelving should be properly bolted and reinforced. Bolt high furniture and cabinets in place with L-brackets. Keep aisles and space under tables clear. Secure lighting fixtures and suspended ceilings.
- Change procedures to incorporate safety, i.e. the purchase order for a new cabinet for your office should also generate a work order to bolt the cabinet to the wall when it is delivered.
- Each employee should be prepared for an emergency. Have emergency supplies readily available: flashlights, hard hats, work gloves, safety gloves, dust masks, packaged water, first aid kits.
- Practice evacuating your building. Afterwards, talk about what you can improve. Such details may include having portable automatic lights in all offices (the kind that plug in and turn on automatically when the power goes off, at which time they can be removed and function as a flashlight). Wearing a hard hat that says "Emergency Team" conveys visual authority to convince the unwilling or frightened to follow your instructions. Carry a pencil and paper so that you can write down information for emergency personnel such as the location of people injured or trapped by debris.

Develop a disaster plan to deal with catastrophic damage as well as smaller-scale emergencies. We had done some planning in advance, but we did not have a comprehensive disaster plan. We had not planned for the possibility of losing the library building and the entire collection. We should have.

Our experience certainly makes it clear that you should keep copies of key documentation up to date and store at least one copy off site. Until the Northridge Earthquake, even the scientists did not know that we were sitting right on top of a thrust fault that could cause a 6.7 magnitude earthquake, but unexpected and unwelcome are hallmarks of the events we call disasters. Examples of key documentation include:

- Library's disaster plan
- Salvage priorities
- An "earthquake book" that records the library's stack arrangement (what files where) for all collections, including microform
- Accurate floor plans
- Lists of key equipment and vendor addresses
- A list of professional movers and freeze-drying firms
- Phone numbers of other libraries, professional associations, and the Government Printing Office contacts for depository libraries
- Lists of employees and contact information for them
- Library statistics to provide data for insurers or agencies such as FEMA

- Vital computer data files and documentation on what computer configuration and programs are necessary to run the files
- Account numbers, passwords, and similar practical details

Plan for service continuity and recovery just as the commercial world plans for business continuity after a disaster. A number of points that should be considered are listed below.

- How can effective library work teams be set up to make decisions and communicate information?
- How will the library quickly obtain the services of structural engineers or other experts to assess the physical safety of the building so library workers can reenter the building if the building is safe to occupy? Does the library need advance contingency contracts with various experts?
- Where will the money to do whatever is necessary come from and how long will it take to get the funds?
- Does the library have insurance that covers the disaster? Will the library rely on the Federal Emergency Management Administration for part of the funds needed?
- What kind of documentation of the disaster's effects and the cost of repairs/replacement will be necessary before the mess can be cleaned up? How will the library provide this documentation? (At California State University, Northridge, damage to buildings was videotaped at least twice, with engineering and construction experts present to accurately describe the damage; once before heavy debris was cleaned up and again afterwards to document damage that had been concealed by debris.)
- Where will library employees work if the building is damaged?
- What equipment and supplies will be necessary for the library to function and where can they be obtained?
- If the library building is unusable, where will incoming subscriptions and items ordered before the disaster be processed and housed? How much space is needed for this?
- Where could the collection be moved if the library building has structural damage?
- What parts of the collection are most vital to save or have accessible to users?
- What information must employees have to do their jobs? How and where is such information backed up outside of the library to ensure its availability after a disaster?
- How will computer functions be restored, including both Internet access as well as library catalog needs?
- If you have to institute a salvage operation for water-damaged books in a building without electricity or running water, how will you provide boxes and other salvage materials for the books and emergency lighting, drinking water, food, toilet facilities, and gloves for the workers?
- If the cooperation of other libraries will be required while the damaged library recovers, either to provide staffing or to allow access to their collections, are mutual aid agreements in place before a disaster occurs?
- Is there sufficient staff to do the actions necessary for the recovery as well as to continue the library's regular functions?

Where will additional workers be obtained and who will pay for them?

- If the use of volunteers is planned, have appropriate legal waivers and written training materials been developed to use with community volunteers?
- How can you help maintain staff morale in the midst of turmoil and disgusting conditions?

Please understand that a disaster can happen to your library and that the time it chooses to happen could be in the next minute. An earthquake, hurricane, tornado, flood, fire, or explosion will not ask for your permission in advance. But you can choose to be well prepared. Think about what would make your library a safer place to be during a disaster. Think about what you can do to make it easier for your library to recover from a disaster.

Many of the things you need to do in disaster planning are small steps, easily done by library employees if they are willing to change procedures to enhance safety and to promote service continuity. I hope that you will take steps, however small they may be, to improve disaster preparedness at your library.

Comments and questions can be e-mailed to the author at mary.finley@csun.edu

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The Aftermath of the Flood at the Boston Public Library: Lessons Learned

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In this presentation I would like to describe what happened in the aftermath of the flood at the Boston Public Library, and tell a little bit about what library personnel learned from this event about disaster planning, preparedness, and recovery.

Background

The Boston Public Library is the regional, and because we became a depository in 1885, we have a large collection. Fortunately, only most of the recent, that is, post-1960, documents were housed in the basement where the flood occurred. A few older materials were in the basement and were salvaged.

The Boston Public Library drafted a disaster plan in 1991. I was one of four staff members assigned to write it, so I am familiar with its organization and contents.

The disaster plan which the committee drafted is comparable in scope and coverage to those of many other libraries. On paper, it is a good plan, which addresses many of the consequences of a disaster situation. However, now that we have actually been through a disaster, we can see that the plan fails to address some important considerations which cost us precious time in dealing with the flood's consequences. I will address some of these considerations later. The biggest problem with the library's disaster plan, though, was not its contents, but the fact that it was never formally adopted by library administrators. Most of its recommendations, including the appointment and training of a

Disaster Action Team, were never implemented.

The Disaster Action Team was to be made up of administrators and staff members representing all divisions of the library. It would implement many of the "start up" components of the plan, such as ordering emergency supplies and assembling the supplies into portable kits, and gathering salvage priorities lists from each department. This team would meet from two to four times a year and would keep all department heads apprised of its activities and initiatives. This team would revise the disaster plan as needed and would distribute revisions to every department head. Team members would be trained in disaster preparedness and recovery procedures in order to serve as resource people in the event of a disaster. Without having such a team in place, coping with the flood was made that much more difficult.

The flood occurred on August 16, 1998, shortly after midnight, which was very early on a Sunday morning. A 42-inch water main broke and three feet of water flowed rapidly into the building. It filled up the basement area where most of the recent SuDocs collection and many of the patents were housed. The force of the water buckled three rows of shelves where the water entered the building. Only two maintenance people were in the building. We feel very fortunate that almost no staff and none of the public were in the building at the time, because it is very possible that lives could have been lost.

Amount of Material Affected

We estimate we lost about 350,000 paper GPO documents; most of these were not sent to be freeze-dried because treatment was determined not to restore them to a usable condition. (Many of them were a pile of mush by the time staff were able to enter the building). In other cases recovering them would have significantly slowed down the clean up process. The fact that many of these documents were deemed to be fairly easily replaceable also influenced this decision. There were several hundred of the more valuable items which were sent out to be freeze dried and many will be restored to the collection. About a thousand documents are still waiting to be rebound or recased, or in some cases, photocopied.

About 3 million pieces of fiche were affected. This represents almost half of our collection of GPO, DOE, and commercial sets such as those published by CIS. The GPO diazo fiche fared much better than expected; some of it is in usable condition and will be reintegrated into the collection until replacements can be obtained. The commercially produced sets, such as the CIS documents, did not fare well. They congealed into a huge mass and can now only be used as doorstops.

Of the 205 drawers of maps sent out to be freeze-dried, most came back in very good condition and only had to be cleaned.

Issues Affecting Response to the Flood

- The library is not insured. The city of Boston is self-insured with a \$10 million deductible. We had no standard insurance policy providing for business interruption—meaning that requests for replacement of computers and other equipment sometimes had to go through the city of Boston's standard procedure for equipment orders. We had to work without staff equipment and some public computer workstations for much longer than we should have had to.

- Following Murphy's Law, the library's director was in Europe when the flood occurred and was unable to return promptly to Boston. The library's Chief Financial Officer had been on the job for only two weeks. No one person was assigned responsibility to coordinate recovery efforts; instead, a team was organized which operated somewhat democratically. However, this team approach led to confusion and miscommunication and hindered the immediate cleanup efforts.

While the library has a book conservator, who knows a lot about preservation of print materials, we have no preservation officer to coordinate things. Preservation experts were called in immediately, but they were not always directing the cleanup efforts. Also following Murphy's Law, I was on a camping vacation and could not be reached for a week, and another person who helped write the disaster plan was also away and was not contacted.

Instructions given to workers sometimes were contradicted by another person a few hours later. In one case, hired cleanup workers were told to move dry material out with the wet; this order was later taken back. In the confusion, microfiche was also sent out to be freeze-dried with the print materials, but it should have been air-dried.

- Since the library is a city department, City Hall was also involved in making decisions about the cleanup and recovery process. With more groups involved in the decision making, each with its own priorities, it took longer to negotiate the terms of the contracts for moving and freeze-drying materials. The city was obviously more concerned about costs than were library officials. City officials also tended to see the library as a building, not as a service provider and a repository of materials.

- There also was a lack of communication to other institutions and companies about urgent library needs right after the flood. What the affected departments really needed immediately were in-kind contributions such as PCs and printers. With so many print materials gone, we really could have used a replacement for our LAN, and more workstations with Internet access. While other library departments were quick to loan or donate some of this equipment, the library did not actively seek donations from computer manufacturers and others in a position to help us. The library did not capitalize on public attention focused on the flood.

I'll mention a few of the good outcomes of the flood. Of course there are not too many, but it helps me and the rest of the staff keep a perspective on the experience.

- No lives were lost and no one was injured.
- Even though some time was lost in boxing the materials and sending them to be freeze-dried, about thirty percent returned from the freezer in generally good condition and could be returned to the shelves with minimal additional treatment. Freeze-drying and cleaning were the two most common treatment methods for the flood damaged material. The paper documents and maps all responded well to freeze-drying. Many of the card files and parts of the shelf list were air-dried, with good results.
- The Government Documents Department had a salvage priority system already in effect before the flood. No valuable or rare materials such as the Serial Set were put into the basement. Those materials were housed on other floors or in special collections. For those materials in the basement, the Documents staff were very knowledgeable about which collections needed to be saved first and acted quickly to move those materials out.
- The staff at the BPL quickly mobilized to help those departments most affected by the flood. There was a large team of people who understood what had to be done to save collections such as our large collection of CD-ROMs. In one instance, staff formed an assembly line and quickly washed and dried our entire CD-ROM collection. Through their efforts we were able to save a lot of valuable electronic material.
- The depository community was very helpful and immediately responded with donations of material that we lost and with reference assistance and help in filling ILL requests that we could not handle. The emotional support we received was very heartening and kept us going. I have gotten to know people in the depository community a little better.
- The disaster has in some ways given the library the added incentive it needs to begin digitizing some of its collections. Digitization needed to be pursued as a means of preservation even before the flood occurred. We are currently in the planning stages of digitizing a collection of flood-damaged state and local documents. Many of these documents were damaged enough that returning them to the shelves is problematic. These documents will hopefully be more accessible in scanned format than they were in print. I am hopeful that once we get our feet wet in the scanning business, it will be an overall benefit to the Government Documents Department and to the library as an institution.
- The fact that I was on vacation and could not be reached immediately had its good and bad points. I felt some guilt about the fact that my colleagues had just seen much

of the collection destroyed. They then spent a week doing exhausting work before I could be reached. In the long run, I wish I could have been there to help the people I work with. But I was glad I returned with the energy needed to pick up where they left off and direct the recovery effort.

What We Have Learned and What We Will Do Differently

We need to take every measure necessary to ensure that decisions can be made quickly and in the best interests of the library. Measures to ensure this outcome include:

- Rewriting our new plan to establish a chain of command and to assign responsibility for each aspect of the later recovery process to a specific staff member. Assigning a team to make decisions before a disaster happens is effective, but it will not work in the immediate aftermath of a disaster.
- Putting into place a system for expeditious cleanup and salvage of materials. We learned that our original disaster plan would not have provided for the most expeditious cleanup and recovery of damaged materials. We are currently looking into putting some of the disaster cleanup contractors on retainer, and to the extent possible, drawing up the basics of contracts before another catastrophe occurs.
- We have learned in the most difficult and painful way why library materials must not be stored in the basement! Even though many of the materials are not irreplaceable, putting them in a basement is not acceptable. Several years ago when the building was renovated, a proposal was made to move documents into the basement. This proposal was opposed by the person who was then the head of the documents department, for the very reason that they would be vulnerable to water

damage. Unfortunately his advice was not taken and the library succumbed to the pressure to find extra space for its growing collections. The renovated basement gave us lots of space with room to grow and met most of the department's needs beautifully. However, no amount of renovation could change the fact that as a basement, especially a basement in the Back Bay of Boston, it is very vulnerable to floods.

- Every staff member has now been "sold" on the importance of adhering to a disaster plan. Having said this, we still need somehow to ensure that department heads and other key people are participating in an ongoing process to make the library less vulnerable to disasters. We also need a preservation officer; but we have not hired one yet.

The original disaster plan gave a lot of responsibility to a few people, top administrators and persons serving on the Disaster Action Team. The responsibility for planning and preparedness needs to be spread around. This means making sure that salvage priorities are updated when needed, that the entire staff receives regular training in disaster prevention and preparedness, and that the general consciousness about disaster preparedness is maintained, especially during the next few years when our institutional memory of the flood begins to fade. Every staff member needs to believe that his participation is crucial to preventing and/or coping with another disaster.

- As a public library we are a city entity. The flood has made library staff more aware of this fact. For years we operated to a large degree independently of the city, with our own Board of Trustees, but in the aftermath of the flood, we lost some of our autonomy, possibly permanently. We now realize we will have to work more closely with the city to make sure the elements of our

revised disaster plan will really work in the event of another disaster. We see this as our biggest challenge, because it involves changing the attitudes of people outside our own institution, who do not stand to lose as much, but upon whom we must rely for support.

While most depositories are part of an academic library system and are not government agencies, it still makes sense to look at the whole picture and to know that other players will be involved in the recovery process at your library in the event a disaster happens. You need to know what their agendas and concerns might be in case they conflict with the mission and interests of your institution.

I would like to thank many people who helped us during the cleanup and the ongoing recovery, including the BPL staff, especially the staff of the Science Reference and Documents Departments, Betsey Anderson, who is the senior documents reference librarian at BPL, Harvard College Library, Gordon College, the University of Massachusetts at Amherst and many other depositories in Massachusetts, Laura Saur at Newark Public Library, Montclair State College Library, and Masako Ohnuki at the Occidental College Library, who sent us 550 cartons of GPO material. Sheila McGarr took time out of her vacation after the flood happened, to come to Boston and cheer us up. We could not have done without their help and the help of many others.

Disasters: Plans, Clean-up, and Recovery— The Colorado State Experience

Fred C. Schmidt

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On the evening of July 28, 1997, Colorado State University's (CSU) Morgan Library sustained an unprecedented amount of damage from a 500-year flood that resulted from rains west of the campus that measured between 10 and 14 inches. The flood inundated the basement of Morgan Library, covering some 462,500 volumes with 11.5 feet of water.

Materials damaged included bound scientific journals in compact shelving, books, curriculum materials, current awareness materials and various offices, including Gifts and Exchange and Bindery Preparation. In this case, government publications were spared damage (except for some 200 volumes awaiting shipment to the bindery), as the collection had just been shifted to the third and fourth floors.

The flood damaged some 30 buildings on campus, including the University's bookstore, which had its entire inventory for the fall semester destroyed. The Library sustained what is considered to be greatest amount of damage on record to an academic library caused by a natural disaster.

To put this into perspective: Morgan Library had just completed a \$20 million renovation and addition. As of this date, the total cost of the damage to the Library and its contents is expected to total some \$75 million. The total cost of damage to the University (including the Library) is expected to total approximately \$100 million, which is covered by the State of Colorado through self-insurance.

Disaster Recovery

Recovery efforts began the next morning as the Libraries' disaster team (headed by Camila Alire, Dean, Carmel Bush, Assistant Dean for Technical Services, and Diane Lunde, Preservation Librarian) assembled to address immediate needs, including stabilizing the building environment and pumping water out of the basement. By the second day, the University (which had a disaster plan in place, as did the Library) hired Boss & Associates as the disaster recovery consultant that would oversee the campus recovery effort (this firm led the recovery efforts of the World Trade Center bomb damage). Vendors were hired to stabilize the building and to pack-out the materials from the basement.

The primary concern was the ultimate salvageability of the collection. Standard procedure in salvaging wet books is to freeze the materials within 48 to 72 hours to prevent to the greatest extent possible mold damage.

Because the pack-out of damaged materials was such a gigantic task, which lasted fourteen days (336 hours), mold damage was evident on some volumes and on the building walls before the materials were all transferred to refrigerated trucks for shipment to the contractor (Disaster Recovery Services (DRS), Fort Worth, Texas) for freeze-drying and cleaning. Bill Boss, Ann Siebert of the Library of Congress and Ms. Lunde visited this vendor to determine the protocol for processing the materials. Each volume would be thawed and washed to remove dirt and to reshape the volume if

necessary. All materials would be refrozen and freeze-dried before shipping back to the Library.

In October 1997 the Libraries received a 100+ volume sample from DRS that went through this process. The disaster team, the consultants and insurance representatives viewed this sample and concluded that 80% of the materials would be salvageable and 20% would be a total loss. Later estimates have concluded that the ratio of materials salvageable to total loss will be approximately 75% to 25%. It should be noted that the Libraries hopes to replace, in one form or another, all of the items that were lost.

As soon as word of the disaster became known, the Libraries received offers of gift materials to replace damaged items. Starting in November 1997, a processing plant established by Boss and Associates to begin processing materials returned became operational, initially using a staff of some 250 non-library employees. At that point, the plant began processing gifts resulting from an active gift solicitation process.

A total of some 913,000 pieces were received from individuals, corporations, publishers and libraries (ARL libraries, Colorado Alliance for Research Libraries, and other individual libraries). To date, some 96,000 gift volumes have been processed and shelved. Beginning in the fall of 1998, the processing plant began receiving damaged materials back from DRS. To date, some 70,000 volumes have been received by the plant from DRS for repair and rebinding. The first volumes of this group were returned to the shelves this month.

Lessons Learned

The following recommendations prepared by Ms. Lunde could have application for institutions faced with disasters, small or large:

1. It is essential that each library has an up-to-date disaster plan and that the library rehearses the plan regularly.

The CSU staff has handled various minor disasters over the past few years, but had never held a large-scale disaster drill. The Library did have an up-to-date Disaster Plan Quick Reference Guide and a disaster manual.

2. The disaster plan must be adapted to meet the scope of the disaster.

Be flexible, as a disaster plan is a working document and should be enhanced and reworked as required. CSU's disaster plan, while adequate for most disasters, was not practical for the enormity of this particular event.

3. Along with the disaster plan, establish a disaster team of staff from ALL AREAS of the libraries.

The successful restoration of library services, including reference, circulation, and interlibrary loan, are all-important activities in a major disaster.

All disaster team members must be knowledgeable about their disaster recovery duties and should have a copy of the latest version of the disaster plan at home as well as home phone numbers for all their staff.

4. Know who all the non-library players are ahead of time.

CSU has a campus-wide disaster plan that went into action the night of the flood, with the CSU administration leading the disaster recovery effort.

Disaster preparedness is the key phrase. Knowing the many details before a disaster will make disaster recovery easier if and

when it happens. For example, determine the role of the library board of directors/trustees and how the library fits into the governmental structure. Find out who owns the building in which the library is located and who holds the insurance policy. Every bit of knowledge helps tremendously so that the disaster team can go forward quickly without stopping to search for essential details when time is at a premium.

5. Know who and where the disaster recovery resources are.

Each library should have a basic "stash" of disaster supplies located on-site. Consider cooperative arrangements for the bulkier and more expensive supplies. Know the names of disaster vendors just in case the disaster is beyond the scope of library staff members.

Conclusion

The Libraries' recovery from this enormous disaster is well on its way, due to a tremendous effort on the part of all Library and University staff, the existence of University and Libraries Disaster Plans, and the incredible response from the State of Colorado, libraries throughout the country, corporations, publishers and individuals.

For more information on this event, contact the University Web page, <<http://www.colostate.edu/floodrecovery/>> or the Libraries Web page, <<http://manta.library.colostate.edu/water.html>>. An extensive report of the flood can be found in the fall 1998 issue of Colorado Libraries. In addition, the University Library has written an account of the disaster with an extensive number of recommendations on how to cope with large-scale disasters. It will be published by Neal-Schuman in 1999.

Disasters: Plans, Clean-up, and Recovery at Stanford University Libraries

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Two natural disasters within the last 11 years at Stanford University damaged the campus facilities and furniture/equipment, disrupted services, stressed and relocated staff, and in the case of the '98 flood, damaged library materials.

Generally I have a memory of the extensive volunteer help we had during these disasters. Staff were called on to work beyond their daily responsibilities and many did so in poor work environments. Faculty and students responded with patience even though papers were coming due. Local library staff were of great positive assistance, and staff and student volunteers made it possible to resume business in a shorter than expected time. We had over 400 student volunteers during the days following the earthquake.

Loma Prieta Earthquake, October, 1989

The Stanford University Campus appears to have a long history of natural disasters, the best known being the 1906 8.3 San Francisco earthquake, which happened on April 18th at 5:13 a.m., and also struck and seriously damaged the Stanford campus. The 1906 quake lasted 47 seconds with violent shaking. It was more powerful than the October 17, 1989 7.0 quake and released 10 times more ground motion. The ground motion in the '89 quake was double that which was anticipated, but it caused far less destruction than was wrought in 1906 when 2 persons were killed by falling chimneys, and the press reported the campus to be in total ruin.

There were no deaths and only minor injuries in the '89 quake, despite there being a larger campus population and considering the hour of the quake. It hit at the end of the work day.

While rumbling continued we left our places from under desks and door jambs and moved out of the building through fallen glass. The government documents staff met at the appointed place and counted heads. We were all there. Generally, there was a variety of behavior in the library, both in leaving safely and in returning for possessions before safety had been assured, even though the library did provide a publication on what to do in the event of a major earthquake. The University had also distributed handouts, including Emergency Preparedness for Students, Faculty, Staff, and Visitors, with a section on earthquakes, prepared by the Environmental Health & Safety Office; the loose leaf Stanford University Emergency Plans, prepared by the Stanford University Emergency Preparedness Planning Steering Committee, with sections for department additions, and an additional publication, *Are You Ready for an Earthquake?*

In March, 1989, we also received a nine page memo listing assembly points for each library, earthquake behavior information, and a list of emergency supplies.

Of the 50 buildings on the campus in 1906, one half could not be entered, and the campus came to an almost complete stand still until August of the same year. In 1989, 1,100 students were displaced mostly in residences, and 140 classes were canceled.

Of the approximately 240 major buildings on the present campus, 24 were closed indefinitely and 34 had restricted access for periods. One half of the classrooms were available by two days after the quake. It was difficult to count the number of staff, as many continued to work in other buildings or at home.

Leland Stanford, an engineer, was aware of earthquake dangers and insisted that buildings receive extra wide foundations as well as careful construction methods. The campus opened in 1891, and Leland Stanford died in 1893. Following his death, his wife, Jane, continued the building, but with less care regarding the engineering. Fourteen months after Jane Stanford's death, all of the buildings she had had constructed were destroyed by the 1906 quake. Stanford's original buildings remained. The main library was destroyed but housed no books at the time. It sat on the present site of the Graduate School of Business, which was significantly damaged in 1989.

Most of the shelving toppled, and three floors of the Graduate School of Business School were closed for a long period of time due to damage by leaking water pipes and asbestos problems. Although the San Andreas fault runs across the Stanford Linear Accelerator, it and the SLAC Library were undamaged. The Food Research Institute Library was permanently closed. The Stanford Law School Library basement stacks fell to the ground in a domino fashion. These basement stacks were the only stacks not braced at the time. The Hoover Institution was undamaged except for wall cracks. In 1933, following the Long Beach, California, quake, the State of California adopted a building code relating to seismic safety for all access buildings built before 1934. Stanford had upgraded many of its buildings based on a priorities list and had established the Risk Assessment Program for evaluating the campus buildings.

By the late '50s, most upgrades were completed, and as predicted, those buildings survived. Those not upgraded were seriously damaged. The upgrading for the present Green West or main library, built in 1919, included a stack bracing completed a few months before the '89 quake.

Most of the campus libraries reopened for business within three days of the 1989 earthquake. On Thursday the 19th, when they were declared safe, they were staffed with volunteers who with staff picked up more than 750,000 books which had been tossed from the shelves.

The main library (Green) reopened on Friday the 20th, following reshelving of some 350,000 books. Shelf reading was to follow months later and required volunteer hours plus \$38,000 of hourly labor for 6,000 sections. A sample showed about 5% of the shelved books out of place. All libraries depended on volunteers, mostly staff members who added to their own jobs, and many students. As of October 20th, there were 400 student volunteers. Students were positive, willing, and eager to help and continually asked what needed to be done.

The library at present includes old and new sections connected. The new addition built in the seventies is earthquake safe, but the older building is not, except for the stacks. Paradoxically, thousands of books were thrown off the shelves in the new addition, but not in the original building. In some cases this may have been because of the earthquake's direction.

The main library housed the Jonsson Library of Government Documents and the Technical Services units on the first floor and the Special Collections Department on the upper floors. The Technical Services units were moved to trailers with materials in several places for a period. The Special Collections area was permanently closed because of serious

damage. The services and staff were moved to another part of the library, using faculty office space. We depended on personal communications and did not use e-mail to any extent.

The Jonsson Library of Government Documents was closed and did not open until after the Thanksgiving recess, but it was destined to return to its old quarters eventually and then to a basement area of another building.

During this period there was no direct access to the collections, but an interim reference/referral desk was set up near the entrance in the new library. Referrals were made to other campus libraries, depository and public libraries in the area, and to the California State Library collections. We provided signs and handouts with information and notified the libraries of our closing. These libraries were extremely helpful to our community and in some cases loaned to our students and faculty on site. For most of this time our collections were not available for paging because of building dangers.

One of the interesting situations was the lack of awareness in the general public community regarding the earthquake and flood damage to the libraries. There was a lack of patience in not being able to get information, although this community was also included in the paging process.

We did have delays in processing materials for some time, and space was very difficult. The Jonsson Library reopened following the Thanksgiving recess in its old area with walls covered with knotty pine plywood, minus any offices or an elevator. Stack entrances consisted of small cuts in the wood. Student shelvers had to carry the books to be reshelved up and down narrow stairs to the three stack levels.

The stack upgrading in this building included a bracing lattice of heavy steel beams painted red, which ties together all the shelves on each floor. This lattice extends to the ground and is designed to keep shelves from toppling. If this work had not been done, 700,000 books would have been in a pile at the bottom of the basement, because the structure would not have held. Possibly water pipes would have ruptured. Only two to three percent of books fell off these shelves. The stack levels were shared by government documents and the special collections.

The structural framework and reinforced concrete of the library appeared in good condition, but the brick and hollow tiles were shattered and dangerous in both staff room and reading room. The offices were damaged and permanently closed as was the elevator for the three stack levels. Some of the microfiche cabinets fell forward and drawers opened, bending the drawer mechanism and dumping the fiche on the floor. Eventually the cabinets were replaced with earthquake-proof drawers, and the fiche was refilled by Law School student volunteers.

The University has been self insured since 1985, when the commercial insurer canceled the earthquake insurance. As of August, 1989, the University had \$3.4 million in earthquake reserve and \$3.6 million in property reserve for fires and floods. Stanford University was eligible for \$5 million from the State of California through a one quarter per cent sales tax imposed on citizens until December 1990.

The Federal Emergency Management Administration (FEMA) paid for 75 percent of the assessed damage to the occupied campus buildings, with the State of California making up the difference. FEMA paid for bringing buildings up to the building code, with the exception of two vacant buildings and the Memorial Church. There was a \$160 million in damages quote to bring up to code.

Proper building construction is essential, stack/bookcase/cabinet bracing (anything over 4 feet) is essential, staff emergency preparedness, including emergency reporting lines and regular staff drills, are essential, and collective team work following the quake is very helpful to lessen injury to people and damage to facilities.

El Nino Flood, February 1998

At the time of the El Nino flood, the Jonsson Library of Government Documents was housed in the basement of the Meyer Library as a result of the Loma Prieta earthquake. The Special Collections Department was also still housed in its temporary quarters following extensive damage in its permanent quarters. It has taken 11 years to establish funding to rebuild the main library, and in October of this year it will open with services, materials, and staff in place in the Green Research Library, which includes both the 1919 building and the 1976 building. Both buildings will have been retrofitted.

In the early hours of February 2-3 following the heavy El Nino winds and rain, the Stanford campus experienced serious floods in three of the library buildings—main, Meyer basement, education, and music due to drains being unable to accept and move the water. The water was forced through walls into the basement areas of these buildings. In the case of the government documents Meyer basement area, water came in from two directions.

The floods are not new experiences for the Stanford libraries. There have been several water-related conditions which have caused materials damage. The most dramatic flood came in 1978, when an 8 inch water main broke in the middle of the night, causing \$300,000 in damage to 50,000 books in 24 minutes before it was turned off. Volunteers pulled the books from water and mud and had the books put into the Lockheed vacuum chamber at Moffett Field where space suits were tested. This process worked, but many of

the water swollen books needed rebinding and reflattening on their return. Following this flood, it took an equivalent of eight full-time people and a total of nine months to complete repair following the freezing. In the '70s the Law Library had 7,000 books damaged by a water system, and in 1981 a water pipe burst to damage 5,000 doctoral dissertations in the main library basement.

The El Nino flood dumped 3.7 inches of rain on the campus within 24 hours and damaged 75,000 books in the libraries. Sometime between midnight and 1:00 a.m. water burst through a wall separating the new library from the old one now under construction. It appears that the heavy rains caused the drains to overflow all over the campus. This water also entered basements in the music and education buildings. The Music Library lost over 10,000 wet LP records. These libraries were closed for about a week and opened in various stages.

These flood experiences may be some of the reasons that the Stanford Libraries have encouraged and supported such well trained, experienced, and dedicated staff in the areas of conservation and preservation. Their training, experience, planning, and organization skills were demonstrated in outstanding fashion during and following the El Nino flood. The Preservation Department maintains and actively updates on an established time schedule the Collections Emergency Response Plan.

From the time flooding was discovered, this plan went into action, by first calling those on the Emergency Phone List in the manual and then using the tree system to notify others. The two disasters differed somewhat in that earthquakes mean initially looking out for personal safety as well as the safety of colleagues needing help, getting safely out of the building and doing a head count, providing building security and inspection for possible re-entrance, resettling people and services in other areas if necessary, and planning for the

restoration of the facilities. Floods involving library materials require fast action to get the materials into some protection to avoid added damage like mold, drying out, or sticking together, etc., followed by planning for the future handling of the materials.

A generator providing power to the main library was damaged and remained out for a week. Until replaced by temporary gas and mobile generators, the library had no light or computers. This flood damaged the buildings, basement level furniture (not the computers), carpets, and the moveable stacks as well as the collections themselves.

We have existed to this time with minimum borrowed furniture, and the moveable shelving will not be repaired. The microfilm housed on these shelves was moved to another area of the library. The carpet in the main library basement was soaked and removed. Faculty and graduate student study offices were flooded, including their research if left on the floor. These areas had to be repaired. Commercial cleaners were hired to remove thick piles of mud and water from the floors, and new carpet was eventually laid in both basement areas.

All of the bottom shelves in the basements were removed, sent out for cleaning, and returned. During the cleaning the stacks were covered and taped with heavy plastic to keep the materials cleaned. The government documents were all removed and cleaned, and during this time the area was closed. A reference operation was set up in the upper levels with other activities like video, reserves, and student meeting areas. We brought reference materials to the desk, paged several times a day, and never seemed to have the right reference documents. The reference service was very, very difficult, the staff worked hard and were extremely helpful and patient, and the students were patient. During this time dehumidifiers were kept on all hours so that the materials would not mold, etc.

Sometime between midnight and 2 a.m. people began responding to the call for help—initially about 70 people, staff and students. Some had no idea of the depth of the water and waded in minus shoes. Early arrivals found about 8 inches of water around the bottom shelves in the basements. The early students called in replacements as they left for classes, and in the first 15 hours 4,000 boxes of books and papers were packed and sent to cold storage for freezing. Books need to be frozen within the first 36 hours of water damage to prevent additional damage like mold.

On arrival, teams were quickly in place to take the books off the basement shelves and move them by hand to the upper floor/lobby. At the top of the stairs empty book trucks waited to be filled. Once filled, the trucks were moved to a box area where empty boxes waited. Books were put into the boxes—only one layer—and stacked for pickup by another team which put them on the waiting trucks. The teamwork was superb due in a large part to the conservation staff who worked and managed at the same time, keeping eyes on the moving process. A separate team made up the flat boxes and taped them so they could be filled faster.

The boxes were numbered for identification for the various library stacks and the private papers from the study offices. In the government documents stacks the documents were moved from the bottom shelves to upper level shelves or taken by hand to upper stack levels. There was no elevator use. Damage on the bottom shelves as well as bottom drawers of microfiche cabinets varied because of the uneven basement floor. The early volumes of the Congressional Serial Set shelved on the bottom shelves were damaged and were moved to the upper stack level, placed on end, and fans turned on them. The volumes dried for several days and were then sent for special binding. Some remained water marked. There were 725 volumes bound for a total cost of \$31,000. On return, these early volumes were sent to Special Collections since the library also

has the volumes in microfiche. They were beautifully bound and here is a sample.

The bottom reference shelves got wet, but most of the materials were salvaged, and also some volumes were replaced with gifts from other depository libraries. We replaced 700 reels of microfilm and 140 inches of microfiche for a total cost of \$158,000. A lesson learned was that there needs to be attention paid to microforms as well as to books in these disasters. It is true that they can be replaced, but at a high cost because of vendor replacement policies. These policies will often require replacing more microforms than required by the library.

Government Documents lost several years of several titles of microfiche filed in bottom drawers. These were replaced or the records deleted depending on titles. For the most part the classification P and Z were damaged, as well as classifications in the sorting areas ready to be shelved. Microfilm reels awaiting shelving were also damaged.

Stanford lost a full collection of Army Department regulations because they were filed in cabinets. The bottom drawer materials were soaked, and the upper drawer materials quickly began to mold so were not retained. The microfiche in the government documents area was placed in cold water tubs. The GPO fiche survived well but was weeded or replaced, as there was a fear of a contamination of other fiche. All of the wet silver halide had to be replaced, and all of the wet microfilm reels were replaced.

Stanford contracted with the company Document Reprocessors to freeze and then dry damaged books, rather do the work in-house. The books were sent to a cold storage facility nearby and frozen. This process kept the frozen books on open shelves in a vacuum chamber, which was then pumped to a low vacuum. When complete, the books were dry and stayed in the exact size and shape as when

they were frozen. If the books were swollen or warped before they were frozen, they came out in the same shape. This company has developed and patented a version of the Thermaline Process which combines the freeze drying and pressing stages. The vacuum chambers are operated at a higher pressure than that used by other freeze dry operators and are heated to 32 degrees Fahrenheit.

In this drying process the books are put between aluminum plates, held tightly in place, and compressed while they dry. This is a feature unique to the patented Thermoline Process. The books emerge completely dry but no pressing is needed. They then re-humidify naturally within a week. The cost is about six dollars to dry and clean each book.

Since most of the materials except for government documents had been barcoded, the library created temporary "flood" records for the materials sent to the freezer. Since we did not know what went to the freezer, the staff identified the last barcode on the shelf above the bottom shelf and the barcode volume on the top shelf. The books in sort rooms awaiting reshelving could not be identified.

During this time interlibrary loans were used for missing items. The books were returned in groups of 8,000, the number dried at a time. From April until June, the library received 8,000 checked out books per week. The shelf-ready were discharged and shelved. Those books needing additional work were placed in a work area and reviewed by Preservation staff.

The final statistics are: of the 75,000 books sent for recovery, 2,432, or 3 percent, required commercial rebinding; 1188, or 2 percent, required in house repair, and 400 volumes, or 1 percent, were beyond repair and were withdrawn or in some cases replaced. The library established a replacement account number for all materials. Some of the replacements are still in process, particularly for foreign publications. Well-organized

preparation, caring staff, quick action, and many inside and outside volunteers allowed us to save as many items as we did.

Improving the Quality of Documents Reference Service: Public Library of Cincinnati and Hamilton County

John W. Graham
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Introduction – Public Library of Cincinnati and Hamilton County

- Main Library & 42 Branches
- Separate Public Documents Department
- 12.8 Million Circulation, 1998
- Serve 850,000+ Users
- Increased Visibility & Accountability

Reference & Information Service Standards

- Developed with staff in 1997
- Introduced to all supervisors & staff in 1998
- 57-page booklet
- Cover both general philosophy and very specific scenarios

Standards Overview

- Serve as training tool for new staff
- Serve as evaluation guidelines for new performance management program, for example all patrons helped within an initial 5-minute period

- An aid for the Library “...to achieve an equitable and consistently high level of reference and information service.”
- General Guidelines
- 10 Standards of Public Service
- Define Levels of Assistance, including Ready Reference to Instruction
- Time Limits and Number Constraints

Factors Which Affect Provision of Reference Service

- Time Constraints
- Collection Constraints
- Legal Constraints
- Professional Constraints
- Ethical Constraints

Once-and-for-All

- Trivia Questions
- Bar Bets
- Patrons on phone vs. in person

- Homework Questions
- Instruction vs. the Answer
- Names

Documents-Related

- Copyright Searches
- Interlibrary Loan – Now Decentralized
- Legal Information – “Library Staff cannot interpret law or offer legal opinions or advice”
- Patent Information – PTDL Depository
- Tax Information and Forms
- Trademark Searches

The Bottom Line

- Becoming uniform in system
- Additional emphasis through the evaluation process
- Very useful for training non-professional public service staff
- Careful attention to Documents-related issues

Improving Quality of Documents Reference Service

Lillie J. Dyson

Maryland State Department of Education
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My purpose this morning is share with you what we've learned about improving reference performance.

For a long time as a profession we've been guilty of giving half-right reference. Peter Hernon and Charles McClure in their April 15, 1986 *Library Journal* article titled, "Unobtrusive Reference Testing: the 55 Percent Rule," proposed that reference staff in academic and public libraries, regardless of department, are only able to correctly answer the factual and bibliographic questions they receive about 55 percent of the time. Further, in this article, they stated "for approximately 20 years now, the library community has been aware of the 55 percent accuracy rate, yet few tangible ongoing strategies have been developed to address this finding."

A year earlier, in a *Reference Quarterly* article, Terry Crowley asked "what changes in library training, policy and practice can help us improve public service?" Maryland has attempted to address this problem and thanks to the support and commitment of public library directors and staff in Maryland public libraries we now have a formula for improving reference.

Over a ten-year period, the Division of Library Development & Services (DLDS) at the Maryland State Department of Education conducted four separate massive (more than 11,000 questions) unobtrusive surveys. Each of these surveys was designed to assess the quality of reference service from the customer's point of view. The premise of the study has

been that people expect, and deserve to receive, complete and accurate answers to their questions. From the results of the first survey in 1983 to the completion of the fourth survey in 1994, we were able to identify the need, discover what was wrong with the process, and took steps which have dramatically improved the quality of service people receive from Maryland public libraries.

How did Maryland get started in looking at reference service from the customer's point of view? In 1981, several library administrators came to DLDS and asked for help in measuring reference performance in their library. Using the unobtrusive method developed by Dr. Terry Crowley and Dr. Thomas Childers, we piloted the survey in five library systems. The results of this pilot study created overwhelming interest among other public library directors.

In 1983, DLDS conducted the first statewide reference/performance using the unobtrusive observation methodology. The same 40 questions (20 walk-ins—20 telephone) were asked in 60 branches of 22 public library systems, with a total of 2,400 questions. (Maryland has 24 public library systems. Participation in the study was voluntary and two library systems chose not to participate.) We sought to answer two questions:

- 1) To what degree is a user likely to receive a correct answer to a "moderately difficult" question?

- 2) What levels of resources and kinds of activities are most likely to lead to desired levels of performance?

We learned three major things:

- The likelihood of a person getting a correct answer to a moderately difficult reference question (55% rule)
- Those factors traditionally thought to contribute to correct answers (e.g., size of reference collection, size of staff, degree of busyness, length of time for conducting a transaction, etc.) are not associated with reference performance.
- Factors that contribute to improved reference performance are basic communication behaviors that are within the control of the individual librarian.

In addition to measuring to what degree correct answers were provided, we also investigated what librarians did as they attempted to answer questions—that is, what behaviors they exhibited. We then analyzed the data to discover which of these behaviors were associated with providing correct answers. After identifying the behaviors, we designed an intensive three-day workshop and titled it, “Better Communication Equals Better Reference.” More than two hundred library staff members in fourteen public library systems were trained.

In order to determine the effects of the training a second statewide survey was conducted in the same sixty branches. The results of the second survey showed that librarians whom we trained answered more than 77 percent of the questions correctly and those librarians who were not trained by DLDS answered only 60 percent of the questions correctly. We now had a pre-test, post-test design with a treatment group and a comparison group. Analysis of the variables showed that the difference in performance was due to the training. Also, in

the library that performed the best, there was strong anecdotal evidence of supervisory support for the use of the behaviors. Several of these libraries promoted the development of behavioral job descriptions, which included the Model Reference Behaviors.

We have conducted two other surveys since 1986. An objective in the Maryland Plan for Libraries, 1986-1991, specifically addressed a library’s user’s need to have a complete and correct answer to his or her reference question and laid the foundation for a third state-wide survey. In addition to investigating reference performance and the use of the Model Reference Behaviors, an additional survey objective investigated the impact of training, peer coaching and activities which support the continued use of the behaviors. The 1994 survey corroborated findings from the three previous studies. The use of the Model Reference Behaviors is very strongly correlated with good performance.

The Training

Our experience in working with staff who are responsible for answering reference questions has shown that the primary reasons for providing incorrect answers are lack of skill in applying certain behaviors and the inability to apply these behaviors consistently on the job. The training design consists of three days with pre-workshop and interim assignments. The three days are progressive, that is, each day builds upon the day before and brings participants to the point where they are ready to return to their workplace with an improved set of skills.

The workshop is highly participative and has three major components: self-awareness, simulation (practice) and transfer. These components produce far greater impact when used together and designed as a whole than training that does not include all three.

The practice sessions are meant to be as close to real job situations as is possible in a workshop environment. Actual patron questions are used in the practice session and participants are asked to play out the role of librarian, patron, or observer.

I am certain that most of you would not find it surprising to know that a lot of training does not transfer back to the job. We took this fact into consideration and decided to include four strategies for the transfer of training when we designed this workshop

- the model behaviors checklist
- action plans
- management coaching, and
- peer coaching

The peer coaching strategy is the cornerstone of the training. Peer coaching is a mutual relationship in which two or more people agree to help each other apply new skills. In learning new skills we often go through an awkward period where the skill does not yet feel natural and may not bring the desired results. A peer or co-worker as coach can provide encouragement, reinforcement, and support to assist the person in overcoming the discomfort of using the new skill. Peer coaching is not easy, but when applied

diligently, it contributes greatly to the successful transfer of skills learned.

Performance Improves

Over time reference/information performance has improved in Maryland public libraries. This is very evident when we compare the range of scores from the first survey to the fourth. The lowest system score in 1994 was higher than the highest system score in 1983. The public library systems of Maryland worked successfully over a decade to break the so-called 55% rule of reference accuracy. Our users may not have noticed the difference but the data indicates that there are real results and service is much improved and is more consistent statewide. The work done in Maryland has served as a model to libraries throughout the nation, many of whom have adopted these strategies for training and customer service.

The outcome of the reference/information performance improvement project is an excellent example of the partnership and shared vision between public libraries and a state library agency. Using available resources, librarians were able to work together to improve a very basic and essential service for their customers.

Web Pages for Training and Reference

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Background:

Location: Orange County is located in Southern California, south of Los Angeles, north of San Diego and west of Riverside. Though often considered a county of wealthy conservatives, the County government went bankrupt a few years ago due to some bad investments. Many public services, such as schools and libraries, felt the ensuing cutbacks.

Libraries: There are 2 large depositories in the county, California State University, Fullerton and University of California, Irvine (UCI). There are 5 much smaller depositories in libraries throughout the county. Two Congressional districts are without a depository at this time. The whole southern part of the county has no depository library, and many users tend to come to UCI rather than their public libraries. They think of UCI as their large public library, which we are not. In the last few years, libraries in the county have been working to get community users into their local libraries first, with UCI being a second or third option. Development of business collections in 3 public libraries has helped, but some public school teachers still make inappropriate assignments and encourage students to come to the university library for research and/or primary source material.

A cooperative system of referrals and some increase in public library budgets has helped improve the situation. However, Government information still needed to be addressed as a part of this countywide cooperation. The advent of the Web, with all the increasing number of free government resources there, provided an opportunity for a type of

collaboration not available when the only choice was tangible documents. Training and assistance for public library staff was one missing ingredient.

Similar needs for Web pages: UCI Libraries has had a home page for several years. During the past year, however, the whole staff worked to create a major change in both content and format for that Web site. Work was not complete when the new format was unveiled, and one of those areas under construction has been a guide on how to find government information on the Web. The initial intent was for this section to be most useful to UCI students, faculty and reference staff. Our reference staff has been requesting more help with government Web resources, especially with the initiation of a shared reference desk.

I have also been involved with the School of Social Ecology in the development of the Russian-American Cyberlibrary. One of the areas we have wanted to improve was a guide to finding free Web sites that contained quality resources. Thus, UCI reference staff, the public librarians, Russian librarians and users of our Web site could all use a Web page to help them learn **methods** to locate resources. For those who want it, a way to practice finding these resources is also made available.

- **Plan:** Eventually, it became obvious that I could combine several projects and use the various products in a variety of ways. Some editing would be needed for each use, but the idea of consistently using the UCI Government Information home page as the initial source to begin government information searches was appealing. I

decided to create a workshop and mount it on my own home page to use as a draft. Experience and comments from users could help provide insight into how to format and improve the final product that will be added to the UCI Libraries home page.

Procedures

Organizing. Library administrators from UCI and Orange County Library System and one large city library, Newport Beach, met and agreed to the idea of workshops. Judy Horn, UCI Government Information Department Head, and I were assigned the task of getting the team together and developing the workshops. We formed a team together with librarians from public libraries. Teri Garza is in charge of training for the Orange County Regional Library System. Jody Brewster, from the Garden Grove Regional Library, joined the group as the representative of the largest public library depository in the county. Susan Warren, from the Newport Beach Public Library, represented the largest city library contingent. We had several meetings discussing what should be presented, and how. The team worked very well together and I personally learned a great deal about these libraries, their users and the services they perform. What I most wanted to know was what kinds of questions they were asked to answer at their reference desks. This would be useful in designing any workshop for their reference staff.

Introducing the project to public library staff.

Judy Horn had prepared a PowerPoint presentation, which she had recently used, for a variety of purposes to inform people of the types of government information available via the Web. We used this to go to meetings of library staff organized by the public library members of the Team. The audience was invariably amazed at how much was available that they could use. What seemed to attract many of them was how many of the standard reference tools were available via the Web.

Statistical Abstract of the United States and Uniform Crime Reports were just two samples. Combined with California Statistical Abstract and the Orange County Budget staff from small branches with little budget could see their access to quality information expanding. There was much enthusiasm for the project expressed from those sessions.

Planning the workshops. This proved the most difficult part of the project. We spent too many meetings discussing topics like how do these people who do not work daily with government information even recognize a reference question that could be answered by what is available on the Web. We did not want to create workshops that would, in the end, not be useful. What information would be useful to them? Do they have enough training in how to navigate the Web? What type of equipment and how much of it do they have available? In the final analysis, this is how we proceeded and why:

- All the library systems were providing training in how to use the Web, and there were a couple of workshops that included some government information. Thus, it would not be our job to provide any training in how to search the Web. We just needed to be aware that the skill levels were broadly distributed.
- For real learning to take place, attendees needed to be able to each have a terminal to use during the training sessions. We wanted active participation. This meant that for the Orange County Regional Library System librarians, they would need to come to UCI to utilize our teaching facilities. Because of the lack of parking and available classrooms when classes are in session, this meant scheduling classes during UCI's intersession.
- As for the curriculum, after many discussions the group finally said, "You do it. Then we can discuss details." The real

problem with this was I had a full schedule that put it off a little longer. However, the extra time allowed the librarians to become more Web literate and to think about questions they fielded over the desk that might be governmental in nature. At the same time, more and better equipment was installed in some of the libraries for use with their public and affording them some equipment to use for practice.

- Once the design was in place, we arranged the first 2 workshops. Each was given in a 4-hour block. Individuals were required to sign up to make sure each attendee was able to use a computer terminal. Each class was filled with 25 students.

Creating the Web pages

About the same time we were developing the workshops, two other projects converged on my desk. It was very obvious that all three projects had similar needs that might be met by utilizing much the same Web pages.

2 parts of the Government Information home page <www.lib.uci.edu/rsc/gimain.html> were not completed: *Locating Government Information on a Topic* and *Useful Databases and Searches*. Our existing Web pages addressed parts of those topics, but needed to be expanded and pulled together in one place for the user. For use in the workshops, these were all placed together, rather than being separated out. They will soon be added to the UCI Libraries Web pages.

UCI Reference staff was requesting more help locating information when an experienced GID staff member was not working at the Reference desk. The creation of a *methods* page seemed to hold potential for this group as well. Librarians have expressed how much the existing sites help, but they want more. Additional training for them will come at a later date as well.

For the last few years I have been working with Russian librarians, University of Moscow students and other users to provide links to useful free sites of information. We are at a point when major revisions need to be made. Librarians need resources that would help them learn *methods* of locating information. We want to add more sites with educational information for librarians to the Russian-American Cyberlibrary <<http://sun3.lib.uci.edu/racyberlib/>>.

Locating Government Information on a Topic was one of those areas designated "under development." What we needed was a more comprehensive guide for finding government information to **supplement** the already developed pages, where users first went to the level of governmental jurisdiction and then clicked on specific topics. Once to this point, the user then had to select another way to find the information from the choices offered. It was the first cut at helping faculty, students and Reference staff locate most used government information and had met with some success. More was needed, however.

In looking for simplicity and in trying to create Web pages that would be helpful, I worked with an idea I had thought about earlier. There are similarities between a reference question received at a public desk and types of questions people using the Web might have. These questions can vary from a request for a specific title, to information on a broad or specific topic, to just knowing that a specific agency has done some work on a problem and the newspaper just mentioned it. So, you **start with the information you have and use the method most suitable to that type of information**. It may not make much difference who you are, the method used would be the same.

The methods I used centered around the phrase, **Select a method to match the information you have**. The methods offered for selection are:

- **FAQ's:** Divided into broad subject areas, then specific questions asked and answered. Takes a user right to a specific site where the answer should be found. Less frustrating than making other choices. But, this method only covers selected topics.
- **By selected major topics and level of government:** If the major topic (e.g., environment or statistics) is a match with subjects on the Web page, then the user must select level of government. This links to existing Web pages created by subject at the different governmental jurisdiction levels. The searchers may still have to do some searching of the listed sites to which they are linked in order to find the answer.
- **By broad subjects on major search sites:** The first choice offered is INFOMINE where level of government is not always as important as the subject is. After INFOMINE, then the choices are for various major search sites by level of government. User may have to make choices and search on more than one site before finding the needed information.
- **By search engines:** Another way to search by subject. We suggest selected search engines that lend themselves to governmental searching. Also links to all major search engines, directories, and meta-search sites are provided.
- **By level of government:** Linked to a combination of sites already collected on the UCI Libraries Government Information home page and others such as at the University of Michigan. Many home pages are formed around this concept.
- **Finding full text Web publications:** Many people are looking for a specific title in Web format. Locating a place to look can be a challenge.
- **Databases to identify publications and information sources:** Many of these are simply the Web version of bibliographic indexes that identify publications on particular topics. Some link to full-text sources, many do not. Probably of more use at the university and research level than the small public library.

So, in summary, I developed Web pages that could be loaded onto the Government Information home page and the Russian-American Cyberlibrary and could also be used to help with the training of the public librarians. With the training, I introduced the concept of beginning searches for government information from the UCI Libraries home page, trying to make it familiar and useful to them through the workshops and beyond.

Additional pages were developed specifically for the workshops and for later practice if someone wanted to practice or teach someone else. The tools for self-training and helping others would be available for workshop participants and others such as other public librarians or users of the Russian-American Cyberlibrary.

The first drafts were not placed on the UCI Libraries home page. Instead I placed them on my Web pages to use with workshops and discover those areas which would need improvement. This proved to be a useful strategy because I did find areas that need changing or improving.

Creating the Workshops

Though it may sound obvious in retrospect, the biggest hurdle we had to overcome was the fact that we were not going to make these people experts in government information. That takes time. What we could do was provide them with some of the **methods and Web sites** which government information librarians use most. Then the largest decision was developing an educational process that we

hoped would maximize the learning experience for attendees. The basic principles I applied were those we have found to work fairly well at UCI:

- Each participant has access to a computer terminal so that they can do searches and put into practice what they are learning.
 - There is both a Web page and printed handouts <<http://sun3.lib.uci.edu/~kcollins/workshopoc.html>> for each participant. Those include:
 - Workshop Outline
 - Locating Government Information
 - FAQ's about Government Information
 - Evaluating Web Pages and Search Engines
 - Form for evaluation
 - Topics used for the class are tried out by the instructor prior to the class to make sure they work and that the instructor is prepared for questions which might arise. The instructor can also prepare other helpful remarks about searching specific Web sites. For instance, I explained about patent searching and patent applications.
 - Proceeding in stages, the instructor goes through each method of locating information. Attendees are encouraged to use their terminals and follow along.
 - Then, for each stage of the class, students are given a topic to search. For these classes, I suggested they each pick one of the topics supplied in the FAQ section and use that same topic throughout the workshop. In this way they could compare each method and site against the same question. Attendees then use each method to try to find the answer or some useful source of information.
- We discuss what they did or did not find, problems they encountered, etc., as they go along. Because they did not all use the same site or same question, many key points were made on how to search Web pages and what may or may not be at the site they searched.
 - Make sure there is at least one break and, if possible, have people stand up and stretch periodically.
 - Get them used to starting from a home page, such as UCI's, to use as their "anchor" or home base. This had more of a positive impact than I had anticipated. They felt more comfortable with a familiar starting place.
 - Provide them with information about some of the sites or subjects that they would never know without some help, e.g., for many subjects, there may be more than one site with the same answer.
 - Provide them with information on how to evaluate Web pages and search engines <<http://sun3.lib.uci.edu/~kcollins/evaluating.html>>. Apply that throughout the workshop through discussion and providing a worksheet <<http://sun3.lib.uci.edu/~kcollins/formevaluate.html>> for participants' use with each search to help them note and evaluate what they find. This gently forces or assists participants to evaluate the method and the site.

First, I created the Web pages Locating Government Information <<http://sun3.lib.uci.edu/~kcollins/locating.html>> and FAQ's <<http://sun3.lib.uci.edu/~kcollins/faqs.html>>. They formed much of the basis and outline for the workshop that used the methods in place on the Web page. Then I developed the principles and design for the workshops.

The Workshop Outline <<http://sun3.lib.uci.edu/~kcollins/methods.html>> was discussed at the beginning of the class so that they all understood what we would be doing, why we would be doing it and how we would be doing it. At the end of the workshop, I again stressed that they could use the same information and continue to practice with different topics. For topics, they could either use the ones in the FAQ's which would reinforce comparison of different methods and may help users repeat visits to some sites, or, they could always use questions that came to them at the reference desk. It also gave them a tool to use when demonstrating to others how to find government information on the Web.

Follow up to Workshops

A follow-up workshop is planned at one of the regularly scheduled training sessions held by Orange County Regional Library staff. At that session, a computer and projector will be used to answer questions which attendees may have encountered since the training session. They can also provide information to their colleagues on what their experiences have been. At the time this paper is being written, we have not yet finalized the time for that meeting. I anticipate learning a good deal about the session, its methods, results, etc.

Attendees were encouraged to send comments on the workshop and the Web pages directly to me. The handouts and the Web pages contained my address, phone number, FAX, and e-mail.

For assistance with difficult questions, I also invited them to contact me or the UCI reference desk staff. I encouraged them to first try their own depository librarian who attended one session. This is opening up a continuing working relationship with these public service people. The best comment I received was from a woman who said she has always been afraid of, intimidated by, and avoided government publications and information. She

commented that after the workshop, she felt as though she had achieved a breakthrough. Government information was now a little more understandable and she knew where to go if she needed further help.

Lessons learned, relearned or reaffirmed

- Plan and prepare ahead of time so you can relax and enjoy the workshop
- When using a large computer lab, have someone available to "rove" around and assist with computer glitches, help those who may have fallen behind, or, answer questions.
- Go slowly enough that people can keep up. Make sure they are up with you and help those with a problem.
- Give attendees time to search on their own. This is when discoveries often occur.
- If you are going to be coming back to the same site again and again during the workshop and it is not the browser "Home" button, have everyone bookmark that site. It makes the workshop go much more smoothly. It can be removed at the end of the session if necessary.
- One person per computer was very important. These groups wanted to search and learn. I soon found that as soon as they finished searching the assigned method or primary topic, they tried something else.
- Be willing to learn from your pupils. They can be amazing.
- Encourage students to help each other.
- INFOMINE <<http://infomine.ucr.edu/cgi-bin/w3-msql/search/govpubsearch.html>> was a hit because the level of government was not always important to their choice

and they usually found what they wanted faster through INFOMINE than with some of the other ways they searched. It also located sites they had not found through other means. The new improved version is even better than before.

- Selected search engines are sometimes better than expected. For instance, when using FAQ's we got right to the site for information on California propositions. Searching some of the other ways found official sites and partial answers. Northern Light went right to the best site first.

URL'S

This paper:

<http://sun3.lib.uci.edu/~kcollins/dlcpaper.html>

Table of Contents for the workshop with links to all parts used:

<http://sun3.lib.uci.edu/~kcollins/workshoptoc.html>

UCI Government Information home page:

<http://www.lib.uci.edu/rsc/gimain.html>

Engaged Institutions: Using the Federal Depository Library as a Community Service to Address Regional Needs

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Introduction: Moving Towards More Engaged Libraries and Institutions

In February, 1999, the Kellogg Commission on the Future of State and Land-Grant Universities issued a timely report, *Returning to Our Roots: The Engaged Institution*, which argues "we can organize our institutions to serve both local and national needs in a more coherent and effective way. We can and must do better." Federal depository libraries in academic and other type of libraries have always existed to serve more than just on-campus, ivory tower, or "scholarly" information needs, and therefore these specialized library government information services can help lead the way to broader institutional engagement, towards contributing more directly to an improved quality of life for a defined geographic region.

Background: Governmental Related Information and Data Needs in the Northwest Indiana Region

In 1996, the government information librarian at the Indiana University Northwest (IUN) Library obtained university-wide "Strategic Directions Initiative" funding to create the Northwest Indiana Center for Data and Analysis, in conjunction with the existing Federal depository library collection and service. A needs survey documented the perception that professionals and organizations in Northwest Indiana desired more specialized and value added information services in order to make more effective use of the increasing

electronic access to governmental and related statistical data. Existing data sources were perceived not to be in a usable enough or current enough form. And existing data profiles organized around the State of Indiana as a whole or the Chicagoland area were not specific enough to describe the unique characteristics of geographic entities in Northwest Indiana (e.g., neighborhoods, communities, the region itself).

Developing a Context for Change

Below are trends or events that have been identified and applied to allow a specialized library (the IUN Federal Government depository collection and new Library Data Center service) or a wider institution (the IU Northwest campus) to become more responsive to the needs of the wider geographic area from which the campus draws its students and faculty (the Northwest Indiana region).

- Professional Service vs. Community Outreach/Public Service/Regional Engagement

Service to the library profession at the state, national, and/or international level is very important but must not become valued more highly than or at the expense of effective and important community and regional based service and research. Service that applies a librarian's or classroom faculty member's teaching and research expertise to a

community problem, or issue, develops an important and potentially fulfilling inter-relationship between the three faculty roles of teaching/performance, research/professional development, and service.

- Indiana University Regional Campus Excellence Initiative

In 1998, the five IU regional campus chancellors obtained funding for an initiative to investigate “best practices” of similar regional/urban area campuses throughout the United States. Six cross campus faculty/administrator committees have examined excellence in six subject areas, including community and public service. Regional service and community outreach are integral to a commuter university campus because students and faculty usually live, work, and are parts of families and neighborhoods near the campus, unlike residential campuses where students and sometimes even faculty may develop their own separate campus based communities.

- Community Service Inventories and Institutional Economic Impact

One way to analyze and better coordinate community service related activities is to survey and inventory all the current activities engaged in by faculty, staff, administrators, and even students – activities that target/benefit the broader community. By inputting the data received into a database, the information can then be sorted and retrieved in useful outputs (by type of service, name of activity, person’s name, university department involved, community served, etc.). There are also accepted multiplier variables than can be applied to various types of service activities which can become part of an assessment of the dollar value (economic impact) an institution has on/brings to a community or region.

- “Engaged Institutions” and Related Literature

In addition to the Engaged Institutions report cited above, there are many additional reports, books, articles and Web sites on relevant topics such as service learning, problem based learning, interactive teaching, civil society and civic renewal, community based research, etc. (see attached bibliography).

- Seven Guiding Principles for Engagement

The Kellogg Commission report outlines seven principles or guiding characteristics that define an engaged institution: responsiveness, respect for partners, academic neutrality, accessibility, integration, coordination, and resource partnerships. The last of these is especially critical since it is essential to obtain new funding sources for creative initiatives, and these sources can often only come by identifying partner organizations with access to these resources.

- Act Locally, Think Globally

While refocusing efforts locally and regionally it is equally important not to become isolated or removed from the interconnected and more globally defined issues that have community impact. One way the Library Data Center has been able to focus attention to international impact on the community has been through a contract with the local regional World Trade Council to develop a survey and database of local companies involved with trade and other international activities.

- Student Enrollment, Retention, and Use of Library and Information Services

Any attempt to grow your user base for library and information related services will be negatively impacted by decline in your traditional service support areas. For a university then that is (income) dependent on attracting and retaining students, there must be

a positive return on efforts to become more visible in broader communities. Service learning is an example of involving students directly in a "learning laboratory," effectively applying theory to practical problems and helping students become interested in relevant learning and remaining lifelong learners. Many service learning classes relate well to library use and instruction since competency and problem based learning involves utilizing accurate information and data sources.

- **Quality of Life/Livability Quotients**

In its broadest sense, a university or public library exists to maintain and improve quality of life. With lack of trust in most governmental sectors, an often narrow focus on profit by business, the existence of many fractured families and communities, divisive religious bodies, etc., pressure is placed on education-related institutions to provide information, knowledge, and leadership to engage for community renewal and regional cooperation. Libraries and university research expertise can help measure quality of life and determine if it is improving.

- **Sustainable Regional Planning**

Communities must stop duplicating services and address problems through broader collaboration and cooperation. Long term (sustainable) planning needs to replace short term expediencies and pressures. Needs for both economic development and environmental quality must be addressed together. Universities have the expertise to contribute to such planning and librarians as generalists are able to see the big picture solutions and to help bring together the facts to promote informed decision making.

"Future Library" Services, Activities, and Outcomes

With change so much a constant it is wise to approach innovation in libraries as a way to

bring what the future library will need to be as close to the present as is possible. Below are some ideas for implementing such a strategy.

- **Customer "Obsession"**

With whatever information services are offered, there must be a component promoting individualized service that provides at least a beginning measure of these services for free. A service must produce a library customer who is satisfied and who has successfully obtained the information and data requested. The IUN Depository Library and Data Center services provide government information for free as long as the need can be supplied in 1-2 hours time and as long as the data required is not part of a "value-added" product.

- **Distributed Information Literacy Instruction**

Since it is desirable to empower library service users to search for information and data on their own, training workshops for groups and organizations is another important service that should be provided and that is in current demand. Charging a fee for in-depth instruction is an appropriate way of gaining income for providing the free customer service listed above. Instruction can also be distributed through technology means to areas throughout the region (workshops and sessions do not always need to be offered only at the central campus).

- **Access to Content and Collections**

Information and data services are not successful unless current, reliable, and trustworthy information/data is either owned by or accessible through the library providing the service. Therefore libraries must continue to invest in collections, subscriptions, and online access while at the same time helping devise effective gateway and subject access to this vast amount of information content. In addition libraries must help evaluate

information resources while not censoring/limiting varying points of view.

- Value Added Information Products

Examples of value added information and data products are the following:

customized and formatted online literature searches,

assistance with actual grant writing,

community and industry data profiles,

marketing analyses based on reliable data estimates and projections,

workshops on various topics (such as how to use tool software),

administering surveys and analyzing results,

building databases,

visualizing data with spreadsheet charts/graphics/presentation software, etc.

Since these requests require advanced skills and services perhaps not offered by the local private sector, it is appropriate to charge or seek funding to provide these services which are not otherwise easily available. It is of course very necessary to separate fee services from those requests for Governmental information which must and should be always be provided free to all regardless of ability to pay.

- Partnerships for Information and Referral

When requests for information and services cannot be met by the library, it is very beneficial to have developed partnerships with community and regional organizations, because you are then able to knowledgeably refer the patron to the organization(s) that can

assist. Here is a list of some of the regional committees that the IUN Government Information and Data Center librarian serves on both to be of public service but also to provide contacts for current/future funding and partnership:

IUN Community Outreach Partnership
Regional Development Committee

IUN Community Resources Team

Northwest Indiana (NWI) Chapter of the
American Society for Public Administration

NWI Geographic Information Systems (GIS)
Forum

NWI Quality of Life Council Indicators
Advisory Committee

NWI Regional Planning Commission
Environmental Information Task Force

NWI Winning Communities Economic
Development Committee, and

NWI World Trade Council Database
Committee.

Creative Information Services Management

Effective administration of any service or organization today relies on application of up-to-date management practices. Below are some considerations to take into account when attempting to increase services and outreach beyond the traditional boundaries:

- Freedom to Fail

Librarians and information specialists must be willing to be risk takers. New ideas should be tried. When experiments fail, and many do, simply move on, assessing each success and failure along the way. Failure must be expected in order to allow for real successes to emerge. Librarians with faculty status and

tenure protections can feel a little more comfortable that risk-taking will likely not jeopardize their career.

- Constraints and Challenges

Academic libraries are often part of a public higher education system that has each year received a smaller percentage of state funding. Libraries are support units and do not traditionally bring in income like faculty teaching courses do (library budgets are therefore easier to cut). Urban campuses are often not as easy to access and may have to fight images of not being safe, a perception of lesser quality programs, etc. At the same time, universities are still seen by outsiders as institutions with resources to bring to a community or region, not expecting to see the need to ask for outside funding in order to provide new services.

- Opportunities and Advantages

Universities and libraries have trust in society and are seen as a place where academic neutrality helps ensure objectivity. New services can often be priced reasonably using existing space, taking advantage of campus/library open hours that include evenings and weekends, and the already strong customer service reputation that most libraries have already fostered.

- New Sources of Income and Funding

Outside funding can be obtained through workshop training registration fees, "charging by the hour," proposals and contracts, foundation and grant funding, corporate giving programs, state and Federal project funding including overhead dollars that come to the campus, and matching dollar funds. Reallocation of time, avoiding duplication of services, utilizing volunteers, etc., are also creative ways to allow existing resources to stretch farther to support new endeavors.

- Avoiding Over-commitment and Stress

Librarians are usually already on 12-month contracts, which means that taking on additional responsibilities with new services can be quite stressful. Libraries are one of the institutions that have typically not been able to discontinue or scale back traditional services that have marginal benefit. Therefore one of the watchwords must be to "focus, focus, focus" on what is the most important. In addition libraries must plan and move quickly towards services that will be most needed in 5 years – this type of environment is stressful because so much in the future is unknown.

- Assessment and Evaluation

Outcomes from existing and new outreach services should be assessed in as many ways as is possible – through evaluation forms, amount of funding received, willingness to pay, repeat users of service, the contribution to student and faculty learning, etc.

Conclusion: Towards the Future Library

The above presentation is an attempt to identify issues that will allow a specialized government information and data library and the broader academic library organization to remodel itself for tomorrow's needs. In this paper and presentation I have tried both to talk about outreach services for libraries as a whole and also to provide examples of how the government information and data services at Indiana University Northwest have tried to incorporate these ideas to become more effective. Anyone who would like to contact the author to discuss further any of these ideas is welcome to contact:

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How to Manipulate Federal Bulletin Board Files

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When I was an inspector, I visited a number of smaller depositories that I thought would benefit from automating check-in procedures. Many of them did not have the budget to get shelf-listing services from Autographics or Bernan. I felt sure that one could make a shelf listing system using a database program and the electronic data that GPO was offering, and I would suggest that to them. But I wasn't sure exactly how.

When I came to Pace University, I got the opportunity to try out my own idea. I had a serious problem to solve. The microfiche had never been checked in. I knew that if I asked

my assistant to begin checking microfiche in to the paper shelf list she was maintaining, it would double or more than double her work. I didn't want to do that. I knew I had to come up with a solution where she could do more work in roughly the same amount of time. I had to increase her efficiency.

My solution was to implement my idea of an automated shelf list using data from GPO freely available on the World Wide Web and Microsoft Access software that was part of the Microsoft Office already on our computers. You can use whatever database software your library already has access to.

View	Item	suDocstem	title and forms	autonumber	supersession	weeding	agency
		A 1 47	Agricultural Stat	1			
0001-A	A 1 47/2	Agricultural Stat		2			
0002	A 1 50/A	Agriculture Decs		4			Agriculture Dep
0002	A1 116	Rural Telephone		3			
0003	A 1 76	Agriculture Han		5			
0004	A 1 75/2	Structural and F		6			
0004	A 1 75	Agriculture Infor		7			
0006	A 1 1	Annual Report		8			
0006-C	A 99 43	Outlook for U S		9			
0006-G	A 1 1/3	*Semiannual Re		10			
0006-H	A 1 138	U.S. Departmer		11			
0006-H	A 1 93	Budget Estimat		12			
0006-J	A 1 1/4-2	Annual Report c		13			
0006-J	A 1 1/5	*Report on USD		14			
0006-J	A 1 1/6	*Office of Inspe		15			
0006-K	A 1 2/12	*Accomplishme		16			
0006-L	A 1 2/11	Five-Year Plan I		17			
0006-M	A 1 136	*Annual Report,		18			
0006-N	A 1 1/4-3	*Appraisal of th		19			
0006-P	A 1 137/2	USDA Photo Fe		20			
0006-R	A 1 135	Ag in the Classi		21			
0006-S	A 1 2/13	*Fiscal Year Ph		22			
0009	A 1 9	Farmers' Bulleti		23			
0010	A 1 2	General Publica		24			
0010-A	A 1 144	*Agriculture Out		25			

First, I downloaded the List of Classes into a table. I added several fields to the List of Classes table, including an agency field and a supersession field. I had to key the data into

these two fields, but perhaps there is an electronic way to do it I haven't thought of. The fields here are information that applies to each SuDocs stem.

item	selected
0001	N
0001.A	N
0002	Y
0003	N
0004	Y
0005	N
0006	Y
0006.C	N
0006.G	N
0006.H	N
0006.J	N
0006.K	N
0006.L	N
0006.M	N
0006.N	N
0006.P	N
0006.R	N
0006.S	N
0009	N
0010	Y
0010.A	N
0011	N
0011.B	Y
0011.C	Y
0011.D	Y
0011.F	Y

Secondly, I downloaded the Yes No list of items selected for my depository into another table with only two fields. I linked these two tables using the item number field.

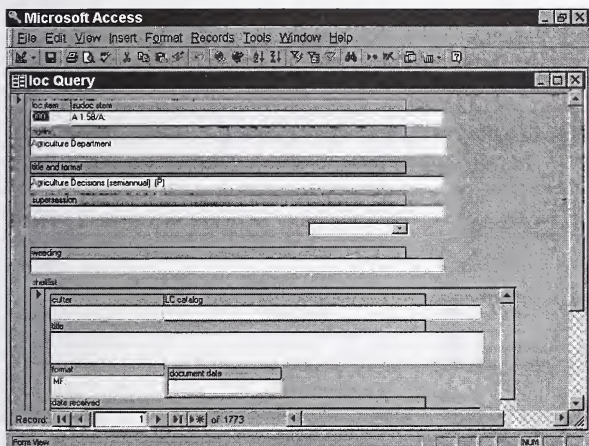
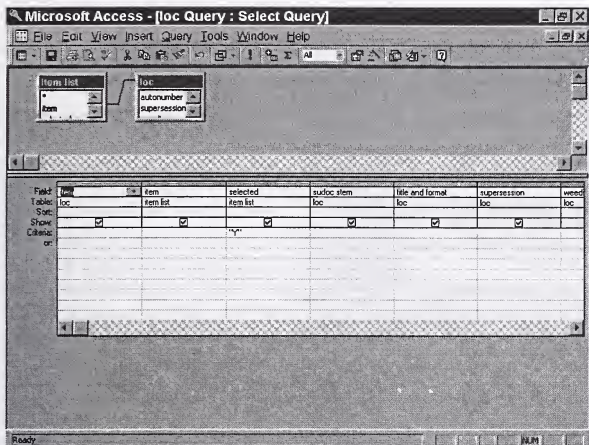
Then I created a query that would select records from the List of Classes that match my "Y" selections in the item list table. This creates a sub-table just for my selections called LOC Query.

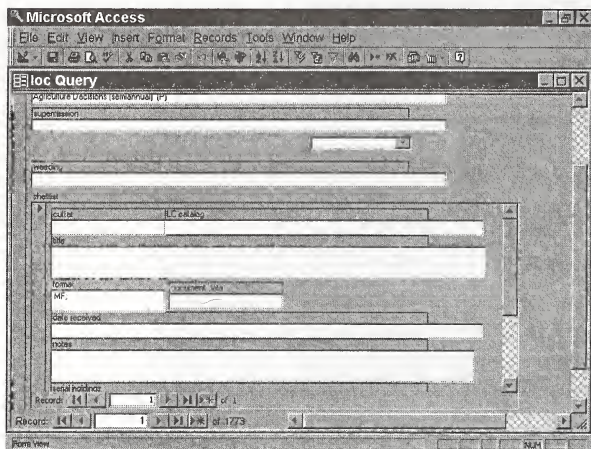
autonum	SuDocs	stem	cutter	LC	catalog	title	format	date received	notes	serial	holding	document date
659	C 21 14/2	AP 5				About the PTO Paper		4/10/98	a	a		February 1998
772	C 21 14/2	T 68/SUPP				Changes to Pat Paper		5/6/98	a	a		February 1998
1092	C 21 14/2	UT 4				A Guide to Film Paper		8/13/98	a	a		March 1998
177	C 21 2	IN 34				Information cont MF		3/24/98				June, 1995
52	C 21 2	IN 8/3				The Invention th MF		3/24/98				
742	C 21 2	F 15				The Conference MF		5/4/98	a	a		December 1996
1517	C 21 2	F 15/008	none			The Conference MF		9/24/98	none	none		September 1999
559	C 21 2	IN 3/9/938				PTO strategic it Paper		3/24/98	a	a		
1961	C 21 2	T 73/2	none			Project A3. Ma Paper		1/20/99	none	none		Aug. 17, 21, 1999
1936	C 21 2	T 73/997	none			Trilateral Statist Paper		1/13/99	none	none		1997
71	C 21 292	995/3				MF		3/24/98		996/3		July, 1996
741	C 21 292	997/3				Information Dire MF		5/6/98	a	a		July 1997
1658	C 21 292	998	none			Information Dire MF		10/28/98	none	quarterly		July 1998
15	C 21 3/2					MF		3/24/98				Revision no. 1 (June 1997
542	C 21 5/4					T 223 V1 Official Gazette MF		3/24/98	Checked			
1006	C 21 5					T 223 A2 Official Gazette MF						October 1997
66	C 21 5	1204				MF		3/24/98		1204/1, 2		November 4, 1998
1559	C 3 134/5	997-998	none			State and Metr Paper		10/7/98	none	none		none
18	C 3 262/3	996/4				Information Dire MF		3/24/98				October, 1996
34.3	C 55 1/2	991, 992, 1				MF		3/24/98	cataloger	1991, 1992, 1993		
1618	C 55 209	85/98	none			Earth System N Paper		10/21/98	none	quarterly, V. 9 I		September 1998
19	C 55 327					MF		3/24/98	Checked	1995		to Dec, 1995
543	C 55 54	F 52/CD	none			QK 62 T: Time Series of CD		3/24/98	sent to c	April 1985 to Dr. January, 1998		
1845	C 55 54	G 51/CD	none			Global Precipita CD-R		12/2/98	none	none		none
238	C 55 54	H33/CD	none			OE 5010 Alabama Coast: CD		3/24/98	Sent to c			1997

Next, I created a shelflist table that was linked to the List of Classes table by the SuDocs stem. This shelflist table has the SuDocs stem, a Cutter field, and then fields for the LC number, the title of the piece, format, date received, notes, serial records, and the date of the

document.

The way it works is that each SuDocs stem has one record in the List of Classes table and as many shelflist records as I need to record each piece.

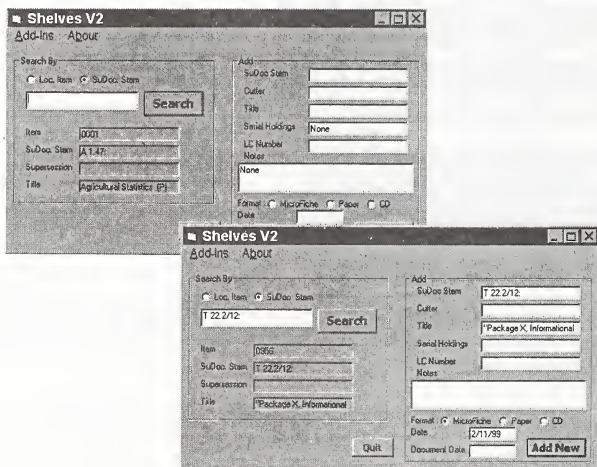




The toughest part for me was setting up a form that displayed these two tables. I will set forth how I did it, since it is not easy and is not usually explained in the manuals.

I created a form for each of the tables—the List of Classes table and the shelflist table. Then I embedded the form for the shelflist table into

the form for the List of Classes table using the sub-form button from the toolbox. Another way to do it is to establish a "permanent relationship" between the two tables using the tools, and save it. The Wizard in Microsoft Access will list both tables so just select the field in both tables for your form.



I quickly realized that the form I had created in Microsoft Access would confuse my assistant. So I asked our technician to write me a Visual Basic interface that would allow her to check in material without having to look at a confusing amount of data. He has created a version 2 for us now, incorporating improvements we learned about through using the database. As the assistant becomes more familiar with the system, she does work with the raw database for certain items and is increasingly comfortable in doing so. And I knew she would grow into it, I just didn't want to confuse her on the front end. I include some examples of the interface searching by SuDocs stem. We also found that we had to locate items we had entered from time to time, so he set up a search function for that.

So the elements of my system are the List of Classes table, which includes agency and supersession data, as well as any other information that applies to the entire SuDocs stem. A query is run using the Item Lister table and a subset of the List of Classes table displays that contains only those items I select, a much smaller table. Thirdly, a shelflist table is linked to the List of Classes data by SuDocs stem and contains all the data that applies only to that piece.

My system is not the best for serials. Nevertheless, I have set up a serials field and do use it for some of them. Many are still checked in manually. Like I always say, do what works: If the manual system works better (and we think it does) keep it. I think ultimately that I would like to have all my serials checked in to our Innopac system. They already have figured out the whole serials problem and I feel that I would be reinventing

the wheel to redo that work. On the other hand, I do not have all my serials checked in to the Innopac and I may never have that.

One little problem I had early on was with the dates. I had Microsoft Access put in today's date for the check in date. What I didn't realize is that that date would update itself each time the record was visited. One other trick is that sometimes my assistant has trouble with items where the SuDocs stem ends other than at the colon. The best thing to do is to keep a paper List of Classes handy and check what the SuDocs stem is for an item that doesn't come up. We will always need paper no matter how automated we get.

So how is it working? My assistant is delighted with the system and has been able to keep up with checking in all items in roughly the same amount of time it took her to maintain the card shelflist for paper items only. (Admittedly, I have trimmed our selections). The time I save her is: rolling the card into the typewriter and filing the cards once they are done. But in addition she does not have to re-key the agency name, the title from the List of Classes, the item number, etc. All that information is automatically part of the record. All she has to add is the information pertinent to the particular piece she is checking in, such as date, title of the piece, the Cutter, etc.

I think this can be a low cost alternative for automating documents. I am hoping it will be useful to smaller public libraries that want to automate but can't afford or justify Marcive or Autographics. I hope this idea will stimulate each of you to think about ways that current free GPO resources can be used to lighten your load and that of your staff.

How to Manipulate Federal Bulletin Board Files

James Mauldin

U.S. Government Printing Office
Washington, DC

Topics

About the System

Features

Statistics

Examples

Background & History

Users of the FBB

Helpful Hints & Plans

FBBS User Support

About the FBBS

- Accessible via: Telnet, FTP, WWW, or Modem
- Provides immediate, self-service access to Federal electronic information. Participating Federal agencies add files remotely ensuring that their latest official information is available.
- Offers single files in a variety of formats
- A component of *GPO Access*, it existed prior to the 1993 law (P.L. 103-40). Senate report 103-27 incorporated it into *GPO Access*.

Background & History

- 1989 - Started under Project HERMES: Supreme Court opinions placed online
- 1992 - Reworked to deliver files for fee via the Federal Bulletin Board. Files were priced based on file size. All users needed a password and account approval.

- December 1995 - All *GPO Access* products were made free to the public. November 1995, Internet access offered.
- May 1996 - FBBS made available via the Web

Features

- Some agencies use it to meet Americans with Disability Act (ADA) requirements. (Example, MSPB Summaries)
- Provides modem access to all levels - supports speeds of 300 - 33,600 BPS
- Internet - FTP, Telnet, WWW
- Supports *GPO Access* with source files, sample questions and helpful hints
- Quick way to make information available via the Web; can also be a secure way

Alternative way to meet employee needs, e.g., forwarding e-mail; file sharing

Who uses the FBBS?

Organizations and/or individuals who:

- Do not need (or do not have) real-time connectivity to the Internet (or a modem).
- Need a quick, inexpensive way to deliver (or retrieve) a single, downloadable file
- Want e-mail capability

- Download files and exchange/or post messages.

- Office of Foreign Assets Control (OFAC)
- Environmental Protection Agency (EPA)

FBBS Customers

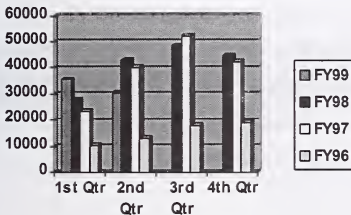
- General Public
- Federal Depository Libraries
 - Shipping Lists, List of Classes, Profiles Database
- GPO Internal Customers
 - Library Program Service (LPS)
- Client Agencies:
 - Merit Systems Protection Board (MSPB)

Top 20 Libraries, FY 1999

Library	Total
1. Shiplist98	7,318
2. Shipl99	5,411
5. Shipl97	3,834
6. Mfiche98	3,734
7. Class	2,634
10. Paper99	1,886
12. Mfiche99	1,157
18. Separate98	72

FBBS Usage Statistics

Downloads by Fiscal Year



	1 st Qtr	2 nd Qtr	3 rd Qtr	4 th Qtr
FY99	35,660	30,361	0	0
FY98	28,052	43,033	48,680	44,560
FY97	23,397	40,467	52,200	42,651
FY96	10,325	12,954	18,045	19,196

Helpful Hints

- Contact the systems operator about problems with the system - connecting, downloading, etc.
- Contact the agency representative or library operator with problems or questions about file content
- Refer to available online guides about adding helpers, readers, etc. to Web browsers
- New software version offers an online keyword search capability

Access to the FBBS

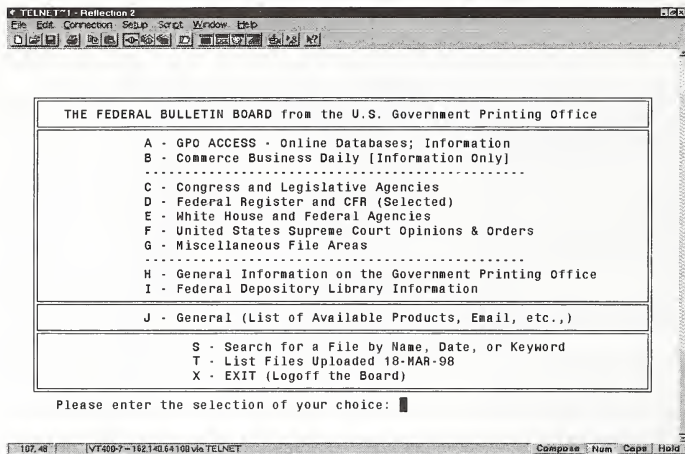
- Dial-up: (202) 512-1387
Settings: 8, N, 1
- Telnet: fedbbs.access.gpo.gov
- FTP: fedbbs.access.gpo.gov
- WWW: <http://fedbbs.access.gpo.gov>

Main GPO Access Web Sites:

- GPO: <www.access.gpo.gov>
- SuDocs: <www.access.gpo.gov/su_docs>

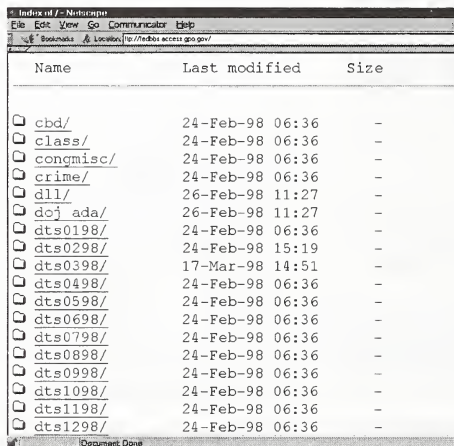
Telnet or Dial-up Screen

Telnet Address: fedbbs.access.gpo.gov Modem Number: (202) 512-1387



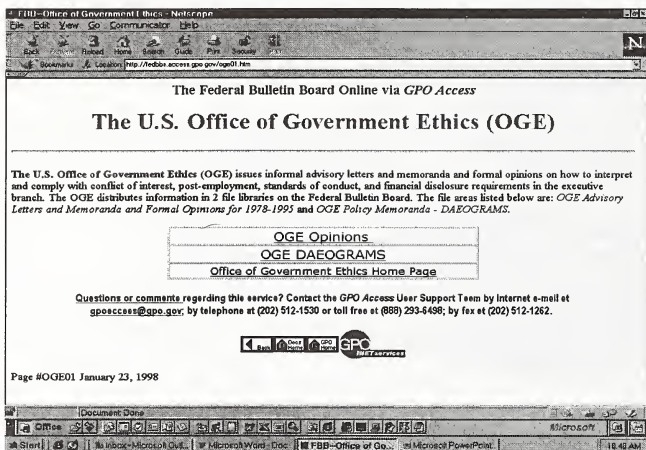
FBBS: FTP Screen

FTP Address - ftp://fedbbs.access.gpo.gov



FBB: Sample Agency Web Page

URL – <http://fedbbs.access.gpo.gov/oge01.htm>



User Support

GPO Access User Support Team

Toll-free and local telephone:

- Local: (202) 512-1530
- Toll-free (888) 293-6498
- Fax: (202) 512-1262
- E-mail: gpoaccess@gpo.gov
- Hours: 7 a.m. – 5 p.m., Monday-Friday, excluding all Federal holidays

Summary

- A component of GPO Access (Public Law 103-40)
- Existed since 1990 (prior to GPO Access)
- Systems Operator - Selene Dalecky, (202) 512-1608
E-mail: sdalecky@gpo.gov

- LPS Library Operator - James Mauldin, (202) 512-1698
E-mail: jmauldin@gpo.gov

- User Support - Provided by the GPO Access User Support Team via e-mail (gpoaccess@gpo.gov), phone toll-free at (888) 293-6498 or local at (202) 512-1530.

Manipulating the Files

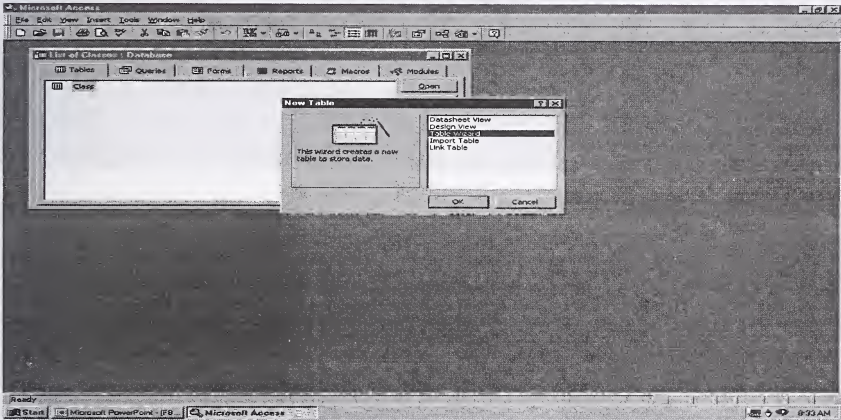
Examples
Hints
Exporting/Importing Data

Designing a database

- Before you use any software to actually build the tables, forms, and other objects that will make up your database, it is important to take time and design your database. A good database design is the keystone to creating a database that does what you want it to do effectively.

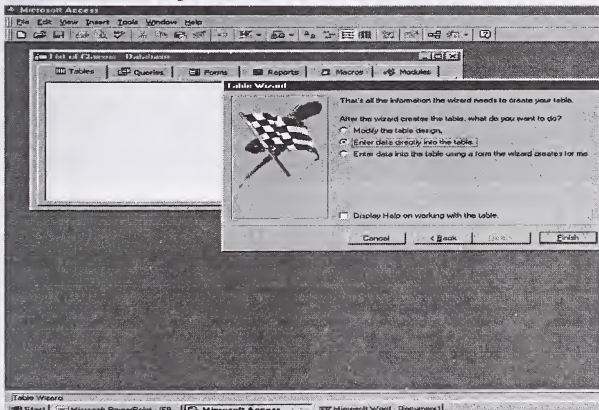
Hints for Database

- Determine the purpose of your database
- Determine the tables you need in the database
- Determine the fields you need in the tables
- Identify fields with unique values
- Determine the relationship between tables
- Refine your design
- Add data and create other database objects

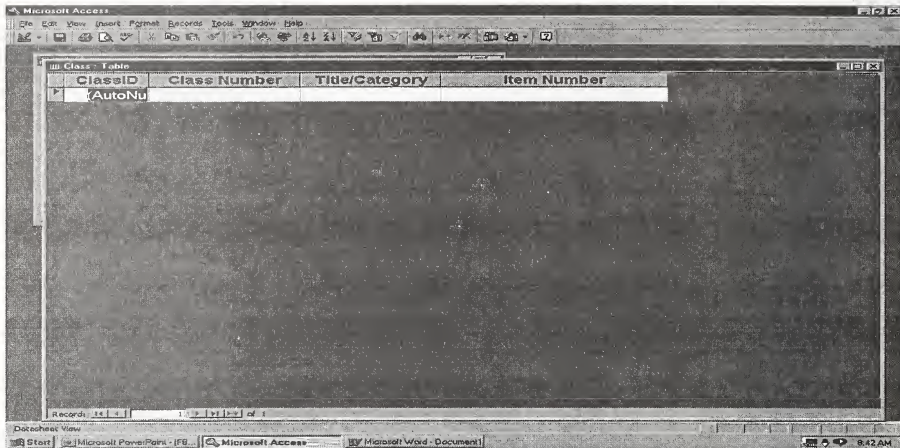


Example - Creating a database

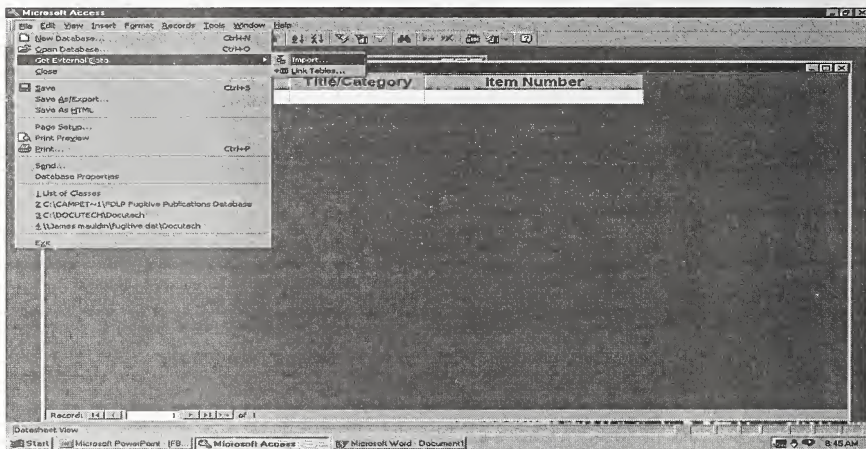
Create field headings



Headings for a List of Classes database



Importing the List of Classes into your database



List of Classes database

Class Number	Title/Category	Item Number
	Annual Report (MF)	0006
A 1 173	Annual Report, Office of Inspector General (MF)	0006 G
A 1 174-2	Annual Report on the Food and Agricultural Sciences (MF)	0006 J
A 1 174-3	Appraisal of the Proposed 1998 Budget for Food and Agricultural Sciences: Report to the President and Congress (MF)	0006 N
A 1 175	Report on USDA Human Nutrition Research and Education Activities: A Report to Congress (Annual) (MF)	0006 J

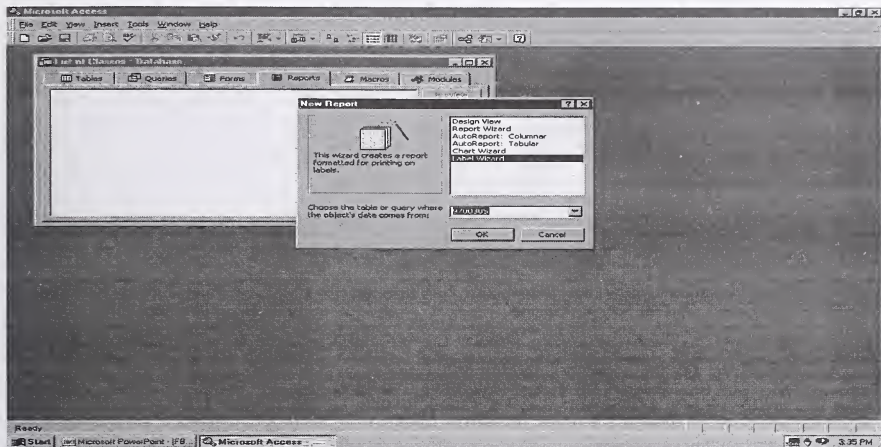
Records: 14 of 14
 1 of 14 records of 9372
 Print View

Shipping list database

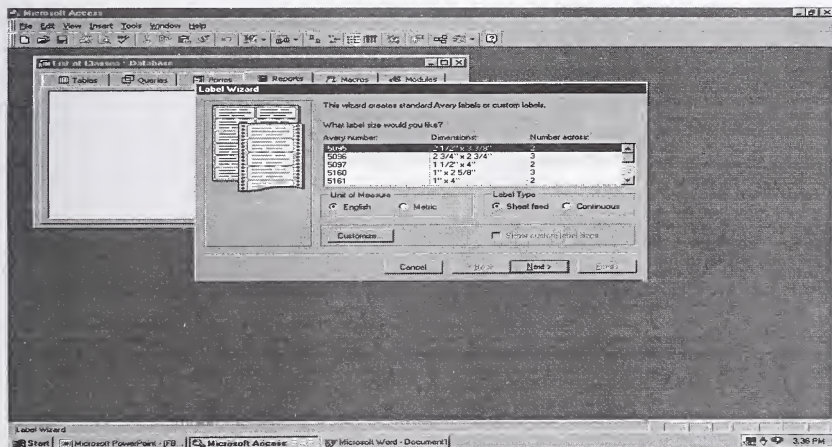
CLASSNO	TITLE	ITEMNO	LISTNO	LISTDATE
82-1127 (83)204	United States - Great Lakes, Michigan - Indiana - Illinois, Recreational Chart	0191-B-16	970285	970321
HE 20 3952 N 66.PACK	National Institute on Drug Abuse, Student Magazine, If You Choke Your	0467-A-01	9700285	970321
V 1 112 SERIAL 14074	102-1 United States Congressional Serial Set, House Reports Nos. 61-106	1006-E	9700285	970321

Records: 14 of 14
 1 of 14 records of 8
 Print View

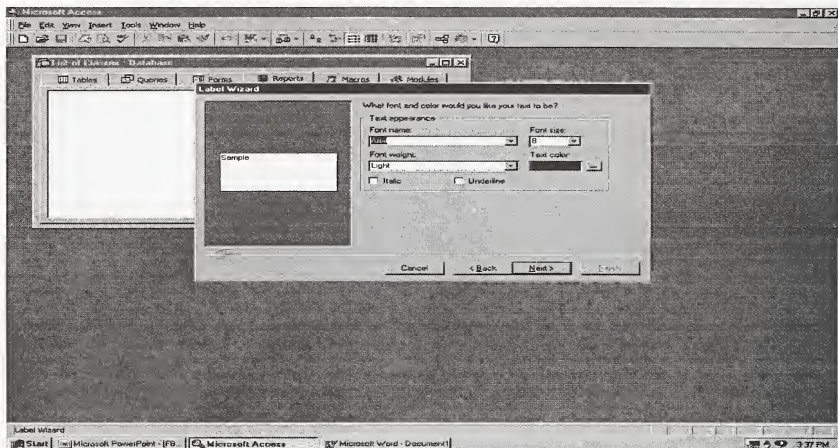
Labels



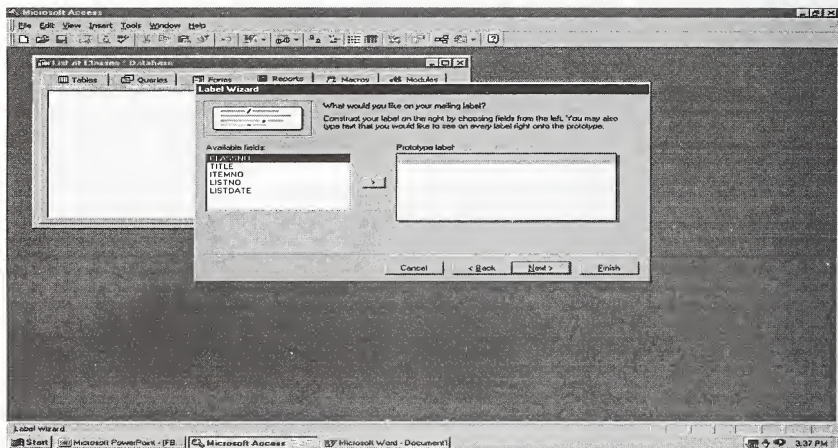
Select label format



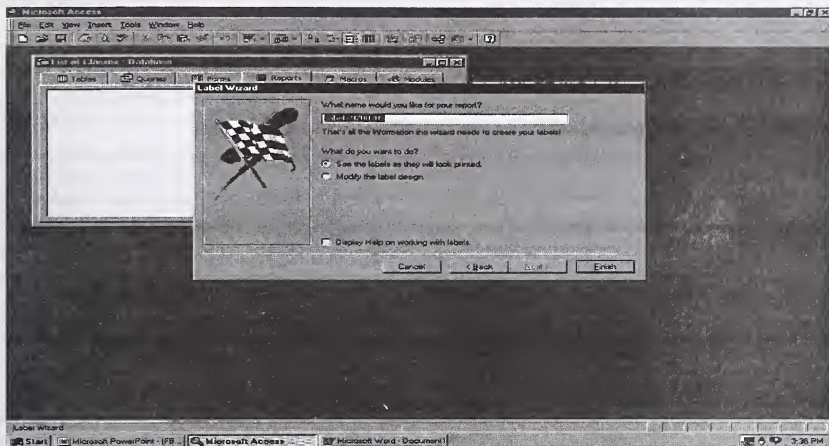
Select font & appearance



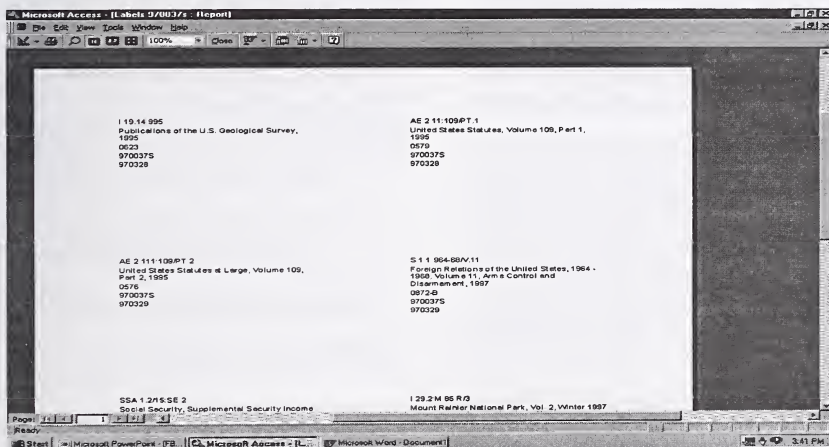
Select fields to print out on label



Enter name of label strategy



Example of a shipping list label



Summary

- The files contained on the FBBS can be manipulated to provide local value added services to each library or individual who chooses to download these files.

Questions/Contacts

- James Mauldin (Publications Management Specialist)
- Phone: (202) 512-1698
- E-mail: jmauldin@gpo.gov

How to Manipulate Federal Bulletin Board Files

David J. Nuzzo

State University of New York, Buffalo
Buffalo, NY

The Acquisitions Department at the University at Buffalo took over processing of government documents in 1992. Various techniques were used to automate processing in those early days, utilizing dBase III and word processing.

In 1996, a QuickBasic program was created that took scanned shipping lists, automatically checked them against the library's inclusion list, and produced labels for those included items. The University at Buffalo joined with the University of Texas at Arlington (UTA) to make the matching programs and scanned shipping list files available to all through the Internet. Thus began the first official partnership between GPO and member institutions for distribution of processing tools.

The site changed with the arrival of shipping list data availability on the Federal Bulletin Board, and changed again when UTA chose to leave the partnership. The programs and files can now be found at: <<http://ublib.buffalo.edu/libraries/units/cts/acq/gpo/>>.

The University also undertook a document scanning initiative, wherein library staff take documents of general interest and scan them, making the scanned images available through the online catalog, and also through a "popular index." Access is also provided to documents that are already available in electronic form from the agency if they fit the criteria. The popular index can be found at: <<http://ublib.buffalo.edu/libraries/units/cts/acq/doctab.html>>.

Writing the Depository Self-Study

Gail Snider

U.S. Government Printing Office
Washington, DC

Stephen Henson

Louisiana Tech University
Ruston, LA

Background

A recommendation from the spring 1994 meeting of the Depository Library Council suggested the LPS (Library Programs Service) re-examine the depository inspection process. As part of this process, LPS developed a draft of a self-study to be used by depository libraries. Throughout 1995 and 1996, LPS asked libraries scheduled for inspection to complete the self-study report voluntarily. As part of the "Federal Depository Library Program Information Dissemination and Access Strategic Plan, FY 1996 – FY 2001," LPS modified the focus of the inspection program. Under the re-directed program, inspectors would visit those libraries that satisfy at least one of four criteria:

- The library did not meet depository standards established by GPO.
- The library had never been inspected.
- The library requested a site-visit from an inspector.
- The library reported exemplary services or accomplishments, including a new building.

In June 1996, LPS adopted the self-study instrument as an evaluation tool for use by depository libraries. Each depository library will submit a self-study report to LPS, which will determine the libraries that will be inspected. The basis for inspections is

specified in 44 U.S.C. §1909, which states that "the Superintendent of Documents shall make firsthand investigation of conditions [in depository libraries] for which need is indicated."

In September 1996, LPS issued the Federal Depository Library Manual Supplement 3: Self-Study of a Federal Depository Library. A revised version of this manual is available on the FDLP Web site <www.access.gpo.gov/su_docs/dpos/selfstud.html>. The Web version is the official text of the self-study template and supersedes the printed manual.

In the preface to Supplement 3, LPS gives two primary purposes for the self-study. The first is to give the documents librarian as well as the library administration an opportunity to assess the library's compliance with Title 44, Chapter 19, and other GPO regulations in advance of an inspection visit to determine the library's compliance with Title 44, Chapter 19, and other GPO regulations.

Secondly, the self-study report can help the documents staff and library administration determine how the library is addressing issues such as the collection development policy for documents, the library's compliance with ADA standards, and public access to depository material in print and electronic forms.

Another use of the self-study can be to inform and educate library administrators, trustees,

city officials, or college administrators about depository needs.

The library can do a self-study at any time, not just when requested by GPO. The self-study report can also be used for library or other institution accreditation.

The depository self-study is now an integral part of the inspection process. Each year, LPS requests self-study reports from a group of depository libraries based on the date of the last on-site inspection. In writing the self-study, librarians are faced with the challenging task of describing on paper the depository operation in a library.

Time Line for the Self-Study and Inspection

The following time line gives the approximate sequence of the self-study and inspection process.

- Immediate action. The documents librarian should begin gathering documentation and drafting answers to the self-study.
- 6 months before the due date. Informal notification and announcements at professional meetings and in Administrative Notes of depository libraries that will be required to submit a self-study to GPO in the upcoming inspection – self-study cycle.
- 3 months before the due date. LPS formally notifies libraries via a letter to the documents librarian to submit a self-study report.
- 3 weeks before the due date. The documents librarian should finish drafting answers and begin editing the self-study report.
- 2 weeks before the due date. The documents librarian should finish editing the report and the library administrator should sign it.
- 1 week before the due date. Documents librarian should mail the self-study report and addenda.
- Due date set by LPS. Libraries are notified if a self-study was not received by GPO from them.
- During the next 3-months, library inspectors group the self-studies by state and review them.
- 6 weeks before an on-site inspection. Depository library candidates for inspection and their Regional are notified and inspection dates set.
- 4 weeks before an on-site inspection. The documents librarian being inspected and their Regional librarian will receive a report titled “Self-Study Evaluation: Summary of Findings and Recommendations” with a confirmation letter and a copy of the pamphlet “How to Prepare for a Library Inspection.”
- 4 weeks before on-site inspections of depositories in each state to 8 weeks after, documents coordinators and directors of each depository library not being inspected in that state and their Regional librarian receive a report titled “Self-Study Evaluation: Summary of Findings and Recommendations” and a letter confirming they have passed GPO’s inspection process based on their self-study.
- 6 to 8 weeks after an on-site inspection, the documents coordinator, library director, and the Regional librarian will receive a copy of the report titled “Inspection Report: Summary of Findings and Recommendations” based on their on-site inspection.

Preparation

Generally, the LPS staff will give the documents librarian three months' notice to prepare the self-study. In the typical depository library, the documents librarian will find that the initial self-study report will take longer than three months to complete. Depending on changes in the self-study format and the library, later self-studies may be completed faster.

A. Gather Documentation

Before writing the self-study, the documents coordinator should gather documents that relate to the depository operation.

- Previous inspection reports. If the depository has been inspected previously, these will indicate weaknesses as well as strengths previous inspectors have identified. If previous inspection reports are missing from the depository's files, contact the Regional or LPS.
- Departmental or library annual reports. These can provide previously stated goals and list accomplishments. Annual reports may also include statistics.
- The library's collection development policy for Federal Government documents. This important document should indicate which subject areas the library collects and provide a rationale for those decisions. Information about writing or revising the documents collection development policy is presented in the Federal Depository Library Manual Supplement: Collection Development Guidelines for Selective Federal Depository Libraries (September 1994), <www.access.gpo.gov/su_docs/dpos/coldev.html>.
- Policy and procedures manuals related to the depository operation processed.

- The library strategic plan. This should describe the role that the depository collection plays in the larger context of the library as a whole.
- Other institutional documents, such as library collection development policies or other publications that influence the documents collection.

B. Notify Appropriate Stakeholders

Communication with appropriate stakeholders is an important key to writing a good self-study.

- The library administration. Communicate with the library's administration about the importance and implications of the self-study. Explain the procedure for the self-study. Enlist the administrator's support in the process. Explain that writing the self-study may take time away from other activities.
- The documents support staff. These individuals can contribute valuable knowledge of the self-study process. The support staff may be able to write some sections of the self-study.
- The Regionals. GPO will notify the Regionals about which libraries under their purview must turn in a self-study. The Regional may have a workshop on writing the self-study.
- Geographically proximate depositories. Generally LPS will request self-studies from most or all depositories in a state at the same time. Neighboring depositories can provide collaborative assistance in writing the self-study. E-mail is a good way for depositories to communicate about the self-study.

C. Set Deadlines and Meet Them

The prudent librarian will allow plenty of time to do the self-study. The report will take longer than a week to write. Early in the drafting phase of the self-study, set a completion date that is at least 2 weeks before the report is due to LPS. After completing the draft of the report, set it aside for a few days, then re-read it for omissions and inconsistencies. Try reading it from the viewpoint of someone who is not familiar with the library's depository operation or the depository staff. If possible, ask someone outside the library to read the report.

D. Check Computer Equipment

Writing the self-study report is a major investment of time and energy for the documents librarian. Before writing the answers, the documents librarian should download the text of the **current** self-study questions from the FDLP Web site. If computer equipment does not meet minimal technical standards, the depository may not be able to download it. Then the Regional can furnish a copy of the current self-study. Discard older versions of the template to avoid confusion. Be certain to have a secure copy of the report so no one, either library users or staff, can type over or inadvertently erase an only copy.

Writing the Self-Study

The process of writing the self-study calls on the skills of technical writing: creating, designing, and transmitting technical information so that people can understand it easily and use it appropriately. (Markel, p. 2) While all of us write policies, procedures, training manuals, and even self-studies, few of us have had formal training in technical writing. Most of us learned by doing and by making mistakes along the way. For those depository librarians faced with writing the self-study, we have some suggestions that we think will facilitate the process for the librarian and

also improve the readability of the self-study report.

A. Format

The structure of the report is important. By deciding in advance how the report will be laid out, the documents librarian can save time later. The finished report should include the questions with the answers inserted. This format is easy to do using word processing software

Decide in advance on several factors:

- **Font.** A very small (8 point or less) or very large (14 point or greater) font size is not appropriate. The smaller font is difficult to read while the large font makes the report larger than need be. A font of the same size as the template (12 point) is ideal.
- **White space.** Create a visual difference between the questions and the answers on the self-study report. Double space between the question and the answer to provide white space.
- **Value.** Another way to differentiate between the questions and answers is through the use of bold, italic, or regular type. Consider using bold or italic type for the questions and regular type for the answers

B. Audience

Defining the audience will help shape the report. Consider the audience for the self-study report:

- The GPO inspection team. They will evaluate your report and determine if further information or action is needed. Because each inspector has worked in a depository library, he or she is familiar with the best practices of depository management. The inspectors will

recognize poor management techniques as well as attempts to obfuscate. In addition, the inspectors are reading dozens of self-study reports each year. The documents librarian should have some compassion on the inspectors and make the self-study as easy to understand as possible.

The self-study supplants the on-site inspection report for many depository libraries and will serve as a record of depository operations for that time period. It will go in the depository's files at GPO and its Regional library and be a main reference tool for information on that library.

- Library administrators and officials. Administrators, library's board members, college or university officials, or others who use this and other similar reports from institutions as a measurement of where their institution is at the time.
- Documents department staff. The self-study report creates a snapshot of the department. The self-study can be a tool for learning about the department, and refreshing knowledge about GPO requirements. Each question has been included in the self-study for a reason. The writer may want to ask, "Why is this question here?" "Where is this topic addressed in depository literature?" before answering it.

C. Writing Style

A well-written self-study will be clear, concise, and consistent.

- Clear. The reader must be able to understand the answers presented in the report; therefore, the writer should present an answer that is clear, logical, and unambiguous. Answers written in the active voice tend to be clearer than those in the passive. Where possible, write the answers in the active voice. Local

acronyms and terms can confuse the reader. Explain any acronyms or local terms to avoid confusion.

- Concise. The writer often has a difficult time knowing how much detail to include in an answer. A concise answer to a question on the self-study will be long enough to include all relevant material without floundering in details. Depending on the circumstances, a concise answer may be as short as a couple of sentences or as long as a couple of pages. The length of the answer is not as important as the completeness of the answer.
- Consistent. The writer (the documents librarian) should help the reader (the GPO inspector) to understand the report by presenting the material in an appropriate and predictable manner. Put the report away for a couple of days, then read through it again looking for inadvertent inconsistencies.

D. Finishing Touches

After all the hard work that goes into writing the self-study, the documents librarian will want to present the results in a professional-looking format.

- Cover page. The report should have a cover page following the self-study template. It should include the library and institution's name, location, zip, depository and U.S. Congressional district numbers, the names of the library director and documents librarian, phone and fax numbers, e-mail address, and the date the self-study was submitted.
- The date it was written should be someplace on the report.
- Contents page. The contents page should list the major sections of the self-study. A well-organized contents page can help the

inspection team understand the scope and organization of the self-study. In addition, the contents page can serve as a checklist to remind the documents librarian to include all relevant parts of the self-study. The complete self-study package should include the following parts:

- Cover sheet
 - Contents page
 - Text of the report
 - Addenda (as described in the following section)
- Staple the report. An elaborate binder is not necessary and takes up limited file space at LPS. The addenda can be paper clipped or stapled to the main body of the report.
 - The average self-study is 20-25 pages, with an additional 10 pages of addenda. However, the larger and more complex the depository operation in a library, or more changes that must be described, the longer and more complicated the self-study report will be.
 - Make 3 copies of the finished report. Send one to LPS, one to the Regional, and keep one in the files. Make sure a copy is sent to the Regional as well as GPO at the same time.
 - Allow at least one week for mail or package delivery.

Suggested Addenda to the Self-Study

There are several items that should be attached as addenda to the self-study report. The text of the self-study asks the librarian to include 6 specific documents. The 6 required attachments are:

- The written collection development policy for Government documents (Section I, Question 5)

- The library's access policy for users of depository material (Section IV, Question 1).
- The procedures manual for processing documents (Section II, Question 5).
- The binding policy for documents (Section III, Question 1).
- The replacement policy for documents (Section III, Question 2).
- Selective housing agreements, if any.

Other attachments are optional but often helpful:

- a map of the library with locations of the documents service points, offices, and other items mentioned in the self-study.
- An organization chart of the library showing the position of the documents librarian in the library administration.
- Annual reports for the documents department. Five years of annual reports are usually sufficient.
- Position descriptions for the documents librarian/s and staff who process depository material.
- Other documents and material that will help the inspection team understand the self-study.

Common Errors

The inspection team has identified several problems that the careful writer will want to avoid.

- Incomplete answers. Writers often do not include enough information in the answers. Each answer should provide all relevant

information that the inspection team needs to understand the situation.

- Misleading information. Writers sometimes give a misleading answer because they have not read what they have written carefully, do not understand the question, or do not fully explain terms, such as acronyms or local terminology.
- Overlooked or ignored questions. The documents librarian must answer each question in the self-study or explain why the question is not applicable to the library's situation. Check the completed report to be certain that no questions were overlooked.
- Answering questions with "yes" or "no" without an explanation. The answers to most yes/no questions should include an explanation. For some a sentence will suffice, others will need several paragraphs.
- Discrepancies between the library's self-study, access or other policies, and/or information on the Web page.
- Specifically troublesome questions have been:
 - Section I, Question 1, identifying titles from the "Basic Collection" that are available in the depository. Each title can usually be answered with a check if received. If not received, or received in an electronic or commercial version, this should be noted.
 - Section I, Question 8, identifying current indexes. The librarian should mark only those titles the library currently purchases. Electronic equivalents should be noted. Do not mark items received at a nearby depository.

- Section II, Question 1 describing recording items to the piece level. Each format should be addressed. Actual procedures do not need to be included as much as a description of how each format is handled. Include a description of what information is available on the check-in record. Many depositories have over time used a variety of techniques (card files, computer databases, or on-line check-in) to record depository receipts. Be certain to describe each component in the library's holdings record.

While challenging, writing the self-study can be a valuable experience for the documents librarian. The self-study process gives the library an opportunity to closely examine all aspects of the depository operation in a library at the depository coordinator's pace and from his vantage point. The self-study will identify weak areas where the library can improve services. At the same time, the report will identify areas of strength where the library should continue to offer optimum services. After completing the self-study report, the depository library will have a baseline of knowledge the depository staff has created on which administrators and librarians can take steps to improve the delivery of Government information to library users.

Citations

The article by Henson cited below includes suggestions on writing the self-study. In addition, most libraries will have books on technical writing. These books may include other suggestions that will be useful in writing the depository self-study.

"Exhibit 1: Federal Depository Library Program: Information Dissemination and Access Strategic Plan, FY 1996 – FY 2001," Report to the Congress, Study to Identify Measures Necessary For a Successful Transition To a

More Electronic Federal Depository Library Program (June 1996) GP 3.2:EL2/3/FINAL. pp. E10-E11.

Federal Depository Library Manual Supplement 3: Self-Study of a Federal Depository Library (September 1996) GP 3.29:D 44/993/supp. 3 www.access.gpo.gov/su_docs/dpos/selfstud.html

Henson, Stephen, "Readers Exchange: Hints on Writing the GPO Self-Study," Administrative Notes, v. 18, no. 14, (November 15, 1997), pp. 9 - 12. www.access.gpo.gov/su_docs/dpos/ad111597.html

McGarr, Sheila M., "Self-Study of a Depository Library Progress Report," Administrative Notes, v.18, no. 8, (May 15, 1997), pp. 27 – 30. www.access.gpo.gov/su_docs/dpos/ad051597.html

Markel, Mike. Technical Communication: Situations and Strategies. 4th ed. New York: St. Martin's Press, 1996.

Snider, Gail, "Self-Study: Review and Follow-Up," Administrative Notes, v.18, no. 8, (May 15, 1997), pp. 31 – 34. www.access.gpo.gov/su_docs/dpos/ad051597.html

Department of Veterans Affairs Internet World Wide Web Server

Walter Houser

Department of Veterans Affairs
Washington, DC

Overview

The Department of Veterans Affairs (VA) Internet World Wide Web (WWW) server is a worldwide resource that provides information on VA programs, veterans' benefits, VA offices worldwide, and VA medical automation software. Since September 1994, the VA WWW has served several major constituencies including the veteran and his/her dependents, veterans service organizations, the military, the public, and VA employees around the world. During the month of February 1999, the VA WWW provided 2.4 million document views in nearly 325,000 sessions. There are over 150,000 documents on the server.

This WWW service is available 24 hours a day, 7 days a week, to veterans via the Internet. Internet mail is also available to allow veterans to make specific inquiries and receive official responses from VA staff. These documents are easily accessible and richly linked from their table of contents, as well as searchable by a keyword. Personnel across the Department have made substantial contributions to the high quality of this Web site.

VA's home page at <www.va.gov> is the product of Department-wide cooperation, with contributions from the Veterans Health Administration (VHA), the Veterans Benefits Administration, the Board of Veterans Appeals, and the Offices of Public Affairs, Planning and Analysis, Information Resources Management, Finance, and Acquisition and Materiel Management. Since the inception of the Web site, VHA has provided the hardware platform

and system software, permitting program offices to have a Web presence without the costly overhead of a production facility.

Meeting Our Customers' Needs

VA is committed to using <www.va.gov> to meet the needs of our external customers: veterans, dependents, veterans service organizations, and citizens. The following is a summary of the major sources of information that are available on the VA Web Server:

- **VA Forms** - VA posts forms on the Internet, makes them interactive, and tests them for accessibility and print quality. Currently, most electronic forms on the server have to be printed and completed manually. VA is adding interactive fields and controls to these forms, as well as formatting them so that the Web search engine can locate them with greater reliability.
- **Veterans Service Organization Database** - This database provides employees, veterans, and the public with details of dozens of veterans organizations at both the national and state level, including, when available, links to the electronic services of each VSO.
- **Federal Benefits Manual for Veterans and Dependents** - A general directory of resources and eligibility information, as well as detailed organizational listings of VA Central Office, and all VA benefits and healthcare field facilities.

- **What Are My VA Benefits?** - A collection of current fact sheets on frequently asked questions related to VA compensation and pension, insurance, home loan & sales, and education benefits.
- **Boards of Veterans Appeals Decisions 1994-97** - Over 75,000 decisions of the Board are available for searching. This is a convenient tool used by veterans and veterans service organizations to research the Board's findings to determine claim precedent.
- **1-Stop Customer Service Inquiry Page** - The VA customer service team answers electronic mail messages from veterans and other members of the public. Where to Go For Help - VA list of toll-free phone numbers for the convenience of veterans and dependents, including VA benefits, life insurance, debt management center, CHAMPVA, headstones and markers, Persian Gulf Hotline and telecommunications devices for the deaf.
- **Facilities and Leadership Directory** - contains a complete list of all VA facilities complete with addresses and telephone numbers, a profile of each medical center and pictures of many facilities.
- **VA Research** - A Research Projects Database containing approximately 1,400 records of currently active VA-funded research programs and projects and is updated quarterly.
- **VA GILS** - The Government Information Locator System (GILS) is a "virtual card catalog" providing pointers to VA-held information dissemination products, such as books, publications, studies, automated information systems, and Privacy Act Systems of Records.

Server Usage Patterns Are Evolving

Over the past 12 months, the number of sessions per month has leveled off at 330,000. During this period, both the Veterans Benefits Administration and the National Cemetery Administration have established their own Web servers and sites, drawing their respective clientele toward these services. Likewise, numerous VA medical centers and regional offices have set up their own Web sites offering both general and specialized sources of information. As program offices become more experienced and their services more sophisticated, the value of independent operations becomes more apparent. However, the hypertext links on Web pages enables seamless movement from one site to another. So new Web sites and services can be readily incorporated into existing Web pages, allowing customers to move smoothly through the entire virtual VA.

A session is the series of Web pages attributed to a given user or a personal computer. A session identification code is created in the visitor's browser cookie file for the purpose of generating this usage data. VA does not collect these files; nor do these files contain any personal identifying information on Web site visitors. When the cookie expires after 24 hours, the next contact with the Web server creates a new cookie and a new session. Hence, an individual may create several sessions in a given month.

Although the number of sessions is steady, the number of hits sharply increased in the fall of 1998. A hit is the downloading of a Web page or image associated with a Web page. A single page can generate multiple hits; the more images and other objects on the page, the greater the number of hits. This effect can be somewhat mitigated by careful Web page coding.

A large number of page objects is not necessarily undesirable. We have undertaken

to improve navigational aids, resulting in a greater number of images. Furthermore, certain showcase applications will involve a large number of images and sound files. These applications demonstrate the leading edge of Web technology, encouraging management support for further initiatives. Nevertheless, care must be taken to provide low tech alternative sites for bandwidth-challenged users.

Along with the hit rates, session lengths also rose sharply last fall. This suggests that VA customers were visiting more pages, or that VA's pages were becoming more complex, or both.

Issues Facing VA Webmasters

Electronic Records Management - Agencies have come to depend on electronic versions of policies and procedures found on their Web sites and those of other agencies. Agencies with many field stations cannot afford one or more clerks at each site to organize this information on paper. Web sites may become the cornerstones of agency record keeping. Paper documents are being converted to electronic media to allow full text indexing and searches, computer-assisted quantitative and qualitative analysis, hyperlinks to related documents and files, and support access from anywhere in the world.

Government Paperwork Elimination Act (GPEA) - GPEA provides authority for acquisition and use of alternative information technologies as a substitute for paper and for the use and acceptance of electronic signatures. OMB in consultation with the National Telecommunications and Information Administration is to develop procedures for the use and acceptance of electronic signatures not later than 18 months after enactment of the GPEA. Also, not later than 18 months after enactment, OMB is to develop procedures for private employers to store and file electronically with Executive agencies forms

containing information pertaining to their employees.

Not later than five years after enactment, Executive agencies are to provide for the option of the electronic maintenance, submission or disclosure of information, when practicable, as a substitute for paper. OMB issued draft guidelines for comment. These guidelines provide a road map for agencies to follow in implementing GPEA. Agency Webmasters will play a key role in the implementation of this legislation.

Public Key Infrastructure - Presently, the cachet of the agency domain name provides the first and often the only authentication for Web documents. The framers of GPEA understood that the Federal Government needs to implement a public key infrastructure that private industry supports. Moreover, Webmasters need effective technology for documenting the custody and online maintenance of electronic documents. We must be able to determine with certainty who did what to a document, and when.

Relying on the Web for authoritative documentation is easy and relatively cheap. Although a bargain for the agency as a whole, control and integrity of the electronic records are neither easy nor cheap. If official records appear on Web sites, keepers of the sites will have to limit privileges to those with the appropriate rights.

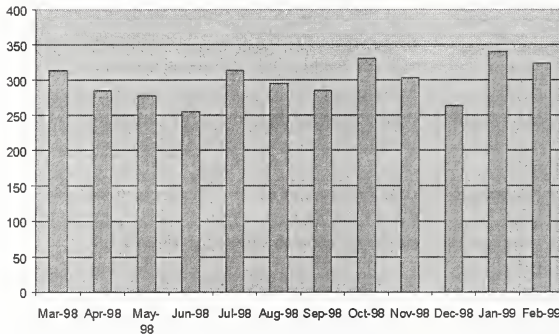
Access for the Disabled - VA is addressing access for the disabled on VA Web sites. VA has 481 visually-challenged employees. VA statistics show a veteran population of over 100,000 with some visual disability. Web page authors need to understand the value they add for the blind when they use text to describe their graphics. Moreover, the blind have difficulty completing forms online on the Internet. Scanned photocopies of forms are not readily interpretable by the software that the blind use to read text.

Conclusion

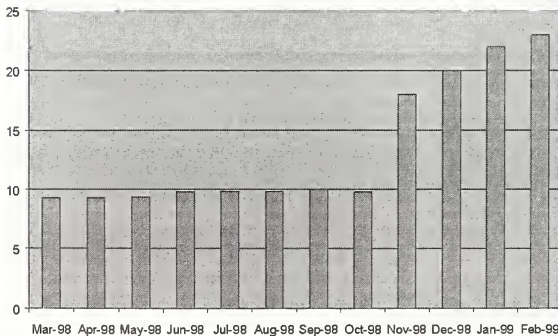
VA program and staff offices have come to rely on Web-based communications, mirroring the explosive growth of the World Wide Web. The ability to publicize special emphasis services, policies, standards and other offerings of the Department has been an unqualified success in achieving the immediate goals of each effort and in advancing VA's presence as a service driven agency. The speed with which

major issues can be disseminated for the widest possible dissemination is of great importance and value as new initiatives and topics emerge. The Department's management and staff now think of <www.va.gov> as one of the most effective means of getting the news out. The agency's and Webmaster's challenge is to deliver on this expectation.

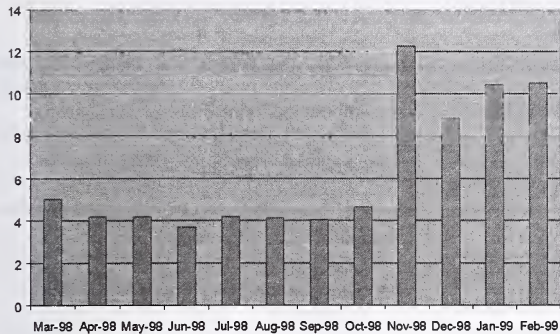
Number of User Sessions (in Thousands)



Average User Session Length (in Minutes)



Number of Successful Hits for Entire Site (in millions)



National Climatic Data Center

John Hughes

National Climatic Data Center
Asheville, NC

Department of Commerce Organization Chart

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Environmental Satellite, Data, and Information Service
National Geophysical Data Center
National Oceanographic Data Center
National Climatic Data Center

Mission

Archive, Access & Describe
Manage Global Environmental Data

Acquire / Ingest

- Access
- Archive
- Standards
- Certify
- Quality Control
- Analyze

National Partners

- NASA
- DOD
- EPA
- USDA
- DOE
- DOS
- DOT / FAA
- USGCRP
- NSF
- DOI / USGS
- NOAA (NOS, NWS, NMFS)

International Partners

- World Meteorological Organization
- International Council of Scientific Unions
- World Data Centers
- Bilateral Agreements
- Intergovernmental Panel on Climate Change
- UNESCO

Climate Data & Information

Climate Description / Reference Data Bases / Access

Scope of the Mission – National & Global

“Supporting the development of the national economy in a global environment since the mid-1900’s.”

All disciplines of the national economic infrastructure

Making the U.S. economically competitive

- Consumer goods
- Investments
- Communications
- Construction
- Aviation
- Transportation
- Agriculture
- Energy
- Insurance & Reinsurance

National Security

Policy

Sustainable development

Applications of NCDC Data by Industry Group

Consulting Meteorologist - Provide expert testimony in court

Legal - Evidence in court cases

Insurance Industry - Rate determination, claims settlement

Individual - Use in recreation, retirement, entertainment, vacations

Engineering - Provide guidance in the design and construction of facilities / infrastructure

Business - Sales impact, site relocation, environmental impacts

NOAA / Government - Research, investigations, legal, claims, risk management, policy guidance/support, etc.

Research - Environmental issues, science studies, weather prediction, etc.

Digital Data Archive

NCDC's digital holdings would fill 1,000,000 CD-ROMs

- 60 times the volume of data held by the Library of Congress, or
- a stack of CDs equal to the height of five Empire State buildings

Non-Digital Data Archive

Manuscript/Autograph

200 Million pages = 37,878 miles (1.5 times around the earth)

35mm & 16mm Film

125,129 rolls = 2,340 miles
(Washington to Los Angeles)

Microfiche

1.2 million pages = 114 miles
(Washington to Philadelphia)

Depository Library Program

All Government agencies are required to participate under U.S. Code Title 44 - Public Printing and Documents

Chapter 19 - Depository Library Program

Section 1901. "Government Publication" means informational matter which is published as an individual document at Government expense, or as required by law

Section 1902. Government Publications, except those determined by their issuing components to be required for official use only or for strictly administrative or operational purposes which have no public interest or educational value and publications classified for reasons of national security, shall be made available to depository libraries through the facilities of the Superintendent of Documents for public information

NCDC furnishes copies of all serial publications

- Climatological Data (45 states, some combined)
- Local Climatological Data (270 cities)
- Hourly Precipitation Data (44 states, some combined)
- Storm Data (all states in one issue)
- Monthly Climatic Data for the World (all countries in one issue)

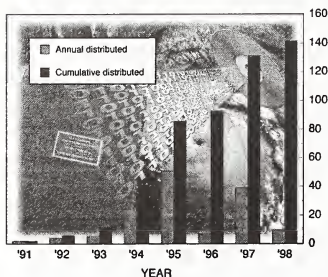
Also NCDC Data sets on CD-ROMs

Copies distributed initially in paper form

In the mid 80's some libraries accepted microfiche

Climatological CD-ROMs

Quantity of climatological data distributed On CD-ROMs (terabytes)



NCDC CD-ROMs

CLIVUE

Coastal Marine Automated Network Station and Buoy Reports and Summaries

Global Climate Normals 1961-1990

Global Daily Summary

Global Historic Fields Version 1.0

Global Tropical and Extratropical Cyclone Climatic Atlas Version 2.0

Global Upper Air Climatic Atlas

Hourly U.S. Weather Observations 1990-1995

International Surface Weather Observations

International Station Meteorological Climate Summary Version 4.0

MM4 Meteorological Data

NCDC Cooperative Station Data

NOAA Weather Charts

National Climatic Data Center Periodical Publications

Polar Ice

Probabilities of Temperature Extremes in the USA Version 1.0

Radiosonde Data of North America 1946-1996

Solar and Meteorological Surface Observational Network

The Maury Collection, Global Ship Observations 1792-1910

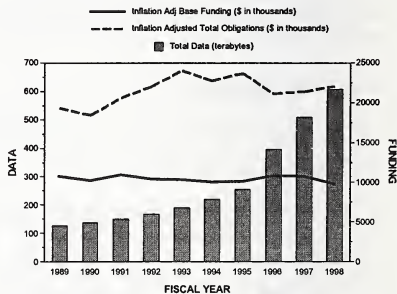
Time Series of Global Monthly Vegetation Cover from NOAA/AVHRR 1985-1997

U.S. Divisional and Station Climatic Data and Normals Version 1.0

U.S. Navy Marine Climatic Atlas of the World Version 1.1

United States Snow Climatology

Funding versus Data



Depository Library Program

No funding for this service.

Copies of publications requested by nearly 600 depository libraries, the Government Printing

Office, the NOAA Central Library and the Library of Congress.

Last year's printing costs were nearly \$31K.

Last year's mail costs were nearly \$30K.

Starting with FY 1998, to lessen strain on our budget:

- Copies of all serial publications are now distributed on one CD-ROM every quarter
- Serial publications are made available on-line via NOAA National Data Centers On-line Store
<http://www.nndc.noaa.gov/phase3/product/accm.htm>
- Passwords have been provided to libraries for access to all publications prior to quarterly CD-ROM shipments
- NCDC's cost of mastering and set up for each CD-ROM is approximately \$1.3K (less for quarterly CD-ROMs)
- GPO covers cost of CD-ROM duplication for libraries.

National Cancer Institute and Depository Libraries: A Productive Partnership

Nancy Brun
National Cancer Institute
Bethesda, MD

Hello! I am very pleased to be here at the Depository Library Conference. Because this is the first time we have had the opportunity to tell you about some of NCI's activities, programs, and products, I thought it might be productive for me to put things into perspective and give you a little history and background on the Institute itself before telling you about the communications program in which you, the depository libraries, participate.

First, we are a Government agency, the Government's primary organization for cancer research. As with every Government agency, we belong to a hierarchy, including the National Institutes of Health; the Public Health Service; and our parent agency, the Department of Health and Human Services.

The National Institutes of Health, of which we are a part, are located only two short blocks north of here on a large campus of laboratories and clinical facilities.

Two major pieces of legislation designed the cancer program as we know it today. The first was passed in 1937. The National Institute of Health (NIH) was originally one Federal institute doing basic biomedical research. But during the 1930s, the American public, concerned about the prevalence of cancer, exerted pressure on the Government to do something about it.

The public pressure resulted in Congress unanimously passing the National Cancer Institute Act in July 1937 and Franklin Roosevelt signing it shortly after.

This Act established the National Cancer Institute; established a targeted research program (up until that time NIH research was not targeted at any particular disease); and made the conquest of cancer a national goal.

Again, during the late 1960s, with cancer rates still rising, the conquest of cancer took on even more urgent significance and motivated an intense public campaign to target cancer more fiercely. Many of you may remember that the mantra of the period was that if Americans could go to the moon, they should be able to cure cancer. Thus, the campaign, spearheaded by philanthropist Mary Lasker and businessman Benno Schmidt, was fueled by a theory that the problem of cancer could be solved with a NASA-like approach.

President Richard Nixon proclaimed a "war on cancer" and signed the National Cancer Act in 1971.

The 1971 Act created a National Cancer Program; dramatically increased the cancer research budget; gave the institute more autonomy, including a presidentially-appointed director; and, most importantly for our purposes here today, mandated the NCI to communicate to the American public about cancer.

The Institute's major mission is, of course, research. In its laboratories on the NIH campus, NCI conducts its intramural research program. However, nearly 80 percent of its appropriated budget supports extramural cancer research at institutions across the

country. NCI also provides support for cancer centers and the training and education of specialists and researchers.

Cancer research is, by need, multifaceted. But central to the investigation is the comprehension of the mechanisms at work within the human cell. Why do normal cells develop into cancerous ones? How does that transformation occur? And, how can this transformation be prevented, stopped, or reversed? These are the basic questions being studied by scientists at NCI and across the country.

Although research is our major responsibility, the mission that most concerns us here today is communications. The 1971 National Cancer Act clearly stated that we must provide helpful information to Americans coping with cancer. We must also provide the general public with information on the early detection and prevention of cancer and help the lay public understand the science behind the research. Thus, NCI target audiences include patients and their families; the general public; health professionals; and special and ethnic populations.

How do we reach these target audiences? Often we reach them directly, but more often we reach them indirectly, through intermediaries.

One way we reach these audiences directly is through the Cancer Information Service (CIS). The CIS is a nationwide, toll-free cancer hotline with regional offices across the country. Specialists answer questions, in English and Spanish, about the latest cancer treatments and provide tips for early detection and prevention. It's also a source for NCI publications and for information about community services.

We also reach our audiences directly through the Internet. As you might expect, the Internet is a valuable tool not only for the public, but for scientist-to-scientist communications. Over

the last several years with the rush to use the Internet, the NCI Web site virtually exploded into dozens of individual sites with a variety of purposes and target audiences. Because it is currently undergoing a major renovation, collapsing it into one integrated site, I won't emphasize our Web site today.

Most of our communications are accomplished indirectly, through intermediaries.

One important channel is the mass media. In addition to the usual press releases, backgrounders and fact sheets, NCI has a press office to answer questions from the media and to encourage media coverage of cancer-related stories. The media can also be very useful in helping to translate complex scientific concepts into lay language. Recent studies have shown that most Americans get their medical information from the media, mostly television. So you can see why this channel is an important one.

Primary care doctors, nurses and other health professionals are important intermediaries through whom we channel our information. Much of this work is done through exhibits at national professional meetings where we promote our materials and programs.

When the science calls for it, we develop special campaigns to reach a specific audience. For example, when it became evident that the use of spit tobacco among young boys was dramatically rising, we developed a video kit, *Dangerous Game*. The kit was promoted as a tool for teachers, scout leaders and others to reach this young target audience.

We frequently join with other organizations, both public and private. Our most recent examples of this include a joint campaign on prostate cancer with the group US-Too, and a campaign with the Health Care Financing Administration (HCFA) to raise awareness among older women of Medicare coverage of mammograms.

At times, it may take more than pamphlets and booklets to get information to the public. For example, a kit was designed to train health professionals who will then go out into the community and educate other professionals and the public about clinical trials.

And as you well know, we also reach our target audiences through libraries.

It is evident that in many communities, libraries are the first places people head when they want information, and community libraries across the country serve as a valuable resource for cancer information.

Now I'd like to tell you a little about the kinds of information we have available. The NCI is well known as the source for the most accurate and up-to-date cancer information. And we certainly have a wealth of information, both on the Internet and in print. Let's start with the Internet.

Clinical trials are a major priority for the Institute. In order to prove new and better treatment methods, each must go through clinical trial. A clinical trial might test a potentially superior chemotherapy drug, for example, against the standard treatment regimen. We develop information to help recruit patients to these clinical trials, to help patients locate appropriate clinical trials, and to answer questions for the patients who are participating.

CancerNet is a Web site that contains detection, diagnosis, and treatment information on all cancers, both for physicians and for patients. It is the best place to go for descriptions of the most current treatment protocols available.

This NCI Web site is the current home for patient education information. Information on how to cope with the side effects of cancer treatments; what are mammograms and who should get them; how to include five fruits and

vegetables into your daily diet; tips on smoking cessation; and much, much more.

NCI also has a fledgling, but growing, science education site on the Web. The purpose of the site is to explain the "science behind the news" for students and the lay public, helping them better understand the scientific concepts behind the research. The information on all the sites that I've described will all be integrated into one new NCI Web site to be unveiled sometime this summer.

Printed materials have always been the basis of the NCI communications program.

It's hard to overemphasize how important our materials are for cancer patients. Just to give you some idea, we distribute about a half-million copies of each of these publications each year. Each booklet is reviewed and revised at each printing, so that NCI materials are always current. These booklets may help patients deal with radiation treatment or chemotherapy; provide advice for patients with eating problems; or simply help with some of the psychosocial issues involved in being a cancer patient.

One series of pamphlets is site specific and discusses the causes, detection, diagnosis and treatments for most cancers. The booklets are targeted to both cancer patients and the lay public.

Other materials are designed to promote mammography and breast cancer awareness among women over age 40 and in various ethnic communities. They include colorful posters, bookmarks, booklets, and easy-to-read brochures.

There are materials on smoking cessation, tips on quitting, and effects of secondhand smoke.

We try to produce many of our materials in easy-to-read formats, as well as large-print materials for the visually-impaired. These

include information on mammograms, pap tests, and treatment issues.

Some of our most popular materials are targeted at special populations, including Hispanic, African-American, and Native American ethnic groups.

We also package our science education information as “speakers kits,” sets of slides and scripts for teaching at almost any level. Our two most popular kits are “Understanding the Immune System” and “Understanding Gene Testing.” There are more of these teaching kits in the works.

The National Cancer Institute and depository libraries are now a productive partnership, and

we can make this partnership even stronger. We welcome your feedback to help us make our materials even better or to make your professional lives easier. We urge you to let us know about any special needs you might have, or collaborations you might want to suggest. For example, should you want extra mammography materials to distribute during breast cancer awareness month, or smoking booklets for the Great American Smokeout, or teaching kits for library lectures, we’ll help whenever possible.

Who should you call? You can call your contacts at GPO, I’m sure they will relay the message. Or, call us directly. Thank you very much for letting me tell you about the National Cancer Institute today.

CDs in a Webbed World: Implications for Federal Depository Libraries

Cynthia Etkin

U.S. Government Printing Office

Washington, DC

Abstract

Having reached the midpoint of the 1998-99 fiscal year, the Federal Depository Library Program (FDLP) is well into the transition to a more electronic depository program. We heard earlier this week that the resources "distributed" thus far this year is 40% electronic, 40% microfiche, and 20% paper, but less than 1% of the electronic data is in CD-ROM form. Annualization of six months data for this fiscal year indicates that for the first time since the Government Printing Office (GPO) began distributing CD-ROMs to depository libraries the number of titles will decrease. At the same time the number of Federal Government Web pages continues to increase. The obvious issue librarians are grappling with is the need for and worth of CDs when so much Government information is available via the Internet with more standardization and a user-friendly interface.

It is true that CDs provide many challenges for librarians. Various aspects of equipment, personnel, services, and bibliographic control are among the major dilemmas that must be resolved. Though some CDs can be problematic, having information in this format also provides opportunities for new services, possibilities for cooperative efforts, a means to increase resources available to library patrons, and a safety net to access information from remote locations. That much of what is available on CD is not duplicated on the Web cannot be ignored; equivalency of print, CD, and Web versions must not be assumed.

Federal agencies are still producing CD-ROMs. And according to the National Commission on Libraries and Information Science's recent report, *Assessment of Electronic Government Information Products*, Federal agencies still view CD-ROM as a viable method to disseminate information. As long as agencies are producing CDs, GPO will distribute them to depository libraries and they will continue to be part of the FDLP Electronic Collection and have a role in Federal depository libraries. It is incumbent upon depository librarians to define that role at the local level through its policies:

- Depository Library Public Service Guidelines for Government Information in Electronic Formats;
 - FDLP Internet Use Policy;
 - FDLP Guidelines on Substituting Electronic for Tangible Versions of Depository Publications; and
 - Collection Development Policy.
-

CDs in a Webbed World Implications for Federal Depository Libraries

Introduction

- 1989 GPO General Counsel Opinion affirmed GPO's authority to disseminate electronic formats
- 1995 Congress directed GPO to study and

devise a plan for the FDLP to evolve into a more electronic depository program

- 1998 Managing the FDLP Electronic Collection: A Policy and Planning Document was published
- We are well into the transition to a more electronic depository library program
- Electronic environment has enhanced awareness of and increased access to Federal Government information

Background

Electronic Government Information

Environment: CD-ROMs

- First CD-ROM was distributed to 100 depositories for a Census pilot project in 1988
- CD titles distributed increased from FY to FY:
 - 306 titles in FY 1994
 - 836 titles in FY 1998
 - 326 titles through March of FY 1999
- Agencies view CD-ROMs as a viable medium
- DVDs expected to replace CDs as the standard

Electronic Government Information

Environment: World Wide Web

- GAO Report from June 1997
 - 42 Federal organizations reported 4,300 Web sites
- Government top-level domains as of Jan. 1999
 - 651,200 .gov
 - 1,510,440 .mil
- These figures do not represent the Federal

Government's entire Web presence.
Excluded are: .fed.us, .edu, .org, and .com
Government sites

Electronic Government Information

Environment: GPO Access

- Over 70 applications on more than 1,000 databases
- Documents downloaded
 - FY 96: 30 million
 - FY 97: 46 million
 - FY 98: 137 million
 - FY 99 (Oct - Feb): 67 million

Electronic Government Information

Environment: Locator Services

- Catalog of U.S. Government Publications
 - 115,900 records of which 6,500 have hyperlinks
- Browse Electronic Titles
 - 2,400 titles on service
 - 15-25 titles added per week
- Browse Electronic Topics
 - Nearly 170 topics
- Pathway Indexer
 - Searches 1,350 Government sites
 - Searches 3 levels or about 200,000 Web pages

Electronic Government Information

Environment: Electronic Collection

- FDLP Electronic Collection (EC) designed to provide permanent public access to Federal electronic information
- www.access.gpo.gov/su_docs/dpos/ec
- EC includes:

- Internet accessible resources
- Tangible electronic products distributed to depositories
- Managing the FDLP Electronic Collection
 - www.access.gpo.gov/su_docs/dpos/ecplan.html
 - SuDocs: GP 3.2:C 68

Challenges

CD Challenges for Depositories

- Equipment
 - Technical requirements
- Lack of standards
- Permanent public access
 - Security
 - Network or stand alone
 - Cost
- Personnel
 - To learn & train staff
 - Technical support
- Public Service
 - Access
 - Licensing
 - Training users
 - Documentation
 - Usability
- Bibliographic Control
 - Cataloging questions
 - Shelflist cross references

Revelations

The Bright Side of CDs

- New service opportunities
 - Circulate resources
 - Different formats available
 - GIS

- Cooperative opportunities
 - Documentation
 - Training
 - Selective housing sites
- Collection development
 - More resources available
- Local control
 - Information there tomorrow
 - Independent of other systems
- Virtual library projects
- Web is not trouble-free

Conclusions

Foreseeable Future of CDs

- Government agencies still producing
- GPO will continue to distribute to depository libraries
- Element of the FDLP Electronic Collection
- Not the “panacea” hoped for
- Equivalency of print, CD, and Web versions must not be assumed
- Still have a role in depository libraries

FDLP Policies to Consider

- Service for Government Information in Electronic Formats
 - Administrative Notes, v. 19, #11 (Sept. 15, 1998)
- FDLP Internet Use
 - Administrative Notes, v. 20, #2 (Jan. 15, 1999)
- Substituting Electronic for Tangible
- Collection Development Policy

What Is Best for Your Library: Issues to Consider

- Collection Development
- Bibliographic Control
- Maintenance
- Human Resources
- Physical Facilities
- Public Service
- Cooperative Efforts

- Mission
 - FDLP
 - Your Library

- Clientele
 - Primary
 - General Public

Future Colleagues: Documents Education in Library and Information Science Programs Teaching Government Information on the Internet

Judith Schiek Robinson

State University of New York, Buffalo

Buffalo, NY

Offered each fall, LIS 567 Government Information is the most heavily enrolled elective in the School of Information and Library Studies, University at Buffalo MLS program. The class requires weekly reference-type practice exercises, two exams, and a Client Search term project—a customized information package produced for a local non-profit or government agency. Students embark with a mix of trepidation and anticipation: as they're warned up front, what starts out as fun (who's immune to the charms of documents examples like Molly Moo or Fred, the Horse Who Eats Bread?) soon becomes a demanding trek through a rarified body of knowledge.

An Internet version of the course was initially taught in spring 1999, with an enrollment of fifty (the classroom version draws 45-50 students). Rather than Client Searches, the term project was Government Information Pathfinders created for either Doane College in Nebraska (library liaison was Donna Jurena) or Montana State University—Bozeman (liaisons were Adam Wathen and Jodee Kawasaki). Communication with the Doane and Bozeman librarians about pathfinders was through a class discussion list, while student-teacher communication was through e-mail or Web Bulletin Board.

The course is asynchronous, with weekly content modules and assignments posted on the Web, along with a midterm and final exam.

An optional hands-on computer session provided one-on-one instruction from the professor in support of the first knotty assignment, covering MOCAT, SPC, and WorldCat. Two "guest lecturers" offered a glimpse of the real world: Charles D. Bernholz, Reference/Documents Librarian at the Farmington Public Library (NM), and Kristen Wilhelm, National Archives and Records Administration.

Although the course is password protected, two sample modules are available at <<http://www.sils.buffalo.edu/faculty/Robinson/depos/review.htm>> and <<http://www.sils.buffalo.edu/faculty/Robinson/depos/review2.htm>>.

Advantages of the Internet version of the Buffalo course included:

1. In-depth teaching and student counseling
2. Convenience for distance students
3. Ability to reach out-of-state students
4. Vitality of Web delivery

Disadvantages:

1. Teacher workload

2. Dependence on computer staff for administering exams & maintaining Bulletin Board
3. Awkwardness of e-mail and Bulletin Board communication
4. Difficulty creating a sense of community
5. Loss of spontaneity
6. Teacher loneliness

Other Internet government information courses have been taught by Charley Seavey at the University of Arizona (IRLS 572 Government

Information: Policy and Resources) and by University of Illinois–Urbana-Champaign through LEEP (LIS 424: Government Publications)—taught in fall 1998 and spring 1999 by Marilyn Moody.

The University of Arizona course is asynchronous, with weekly content modules posted on the Web and communication through a bulletin board, Web chats, and e-mail. The Urbana-Champaign LEEP course combines asynchronous and synchronous delivery, with weekly content modules posted on the Web and weekly "live" Web sessions (audio, text chat, with the ability to post slides and other graphics).

Government Documents Assignments: Have We Really Been There, Done That?

Cassandra Hartnett
University of Washington Libraries
Seattle, WA

Which assignments would you offer, if you were teaching? Why?

The Classic Government Documents Class

- Not always taught as a separate course
- Usually Federally focused
- Both specialist and generalist appeal
- Has practical and theoretical aspects
- Introduces students to “the documents story”
- Supplemented by high-quality handouts
- Inspires students

Selected Textbooks Over the Years

- Boyd & Rips, *United States Government Publications* (1949)
- Schmeckebier & Eastin, *Government Publications and Their Use* (1961)
- Morehead & Fetzer, *Introduction to United States Government Information Sources* (1978-1994)
- Sears & Moody, *Using Government Information Sources* (1985, 1994)
- Robinson, *Tapping the Government Grapevine* (1988, 1998)

Memories of Assignments Assignments: The Required Tasks

- Practice questions/source review
- Legislative histories
- Government agency reports
- Annotated bibliographies or “pathfinders”
- Indexing, abstracting of articles, Web sites
- Field observations
- Research
- Case studies or simulations

Assignments: The Means

- Homework
- Research papers
- Class presentations
- Field observations: trips to libraries, government offices, or legislative bodies
- Reading and discussion of professional literature
- Individual vs. group work
- I understand that a picture of the members of Space Shuttle Mission STS-43 is available as a government publication. Could you give me the SuDocs number so I could order it?
- The Freedman's Savings and Trust Company was established by the Federal Government in the 1860's. Which

bibliography gives information explaining the official status of this banking institution, along with a list of its publications?

- Which three cities in Alabama have the highest percentage of families with yearly incomes of \$50,000 or more?

Quality Assignments Should:

- Reflect graduate level work
- Combine challenge with a sense of mastery
- Increase knowledge of government
- Raise more questions than they resolve
- Require questioning and critical thinking
- Change from year to year
- Be discussed in class
- Be relevant and memorable

Areas We Should Be Emphasizing More:

- The reference interview
- Demographic, economic, and Census sources
- Depository management/collection development
- Promoting a depository collection
- Getting involved professionally
- Collaboration (good guest speakers!)
- Comparative assignments across jurisdictions
- Bibliographic control & cataloging (PURLs)
- Theory:
 - information policy
 - privacy/FOIA
 - history of government information
 - privatization
 - democratic concepts
 - future trends

- Positive attitude

How many cherries must be in fruit cocktail?
(For the answer, see 21 CFR 145.135.)

Anonymous Quotes from GOVDOC-L Respondents

- The real value to my GovDocs course was that [the instructor] continued to teach the course whenever I called him with a question during my first job... [I remember] how well he told the "documents story" and really made it interesting even though it was an 8:00 a.m. class. I guess the time meant that you really wanted to be there.
- I remember very well [the professor] talking about how our state didn't have a Regional depository and what a shame it was, etc. I really didn't get it then. But when I wound up in documents, I understood. [My library] became the Regional in 1989 due to my pushing and a willing director. So... an instructor never knows what remark will influence someone-or even how long it will take.
- One of the lasting contributions my gov docs teacher made to my professional life was the high-quality, well-organized handouts she provided to us at the beginning of each assignment... I used these handouts heavily in my days as a young librarian. I used them as check-sheets to understand my current collection, place orders, make wish lists for future large orders, and to get familiar with my collection... Fourteen years later and I still have them handy in a side drawer of my desk.

Future Colleagues: Documents Education in Library and Information Science Programs Who Teaches What, When and Where

Bill Sudduth
University of Richmond
Richmond, VA

Thank you, Tim, for the fine introduction and thanks to the audience for attending this session on Documents Education. As Tim mentioned, this program grew out of a lunch session held at last spring's conference. In February 1998, George Barnum and George Carlson posted on GOVDOC-L a request that documents librarians that teach documents courses for library science programs meet one day at lunch and share information and impressions, particularly how to teach the increasing amount of electronic information.

That session was attended by about a dozen documents librarians, all who taught as adjuncts. While the information shared was valuable and a good exchange of ideas, I left the session wondering if there wasn't more to the issue. In talking with Cass Hartnett, I expressed the thought that it might be an interesting program to have an adjunct faculty member, a full-time faculty member, and a library school dean on a program about documents education. As the old saying goes, once you're on a program committee you've got a 50/50 chance of becoming the program. So here I am.

As I mentioned, I left last year's lunch with more questions than answers. While there were about a dozen in attendance and all taught as adjuncts, I also knew of several individuals who are full-time tenured library science faculty who also teach documents on a regular basis. The names: Heron, McClure, Richardson, and Morehead immediately come

to mind. The question that came to mind was how many LIS programs employ adjuncts (practicing documents librarians) to teach their documents courses?

Another question that came to me after the meeting was how many document courses are taught in the traditional classroom setting versus distance courses, courses over the Internet, or even taught at an off-campus location? As an adjunct faculty for Catholic University of America School of Library and Information Science, I teach at the University of Richmond site, 95 miles from the main campus. From this several other questions began to materialize.

Once I realized that I was going to be on a panel and not just organize it, I sat down and worked on a plan to survey who teaches what to whom when. I decided on two approaches. First, I would post to GOVDOC-L a survey asking individuals who had taught a Government documents class for a LIS program during the last three years some basic questions. I would follow-up this questionnaire with a survey of LIS program Web pages.

The questionnaire was sent out on GOVDOC-L in February. To date I have received responses from 23 individuals representing 22 LIS programs. The questions asked were:

1. Have you taught a semester length class in Government information resources for an

- ALA accredited Library/Information Science program in the last three years (after 1995)?
2. What was the title of the course listed in the catalog?
 3. How many credits was the class valued?
 4. What was the enrollment or average enrollment of the class?
 5. What percentage of the class was devoted to Federal, state/local, and international information sources?
 6. How many times or years have you taught the course?
 7. Do you teach any other course related to Government information?
 8. What is your rank or status in the school or program? If you are a tenured member please provide your rank. If not, are you an adjunct or visiting faculty?
 9. Is the class taught on the main campus in a traditional setting, off-campus in a traditional setting, by satellite or a distance learning class, or via the Internet?

I augmented these 23 responses with a survey of the Web pages of the 48 accredited library science programs. While looking at each page I tried to identify the name of the Government information course, who taught it, noting rank and status, when the course was last taught, how frequently the course was offered, and what pre- or co-requisites were required to take the Government information course.

I would like to spend the next couple of minutes going through the data I gathered.

Of the 48 LIS program Web pages surveyed, only one school did not list a course in Government information (Texas Women's University) and five schools listed multiple

courses (University of California-Berkeley, Syracuse, SUNY-Albany, South Carolina, and Washington). Course titles varied, but the three most frequent course listings were:

- Government Publications 9
- Government Information Sources 7
- Government Documents 4

I was only able to identify one course covering State/Local information sources (SUNY/Albany) and one covering international information (South Carolina).

In addition to the traditional courses mentioned, I found several courses with impressive and unique names. Now, I have with me some rewards (M&Ms) for members of the audience who can name the school where the following courses are taught. The audience will have three guesses at which point the panel will earn the goodies.

First class title: Government Information:
Collection/Organization/Dissemination
School: Indiana

Second class title: U.S. Government
Information Policies, Resources and
Services
School: Simmons

Third class title: Subject Focused Information
Sources and Services: Government
School: Michigan

While I did not include it in the audience participation portion of the show, the title of the document course at UC-Berkeley is Information Policy.

So what courses does a library school student need to take before they have the Government documents class? 16 schools require at least one course, usually an Introduction to Information sources, seven schools require at least two courses, and three schools require more than two courses (Queens, Drexel,

Washington). I include Drexel because it has a core requirement of seven courses and while you do not have to take them all before the documents course it appears that way on the Web page. One school has no pre- or co-requisites and 19 schools did not list whether there was such a requirement.

Prerequisites outside the usual introductory courses include:

- Computer-Based Information Tools (Indiana)
- Cataloging and Classification (Clarion)
- Electronic Database and Information Services (North Texas)

Now that we have an idea of which Government information courses are taught and what prerequisites are required, let's return to one of my first questions: Who's teaching Government documents?

From library school Web pages I was able to identify 53 instructors of Government information. Of these instructors around 40% (23) were full-time library science faculty members. At least 20% (13) were identified as adjuncts. Another 40% (17) were not identified as to their status but are most likely adjuncts. Two important points can be drawn from this data. First nearly 60% of all Government documents education is being provided by adjunct faculty. Second, of the full-time library science faculty teaching Government documents, 18 of the 23 are tenured faculties; at least the positions of associate and full professor are usually associated with tenured faculty.

One of the questions I asked of GOVDOC-L was how many times or years the instructor has taught the class. The number of years or times taught average almost 7 (6.8). However, at least one-third of the respondents (9) have taught the class less than four times.

When does the LIS program schedule classes? Most classes are scheduled during the fall or spring semesters (24). Another seven programs schedule the Government documents class in the summer. Courses are usually taught once a year (12 responses). Most classes are taught at the main campus in a traditional setting; however, I was able to identify four off-site instructors, two instructors using distance or satellite methods, and three courses taught via the Internet. Classes usually have at least 20 students enrolled (16 of 23 responses).

Course content overwhelmingly favored the teaching of Federal information resources (80% of content) over state/local (8.7% of content), and international resources (11% of content). Of the 23 responses, four indicated teaching no international information sources and another three acknowledged teaching no state/local resources.

Syllabi were posted for 11 courses. Two were restricted to on-campus viewing and one syllabus was under construction. Of the 11 syllabi, full-time faculty had developed eight; raising the conclusion that full-time faculty have the resources (time or support) to post syllabi for their courses.

In reviewing pages posted by SLIS programs, I came upon a few that I would like to point out as good or unique sources of information. I found the following pages of interest:

- University of Illinois
<http://alexia.lis.uiuc.edu>
- University of Michigan
<http://www.si.umich.edu>
- Syracuse University
<http://istweb.syr.edu>
- University of North Carolina-Chapel Hill
<http://ils.unc.edu/>

As an alumnus, I am obligated to mention the UNC site. It is unique for its searchable index

of master's papers that can be searched by paper advisor so all of you curiosity seekers can see who has done a paper for Ridley Kessler.

- South Carolina
<http://www.libsci.sc.edu/>

I mention South Carolina because I found Professor Williams' page to be one of the best individual faculty pages.

If you would like to look at other SLIS program Web pages, I suggest using Ann Roselle's page of Library and Information Science Schools - Classes on Government Information. Ann's page is located at:

<<http://www.library.ewu.edu/godort/classes.html>> and is also available through GODORT's Education Committee page: <<http://library.ucsb.edu/ala/educomm.html>>.

In conclusion, the following can be said about the current state of Government documents education in accredited library programs in the United States:

1. classes are still taken in a traditional setting on the program's main campus
2. 60% of the classes are taught by adjunct faculty
3. full-time faculty teaching Government information are usually associate or full professors
4. only one in four course syllabi are on the Web
5. The Government information course is usually available at least once a year, during the fall or spring semester
6. Classes are usually at least 20 students
7. Courses focus mostly on Federal resources (80%) with little international (11%) and less state/local (9%)
8. The instructor has taught the course an average of 6.8 times but one-third of the instructors have taught the course less than four times

Sources of Data:

Analysis of 48 SILS Web Pages
 Survey posted on GOVDOC-L (23 responses, 22 programs)

48 programs, listing 55 courses
 5 schools list two courses (Berkeley, Syracuse, SUNY-Albany, SC, and Washington)

Course Titles:

Government Publications	9
Government Information Sources	7
Government Documents	4

Pre- and Co- Requisites

None	1
One course	16
Two courses	7
More than two courses (Queens, Drexel, Washington)	3
Information not available	19

Who Teaches

53 instructors identified

Library School Faculty	23
Professor	9
Associate Professor	9
Adjunct faculty	13
Status Not Determined	17

Teaching Experience

Instructor taught the course an average of 6.8 times
 1 in 3 have taught the course less than four times

When Is the Course Taught?

Fall or Spring semester 24
 Summer 7

How Often Is the Course Taught?

Annually 12
 2 times a year 3
 Every semester 2
 Every two years 2

Location Taught

Main campus 17
 Off-campus site 5
 Distance/satellite course 1
 Internet course 2

Average Class Size

Class usually has at least 10 and usually > 20

Content

Federal 80.0%
 State/Local 8.7%
 IGO/Foreign 11.4%

Available Syllabi:

UCLA
http://dlis.gseis.ucla.edu/courses/473/DLIS_473_Reading_List.pdf

Indiana
<http://www.slis.indiana.edu/courses/L628S98.html>

LSU
<http://adam.slis.lsu.edu/courses/7203/>

Kent State
<http://ariande.slis.kent.edu/~classes/60611/>

Clarion
<http://eagle.clarion.edu/~faculty/buchanan/SYLLABUS991.HTM>

Tennessee
<http://funnelweb.utcc.utk.edu/~wrobinso/534syl.html>

North Texas
<http://courses.unt.edu/chandler/SLIS5660/index.htm>

Wisconsin
<http://polyglot.lss.wisc.edu/slisisyllabi/653/>

Library School Web Pages of Interest

Illinois
<http://alexia.lis.uiuc.edu/>

Kentucky
<http://www.uky.edu/CommInfoStudies/SLIS/>

Maryland
<http://www.clis.umd.edu/academics/programs/gels.html> (GIS Specialty)

Michigan
<http://www.si.umich.edu/>

Syracuse
<http://istweb.syr.edu>

SUNY-Albany
<http://www.albanv.edu/SISP/>

UNC-Chapel Hill
<http://ils.unc.edu/> Searchable Index to Masters Papers

South Carolina
<http://www.libsci.sc.edu/> Professor Williams' home page

Another Source of Interest

Ann Roselle's Library and Information Science
Schools links
<http://www.libray.ewu.edu/godort/classes.html>
Also linked from GODORT Education
Committee page

Conclusion:

Course usually taken on main campus; 60%
taught by adjuncts; there is usually at least one
pre-requisite course, only one in four syllabi on
the Web, course usually taught during fall or
spring semesters; usually taught once a year,
classes usually larger than 20, courses focus on
Federal information (80% of content), little
state/local (8.7%), or international just over
10%); the instructor has taught the course an
average of 6.8 times, one-third of instructors
have taught the course less than four times.

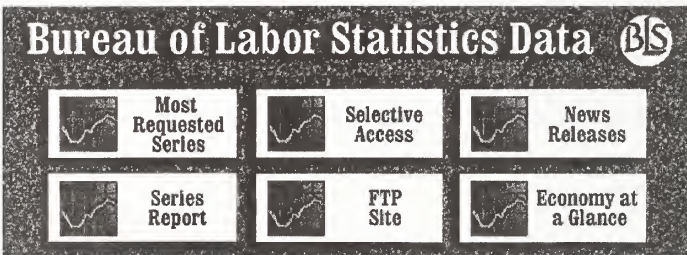
Bureau of Labor Statistics Web Site

Deborah P. Klein
Bureau of Labor Statistics
Washington, DC

BLS Homepage: <http://stats.bls.gov>



BLS Data Menu



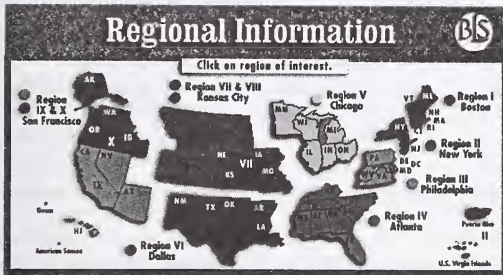
Economy at a Glance Menu

- Civilian Labor Force
- Unemployment Rate
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News Releases

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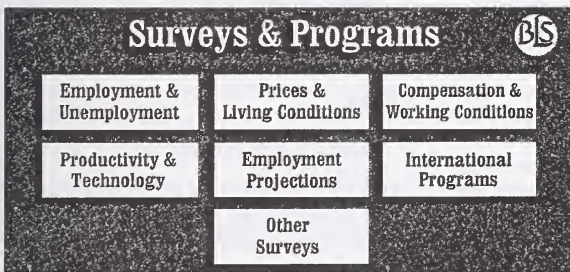
BLS Regions



Regional Information Menu



Surveys & Programs Menu



Prices & Living Conditions

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Consumer Price Indexes

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Employment & Unemployment

- Labor Force Statistics
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Occupational Employment Statistics

- National Employment and Wage Data
- State Employment and Wage Data
- Occupational Data - OES Code and Alpha
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Monthly Labor Review Online

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Other Publications

- Issues In Labor Statistics
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- Handbook Of Methods

Occupational Outlook Handbook

- Keyword Search
- Online Index
- Ordering Information

Catalog

- Latest BLS Publications
- BLS Periodicals
- Online Ordering
- Contact Information

U.S. Department of Justice, Bureau of Justice Statistics Web Site: www.ojp.usdoj.gov/bjs/

Kathleen Quinn
Bureau of Justice Statistics
Washington, DC

Welcome to a tour of the BJS Web site:
<www.ojp.usdoj.gov/bjs/tour/intro.htm> .

Just click on the screen images to go to the next stop on the tour.

The tour starts at the White House:
<www.whitehouse.gov/WH/Welcome.html> .

The White House is the gateway to the Federal Government. The Executive Office of the President provides access to current Federal social statistics and links to information and data produced by a number of Federal agencies in the Federal Statistical Briefing Rooms.

Many users get to the BJS Web site from the White House site—home of the Statistics Briefing Rooms.

- Statistical briefing rooms for economic and social statistics are available on the White House Web site:
<www.whitehouse.gov/fsbr/ssbr.html> .

The indicators which are presented there come from the Federal agencies responsible for the data. For example, the National Center for Health Statistics (NCHS), the Bureau of Labor Statistics (BLS), the National Highway Traffic Safety Administration (NHTSA), the Bureau of the Census and the Bureau of Justice Statistics (BJS). The responsible agency updates these indicators automatically. The White House knows the new information when the public knows, not before.

The Social Statistics Briefing Room contains materials on several topics including crime.

The crime indicators come from both BJS and the FBI: <www.whitehouse.gov/fsbr> .

Each of the six indicators has a thumbnail chart, a statement about recent trends, the most recent figures, and links to the agency home pages. The thumbnail charts are linked to a larger version of the chart which is on the BJS Web site.

- The first thumbnail chart links to a larger version of trends in the number of violent crimes committed from 1973 to 1997:
<www.ojp.usdoj.gov/bjs/glance/cv2.htm> .

Serious violent crime levels declined between 1996 and 1997 as measured by the National Crime Victimization Survey and the Uniform Crime Reports.

The larger version of the chart is linked to a text table of the data used in the chart.

- You can view or reuse the data that was used to create the graphics:
<www.ojp.usdoj.gov/bjs/glance/4meastbl.htm> .

The text data tables which are linked from each indicators' chart are parsable into spreadsheets.

All of the charts from the Social Statistics Briefing Room are a part of the Key Facts at a Glance section of the BJS Web site <www.ojp.usdoj.gov/bjs/glance/> .

ojp.usdoj.gov/bjs/glance.htm#Crime > .

These graphics along with many more comprise this section. Many other topics on crime and criminal justice are also presented, including trends in Federal investigations and prosecutions, trends in felony convictions in State courts, corrections trends, and expenditure trends.

Additional charts and data tables are available for each crime type and many victim characteristics: < www.ojp.usdoj.gov/bjs/gvc.htm#Violence > .

Currently, this section of the BJS site houses 26 charts with data trends over time, and most are based on data from the National Crime Victimization Survey.

The BJS Web site has been organized to allow users to get information on a topical basis: < www.ojp.usdoj.gov/bjs/welcome.html >

The primary list of topics can be found on the home page under “Statistics about.”

- Each of the topical sections contains summary findings with the latest data about the topic, information about the data collections (including questionnaires), and a list of related sites:
< www.ojp.usdoj.gov/bjs/cvict.htm > .

For example, the Crime and Victims section contains basic facts about crime; information about the National Criminal Victimization Survey, and links to several sites including the FBI and the victimization pages at the Online Sourcebook of Criminal Justice Statistics.

- Many of the topical areas are broken down into subtopics:
< www.ojp.usdoj.gov/bjs/cvict_v.htm > .

From the Crime and Victims page you can go to several subtopics including Victim Characteristics, which includes information

about female victims, elderly victims, and teenage victims. More detailed summary findings are presented at this level.

In addition, you will find links to all of the publications that we have published which relate to the subject of the page: < www.ojp.usdoj.gov/bjs/cvict_v.htm#publications > .

For example, the Victim Characteristics page has links to our report American Indians and Crime.

Every publication has its own abstract with links to the electronic versions of reports: < www.ojp.usdoj.gov/bjs/abstract/aic > .

Each abstract also contains links to:

- any press releases about the publication
- supporting spreadsheets or ASCII tables
- a discussion of the source data
- relevant datasets at the National Archive of Criminal Justice Data
- a help page for using some of the downloadable formats.

The text versions of BJS publications are available: < www.ojp.usdoj.gov/bjs/pub/ascii/aic.txt > .

ASCII versions of publications do not include graphics and large tables.

Publications are also available in Adobe Acrobat pdf format: < www.ojp.usdoj.gov/bjs/pub/pdf/aic.pdf > .

PDF files look like the printed publications and include all the graphics, text and tables. PDF files must be viewed in the free Adobe Acrobat reader.

You can also find BJS publications from What's New at BJS, Publications, and the Press Releases: <www.ojp.usdoj.gov/bjs/> .

BJS publications are organized:

- chronologically on the What's New at BJS page
- alphabetically on the Publications page

BJS press releases are also organized chronologically with the most recent first.

Another feature of the BJS Web site is Data for Analysis: <www.ojp.usdoj.gov/bjs/welcome.html> .

- Data for Analysis has two sections — Crime and Justice Electronic Data Abstracts and Online Tabulations, Datasets & Codebooks: <www.ojp.usdoj.gov/bjs/> .
- This section provides access to datasets and spreadsheets available for analysis.

Crime and Justice Electronic Data Abstracts consists of a series of spreadsheets that put together reusable data: <www.ojp.usdoj.gov/bjs/dtdata.htm> .

Many of the spreadsheets include trend data by jurisdiction. Currently, there are over 100 spreadsheets available by jurisdiction—Federal, State and County—and trends over time, dating as far back as 1900.

- These spreadsheets are organized by topic and by jurisdictional coverage: <www.ojp.usdoj.gov/bjs/dtdata.htm#index> .

Some of the holdings include a series of spreadsheets on correctional populations by State over time, and a spreadsheet on the FBI's Uniform Crime Reports indexes crimes from 1960-1996 for each State.

Online tabulations, datasets & codebooks allow for an additional level of detail. Here you can conduct online queries to generate customized statistics and download datasets for more detailed analysis: <www.ojp.usdoj.gov/bjs/otdc.htm> .

The data analysis system allows you to subset variables or cases for analyzing or downloading and produce crosstabulations, descriptive statistics, and frequencies.

The Federal Justice Statistics Resource Center <<http://fjsrc.urban.org/>> provides on-line access to the BJS Federal Justice Statistics Program (FJSP) database. The FJSRC database includes suspects investigated by U.S. attorneys, defendants prosecuted in the Federal courts, defendants sentenced pursuant to the Federal sentencing guidelines, offenders supervised under pretrial release, probation, parole and supervised release, offenders incarcerated in Federal prisons, and offenders appealing some aspect of their case.

- Machine readable data sets and codebooks are available free from Inter-university Consortium for Political and Social Research (ICPSR): <www.icpsr.umich.edu/NACJD/home.html> .

Visit Related Sites for more links: <www.ojp.usdoj.gov/bjs/> .

Related sites gives you access to other Federal sites and to the organizations that assist BJS in disseminating crime and justice statistics: <www.ojp.usdoj.gov/bjs/sites.htm> .

The National Criminal Justice Reference Service (NCJRS) disseminates information for all of the Office of Justice Program agencies and the Office of National Drug Control Policy: <www.ncjrs.org/> .

The topical pages usually consist of a list of documents including BJS reports, and a list of

additional Web sites, as well as other relevant links.

The Sourcebook of Criminal Justice Statistics is an updated electronic version of the annual book: <www.albany.edu/sourcebook>.

Unlike the book version, tables are updated when they become available. All of the tables are available in Adobe Acrobat format and are accessible by an index similar to that in the book. To see what has been updated, you can visit the What's New page or look up your favorite table in the index and note if there is a New sign next to it.

Fedstats points to the statistical data on the Web from all of the Federal agencies: <www.fedstats.gov/>.

You can find links to data by topic, program area, or agency. This site was intended to provide one-stop-shopping for Federal statistics. BJS participates in Fedstats along with the other Federal statistical agencies although many of the links are to those agencies that have other missions but produce statistics such as the Bureau of Prisons and Drug Enforcement Administration. At Fedstats, users can search the Web sites of all 13 major Federal statistical agencies.

To help you find the information you need, the BJS Web site has a search capability: <www.ojp.usdoj.gov/bjs/>

Just enter the key words you are searching for in the box provided: <www.ojp.usdoj.gov/bjs/bjsrch.htm>.

You can search all of our site or simply select the type of document you are interested in such as press releases, text files, .html pages, or even .pdf files.

You can also expand your search to all of the Office of Justice Program agencies or to the National Criminal Justice Reference Service.

If you want to know how to reach BJS, go to About BJS: <www.ojp.usdoj.gov/bjs>.

About BJS tells you how to write, call, find, or e-mail BJS: <www.ojp.usdoj.gov/bjs/aboutbjs.htm#address>.

We value your feedback.

Thank you for taking the tour of the BJS Web site. This tour is available on the BJS Web site at <www.ojp.usdoj.gov/bjs/tour/intro.html>.

Tools People with Disabilities Use to Interact with the Web

Robert Neff
U.S. Mint
Washington, DC

A government's, company's or organization's failure to provide universal accessibility on the Web is a serious impediment to its ability to provide information, services or products to over 54 million People With Disabilities (PWDs). For example, if:

- An e-commerce Web site is not accessible to PWDs, the business has just lost an immediate customer and potential customers.
- An organization or Federal, State or local Government does not provide access to its information, then they are not providing a public service.
- A city does not provide bus routes in an accessible format, then PWDs cannot check the schedule, especially if the bus office closes at 5:00 p.m.
- A library does not have the staff trained to support public computers or Internet terminals, then they cannot effectively serve the local community.

The Web provides information, products and services to people through the Internet, Intranets, or Extranets. Computers have enabled people to function at home or at work, and study, train, or surf the Web for information. Computers have also opened up the world to enable PWDs to be productive at home or work – the office now has no boundaries. The Web and other assistive devices have also enabled PWDs to use computers and to be productive.

More importantly, through the Web, the world has no boundaries. We can now learn about another city, culture, or train schedule from the Web. Whereas the Web has facilitated access to information, e-mail has expanded our exchange of ideas and friendships. We can now communicate to a larger audience, rather than by a single telephone call or a teleconference call.

We no longer need a dedicated office for the Web and e-mail—just a computer and connectivity to the Internet. There are several policies, including Americans with Disabilities Act (1990) and Rehabilitation Act Amendments of 1998, Section 508, that address accessibility of information for PWDs under Federal, State, and local government. While ADA references State and local governments, Section 508 establishes a requirement that the Federal Government, and by extension, through the Assistive Technology Act of 1998 <www.itpolicy.gsa.gov/cita/AT1998.htm>, state government also, procure information technology that is accessible.

Universal accessibility is not just for PWDs – it is for everyone. Universal accessibility is needed to ensure that PWDs and others can access Web-based information. Even though ADA and Section 508 require Federal, State and local governments to make accommodations for PWDs, there are currently no Federal guidelines for agencies to use. However, some states, colleges, cities, and Federal agencies have implemented accessibility guidelines, for example the City of San Jose, California.

To build a universally accessible Web site, here is an outline of the processes the Web designer, coder, content manager, graphic artist or team can use. The foundation for any universally accessible Web site is the guidelines. The World Wide Web Consortium's Web Accessibility Initiative (WAI) has drafted guidelines, The Web Content Guidelines, for people to use. On this Web site you will also find Techniques for Web Content Accessibility Guidelines and List of Checkpoints for the Web Content Accessibility Guidelines. The Web Accessibility Initiative also provides an Interest Group or forum for discussion on issues relating to Web accessibility, particularly issues related to WAI activities.

Universal accessibility incorporates usability and universal design. So when building a Web page or Web application, accessibility problems or other design errors can be greatly reduced before the Web page or site is released to the public. This is accomplished by applying quality assurance to check the concept, syntax and code; layout, navigation, and graphics; and acceptance testing on multiple browsers and users.

Quality assurance incorporates internal or external reviews or peer reviews, and applying third party tools, for example, CAST's Bobby for an accessibility check, W3C's HTML to validate the code and StarBase's StarSweeper to check for ALT Tags, Titles, Height and Width and other quality assurance functions. Acceptance testing can be accomplished on multiple browsers to ensure the information is conveyed and there are no navigation or site usage problems.

For example, here is a simple process to follow in order to build a universally accessible Web page or Web applications:

Step 1 Define the audience, business requirements and rules, objectives, and timeline with the user.

- Step 2 Determine resources, schedule, and sketch the process with a flowchart.
- Step 3 Determine the design requirements and universal approach, refer to the Web Content Guidelines and internal design documents.
- Step 4 Design and layout the Web site or Web application.
- Step 5 Design review with the customer to ensure the design is what they envisioned.
- Step 6 Quality Assurance. The Web coder or programmer would then conduct a Quality Assurance review by using Bobby; and a HTML code validator and one or a combination of the following tools or methodologies: content review; preview on Lynx, a text based browser; multiple browsers and versions (Internet Explorer 3 and 4, Netscape Navigator 3, 4.x, and Opera); voice-based Web browser (pwWebSpeak), and screen readers (WIN Vision and Jaws For Windows), Palm devices, StarBase's StarSweeper and Web site Garage. Other items that can be checked are, Does the page print properly in black and white and color? Can all the print and graphics be read?
- Step 7 UNIT TEST. This is conducted by the coder or programmer to test compliance to the business requirements. For example, test to ensure the e-mail functions and the message is received by the recipient, forms are tested and data checked, links are tested. Usability testing can be either simple or more formal. This can be conducted by users who are not associated with the design or an independent third party can provide a review of the design concept. If the

design uses queries or updates to modify or retrieve information from the database, then this will need to be tested. The coder can develop scenarios using a spreadsheet to document the process, more commonly referred to as a script. There are also automated testing tools that will record your script and play it back anytime or simulate different browsers. These tests serve as a baseline for the design criteria and also can document the expected results.

- Step 8 Acceptance Test. This is formal acceptance by the customer of the product you designed as based upon customer requirements and a test plan. This procedure can be either a simple checklist or a more formal document if it is part of a more business critical function.

There are also several efforts underway by university-related, non-profits, consortiums and government agencies to (1) Research new technologies and apply to the home or workplace, and (2) Provide education and outreach. These efforts conduct critical research and provide methodologies, guidelines or tools to support universal accessibility. Therefore, everyone must be cognizant of PWD accessibility needs for the Web to ensure we can provide universally accessible information to everyone.

Referenced Resources

- **Web Accessibility Initiative**, www.w3.org/WAI
- Americans with Disabilities Act (1990) and Rehabilitation Act Amendments of 1998, Section 508, Policy References, www.w3.org/WAI/References/Policy
- The U.S. Access Board, < www.access-board.gov > and the Electronic and Information Technology Access Advisory Committee (EITAAC)
- The President's Committee on Employment of People with Disabilities, www50.pcep.gov/pcepdl/
- Bobby, www.cast.org/bobby
- **Quick tips to make accessible Web sites**, www.w3.org/WAI/References/QuickTips
- Web Content Guidelines, www.w3.org/TR/WAI-WEBCONTENT/
- Techniques for Web Content Accessibility Guidelines, www.w3.org/TR/1999/WAI-WEBCONTENT-19990324/wai-pageauth-tech
- List of Checkpoints for the Web Content Accessibility Guidelines 1.0, www.w3.org/TR/1999/WAI-WEBCONTENT-19990324/full-checklist
- Web Accessibility Initiative also provides, www.w3.org/WAI/IG/
- Starbase, www.starbase.com
- Web site Garage, <http://Websitegarage.com>
- Miscellaneous Information, www.webspots.net

Hands-On Technolog(eye)s, Touching The Internet

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Wheaton, MD

What do people with disabilities use to access the Internet? There is not a simple answer even though the question may appear to be simple. It has many aspects upon which I will touch, but first some background on me and then I will provide the answer.

I have been involved with the National Library Service for the Blind and Physically Handicapped (NLS) since I was quite young. First as a patron of a special program which they administer through regional libraries around the country to produce books and other materials in formats other than standard print so that those with print impairments such as dyslexia or blindness can read them. Later, I became a volunteer technical consultant in Braille production for the Maryland State Regional Library for the Blind and Physically Handicapped (LBPH) in Baltimore. You can find more on this service at: <<http://lcweb.loc.gov/loc/visit/ada.html#nls>> .

The Internet began as primarily a text tool and remained that way for most of its short history. It is only recently, say in the past 5 years, that the Internet has begun to be littered with things we can't access. Rather than replace libraries, though, the Internet has come to enhance their services and potential offerings.

Beginning to answer the question: People with disabilities use the same things that we all use to access the Internet and work, live, and play on and in it. Telephones, PDAs, set top boxes, computers, monitors, mice, microphones, headphones and keyboards all play a part, sometimes subtractively, in this. Using the industry and resources, we have to adapt to society and raise awareness of the issues. We can continue to do so and expandingly so rather than diminishingly.

As we move towards a more advanced technological age, it can mean that many people, due to a need for diversity, are closed out due to the narrowing of potential avenues of access. Or, it can mean that we all shall have access because of the greater diversity and flexibility that can be achieved with the technologies that bring this about. Much on how this can be accomplished can be found at Web Able whose Internet address is: <www.webable.com> .

The Internet can and has often leveled the playing field between us. As a matter of fact, it is doing this right now as I compose and send my thoughts to you. Through this tool, we can interact, create, share ideas, images, and sounds as well as meet instantly through the power of the Internet and multi-media.

The Able Channel

Jeffrey Pledger

Able Channel
Reston, VA

With the advent of new technologies introduced to the Web, e.g., video streaming, the subject of Web site accessibility often is not regarded as a primary issue. What exactly is video streaming? Video streaming is the ability to play and view video content via the Web without having to download the video to your PC. The video is buffered or streamed into your PC through your modem and once your video buffer fills, the video will start playing. You can control the actions of the streamed video content like it was a video in your VCR at home; the difference here is that you are viewing it over the Web.

One group stands out as an exception as an info-mediator. The Able Channel, in a cooperative partnering effort with TV on the Web, is changing this situation by meeting the requirements of individuals with disabilities.

Both the American Census Bureau and the World Health Organization estimate that there are over 50 million people in America and approximately 750 million people worldwide with an identified disability. These numbers are increasing daily due to an aging population, illnesses and accidents. The principal founder of the Able Channel particularly understands the importance of Web site accessibility. Jeffrey Pledger, President, lost his sight 15 years ago due to illness.

The mission of the Able Channel is to provide and share information on a variety of subjects

concerning people with disabilities. By providing the information in an accessible format, the Able Channel will assist in empowering this growing segment of the world population to make value added choices.

We plan to accomplish this through the power of the human spirit in cooperation with the tools of science and technology. The Able Channel will bring you the activities, information and assistive technologies of the differently-abled communities. Our vision is to be the central repository on the Web for storing data about activities, assistive technologies and general information concerned about and for all types of disabilities.

The information presented will be in an accessible video format, including audio descriptions and closed captioning. The use of the WWW as a delivery mechanism for this type of product has two main strengths: world wide coverage and affordability.

Both TV on the Web and the Able Channel have the ability to provide this leading edge technology via the Real Network's G2 video player. With the recent implementation of the Real Network's G2 server software, the capability of delivering accessible videos through the Web via video streaming techniques can be realized by all people. We are also investigating the use of Microsoft's Windows media player as another choice for you the public to choose as your video player.

The Web and Effective Usability

Mark Hakkinen

Ray Ingram

Productivity Works, Inc.

Trenton, NJ

Accessibility is perhaps the wrong way of looking at things. We are really talking about effective usability. When we think in these terms the audience we need to support is greatly expanded - visual and print impairments, color blindness, short and long sightedness, mobility restrictions, dyslexia, attention deficit disorder and last, but not at all least, people who are not PC and Graphical User Interface literate. This groups then accounts for probably 40% or more of the potential audience for public access to the Internet and library information and services.

Today we are talking about, and showing, a public access kiosk that incorporates accessibility and usability features. The information provided to the kiosk is from standard Web pages, which our software then makes accessible. The software being used is called pwKiosk. The software provides access for people with print impairments and literacy

problems, as well as people with mobility problems who cannot use a touch screen. The demonstration demonstrated these types of interfaces.

The kiosk and PCs represent only two of the forms of access to Internet and Web related information. There is also the telephone, electronic book reading devices, and hand-held devices, all of which may deliver information to a user. You need to start looking at your Web sites a different way. Think of them as the master source for people calling in by phone, using public access kiosks, PCs, or hand-held devices. A single source with multiple delivery modalities.

Designing your Web site for usability will make the Web site accessible to the widest possible audience.

Ready Access to Information for People with Disabilities

Joseph Roeder
National Industries for the Blind
Alexandria, VA

Access to information is not just a nice idea, it can mean a person's job!

National Industries for the Blind, together with its 88 affiliates nationwide, works to create, sustain and improve jobs for people who are blind or visually impaired. Electronic information is a major part of nearly everyone's job and this has produced both opportunities and obstacles for blind workers.

Hospital switchboard operators need to find staff and patient phone numbers in computerized directories; service representatives need to look up product information in computerized catalogs; attorneys and judges need to research law libraries and deal with court documents; many persons use the Internet to track down all sorts of information.

These and many more jobs are being done by people who are blind, using computers equipped with speech, Braille or large print displays. These special accessories are called "access technology," "assistive technology," or "adaptive technology."

Information needs to be not only accessible, but READILY accessible. This means if most people can get to it with just a mouse click or

2, it should not take a blind person 6 or 8 keystrokes to do the same thing. When information is READILY accessible then a person with a disability is as productive and competitive as everyone else.

The biggest and costliest barrier to accessibility is at the interface between the human and the machine. By taking into account the need to accommodate different modes of presentation and interaction, we simplify the problem, and the earlier this is done in the hardware and software design stage, the easier and less costly it becomes. Much effort and money is being spent by computer hardware and software developers to smooth out this interface. Perhaps one day it will be as easy to change the mode of operating a computer or other electronic device as it is to shift gears in a car.

But access technology is only part of the solution. There are tools and guidelines to help us ensure that documents, Web pages and other information products are created in a way that can be shared with others who need (or simply prefer) a different mode of presentation. Everyone who deals with information needs to be aware of these tools and how to use them if they want to reach the widest possible audience.

Things Change: The FDLP Setting and Early Partnership Efforts

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Introduction

While putting my thoughts together for today's presentation I took a short break, did some channel surfing, and came across an old favorite Don Ameche and Joe Mantegna movie called *Things Change*. While there aren't any insightful anecdotes from the film pertinent to today's presentation, the title, *Things Change*, is certainly appropriate for any discussion of the developments that have led to today's session on Web based, Federal Depository Library Program (FDLP) electronic partnerships.

In the first part of my talk I will discuss developments in the information delivery environment over the past 10 to 15 years that have led GPO to consider a network of partnerships as a plausible mechanism for managing the FDLP Electronic Collection. Second, I will describe several partnership efforts I was involved in establishing while working at GPO in 1996/97. And third, I will conclude with a couple of observations on what I believe to be the greatest challenge facing the partnership program.

And boy, have things changed!

Background – Technological Change

When I started work in documents in August 1986, we were searching the Monthly Catalog on an AutoGraphics product called MicroMax, which was a computer generated roll of fiche that contained the entire Monthly Catalog from 1976 on. At that time, all the computerized searching we did was on a 1200 baud phone

connection to DIALOG, OCLC, or RLIN. The basic InfoTrac index had just started up as a laser disk product in the reference area in 1985. The library had no CD-ROM products.

In 1987, we began to experience a bit of change. We were a test site for AutoGraphics GDCS MoCat CD-ROM.

In 1988, the year the film *Things Change* was released, things really began to change. We received the first GPO electronic pilot product, a CD-ROM named Census Test Disc #2. How many of you remember Test Disc #2? And how many of you still keep it in the bottom desk drawer with all those other things you never were sure what to do with?

In all, there were five GPO electronic pilots, which really did pave the way for the use of electronic materials in our libraries. How many of you remember the Department of Commerce's Economic Bulletin Board (EBB)? As a pilot project, the EBB was the first online product made available through the FDLP (GPO Pilot Projects).

By 1994, Federal agencies were spending an estimated \$7.8 million dollars on dial-up bulletin boards and nearly \$51 million on Internet resources. By 1996, agencies were still spending in the neighborhood of \$7 million on dial-up access, but were spending some \$325 million on providing Internet-based information resources (Report to the Chairmen). I would imagine that has escalated significantly over the past three years. And, according to the 1997 Biennial Survey results,

over 88% of us are providing public Web browser access to that information in our departments. How many of you provided public Internet access in 1988? Things indeed do change.

Background – Persistent Principles

On the other hand, while some things have changed, others have stayed the same. While information technologies have changed dramatically, the mission and goals of the Federal Depository Library Program have remained relatively constant.

For example, I would guess that virtually everyone in this room would agree with such basic FDLP assumptions as:

- The public has a right to access Government information;
- The Government has an obligation to disseminate and provide broad public access to its information;
- The Government has an obligation to guarantee the authenticity and integrity of its information, and
- The Government has an obligation to preserve its information.

For the most part these remain the guiding principles for our activities as participants in the FDLP.

Over the past decade, the library community and Federal information providers, particularly the GPO, have struggled to assure these traditional public access values in an era of rapidly changing information technologies. This struggle has been particularly difficult because changes in information technology have far outpaced adjustments to Federal information policy.

The problematic policy issue has been the question of whether Federal agencies are required to cooperate with the FDLP in the dissemination of electronic information products. Simply put, the section of Title 44 U.S. Code that defines Government publications is by some interpreted to apply only to printed materials, not electronic. In fact, many agencies accept this interpretation and ignore the FDLP as an avenue for distribution of electronic publications.

As most of you know, the library community has worked valiantly over the past two years to draft, lobby, and negotiate Senate Bill 2288 (105th Congress), the Wendell H. Ford Government Publications Reform Act, through Congress. This bill would have taken great strides toward resolving the growing fugitive documents problem. Unfortunately, despite all the good work done by the library associations, GPO, and others, S. 2288 did not pass.

Given this policy vacuum and the transition to electronic distribution, it is difficult to envision how the sort of centralized coordination of access to Government information that the FDLP provided in the world of paper will translate into our new universe of electronic resources. In the old world of paper, agencies were required to print through the GPO, and with these materials in the GPO print plant, the Library Programs Service could fairly readily identify items that should be distributed through the FDLP.

In the new universe of HTML editing and Internet access, agencies often publish their information directly on the Web, cutting out the GPO as printer, Library Programs Service as coordinator, and FDLP libraries as repositories. This bypassing of the FDLP, of course, raises the critical question of how the assumptions and principles assured through the more or less centralized FDLP program in the past will play out in the significantly more scattered Internet-based information environment into which we are evolving.

Report to Congress

In August 1995, GPO managers were given the opportunity to collect their thoughts on how to adapt the "Program" to the new information environment. Responding to changes in technology, to efforts to trim the budget, and to Al Gore's efforts to re-invent the Federal Government, Congress instructed the GPO to undertake a Report to Congress, Study to Identify Measures Necessary for a Successful Transition to a More Electronic Federal Depository Library Program. The final report from this study (hereafter the Study) was issued in June, 1996, and has provided a framework for many FDLP efforts over the past several years.

One basic assumption of the Study is that the scope and volume of Government information made available in electronic formats has become so vast that no one entity will be able to manage it and that a new FDLP model will develop to accommodate the increasingly new information environment.

Several quotes from the Study demonstrate the extent to which the Study envisions partnerships to be an integral component of this new model FDLP:

- The Strategic Plan proposes a new FDLP model that allows the traditional partners in the program to interact in new ways and which defines the various partners in the process by the services they provide rather than by the actions they perform (p. 20).
- GPO also may establish partnerships with depository libraries to retain and provide permanent public access to certain types of information (p. 24).
- An enhanced system is needed to ensure permanent public access to electronic Government information products through the FDLP. Such a system must include all of the institutional program stakeholders:

information producing agencies, GPO, depository libraries and NARA (p. E-v).

- In the new FDLP model, forward movement of information products can stop at any one of the points in the dissemination process: the point of creation (the issuing agency), the point of coordination (GPO), or the point of local access (depository library). Nor will Government information products always reside at the same location both for immediate and permanent access.

Some agencies may decide to fulfill their obligations for public and depository access through their own electronic information services for the short term, only to pass responsibility for the information on to GPO for permanent access through the FDLP. Under other partnering arrangements, depository libraries may accept responsibility for permanent public access to some types of Government information products. The party that retains physical custody of the information for on demand depository access will be responsible for the information's authenticity, storage and maintenance (pp. 20-21).

Significantly, the Study vests in GPO the responsibility for coordinating this new model. Quoting again:

- GPO, as administrator of the FDLP, will coordinate a distributed system that provides continuous, permanent public access, involving the publishing agencies, the National Archives and Records Administration, and regional and other depository libraries (p. E-7).

While these statements outlined a substantial responsibility for GPO as administrator of the FDLP to oversee some sort of network of partners to provide access to the burgeoning mass of electronic Government information,

there was little beyond these statements of principle and general responsibility to provide guidance to the GPO employees given responsibility for implementing the strategic plan. They provide little in the way of concrete suggestions on how this system of partnerships would be implemented.

Implementing the Study's "Strategic Plan"

Defining what partnerships would be and how they would work would need to be worked out as GPO staff began to implement the Study's "Strategic Plan." Of that I became intimately aware when I started working for GPO as a consultant in June 1996, less than a month after the "Strategic Plan" was published. The partnership questions was assigned as one of my primary responsibilities.

Sandy Morton-Schwab, also a consultant at that time, and I set out with various GPO staff to try to establish one or more prototype partnerships. Because there were no FDLP partnerships, it was our hope that by actually establishing prototypes we could work through some of the details that would define partnerships.

The projects on which Sandy and I worked took dramatically different directions, defining a sort of dichotomy in the way partnerships are organized. Sandy looked toward establishing partnership agreements in which GPO would work directly with agencies. In effect, she worked to establish partnerships as Interagency agreements between GPO and other Federal agencies.

Early on Sandy's main effort was to establish an arrangement with the Department of Energy, which led ultimately to the DOE Information Bridge partnership of which you heard Dr. Warnick speak on Tuesday morning. Sandy also worked on the Interagency Agreement which formalized the NTIS/FDLP pilot partnership.

My focus was on partnerships looking in the other direction, toward libraries as potential partners. This immediately suggested two possible types of library partnerships: one in which there was a two way partnership between GPO and the library, and one in which there was a three way relationship between the GPO, the library, and the Federal agency producing the information. The latter scenario seemed the more interesting and desirable because it would lead to new and unusual relationships among the three partners.

I will confess that I took the path of least resistance in my efforts to identify potential prototype library partners. Rather than start from scratch I identified a couple of libraries that were already working with agencies and tried to negotiate partnerships with them. I contacted two colleagues whom I knew and who were involved in existing arrangements with agencies:

- John Shuler at the University of Illinois, Chicago (UIC), who was working under contract with the Department of State to manage the DOSFAN Internet site, and
- Greg Lawrence at Cornell, who was similarly under contract to manage USDA Economic and Statistics Service Internet resources.

Owing to various factors, the discussions with UIC advanced more quickly and provided the opportunity to work through a prototype Memorandum of Understanding (or MOU) which was signed by UIC, the Department of State, and the GPO. The MOU outlined responsibilities of the three partners, and, at base, assured that the information UIC maintained on DOSFAN would remain permanently accessible through the FDLP. If UIC were to have difficulties in the future that would preclude them from operating DOSFAN, GPO assured that they, or a new partner, would absorb the responsibility for making these Department of State products

available for FDLP access. I will confess that what I saw as the most significant outcome of establishing the DOSFAN partnership had more to do with having successfully gotten the MOU through the GPO legal review process than with folding some excellent information resources into the program.

Discussions with Cornell regarding a partnership bogged down. Cornell has a unique arrangement with the Department of Agriculture and the issue of a partnership assuring permanent access raised questions that could not be resolved at that time. However, being at the table with Cornell did provide GPO with some exciting opportunities, including participation in the national conference on the preservation of digital agriculture information, about which Pam Andre spoke yesterday.

Participation in this conference, one of only a handful of efforts addressing the electronic preservation issue at that time, provided GPO the opportunity to interact with others interested in providing permanent access to a specific subset of Government publications.

Because the basic underpinning of partnerships as we perceived them at that time was permanent access, discussions with Cornell pretty much ended there and a partnership was not established. However, during our discussion Greg did make some interesting suggestions for possibly forming a reference oriented partnership which would be based on the value added bibliographic and reference assistance that Cornell had built into the site. While no partnership was developed, I did think his idea was intriguing. In fact, a substantial portion of the value of the FDLP partnership with University of North Texas on ACIR (Advisory Commission on Intergovernmental Relations) products, and DOSFAN's Electronic Reference Service, of which John will speak shortly, is the librarian-enhanced access they incorporate into their Web sites.

Another interesting possibility for identifying partnerships I explored beyond turning to UIC and Cornell is what George Barnum calls the dead agency partnership. That is, identify an agency that has recently been eliminated and then find a library willing to partner on those materials. I made my initial contacts with Cathy Hartman in this light on ACIR materials. What makes the dead agency scenario easier is that only GPO and the library need to sign off on the MOU – there is no agency.

I don't have time to talk of all the partnership angles I tried to work, and in fact have probably forgotten many. One that was interesting was establishing a "pilot" partnership with OCLC on ERIC documents. OCLC was interesting as a potential partner owing to their huge digital storage capacity and their familiarity with the library community. The duration of that partnership is over and the results are being assessed.

With these accomplishments and near accomplishments under my belt, I left GPO to return to the university library. I couldn't help but feel that what I had done was the easy part. Sure, we had worked out some details and come up with some models as called for in the Council recommendation. But the real work of making these partnerships lay ahead. The real daily operational details had yet to be worked out.

Concluding Observations

I also exited the doors of GPO with several big questions that I knew would need to be resolved, yet were hardly at that time even on the table. I will conclude my comments with a three part summary of what I believe is the biggest challenge facing the partnership program.

1. Agency non-compliance:

I believe that unless Title 44 is revised, Federal agencies will tend to deliberately not use the

FDLP as a channel for distribution of their electronic information products. This is partly owing to a lack of knowledge within agencies of either the extent to which their information products are available through depository libraries or the degree to which GPO catalogs and provides access to their publications.

Agencies tend to see their responsibility as getting information to targeted audiences, then preserving the few publications having historical value in the National Archives and Records Administration. Their basic awareness of GPO is as Federal printer, not as the coordinator of the library program. Agencies are probably unaware that the positive efforts they are making to save resources and provide timely, ubiquitous access by making their current information available via the Web are potentially undermining future access to Federal information through the library program.

2. Active Model:

Assuming that agencies avoid (deliberately or unintentionally) using the FDLP, new energies will be necessary for the FDLP to function as a more or less central source for accessing Federal Government information. The old paper model of FDLP distribution was relatively passive. The stuff simply came to GPO and GPO distributed it; agencies were required to use GPO for printing. Some mechanism will need to be established in the Web model for the discovery, capture, and preservation of agency information products.

3. Matchmaker:

Someone needs to take the lead in linking potential partners together. In my opinion, all players have some responsibility and must contribute some level of energy toward this end, but I believe equally that it is critical that GPO take the most active role, essentially to establish a mechanism whereby GPO functions as matchmaker between agencies and libraries.

My impression is that the sort of relationships that Greg Lawrence has arranged with the Department of Agriculture and John Shuler has made with the Department of State are praiseworthy exceptions to the norm, but they are exceptions and I don't believe that there are many libraries that will follow their lead. Someone needs to be there to lubricate or facilitate the process.

If the FDLP is going to effectively tame the electronic information beast through partnerships, my opinion is that GPO is going to have to be that middleman. I know staffing is tight given other responsibilities, but the advantages GPO has are 1) they are local to many agencies, 2) they have the auspices of being a major Federal agency, and 3) they have existing contacts and outreach to agencies. It makes sense that GPO take advantage of these existing advantages rather than having multiple libraries work from scratch.

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Partnerships on the Web: FDLP Partnering to Provide Access to Electronic Resources

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Good morning! When I first arrived at GPO almost two years ago, I found myself being referred to as "the new Duncan," since I followed Duncan Aldrich as expert consultant. As my time in the big red buildings has worn on, I've acquired a new moniker, "Mr. Partnership." So it's in that role that I'm thought to have a contribution here this morning.

In reality, taking Duncan's name in vain is not completely in jest here, since it was his white paper that first collected and made clear the notion that GPO is assuming responsibility for permanent access, in a way that we see as analogous to our role in continuing accessibility for paper documents distributed to depositories. We delegate the specific tasks and responsibilities to a partner, via a written agreement.

Two of the principal challenges in our commitment to providing permanent accessibility to electronic Government information products, which Duncan identified in the white paper, are the issues of the capacity required for storage of the data and the expertise required for making it available. Both of these tasks are formidable. Partnerships are a way for us to model various strategies for redefining the FDLP, taking advantage of the possibilities of the electronic environment.

To date, we've tried out several basic models for working in partnership with agencies and libraries:

- Content partnerships, in which an agreement for storage and service of specified electronic publications is struck between the agency, a library, and GPO;
- Service partnerships in which the partner produces a resource or tool of use in administering the FDLP;
- Gateways, in which partners provide useful alternative views and locally tailored interpretive information for GPO Access; and
- agency agreements in which we're experimenting with agencies on providing access directly to their information.

We can identify a number of potential benefits in these arrangements:

- Permanent public accessibility
- Assured bibliographic control
- Distributed workload
- Increased involvement of libraries
- Strengthened relationships between agencies, GPO, and libraries

The common thread, from GPO's point of view, that runs through all these arrangements, and which differentiates them from the traditional relationship between depository libraries and the FDLP, is that there is in all these cases some formalized, written agreement defining the terms and goals of the partnership. For content and service partnerships, there is a Memorandum of Understanding, signed by all participating

parties, which details specific expectations by which the performance of all parties can be measured. For Gateways, a letter from the Superintendent of Documents summarizes GPO's expectations. Agency projects are formalized by an Interagency Agreement which functions much like the Memorandum of Understanding.

The other common denominator, in all our agreements to date except one, is that GPO makes no direct monetary payment to the partner.

I've spent some time considering a number of issues about how GPO can make the most of partnerships. For a time, we were looking very hard for ways to "streamline" - that is, move the formation of the partnership and the written agreement process from the "work of art" stage to more a regular process.

I've come to believe that the more important issue than that is the whole way partnerships should germinate. I've been asking lots of questions: If a library wants to be a participant, what's the best way to get it together with an agency? Is the best approach to work with agencies and actively seek library partners according to their needs? Or should we work to reduce the administrative obligations on agencies as active participants? Is the single agency/single host model the only one we should consider, or could partner libraries derive more value from a topical approach? What about partners who are interested in scanning retrospective content? And what do we at GPO do when a library approaches us with a really good idea?

All of these are questions we're pondering, and that have in many cases been brought to mind by the other folks on this panel and their

projects. We're still searching for a set of models that will be as effective and inclusive as possible. Inclusivity is the key - there is probably not a single answer, no one-size-fits-all approach.

We have recently been much encouraged by a meeting with some agency Webmasters in the idea of placing a far greater responsibility on the partner and GPO to discover and capture information, and involving the agency "after the fact." The cold fact seems to be that while there may be some interest in the idea of permanent accessibility on the part of the agencies, it's not much of a priority for them, and no large allocation of their resources is going to be given over to initiating it. This approach may lend itself to our "topical" idea, in which we feel that libraries may have an interest in being the FDLP partner site for information on whatever, and it may be all information from one agency, or from several.

One piece of my work in recent weeks has been the revision of our basic Memorandum of Understanding document. We originally thought to work from a "boilerplate" document that could be adapted for each individual situation. I'm now at work on what I'm calling a "drafting guide" that will give sample language and guidance on what content fits what situation, in a sort of "two from column A, one from column B" format. It's my hope that this guide will make the mechanics of starting partnerships a good deal easier.

So, that's the view from "the two Duncans:" where we've come from and where it might be leading us. Now Donna Koepp, who (fortunately for me) needs no introduction, will describe her recent experience in trying to create a partnership project.

Constructing a Partnership: Nuts and Bolts Perspective

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I have been asked to share with you information about the partnership that I have “under construction.” I’ve been working on this for a couple of years, and still have a ways to go, but I think there may be some information about the process that I have gone through that may be worth sharing with you.

As many of you probably are aware, I have been involved with maps and cartographic information for a long time, so it will come as no surprise to you that the partnership that I am working on involves cartographic and spatial data. I have two underlying concerns that caused me to pursue a partnership idea.

One, I am and have been for a very long time, concerned with the preservation of data. Long before we talked about the transition to an electronic depository, I was concerned about what was happening to historical data when map revisions were made electronically in the map producing agencies. This has been going on for a long time.

Secondly, I became concerned when it became apparent that spatial databases were being withdrawn from the depository library program because there was no cost-effective way of distributing some of these huge data sets, specifically the DOQs (digital orthophotoquads).

Now, having said that much, I would like to interject here, that the content of my partnership idea is not what is important about what I have to say. I’m talking about cartographic and spatial data, but I could just

as easily be talking about Bureau of Reclamation projects or National Park Service data or trade data from the Department of Commerce. What I hope to communicate is the process that I have gone through to get to where I am now. It is my hope that by sharing this process with you that it may inspire you to pursue a partnership idea in some area that is of special interest to you.

My opportunity to pursue the partnership option came from my involvement with and membership on the Cartographic Users Advisory Council. For those of you who are not familiar with this Council, the Cartographic Users Advisory Council (CUAC) is made up of representatives of six map library organizations and organizations which have an interest in maps. These organizations are ALA’s Map and Geography Round Table (MAGERT), the Government Documents Round Table (GODORT), the Geoscience Information Society, SLA Geography and Map Division, the Western Association of Map Libraries (WAML), and the North American Cartographic Information Society (NACIS).

CUAC meets annually, usually in the Washington, DC area with map producing agencies and at least one representative of GPO. Each representative on CUAC is assigned one or two agencies to liaison with throughout the year. The goal is to establish a good contact with the agency, learn as much as possible about the activities of the agency and to communicate to the agency the mission of the Federal Depository Library Program.

Over the years we have gotten to know some of these agency representatives very well and have developed a good working relationship with them. CUAC has been meeting since 1978. Beginning in 1984, when both U.S. Geological Survey (USGS) and the Defense Mapping Agency partnered with GPO for the management of their depository programs, CUAC began working with GPO as well.

The mission of CUAC is similar to GODORT's adopt-an-agency program, which operates within the Federal Documents Task Force. It seems to me that the adopt-an-agency program or concept would be a very good vehicle through which one could pursue an agency contact that could ultimately lead to a partnership.

At the 1997 CUAC meeting, USGS explained that they were having to withdraw the DOQs from the depository library program, and explained the reasons for having to do that. The DOQs are digital orthophotoquads, which are aerial photographs covering most of the U.S. Basically, these huge datasets were expensive to produce, and sales of this product to the public and commercial vendors had not reached the level that USGS had anticipated, so they had decided to press them on demand only. As an alternative to putting them into the depository program, they were also offering to provide them on demand for a price to GPO, but they could not continue to distribute them to all of the libraries that had selected them. This was not a matter of the agency not wanting to cooperate with the depository program, but the reality of the situation was that they could not afford to distribute the information in the way they had originally hoped to do.

Of all of the electronic spatial datasets that USGS has distributed, the DOQs are the only one that is not distributed in any other way. There is no paper product. If we don't get them electronically, we don't get that information at all. This is truly information that

is not making it into the public domain in our libraries. Some of you may have accessed DOQ information on Microsoft's Terraserver <<http://terraserver.microsoft.com>>. USGS has a Cooperative Research and Development Agreement with Microsoft for putting images from the DOQs on the Internet. This has been a research effort for Microsoft to develop their technology for serving very large datasets. It is not certain how long they will maintain this site.

The Terraserver has a huge amount of DOQ data, images of the whole US, but they are just images and one cannot do anything with them other than view them. With the data that we should have gotten on CD-ROM we would be able to download the data for the image we wanted into a software program, such as ERDAS or ArcView and incorporate it into whatever map we are working on. We could display thematic information on it, or overlay the image with another map. In other words, from the CD-ROM we would have information that our users could interact with and use in their research, not just view on the screen or order off-line.

Although the DOQs are the only firm example I have of spatial data that has been withdrawn from the depository program, it seems to me that this could be just the tip of the iceberg. There is probably other electronic data available in other map producing Federal agencies that is just as expensive and complex to distribute to libraries that we probably are not getting into the depository program at all. Maybe we don't even know it exists. And how do we know that it is being preserved? Are revisions being made over the top of old data without a copy of the old being saved for historical purposes? If this data goes to NARA, do they have the capacity to archive it, refresh it, and to migrate it when necessary?

At the CUAC meeting where USGS announced that it had withdrawn the DOQs from the depository program, there was also a

representative from the Federal Geographic Data Committee (FGDC), who indicated that she would be willing to work with us to see if there was any other way that this information could still be distributed. That willingness on the part of another Federal agency was the impetus for exploring the partnership idea. Shortly after this I talked with a few folks at GPO about the idea of a partnership, but only that this was an idea I was pursuing on behalf of CUAC. We took no action at that time. GPO noted the fact that I was interested in pursuing this, offered to help if they could and asked that I keep them informed.

About a year after that particular CUAC meeting, two members of CUAC met again with GPO, USGS and FGDC to discuss how we might proceed. By this time I had begun to think in terms of all, or at least many Federal map producing agencies and not just USGS. And I began thinking that a partnership for cartographic and spatial data would need to involve more than one library as well.

My idea is this. That a consortium of depository libraries be established to partner with Federal map producing agencies and GPO. The consortium members would each commit to providing permanent, user friendly access to spatial and cartographic data. The agencies would provide just one set of their data to the consortium and the consortium would make it accessible over the net. The way in which the data would be distributed among consortium members has not been determined. Consortium members have not been totally determined. What is known is that consortium members, which would be depository libraries, likely those with a strong map library committed to electronic cartographic information access, would likely have to work with others on their campus such as geography departments and computer centers in order to have the resources to make this commitment.

Our hope is that with the help of expertise from geography departments, better access could be provided to spatial and cartographic data. Perhaps a query by geographic area would give one the option of clicking on a variety of types of data. A common interface would be developed for accessing all types of cartographic data. Huge data sets would be stored on large servers in the computer centers of consortium members. Data that could not be stored could be available 'near line' on demand by using robot technology. Data would be refreshed to assure continuing access and migrated to new technology as necessary. I envision a consortium of perhaps 10 libraries. This would be small enough so that members could work together to share expertise already developed in the geographic information systems field and to further make this technology easier for us to use in our libraries.

This is the part that is still under construction. This cannot be done without major money. My goal is to get grant money of some kind that would fund this idea. That is where I am at the moment.

The details of this particular partnership idea are less important here than the process by which the inspiration for the partnership occurred and the steps taken toward implementation. Let me say in summary, that there are certain elements that appear to me to be necessary for the formation of a partnership. Number one, request and read GPO's partnership agreement to determine if this is something that you are interested in being involved in. If you are, then:

- 1) You need to have an area of interest or area of need that you wish to pursue for your institution. You need to have an interest in making this information accessible and permanently available.
- 2) Make some contacts with the agency concerned. Try to find someone in the agency who has similar interests in assuring

permanent access to their data. This may not be the first or even the second person you talk to, but keep trying. You may be interested in doing this through GODORT's adopt-an-agency program.

- 3) Talk to GPO about your idea and your goals.
- 4) Be patient and persistent. Partnerships, I believe, may not be built overnight, or at least the relationship with your agency contact usually will take a bit longer than that.

Although I would agree with George that we must move beyond each partnership being a work of art, I suspect there will always be some that will require a bit of creativity and careful crafting. At the same time, however, the process will get easier with more experience. After all, the first few of these have required charting new territory. Since GPO now has experience in the development of several partnerships, the process should be easier and faster.

- 5) Get the approval of your administration early on. This is a significant commitment that is being made by your institution, and not just by you.

It seems to me, that this 'notion' of partnership, as I have heard George refer to it a few times this week, is very exciting. We are charting a new way of doing things. The old method of regional libraries preserving everything in perpetuity doesn't work any more. The paradigm has shifted, as much as I dislike that term, I guess it suits this situation better than anything else. We have an opportunity here to be pioneers in developing a new way of preserving public information. Until someone comes up with a better idea, partnerships are the way we will do it. The field is wide open. There are literally hundreds of areas that need our attention. From the tiniest subagency or bureau to the very very big, there are many exciting opportunities. I hope that you will give this notion of partnerships some thought.

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