Proceedings of the 4th Annual Federal Depository Library Conference

April 11 - 14, 1995

Library Programs Service
U.S. Government Printing Office
Washington, DC 20401

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Rosslyn Westpark Hotel
Arlington, VA

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1995

Marian W. MacGilvray
Editor

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Preface

This volume presents the papers given at the 4th Annual Federal Depository Conference, joining the Proceedings of the 3rd Conference, published in 1994. Papers of the first two conferences were published in Administrative Notes, Newsletter of the Federal Depository Library Program, in various issues of vol. 13 (1992) and vol. 14 (1993).

All available papers from the 1995 conference are included. Some presentations consist of the material shown as overhead projections or other audio-visual displays.

The Library Programs Service thanks all those who contributed to the success of this conference: speakers, presenters of demonstrations, and all those who put in many hours behind the scenes to plan the entire program.

Agenda
1995 Federal Depository Conference

April 11 - 14, 1995
Rosslyn Westpark Hotel
1900 N. Ft. Myer Drive
Arlington, Virginia

Tuesday, April 11

10:30 Federal Electronic Information Policy: The Promise and the Peril from the End User's Perspective
- Bruce Maxwell, author

11:15 Information Technology Management Issues: Cost or Investment?
- Thomas Tate, Department of Agriculture

2:00 Maps in Transition, the Digital World, and the Future of GIS
- Vivienne Roumani-Denn, Head, Earth Sciences and Map Library, University of California, Berkeley
- Hedy J. Rossmeissl, Assistant Division Chief, Information Services, National Mapping Division, U.S. Geological Survey
- Barbara S. Poore, Federal Geographic Data Committee Secretariat, U.S. Geological Survey
- Frederick Broome, Cartographic Specialist, Bureau of the Census, Geography Division

4:00 Option 1: Documents Preservation: The 1909 Checklist and Beyond
- Laura Saurs, Assistant Department Head, Newark Public Library, NJ

Option 2: Effective Media and Community Relations: Tips for Depository Librarians
- Kathryn McConnell, Creative Services Manager, Advertising and Promotion Branch, GPO

Wednesday, April 12

11:00 Option 1: Department of Commerce
- Lars Johanson, Chief, Statistical Abstract Section, Statistical Compendia Staff, Data User Services Division
- Ken Rogers, Director, STAT-USA, Economic and Statistics Administration

Option 2: GPO Access Demonstration: GPO Locator
- Judith Russell, Director, EIDS

12:00 Lunch

2:00 Option 1: Many Ways to S-WAIS and WAIS: The New Mexico Experience
- Clark McLean, University of New Mexico

Option 2: GPO Access Demonstration: Federal Register
- Judith Russell, Director, EIDS

3:00 Option 1: Community Information Organizations: The University of Illinois at Chicago Experience
- John Shuler, University of Illinois at Chicago

Option 2: GPO Access Demonstration: Bills, Public Laws, and U.S. Code
- Judith Russell, Director, EIDS

4:00 Option 1: Mining the Electronic Documents for Local Collections
- Raleigh Muns, University of Missouri at St. Louis

Option 2: GPO Access Demonstration: Congressional Record, Calendars, Reports and Documents
- Judith Russell, Director, EIDS

5:00 Adjourn

Thursday, April 13

Federal Agency Updates on Products, Services, and New Electronic Initiatives

8:30 Option 1: National Agricultural Library
• Gary McCone, Head, Database Administration Branch

Option 2: Bureau of Labor Statistics
• Mary McMichael, Supervisory Economist, Office of Publications

Option 3: National Library of Education
• Keith Stubbs, Acting Director, Resource Sharing and Cooperation Division

Option 4: General Accounting Office
• Phyllis Christenson, Director, Information Services Center

8:30 - 10:30 Option 5: GPO Access Demonstration: All databases
• Judith Russell, Director, EIDS

Option 6: Department of Energy
• David Henderson, Technical Information Specialist, Office of Scientific and Technical Information

9:30 Option 1: National Agricultural Library
• Gary McCone, Head, Database Administration Branch

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• Keith Stubbs, Acting Director, Resource Sharing and Cooperation Division

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• Phyllis Christenson, Director, Information Services Center

10:30 Break

11:00 Option 1: Bureau of Land Management
• Linda Brooks, General Land Office Records Automation Project Manager

Option 2:The National Digital Library
• Herbert S. Becker, Director, Information Technology Services, Library of Congress

Option 3: Environmental Protection Agency
• Rachel Van Wingen, Office of Information Resources Management

Option 4: National Center for Health Statistics
- June Gable, Chief, Information Services Section, Data Dissemination Branch

Option 5: GPO Access Demonstration: GPO Locator
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Option 6: Department of Energy
- David Henderson, Technical Information Specialist, Office of Scientific and Technical Information

3:00 Option 1: U.S. Postal Service Kiosk Program
- Carolyn Youngblood, Applications Development Manager
- Velma McCuiston, State Liaison

Option 2: State Department
- Peter A. Knecht, Deputy Director, Office of Public Communication

Option 3: U.S. Department of the Treasury
- Keith Lee, Chief, Printing Management Branch, Printing and Graphics Division
- Dan Solari, Printing Specialist, Multi-Media Production Division, Internal Revenue Service
- Serena Erickson, Telecommunications Specialist, U.S. Dept. of the Treasury

Option 4: National Aeronautics and Space Administration
- Susan Hawman, NASA Headquarters Library

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- Judith Russell, Director, EIDS

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- Judith Russell, Director, EIDS

5:00 Adjourn

Friday, April 14

8:30 Open Forum
- LPS and EIDS staff

9:15 Permanent Paper
- Bonnie R. Curtin, National Archives and Records Administration

9:30 United States Code on CD-ROM and on the Internet
- Elliot Chabot, Legal Support Project Leader, House Information Systems, U.S. House of Representatives

10:15 NCLIS, the Internet, and Depository Libraries
- Peter Young, Executive Director, U.S. National Commission on Libraries and Information Science

11:00 The White House Online: What's Next?
- David Lytel, Office of Science and Technology Policy

12:00 Adjourn

1995 Federal Depository Conference
Federal Electronic Information: The Promise and the Peril from an End-User's Perspective

Bruce Maxwell
Author
Falls Church, VA

I feel a bit like the fellow who took coals to Newcastle, since many of you in the audience have been involved in electronic access issues for years. Some of you even run Internet systems that I've written about in my latest book.

I'm going to speak today as an end-user of electronic information and of government documents in general. I am not a librarian, although I was smart enough to marry one. I also am not affiliated with any company, institution, or group, so the opinions I express are solely my own.

My opinions are based on my heavy use of government documents ever since I became a journalist more than a decade ago, and especially on the two years I've spent exploring hundreds of Federal Internet sites and BBSs while writing my books.

My research has convinced me that we now stand at a point of unprecedented promise in regards to expanding public access to government information, yet also of unprecedented peril.

The promise is apparent virtually every time I turn on my computer, because it seems like there's always a new Federal BBS or Internet site going online. Today, I conservatively estimate that the Federal Government has at least 250 BBSs and other types of dial-in systems and at least 500 to 750 Internet sites. In my definition of Federal site, I include sites operated by the Federal Government itself and those operated by universities and private individuals that offer substantial collections of Federal documents.

So today we have online approximately 1,000 sites offering free, public access to a wide range of government information. Depository libraries are playing a big role in fulfilling the promise of online access, since most are hooking up to the Internet and training their librarians in how to use it so that the librarians can then turn around and help their users explore and utilize the wonders of cyberspace.

Some libraries are going a step further. In addition to serving their core constituencies, they're also serving the entire world by making government documents available on the Internet for free. There are numerous examples of this, but I'd like to cite three:

- First, a growing number of libraries are providing free online access to the Congressional Record, the Federal Register, the text of all bills introduced in Congress, and other databases through the GPO Access program.

•Second, the University of Michigan library provides free access through its gopher to all of the files from the Commerce Department's fee-based Economic Bulletin Board. Each day, the Michigan librarians download the new files from the Economic Bulletin Board, which normally costs between $3 and $24 per hour to access, and upload them to the gopher. I should note that the University of Michigan also has put the U.S. Government Manual online for free.

•Third, librarians at the University of Missouri-St. Louis have extracted files from government CD-ROMS such as the National Trade Data Bank and posted the files on the university's gopher. The librarians have provided free access to the U.S. Industrial Outlook, the Occupational Outlook Handbook, Army Area Handbooks for numerous foreign countries, State Department country reports, and a wide range of other valuable documents.

These are just three examples of what depository libraries have done in addition to serving their core constituencies.

In a perfect world, it would be great if other depository libraries that have the necessary resources could follow in the footsteps of these libraries. For example, it would be neat if a group of depository libraries got together and said, "OK, these are the top 10 or 50 or 100 government CD-ROMS. I'll extract the files from the first CD-ROM and put them online, you extract the files from the second and put them online," and so on.

So there are many examples of the potential that BBSs and the Internet present for expanding public access to government information. That potential is being at least partially fulfilled by some Federal agencies and libraries, although much still remains to be done.

All in all we live in a very exciting time, a time when innovations in technology are greatly increasing the ability of people all over the world to access key American Government documents.

That's the good news. The bad news is there also are threats today that have the potential to imperil not only the public's access to electronic government information, but to government information in any form at all. I'd like to touch on three of these.

The first threat comes from government policy makers and others who have T-1 connections, or direct connections, to the Internet, and who forget that the rest of the world isn't always so fortunate. These policy makers forget that only a small portion of the American public is Internet savvy, yet advocate and make policy as if everyone in the country was connected. Here are two examples:

•A well-known professor from Syracuse University is publicly advocating shutting down all of the government's BBSs. The professor contends that BBSs are unnecessary in this day of the Internet. The professor ignores the fact that lots of people in the United States who own modems do not have Internet connections. The BBSs give these folks electronic access to selected government documents, which to me is a valuable service because it expands public access to government information.

•Second, within the last week or so the Census Bureau quietly announced that two series of publications from the Government Division will no longer be published in hard copy, but will only be posted on the agency's Internet sites. The two series are Government Employment and Government Finances.

At first blush, putting documents on the Internet instead of printing them sounds like a great idea. For starters, it lowers costs for the originating agency because the agency doesn't have to pay for printing the documents. Secondly, it saves money for depository libraries because they don't have to keep adding expensive shelf space to hold an ever-growing collection of paper

documents and they don't have to pay someone to process the documents.

Yet from an end-user perspective, eliminating printed documents is a lousy idea – at least for now. We've already seen a big shift, caused by financial constraints, from paper documents to microfiche. While this move saved money, it certainly made life harder for end-users, since microfiche is harder to use than a printed document.

Making documents available only on the Internet and not in printed form unleashes a whole host of problems. First, as I noted a moment ago, a very small portion of the American public owns computers and possesses the skills needed to access the Internet. So those people must come into your library to access the document using your computers.

Many of these people will not know how to use computers, so they'll need you to either find the document or show them how to do so. I don't know what the situation is now, since I have not visited a depository in some time. But when I was last in depositories, there frequently was not a documents librarian present or the only person available was a student on work-study. If the patron happens to wander in when no one is on duty and doesn't know how to use the computers, he's out of luck. This isn't necessarily the case with paper documents.

And what about the patron who says, "I want printed transcripts of all congressional hearings for the last three years about the Food and Drug Administration." Now, you can hand the patron a pile of paper documents and/or microfiche and he's all set. But if we go to a print-on-demand system as many advocate, will you be willing to print thousands of pages of documents for this patron?

The second issue involves cataloging. Today, there is no system in place for cataloging information on BBSs and the Internet. While I and others, including depository librarians, have prepared lists of Federal Government BBSs and Internet sites, those lists are incomplete and cannot list every document that's available from every site.

There are now efforts underway to develop catalogs of electronic documents. GPO is developing a locator system, others are developing the Government Information Locator Service, and OCLC has a contract to catalog the Internet's resources.

It remains to be seen whether any of these efforts will actually succeed. I doubt it, primarily because the decentralized nature of the Internet and the rapid changes inherent in the Internet make it virtually impossible to successfully catalog the network. Maybe these systems will work one day, but we should not be planning a government information dissemination program around them now.

The third issue involves the very nature of research itself. One of the benefits of paper documents from a researcher's perspective is that once you locate a document you need in an open stack, you can look around it to see if there are related documents that would be useful. While computers allow you to follow connections between sites and documents through the World Wide Web, they don't provide anything like the experience of wandering through open stacks of printed documents.

The fourth issue involves availability of electronic information. There's no law telling the Census Bureau or anyone else how long it must make a particular document available online. Thus, as a new edition of a document becomes available, an agency might be inclined to simply remove the old version, even if the old version had value from a historical and research perspective. The GPO is now apparently working to create a central storage facility for these old files, but again I would prefer to see it in operation before relying on it to maintain the nation's memory.

The fifth issue involves data integrity. If the only public copies of a document are electronic versions on a server or two, it would be very easy for a government official to alter those copies for whatever reason. It also would be possible for

hackers to alter the documents, since determined hackers seem to have little or no trouble breaking into Federal computer systems. By contrast, if there are hundreds of printed copies of a document sitting in depository libraries nationwide, it's much harder for someone to alter the document.

The last issue I'd like to mention involves the present and future of the Internet itself. I would guess that even five years ago, most people in this room had not even heard of the Internet, let alone used it. And none of us can accurately predict what shape the Internet will have in another five years, or even whether it may have been replaced by some other computer network by then.

What we do know now is that the Internet is getting so clogged with traffic that you cannot access some of the most popular Federal Internet sites for long periods because all their ports are taken. This clogging of the Internet shows every sign of getting much worse before it gets better.

Thus, with so much uncertainty about the Internet's future, it seems dangerous to base much of the government's information dissemination program on the network – especially if the backup of printed documents is eliminated.

The second threat comes from certain members of the administration and Congress who talk a good game about public access but do not produce. The most obvious example of this is Newt Gingrich, who ever since the election has portrayed himself as a champion of public access but has yet to produce.

Sure, he got lots of media hype by starting up the THOMAS server in conjunction with the Library of Congress, but there's nothing available on THOMAS that wasn't already available elsewhere on the Internet before THOMAS. The Congressional Record, the Federal Register, and the text of bills were all available through the GPO Access system, and all the House calendars and other House documents were already available through the gopher and WWW site operated by House Information Systems.

The net result is Mr. Gingrich got lots of credit for work done by others. And meanwhile, the Republicans are targeting GPO despite a total lack of evidence that GPO's job could be performed better or cheaper by another agency.

I'm not saying that GPO is perfect. I think everyone in this room probably has a list of things they wish GPO would do differently. My personal peeve is with GPO's BBS, which is without exception the worst designed Federal BBS among the 250 or so now available.

But missing from the debate I've heard on the Hill is any discussion about figuring out what's right and wrong about GPO and determining how the agency can do its job better. Instead, all we hear about is chopping the whole agency.

A second example of problems with Congress was reported last week. It seems that NTIS had gotten $8 million appropriated for improvements to FedWorld, which is the largest and best Federal BBS now online. Then Congress decided the Defense Department needed some more money – probably for more gold-plated toilets on all those new Seawolf attack submarines we need to battle the communist menace – and decided to rescind at least part of the appropriation for FedWorld.

The Senate voted to rescind $7.6 million of the $8 million appropriation, while the House voted to rescind $4 million. The issue is now reportedly before a conference committee. Both the House and the Senate said that if NTIS wanted more money for FedWorld, it should start charging user fees. Obviously, the imposition of user fees would sharply reduce the number of people using FedWorld. All this makes it hard to swallow claims by Newt Gingrich and others that they favor public access to government information.

The third threat comes from the commercial information industry. The industry continues to fight tooth and nail to keep the Federal Government from placing online for free documents and databases that the industry charges hefty fees to access.

We saw an example of this fight earlier this year when Congress started working to update the Paperwork Reduction Act. West Publishing, a major legal publisher, tried to get a provision inserted in the bill that would have had the potential to give government contractors broad powers over Federal information. The provision also would have subverted the Freedom of Information Act, at least according to the Department of Justice.

Fortunately, the public interest and library communities mobilized to fight the provision and won, but there will continue to be battles. In my view there is an important role for the commercial information industry to play in adding value to government information, but the days when commercial firms had monopolies on raw government data are coming to an end.

In conclusion, I'd like to leave you with two thoughts. First, what I've basically tried to say is that I believe we're placing too much reliance on the Internet too soon as the major tool for disseminating Federal information. In my view, the Internet is simply one tool for disseminating and accessing government information, along with printed publications, CD-ROMS, commercial databases, BBSs, and other tools. The Internet has advantages and disadvantages, as have all of the other tools.

I realize that my call for disseminating the same information through both the Internet and printed publications, at least for the time being, may be wishful thinking given the current economic and political realities. Nonetheless, I still cling to the notion that the real role of the Internet and BBSs in disseminating government information is to expand access, rather than to save a buck. I would hate to see this wondrous technology used in a way that actually limits access.

My second thought is that with all of the battles now being fought over public access, both the GPO and depository libraries must do a much better job of publicity. When Internet-literate people think about accessing congressional information today, most automatically think about THOMAS because THOMAS got all the media hype. GPO created the databases that are on THOMAS, but hardly anybody knows that.

Most folks have never heard of the GPO Access program, and most don't know about all the hard work depository librarians around the country are doing to broaden public access to electronic information. They also don't know about all the electronic services available to them through many depository libraries.

That story needs to be told. I'm trying to tell it through my books. Now it's your turn.

Information Technology Management Issues: Cost or Investment?

Thomas G. Tate
U.S. Department of Agriculture
Washington, DC

Management Challenges at USDA

- Down size work force
- Close facilities
- Reduce budgets
- Remoteness of customers
- Millions of customer transactions (110 million in 1993)
- Maintain/improve customer service

National Meeting Being Held On-Line

- Focus on U.S. services to be offered by computer
- Town hall meeting without town hall
- National electronic open meeting
- Asking the customer
- May 1-14 (24 hours)
- 50,000 expected to participate
- Access points call 1-800-881-6842 between 8 a.m.-5 p.m. EDT
- Are you involved?

Our Mission?

WHO? WHY?
WHAT? HOW?
WHERE? HOW MUCH?
WHEN? WHO CARES?

Do We Know The Answers?

What is our business?
Who are our customers?
What do they want from us?
When do they need it?
Where do they need it?
Can we do it better? Cheaper?

Customers:

- Rural Economic Development
- Producers
- Processors
- Consumers
- Communities

Management Challenge
Customer Service

How Often?
- 110 million times per year

- How do we maintain/improve customer service with less resources?

Re-invent?
Re-engineer?

How about a re-invention laboratory?

Re-Invention Laboratory

For the sake of Science! Learn!
Experiment! Evaluate!
Apply what works!

Can Information Technology Help?

What do we need to try?

- •Digital Library (Convert priority information)
- •National Network
- •Community Access Sites
- •Literate Access Cooperators

Current Situation?

- ●1/3 of our customers have own computer
- ●2/3 of our customers use computers
- ●$75,000 + plus family income - 70% have computer in home (haves)
- ●< $10,000 family income 7% have computer in home (need access to public access terminal with assistance) (have nots)

HISTORY: 1950's/1960's

- ●Interstate highway model
- ●Towns/communities without access (on/off ramps). Died economically.
- ●Communities had little choice/suffered consequence

CURRENT: 1990's

- ●Information highway model
- ●Towns/communities without access (on/off ramps)
- ●Risk economic death

Cooperative Partnerships
WHO CARES?

- ●Office of Vice President - National Performance Review
- ●U.S. Dept. of Commerce - National Information Infrastructure
- ●Small Business Administration (1,200)
- ●70 + Federal Government (Agriculture, Commerce, Education, U.S.P.S ...)
- ●State/Local Governments
- ●Community networks/freenets
- ●Federal depository libraries (1,400)
- ●State land grant universities
- ●County Cooperative Extension Services (2,400)

How Can We Make It Work?

- ●Mobilize local communities to establish terminals
- ●Community on/off ramps to/from information highway

AMERICANS COMMUNICATING ELECTRONICALLY (ACE)

- ●Vision:

"Interactive Access to Government Information Electronically by all citizens."

- ●ACE

Citizens in every state working to build local community access to Federal, State, and local government information.

- ●Community Networks

•(e.g., Columbia, Missouri's COIN Project)

•Seattle Public Library
•450 + communities:
FreeNets; BBS's, Community Info Servers; Public Info. terminals, Kiosks; available to local citizens, especially "information have nots"
•Citizen Participation Centers

Community Communication Corps

- Local facilitators to assist communities in adopting and implementing information technology

- Volunteers lined to other ACE resources

ACE: Electronic Methods

- Network servers providing access to local and distant databases

- Electronic Mail

•Electronic discussion groups and Action Teams
*Technical Assistance to Members
*Becoming an Electronic Information provider
*Community Outreach

ACE: Retrieval Methods

- NETSCAPE/MOSAIC - and other World Wide Web (WWW) Browsers, MultiMedia (text, sound, pictures ...)

- LYNX - WWW Browser (Text Only)

- GOPHER - Menu Based browsing and retrieval

- ALAMANAC - e-mail based retrieval access to remote data bases

ACE Membership

Volunteers from:

•70+ Federal agencies in executive, legislative and judicial branches

•State and local government units in 50 states

ACE: Current Effort

- Government Agencies have e-mail addresses that public can use to interact

- E-mail addresses on business cards, stationery and directories

- E-mail on every desk top - million plus addresses

ACE: Concepts:

- Electronic Democracy
- Electronic Health Assistance
- Electronic Commerce
- Electronic Manufacturing
- Distance Education

ACE:

- Information available through ACE electronically

- Electronic mail accessible catalog of government-wide content:

•send e-mail to: alamanac@ace.esusda.gov
•in the text of the e-mail type: send ace-catalog

- ACE World Wide Web Home Page - Under Construction

http://ceres.esusda.gov/homeace/ace.htm

- ACE Gopher Server (Menu based access to full text documents)

gopher ace.esusda.gov

ACE: Electronic Democracy

- Electronic town meetings
- National Electronic Summits
- Needs and concerns identified
- Proposed legislation and regulations shared interactively
- Interaction between citizens and decisions makers
  - •Congressional Databases
  - •Congressional Electronic Mail
  - •Citizens Interactive Handbook-Access to Agencies

ACE: Electronic Health Assistance

Access to distant expertise and information with emphasis on wellness and prevention

ACE: Electronic Commerce

Local businesses advertising and doing business with customers electronically in the world-wide electronic market place

ACE: Electronic Manufacturing

Major manufacturing centers distributing cad/cam work load to distributed small scale manufacturers in rural areas.

ACE:Distance Education

Best Teachers shared electronically

Best learning tools shared electronically

Learning possible when and where the learner is ready to learn (school, home, work...)

ACE: Progress

- 2,400 + community locations using e-mail
- Federal, State and local groups cooperating on implementing the ACE public access vision
- Millions of pages shared electronically

ACE: Success Stories

- Flood Crisis
- Hurricane Assistance
- Earthquake Assistance
- Inner City Networks
- Indian Reservations
- Helping Government Agencies Modernize Their Delivery Systems
- K-12/Senior Citizen Links

ACE: Finding Out More

Send e-mail to:
info@ace.esusda.gov
ACE auto-responder will send back details via e-mail to requester.

ACE: To Join

Send e-mail message to:
letters@ace.esusda.gov

Tell ACE your interests, vision, and what you have to offer your community.

ACE Point of Contact:

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Fax: 202-690-2975

ACE Hosts:

USDA Cooperative State Research, Education and
Extension Service
Ace Electronic Servers: ace.esusda.gov

Small Business Administration
Monthly Meetings in Washington at SBA 8th
Floor Conference Room
Contact: Diane Gannon at SBA

Ace Voice Mail: 301-277-5085

Maps in Transition, the Digital World, and the Future of GIS

Vivienne R. Roumani-Denn
University of California, Berkeley

The session on Maps, the Digital World, and the Future of GIS addressed the future of map collections, the Federal Depository Library Program as it relates to maps and data, and the role of GIS (geographic information systems) in libraries. We were fortunate to have three knowledgeable and experienced speakers who have been working directly with the depository program and distribution issues, and the printed versions of their papers in this volume are most informative. This paper, which records my introductory remarks at the symposium but without the accompanying graphics, outlines some of the development and current issues.

From Paper, to Microform, to Digital

I would like to start with a brief overview of trends in map collection, most of which are guided by other than local forces; the most recent guidance is from the top, by executive order. The President's press release of 11 April 1994 dictates the establishment of a "National Spatial Data Infrastructure to support public and private sector applications of geospatial data..." and the "National Geospatial Data Clearinghouse...a distributed network of geospatial data producers, managers, and users linked electronically" assuring public access to data. The standard to be used is established by the Federal Geographic Data Committee. Subsequently we have seen announcements from the Census Bureau, which is putting TIGER maps on the Web, and the USGS, which is moving its information to automated systems. (Automation was first designed for high-end users, but it is increasingly being produced for a more general audience, and we want to encourage the continuation of this change.) The National Agricultural Library (NAL) has "designated electronic information the preferred medium for library materials" (ARL 178 January 1995 p. 3). Even the National Archives and Records Administration (NARA), in a change of policy, now accepts Federal agency files in electronic form (although they convert CD-ROMs to magnetic tape for archival purposes). It is clear that the transition from traditional print to electronic format is a fact of life, with all its benefits and disadvantages.

This new electronic infrastructure, driven by recent developments in computer technologies and remote-sensing satellites, is intended to save money by coordinating production and distribution of maps and data, to utilize up-to-date mapping technology, and to assure widespread access.

Maps are visual objects, so I would like to begin by looking at some images of the evolution of maps. We all know how a printed map looks and functions, and we understand the advantages and disadvantages of this medium. The accuracy is generally not questioned, both graphics and text are usually clear (there are preservation issues, but I will not address them here), and large size is rarely problematic for analysis; size, in fact, adds to the legibility and detail of the map. However, the printed map can only be accessed by one person at a time, it requires a large amount of storage space, and it is difficult to handle for viewing, processing, shelving, and photocopying. We then started collecting some maps in microform, often Federally-distributed and converted to this format by commercial vendors; the space saving was a great advantage, but the

preservation issues are of concern and size may be problematic, since microfiche is often too small and unclear.

With the sudden popularity and widespread use of the Internet, and easier access to the information on the Net due to the introduction of sophisticated viewing and searching software, we are beginning to see more digitized maps and data over the Internet, distributed by government agencies and individuals or organizations of all types. Unfortunately, the heavy use and the demands of a digital image on the system make transmission very slow. Even with compression these maps require a substantial amount of computer space, a concern that future technologies will undoubtedly solve. Resolution is often an issue in the use of a digitized map. It is possible to access some electronic maps easily through the Internet; one access point is our Web page (http://www.lib.berkeley.edu/EART/MapCollections.html), where we have a link for selected electronic maps.

One problem for users is that large maps cannot be viewed in whole on the screen with adequate resolution for most uses. An interesting Columbia University study on preservation and access techniques for oversize, color images associated with text provides useful insight into resolution. (Klimley, Susan: http://www.columbia.edu/imaging/html/largemaps/oversized.html). They scanned five maps from brittle volumes at different resolutions**.** Overall, with the exception of the slow transmission time and some color shifts in the reproduced maps, the study concluded that the resolution was acceptable for "all but the largest and most complicated map." The project was successful in that it brought preservation and large-map digitization issues to the surface, and it has resulted in other follow-up projects.

We are also collecting maps and data (much of it through the Federal Depository Library Program) on CD-ROMs, which is a very convenient format. At Berkeley, many CDs of data we receive through the depository program are mounted on a server at the Lawrence Berkeley Laboratory; they are available through the Internet, and they are heavily used, especially the TIGER files (http://cedr.lbl.gov/cdrom/doc/cdrom.html). CD-ROMs do present problems. Software is not standard, often making it difficult to mount CDs on a multiple player without major reprogramming. There are concerns about preservation, which is why NARA is presently converting permanent records received on CD-ROMs to magnetic tape. Unless the same CD is mounted on several machines or networked, requiring a licensing agreement and adequate network software, it is only available to one person at a time. In addition, few libraries have access to color printers, making it impossible for the user to walk away with the printed image, but this problem is likely to become less severe as the price of large color printers decreases.

What we have seen thus far are maps that are now sometimes called "dumb" because they are not true GIS, in that they lack "geo-referencing": the attributes attached to the spatial image.

GIS

GIS (Geographic Information Systems) is an integrated cartographic system for collection, storage, manipulation, access, and analysis of geographical data. It is a combination of hardware, software, data, personnel, and a spatial image. Federally-provided maps and data bases are a primary source for this exploding technology. When discussing GIS, two terms are commonly encountered: raster and vector images. Raster images are represented by grids, with each grid or cell corresponding to a particular value, representing a feature; remote-sensing data are collected in raster format. Vector images represent different features by lines, polygons, and points. What has revolutionized the digitization of maps is the data attached to each particular cell or polygon and the ability to manipulate and analyze these data quickly -- thus GIS.

Though GIS has become very popular, and is a powerful tool that crosses many disciplines, there are numerous problems in this still-evolving technology: accuracy of data, space to store data or even manipulate data stored elsewhere, slow access, non-standard file structure, lack of standardization, the dynamic nature of the data,

and archiving. Undocumented file structures are a particular problem for inexperienced users.

To address the issues of accuracy, there is a push to produce metadata, or "data on the data," which is a more detailed catalog record of the data. But researchers want to spend their time doing research and recording data, not cataloging it, and it is not clear they will comply with creating metadata, that they would use the accepted FGDC standard, or that they will produce accurate metadata. Pursuing metadata may be our job, for better or (most of the time) for worse. In addition to the accuracy of the data itself, there have been problems with inaccuracies resulting from referencing new data on old spatial images.

GIS is a difficult technology to learn, but the rapid acceptance in a variety of fields and by government agencies at all levels makes it clear that there is a great demand for integration of data with our more traditional view of maps. Libraries need to prepare for this transition.

What are libraries doing about GIS?

I would like to refer you to a well-written article that answers this question in detail. (McGlamery, Patrick and Melissa Lamont, "Geographic Information Systems in Libraries," Database 17(6)(Dec. 1994):35). Libraries cover the entire spectrum, from providing some access to electronic maps and data to having a complete GIS lab which collaborates with academic departments and computer centers on campus and with government and local agencies. Everything from high- to low-end technologies is used; the one major consensus is "get a machine as fast as possible." Approximately seventy U.S. libraries currently participate in the ARL/GIS Literacy Project, which is a program to enhance delivery of GIS services.

I posted a question on the Net discussion group Maps-L. (I am sure you know there are many worthwhile discussion groups that address map and GIS issues, but beware not to oversubscribe--it will take all your time.) I asked libraries what plans they have in place for electronic maps and GIS, and I received a small but diverse set of responses. One university was just beginning to get involved in GIS, and another had no plans to create electronic access to data and maps. UCSB, on the other hand, has begun the Alexandria Project, an NSF-funded digital libraries initiative entailing collaboration with other universities, government agencies, and commercial companies to provide easy access to a large collection of maps and images (for more information consult http://alexandria.sdc.ucsb.edu). One institution in the UK was purchasing digital maps and GIS for the school of Geography and Earth Resources to support research projects, and they are concerned with issues of access to the data, training users and library staff, and copyright.

What is Berkeley doing?

The Earth Sciences & Map Library became involved with the ARL/GIS project about one year ago. Activity has increased during the past few months, following the library administration's positive response to a start-up proposal to determine whether and how GIS technology can be made available to the public. Two branch libraries are involved, Earth Sciences and Map and Environmental Design. A UC Berkeley GIS Coordinating Task Force was created, and a Web Page is being created focusing on GIS activities and resources at Berkeley and elsewhere. The goal is to coordinate the many (sometimes unknown) GIS activities and encourage collaboration.

Another goal at Berkeley is to establish the role of the library with respect to GIS. We are not planning to be a laboratory, but we may collaborate with one, leaving us with the need for public service access to GIS viewing software and data.

At first we considered acquiring Unix workstations, but decided to upgrade the two PCs involved in the experiment with the justification that this is the market to which future GIS software will be appealing. We have 32 MB of RAM. The upgrade consisted of a 17" Color Monitor; a good 1280 X 1024 video card (Hercules Dynamite 2MB VLB); connecting a 540MB hard drive to the existing hard drive to

give us approximately 800MB of disk space; and installation of a double-speed CD-ROM. We also installed X-Windows, which allows us to access software and data from one campus GIS lab, and we hired a researcher from the same lab for training as we study how to provide access to this technology. We are also experimenting with using local software and accessing remote data.

After a period of six months we will evaluate the various ways of access--locally, remotely, or a mixture of the two--and the level of hardware and make recommendations. With all the calls for "get a machine as fast as possible," is what we have enough? For this experiment it seems to be working well, but it is too soon to tell.

Conclusion

When we perfect these new technologies we will realize great advantages. In the meantime, as we continue our efforts to make electronic access truly available to the public for which the Federal Depository Library Program was created, we must ensure that the distribution of material continues, electronic or otherwise. During the transition it is especially important that we consider the needs of that part of the public without access to computers, except perhaps from their libraries. Convenient future access will be enhanced by standardizing file structures and providing complete information and documentation for GIS or other formats. Finally, we must undertake a major educational effort to acquaint our colleagues and patrons about the changes taking place and the potential of the new technologies.

Paper to Pixels: A Transition in Census Maps

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A little over ten years ago a revolution in census mapping began. Management at the U.S. Bureau of the Census ordered that the heretofore fully manual field and publication map production systems be converted to fully automated systems. The field maps are the ones used by enumerators and others in support of the data collection operations. The publication maps are the maps that accompany or support the data dissemination operations. By the time of the 1990 Decennial Census, all the field maps were being produced by fully automated means, and an interactive publication mapping system was in place.

For the first time in history, over 98 percent of the maps were generated first as electronic files then sent to plotters to produce the paper copy. In terms of numbers, over 1.3 million field maps and several thousand publication maps were generated by automation in less than three years. This is more than a thirty fold increase in the number of maps over the number produced manually for any previous census.

The sheer numbers alone have had an impact on libraries. But the increased numbers were not just a result of technology. They sprang as much from improvements in the level of geographic detail. For the 1990 census, data were collected and tabulated at the census block level for all of the 50 states, the District of Columbia, Puerto Rico, the Virgin Islands of the United States, American Samoa, the Northern Mariana Islands, and Palau. Maps that showed the boundaries of each of these blocks had to be made to accompany the increase in detailed data.

Automating mapping, however, requires a digital geographic data base. It was the desire on the part of Census Bureau management to improve the quality and quantity of the geographic coverage and to assure that the maps reflect the correct codes and names to match to the increased data detail that led to the creation of the Census Bureau's geographic data base known as TIGER. Without TIGER automating, map production would have been difficult at best.

TIGER stands for Topologically Integrated Geographic Encoding and Referencing. The TIGER System includes the TIGER data base and all the software, hardware, and procedures necessary to support the geographic needs of the Census Bureau. The TIGER data base contains digital information on every street, stream, railroad, political and statistical boundary, address range, place name, geocode, and so forth in the areas covered by the census.

It should be noted that the TIGER System is not a Geographic Information System (GIS) and is not a digital map. It is a digital data set serving both of these activities. The TIGER data base is the digital data set used by the Census Bureau's mapping programs. TIGER data can, and does, serve as the foundation for many commercial and government GISs. The TIGER data base itself is not released outside the Census Bureau. It contains some information that is held to be confidential under Title 13 of the U.S. Code. The data set generally referred to as TIGER is a subset of the total TIGER data base. This subset is the TIGER/Line data set that is released to outside users. Indeed, at last count, the TIGER/Line data

sets have been a key to the services and products provided by over 120 private companies.

The TIGER data base has been and will continue to be the source of geographic information for census mapping into the year 2000. Because the publication maps are the ones most commonly found in libraries, they are the ones that will determine the form of future depository services. For the 1990 census, five types of maps were produced to accompany data tabulations. The numbers and types are as follows:

1990 County Block Map Series and Indexes - (180,000)

A comprehensive, multi-sheet, county-based reference map series. The maps portray and identify most geographic entities for which the Census Bureau tabulates data. Census block numbers are shown. Most street and road names are shown. Two versions were produced; about 90,000 sheets in each version. The last omitted the voting district boundaries and were designed to accompany the printed 1990 census reports and STFs.

Census Tract/Block Numbering Area Outline Maps - (4,200)

A full-sized (36 x 42 inches), county-based map series. Identifies MCD/CCDs, incorporated places/CDPs, AI/ANAs, and CT/BNAs. Only those geographic features coincident with CT/BNA boundaries are identified.

County Subdivision Outline Map and Indexes - (550)

A state-based map series, generally available in two forms: as a single sheet (100) and as a multi-sheet insert with published data (450). Identifies MCD/CCDs, incorporated places/CDPs, and AI/ANAs.

Urbanized Area Outline Map, with selected base feature - (400+)

A fullsize, UA-based map series with state, county, MCD/CCD, incorporated place/CDP, AI/ANA, and UA boundaries and names identified and selected geographic features such as major water bodies.

The publication category alone would require space and storage for about 100,000 map sheets just for this one census. Assuming that each sheet was 32 x 36 inches, can be stacked 100 per map drawer, 25 drawers per stack, and each stack taking 36 x 48 inches plus 36 x 48 inches for pull-out space, then a library would need about 40 stacks and the floor space of a moderate house, about 2,000 square feet. This also means handling almost two tons of paper!

But the number of sheets is not the whole problem with automated map production. Most of the maps are produced on electrostatic plotters (roughly equivalent to a very large office laser printer.) The quality of the paper is not equal to that of a printed map, and more significantly, the image is not bonded to the paper the way ink penetrates paper during printing. Therefore, these maps will not take as much use as a printed sheet and a library must consider replacement problems.

When one looks at the cartographic products from the 1990 Decennial Census, it is clear that the user has been better served in many ways, but that for those providing the service, some problems have increased. But are these problems the fault of the automation or the fault of the human ability to handle the technology? The 1990 census proved that automation can be used to make maps and to publish the data, but the user and the libraries providing support to the users have generally continued requesting and using the maps in a manually oriented way. Therein seems to be the problem. The transition from paper to pixel maps needs to be completed so that the product presented to the user is an electronic map, and, on those occasions where it is required, a hardcopy paper map can be produced from all or part of the map image.

The Census Bureau's plans for the year 2000 census are even now being formulated and will soon be tested in the upcoming pretest. It is certain at this point that the TIGER data base will continue to be updated and will be the geographic foundation for the year 2000 census. Also certain

is that the larger majority of the maps will be available in electronic form, not just as copies plotted from the electronic files.

Does this mean that libraries have to become geographic data processing centers? Not necessarily. As the microfiche machine changed the way some information was distributed, scanned, used, and copied, so will the computer change the way maps are handled. As the xerographic copier changed the way printed materials could be duplicated and disseminated, so the plotter will change the way maps are handled. As the map cabinets served to hold the hardcopy maps, so the disk trays of CD-ROMs or networked data servers will to hold the electronic images of the maps. In short, same job, same concepts of service, same types of information, but different technology.

What evidence is there for user interest in this means of data dissemination? A tally of sales by media type for 1994 by the Census Bureau gave the following results:

Computer tapes	723
Maps (paper)	567
Microfiche	117
CD-ROMs	8,135
Tech. documentation	614
Others (video, disk...)	840

This indicates that the users are increasingly looking for electronic data sets.

The solution to the problems associated with a full transition from paper to pixels is in how one configures the service. The following is an analysis of what this may involve.

Space

Current:almost 2,000 square feet and 2 tons of paper

Digital:one file for about 200 CD-ROMs and a few map drawer stacks for frequently requested plots (and at significantly less weight.)

Equipment

Current:layout tables, light tables, copiers, photo-service

Digital:layout tables, computer terminals, plotter-service

Skills

Current:those required by a librarian

Digital:those required by a librarian

The technology has changed to the point that the space required for a color ink-jet plotter of adequate resolution takes up about the same space as a large copier, and costs about the same. Likewise, PCs, networks, and so forth are becoming commonplace in libraries. There is little reason to believe that the trend toward less expensive and more user-friendly equipment and systems will not continue.

The Census Bureau is committed to full utilization of electronic maps for all our data collection and dissemination activities for the year 2000 census. We are producing our map files in a non-proprietary format and providing public domain viewing software for PCs. We are providing the map images on CD-ROM as well as through other means. We are providing public domain map plotting software that will output to a few of the most common plotting devices, and are publishing the map image format for commercial vendors to use in their software. We are completing the transition of census maps from paper to pixels.

Preservation of U.S. Government Documents: The 1909 Checklist and Beyond

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The Newark Public Library has been a Federal depository since 1906 and a regional since 1963. Preservation needs to be an integral part of operations at Newark because regional depositories must hold documents in perpetuity. I hope, however to show that preservation is relevant to all depositories, not just large or old ones.

When I tell people that I'm working on a project to preserve old government documents, they often ask me "why?" The most common objection I hear to collecting and preserving older documents is that they are not used enough to warrant the effort. There is a growing realization, however, at least among government documents librarians, that many of these publications are in demand, and that some may be rare and valuable. In the experience of Newark Public Library, we usually get a few requests per month for 1909 Checklist items, and many requests for other non-current documents.

The retrospective body of government publications is obviously an abundant source of information on United States history, but it also contains important documents relating to the history of other disciplines. The histories of science and technology, medicine, education, the military, and other fields are amply represented, and government publications are cited in the literatures of these fields. Even those interested in UFO research find themselves turning to depository libraries! Aside from the demand for non-current publications by researchers, some documents are in demand by collectors. Such documents become targets for theft and vandalism if not properly protected. The Newark Public Library has not suffered much with this problem, primarily because the documents are housed in closed stacks.

Other preservation skeptics argue that any demand for old documents is easily met. I have been told that 19th century government documents can't be rare or valuable because the government printed so many copies of them. Now, this person was not an information professional and probably didn't realize that most of the copies of these documents residing in libraries have likely been weeded, lost or just worn out. One doesn't even have to look all the way back to the 19th century for examples of documents which are hard to find. I have also been told that these documents are available on microfiche. This is true, and the microfiche collections themselves are a valuable form of preserving the publications, but they are not a perfect one. Color illustrations are not reproduced in color, and the nature of the paper and bindings cannot be seen on the microfiche. The microfiche must also be purchased as a set: libraries can't choose only those documents which suit their collection development policies. For small or special libraries, or others who collect very selectively, it may be more practical simply to preserve those documents they have--documents which presumably fall under their collection development policy.

Organized preservation efforts began at Newark after the interlibrary services office and the reference desk, in close succession, asked for policies regarding old and fragile items which had

been requested. They were justifiably worried about the effects that transportation or photocopying might have on the books. The documents staff was forced to take another look at the collection and decide what could be done to protect it and keep everything in the most useable condition. We began with some interim measures, and in 1993 were fortunate enough to get a $15,000 grant from the New Jersey State Library to do a more thorough job.

One of the particular problems of preserving a government documents collection, as opposed to other types of library collections, and one of the reasons an overall preservation strategy is important, is that all types of materials are placed on the shelf together. If a library files the paper collection in strict SuDocs order, the old documents are mixed in with the new documents, and documents of all formats--books, booklets, pamphlets, single-sheet leaflets, looseleaf binders, etc.--are shelved together. Although the focus of the grant project is on 1909 Checklist items, some steps were taken to protect the collection as a whole. Shields were purchased and placed on the fluorescent lights in the documents area to filter out harmful ultraviolet rays. These rays cause documents to fade and accelerate the aging process. Two "hygrotherms" were purchased. These combination hygrometer/thermometer devices were used to measure daily fluctuations in temperature and humidity in the documents area. After a year we had an overall picture of the type of environment which prevails in the documents area.

The main goal of the grant project is to place all of the 1909 Checklist holdings in custom-fitted boxes. These boxes protect the books from light, dirt, and mechanical damage, and can slow down the effects of moisture or temperature changes. They also provide support for weak books and hold together books with loose pieces to prevent the pieces from becoming lost or damaged further. Since the collection is so large we decided to take the most economical route of making the boxes ourselves. There are binderies and companies which will make custom-fitted boxes: they cost about $10 for "phase" boxes, the type in use at Newark, and considerably more for the sturdier, more attractive "clamshell" boxes. Precut and prescored boards can be ordered, allowing a library to construct boxes for about three dollars for a 6 X 9 inch book. The cost of materials to make phase boxes "from scratch" comes to about one dollar per box. Even with the cost of equipment for box-making, more books can be treated with the grant money than if we were to order the boxes or precut boards from a commercial supplier.

Before documents can be placed in boxes they must be cleaned. Dust and dirt are great contributors to the decay of a book and one doesn't want to lock the book inside the box with the dirt. The most basic method of cleaning is to brush the dust off the book with a soft brush. A dust-attracting cloth can also be used. If the document is missing its covers, or has a paper cover, the outside is cleaned with powdered eraser. Powdered eraser is sprinkled on the surface to be cleaned, and picks up dirt as it is rubbed over the paper in a circular motion. If the book has leather covers which are in relatively good condition, we at Newark treat them with Renaissance Wax leather dressing. Since this process is not reversible--the dressing cannot be removed once it is applied--librarians should consult a conservator before using this treatment in their collections. We decided to use it at Newark because none of the leather bindings in the documents collection are valuable, and the dressing keeps the bindings cleaner and makes them easier to handle. Leather dressings cannot be used on leather which is very powdery; nothing, in fact, can be done for leather in this condition. Jackets made of acid-free tissue-paper are placed on books with powdery leather bindings to contain the mess.

After the book has been prepared, a box is made for it. A phase box is a wrapper in the shape of a cross: the "arms" of the cross are flaps which fold around the book. The two outermost flaps attach to each other to hold the box closed. At Newark we make the boxes with 20 point acid-free board which is two or three times thicker than the cardboard used in a typical manila folder. First, the two cross strips are cut. Measurements for the strips are obtained simply by placing the book on the board and marking it at the edge of the book. When the strips are cut, the book is

placed at the center of the vertical strip and the strip is folded around the book. The folds are creased using a bone folder. The book, still wrapped in the vertical strip, is then wrapped in the horizontal strip, and that strip is creased. The book is then removed and the two strips joined at the center using double sided tape. The corners of the flaps are rounded and a tab and slot are cut in the two outermost flaps to hold the box shut. Other fastenings for phase boxes include button and string arrangements and velcro tabs. At Newark we decided to use the tab-and-slot arrangement because it is the least expensive, and, unlike the buttons and velcro, it rests flat. A small sheet detailing handling instructions is placed, using double sided tape, on the top inside flap where a patron will see it when the box is opened. The book is placed in the finished box and the box is labeled using a waterproof, lightfast pen.

Besides the boxing of regular documents, two other preservation operations were undertaken. 224 volumes of the Geologic Atlas of the United States were cleaned using powdered eraser, interleaved with alkaline buffered tissue paper and placed in pre-made boxes. The Geologic Atlas consists of large 18 1/2" by 21 1/2" softcover volumes ranging in date from 1894 to 1929. All contain colorful geologic maps and some contain photographs. Because of their awkward size and fragile construction, they are very easily damaged. Some encapsulation of maps is also being done. Encapsulation consists of enclosing a map or other single-sheet item between two sheets of an inert plastic such as mylar. Newark has only a few 19th century maps: the main items being encapsulated are a set of transportation maps from the 1920's and '30's.

At some point during the treatment process, an information sheet is filled out for each item. The sheet records the SuDocs number of the item, its title and series, publication date, size, whether it is illustrated, its condition, and what treatments were used. There is also a note space for information which is not applicable to every document: when, for instance, the document has an individual author, a publisher other than GPO, or a personal signature. The bibliographic information from these sheets will be input into a database. We hope to distribute this database and have the selective depositories in New Jersey add to it to form a union list. The condition and treatment information can be referred to if, in the future, we want to take further preservation measures with the collection. We also hope to create an index, probably in electronic format, of references to New Jersey found throughout the collection. Using the 1909 Checklist project as a starting point, we hope to continue inventorying and preserving the collection year-by-year.

Large amounts of money, such as the grant received by Newark Public, can make preservation much easier and more sophisticated, but significant preservation efforts can be accomplished with little or no money. One of the most important things a depository can do to preserve its materials, old or new, is simply to teach staff, and patrons if possible, proper handling techniques. Another important step which requires no money, but can be time consuming, is to inventory those items which need special treatment. Libraries with large retrospective collections, for instance, might want to identify 1909 Checklist materials or all materials over a certain age. Documents do not need to be "old," however, to fit into this process. Most libraries will want to identify materials relating to important historical events, however recent. Even those depositories which weed faithfully every five years receive some items they wish to keep permanently. Any such document which the library plans to keep permanently is a candidate for special treatment, even if the document is very new. As these items are being inventoried, they should be distinguished in some way from the non-permanent collection. Before receiving the grant, we at Newark identified special materials by means of an acid-free bookmark. Marking the documents lets reference staff know that the item is to be handled with extra care. If, at a later date, preservation funds become available, marking also allows the librarian to quickly retrieve those materials which need treatment. Ideally, the librarian would identify items of permanent value as they arrived and mark the documents for preservation measures immediately. This practice would help to prevent the library from later having to deal with very deteriorated materials.

Improved shelving is something else a library may be able to accomplish for free. Simple steps, such as ensuring that documents are not packed too tightly or too loosely on the shelves, or that they are not shelved on their fore-edges, can prevent a great deal of wear. If space permits, librarians may want to separate items by format, as is done in many special collections. Most depositories already do this to a certain extent, placing microforms, maps and posters, and electronic documents in separate cases. Pamphlets, forms and other single-page items, and oversized items can also be shelved separately or placed in file cabinets. If oversized shelving is not available, as is the case at Newark, oversized items may be housed on top of map or microform cases. This solution keeps the shelves neater, and protects some of the more vulnerable types of materials. Unfortunately, it is not a practical solution for many libraries because keeping track of the various locations is too time consuming. At Newark we use this practice only in a limited manner. Also if space permits, librarians may wish to separate their more valuable documents from the rest of the collection. Valuable documents could be placed in closed stacks if the main collection is in open stacks, or they could be placed in a small, enclosed room where the environment would be easier and cheaper to control.

With a little creative recycling, Federal depositories have several sources of acid free materials which can be used for preservation. The plastic Tyvek envelopes GPO uses to ship separate items are considered archivally sound. They can be relabelled and used to house fragile documents. Although Tyvek envelopes don't offer any support to the document, they can prevent minor mechanical damage, such as scrapes, and they protect against dirt, light, and moisture. The envelopes can also be cut up to make dust jackets or bookmarks. The white paper envelopes in which some items are shipped are also usually acid-free, as are microfiche envelopes. If you are able to spend a little money, a Ph testing pen can be purchased for less than five dollars. The pen can be used to determine which materials can safely be used with documents collections.

If you are able to spend even a little money, preservation possibilities expand greatly. It would be impossible to describe every possibility, but I have summarized some areas librarians can examine in their own collections. The environment is considered one of the most important factors with regard to the deterioration of books. Excessive heat and light, excessive or insufficient humidity, and polluted air all increase the speed of deterioration in library materials. Unfortunately, environment is one of the most expensive and difficult preservation factors to control. One free environmental control librarians can use is simply to turn off the lights in the collection whenever possible. Ultraviolet filters, which help prevent fading and other damage, can be purchased for fluorescent lights and for windows. The cost of the filters, of course, depends on the number of lights or windows in the collection area, but a small room may need less than $100 worth of filters. Portable air-purifiers would benefit staff as well as the collections.

Handling and storage is the next area to look at. As I have already described, significant improvement can be made in these areas without spending any money. Librarians should also check to make sure that storage furniture, such as shelving and cases, is made of materials which will not harm the documents. Replacing inappropriate storage furniture is, of course, expensive. A less expensive, but less effective, solution would be to line the shelves or drawers with acid- free paper or inert plastic to keep the documents from touching the harmful surfaces.

Cleaning is another important preservation consideration. Most libraries are probably already doing all they can to keep the collection areas as clean as possible. If documents were not so well cared for in the past, a battery of cleaning products can be purchased for less than $100. For example, dust attracting cloths and soft brushes can be used to clean the outsides of documents. Powdered eraser can be used to clean maps or any soiled paper surface. Solvents can be purchased to remove residues of tape or other adhesives.

After these general conditions have been considered, the librarian can start to think about

individual treatments for documents. Special enclosures are probably the easiest and cheapest type of preservation treatment. Boxes, folders, envelopes and binders are available in many price ranges for all types of library materials, and supplies can be purchased to make custom enclosures. If the library has a lot of money to spend on preservation, the librarian can also send the documents out to have custom enclosures made. Special enclosures protect materials from environmental, storage, handling and cleanliness conditions which are less than ideal, but they are also completely reversible if you should change your mind about wanting them.

Deteriorated documents can also be repaired or restored. Tears can be mended, detached pages or bindings can be reattached, books can be rebound, acidic paper can be deacidified. There are many procedures which can help keep a document in useful condition or restore it to its former glory. Most of these procedures are, however, difficult or impossible to reverse and should be done only with the consultation of a conservator.

A final consideration is disaster planning. Librarians can familiarize themselves with their library's overall plan and/or make a plan just for their own departments. The actual planning costs no money. The librarian simply evaluates the types of disasters and minor emergencies that might occur and the ability of the collection to stand up to those emergencies.

This summary doesn't begin to cover all of the possibilities for documents preservation, but I hope it has shown that these possibilities are very flexible. To choose the specific strategy that would be best for your library you'll still have to read preservation literature on your particular problems and browse through catalogs from archival suppliers. I hope, however, I've shown that, even with limited resources, documents preservation is not only worthwhile, but also feasible.

Preservation References Available at Depository Libraries

United States. Department of the Interior. Conserve O Gram. Washington: GPO, 1993.
(I 29.100:993 - Relates mainly to museum collections, but has sections on disaster preparedness, agents of deterioration, and preservation of leather, textiles, paper, books and magnetic media.)

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Walsh, Jim, Barbara Hulyk, and George Barnum, eds. Rare and Valuable Government Documents: A Resource Packet on Identification, Preservation, and Security Issues for Government Documents Collections. American Library Association, 1993.
(Very comprehensive. Besides information specifically related to rare government documents, contains a bibliography, sources of preservation supplies and assistance, instructions for handling documents and making enclosures, emergency management information and much other basic preservation information.)

Main Suppliers of Preservation Materials Used in the Newark Public Library's Preservation Project

The Hollinger Corporation
1-800-634-0491

Light Impressions
1-800-828-9859

University Products
1-800-762-1165

HANDLING INSTRUCTIONS

DO NOT PHOTOCOPY !

[ ] Stiff Binding

[ ] Fragile Binding

[ ] No Covers

[ ] Brittle: Handle With Care

[ ] Loose Pages

[ ] Powdery Leather: May get on Hands and Clothing

PRESERVATION INFORMATION

SuDocs#:

Title:_____ Date:

Size:length_____width:_____Illustrated? (Y/N)

Condition:

Treatment: Surface Cleaned{ }, Wrapped in Tissue { }, Extra Support (covers missing) { }
Renaissance Wax { }, Phase Box { }, Other:

Notes:

Effective Media and Community Relations

Kathryn McConnell
U.S. Government Printing Office
Washington, DC

Good afternoon. I'm Kathryn McConnell, Manager of Creative Services in the Superintendent of Documents' Promotion and Advertising Branch, formerly the Office of Marketing. Creative Services supports both the Documents Sales Program and the Depository Library Program.

It's an honor to be part of your conference this year, and a pleasure to be here with all of you to talk about using media and community relations to tell the public about your services.

One hundred years ago, the office of the Superintendent of Documents became part of the Government Printing Office, with responsibility for cataloging and disseminating Federal Government information.

Over the years, SuDocs and depository libraries have worked together to make government information easily accessible to the public all across the United States and its territories. This long partnership in providing access to government information is one of the best "good news" stories about the public sector. But one that perhaps not enough people know about - or fully appreciate.

My own appreciation of accessible government information goes back several years, - beginning with when I was a journalism student at the University of Minnesota in Minneapolis. I felt that the university's Wilson Library--a regional depository--was such a wonderful and amazing collection of so many types of information, that I was happy to have the chance to work there part-time during my junior year.

Many years later--in fact, in the five years before I moved to Washington--I worked for another Federal agency in downtown Minneapolis, just one block from the city's main public library, also a depository. It's not difficult to imagine where I often went for answers to questions that came up in my job, and by then, in my studies as a graduate business student.

More recently, my appreciation of easy access to government information reached a higher, almost idealistic level.

For four months last year I took a leave-of-absence from SuDocs to work as a volunteer consultant in Moldova, one of the 15 successor states of the former Soviet Union. My job was to help Moldova's nongovernmental organizations--or NGOs--develop within the context of a democratic society transitioning to a free-market economy.

Daily, I interacted with NGO leaders, as well as with Moldovan government officials and journalists. And I learned that one obstacle they all continue to face is a lack of information. Up until 1991, each regional government sent real and fabricated social and economic statistical information to Moscow, which then developed central plans for the entire Soviet Union. There were no subsystems for local governments, much less citizens, to access the information input into the central planning systems. Or systems to

access information developed outside the Soviet Union.

Today, NGO leaders and businesspersons in the newly independent states face the task of trying to develop their organizations with very limited access to substantiating information. As we all know, trying to plan without back-up information is a problem. For NGOs in these young nations, it means trying to develop a competitive funding proposal--without the back-up information that funders require.

One day in Moldova I received from my Creative Services office a copy of our latest sales catalog. The amazement of my Moldovan staff at the fact that so much and so many types of U.S. Government information is easily available to the public was a reaction I'll never forget. It made me proud that I am part of the effort to make that information accessible.

Accessible government information; easy access to all. Since the 1800s. It's a good story.

Electronic and print access to government information. That's another good story.

How we can get these stories told? One of the best and most economical ways is through well-planned public relations strategies.

Public relations--that's the combination of media relations and community relations.

First media relations. The first thing to realize about the media is that it's a competitive environment, and so having a good strategy is important. Last year alone, more than 20,000 new products were introduced in the U.S. And they all compete in some combination of media to attract the attention of their targeted customer groups. In newspapers, magazines, TV, radio, billboards, direct mail, signs on the sides of buses--messages about product and service choices are everywhere.

The second general characteristic of the media is that it's fair. Forget the media that's involved with hype and distortion. In spite of what it may seem some days, that media is a small percentage of the whole.

The whole is genuinely interested in delivering information that has some value or is of interest to their readers, viewers and listeners.

I've developed some guidelines for dealing with the media and have copies for you that I'll pass out at the end of this session.

Now a few quick points about community relations. Take the message you developed for delivery to the public through the media, and the interviewing skills you're developing, and think about giving brief presentations about your services to community groups.

Consider writing to the speaker's bureau coordinators of your area's Rotary and Kiwanis groups, Chambers of Commerce and business roundtables. Introduce yourself and offer their members a 10-15 minute presentation highlighting your library's key services. Tell them why you think their members will be interested in learning about library services. All communities have lists of these groups.

If you are on a college campus, send the same type of letter to department chairs and alumni relations directors. Ask to be part of homecoming festivities and special anniversary celebrations. Display booths. Small "ads" in event programs. Brainstorm with your staff for other ideas.

In closing, I invite you to call me any time for ideas or help in planning or carrying out a media or community relations activity. My phone number is 202-512-1710, and the fax is 202-512-1656.

United States Government INFORMATION
A Service of the Superintendent of Documents

Media Relations Guidelines

Promotion and Advertising Branch
April 1995

Background

- Each media organization has its own news format. Some are heavy on "hard news," some on feature stories, some community news.

- Reporters generally have liberal arts backgrounds; many specialize in an area such as business, law, education, health care or government. Reporters are curious and can be skeptical.

- Editors, producers, researchers and photojournalists work with reporters in developing news stories.

- Reporters want to present to their audiences newsworthy, fact-based articles, information that is concise and interesting--they appreciate sources who help them do that.

- Reporters are skilled in asking questions that elicit answers. As the source, however, you can steer the interview in a direction that will bring out more facts about your program.

- You may have contact with reporters from any of these types of media organizations:
  - > newspapers--city, suburban, college
  - > magazines--business, alumni
  - >wire services--local bureaus
  - >newsletters--professional and civic associations, special interest groups
  - >television--network affiliates, independents, cable
  - >radio--city, college

Pro-active media relations

- Begin by collecting basic information about who's who in the media in your area.
  - >call newsrooms
  - >compile a list of reporters who have contacted your library in the past for any reason
  - >keep a file of news clips relevant to your program
  - >ask your colleagues and friends if they have any contacts in the media

- Establish a relationship.
  - >call or write the reporter introducing yourself and your program; tell the reporter you are available for future reference
  - >provide a media kit
  - >after initial contact, communicate only when you have something new to say

- Maintain the relationship using various communications methods.
  - > information for file--provided periodically to reporters as background
  - > news release
  - > letters-to-the-editor and guest editorials--keep them positive
  - > editorial board meetings--to provide in-depth background
  - > appearances on local public affairs shows and news programs
  - > interviews

- Keep track of coverage--maintain a dated log of contacts with the media and a news clippings file

Pro-active news releases

- Use releases only when you have something newsworthy to announce.

- Mail only to the appropriate reporters or news departments.

- Keep the length to one or two pages; if two pages, print front-and-back on one sheet of paper.

- At the top of the release, provide the date and a contact name and phone number. In front of the first paragraph, give the name of the city where your library is located.

- Write a headline (this may be done after the body copy has been written).

- Use the inverted pyramid style--with the most important information in the lead paragraph followed by progressively less important information. Use short sentences.

- State only one key piece of information per paragraph.

- Make sure the release answers who, what, when, where, why and how.

- Use direct quotes, if possible. Obtain written permission from the person quoted. (You may want to draft a quote for someone to sign off on. You also may edit a person's actual words for clarity--then have the person sign off on the edited version.

- State your address, phone number and hours of operation in the last paragraph of every release.

- If more than one page, put "more" at the bottom of the first page. Put "-30-" or "###" at end of the release.

Preparing for an interview

- Know your topic--the features of your program of interest to the public. Know how your program ties into current events.

- Find out something about the reporter's background, what topics the reporter typically covers. Know which news organization she/he represents.

- Find out if the reporter has a news "angle" in mind and what it is. Suggest alternate angles you think would be appropriate to your message.

- Give the reporter materials about your program. This will help prevent inaccuracies and misunderstandings.

- Think ahead of questions you want to be asked. Prepare concise, factual responses. By doing this, you'll avoid being surprised by an awkward question.

- Think ahead of questions you don't want to be asked. Prepare concise, factual responses. By doing this, you'll avoid being surprised by an awkward question.

- Don't go into an interview expecting to "wing it." Know the message(s) you want the reporter to hear. Prepare and practice. Ask a member of your staff or a friend to give you feedback as you practice.

- Confirm with the reporter the date, time, place and duration of interview.

During the interview

- Never state something "off the record." If you don't want something in print or on the air, don't say it.

- Be particularly alert for the first question. The first is often the most important because it establishes the information relationship between you and the reporter. It also is when you may be most vulnerable as your concentration shifts from what you had just been doing to the interview itself.

- Give direct answers. 1) First state your message, 2) support the message with explanation and facts, then 3) elaborate with an example. Spend no more than 30 seconds on each phase.

Use a "hook" in the first phase of an initial answer. The "hook" gets the reporter into the topic. Remember that people remember most what was said first.

- Be positive. Speak confidently so the reporter knows you're providing as much information as possible.

- Present your program as a public service. Describe how the public benefits from your program.

- Use everyday terms. Do not use jargon or acronyms.

- Relate your message to current events. One of your goals is to establish a rapport with reporters and editors so they will look to your office as a reputable source.

- Participate in setting the pace of the interview. Give yourself a moment to think before you answer. However, this moment for thought is shorter with television and radio interviews.

- Some television and radio formats don't let the audience hear the question. Fashion your answers appropriately.

- Don't give more information than is necessary. Unnecessary information can dilute rather than amplify your message. Learn to feel comfortable with moments of silence. This will help prevent rambling out of nervousness.

- If you don't know an answer to a question, say so. Then tell the reporter you'll get the answer and get back to him/her. (You're encouraged to contact Promotion and Advertising Branch for answers to questions

about the Superintendent of Documents sales program.) If there is a policy reason you can't answer a question, say so. Don't add your personal opinions.

- If you need to get back to a reporter, ask when his/her deadline is.

- If you think the reporter has some wrong information or assumptions, use tact and a positive approach to provide the correct information. Don't ask to see a story before it's published.

- Always ask the reporter to include your library's address, phone number and hours in the article.

- Remember, no story is a guarantee. Space limitations strongly influence which stories run and story size.

Television

Before the interview

- Develop concise answers to questions you think you may be asked. Practice your answers until they sound natural.

- Request that your program's logo as well as your library's phone number appear on screen.

- Tell the producer if you will have visual aids available. Your logo and visually appealing books are examples.

Studio interview

- Arrive at the station early to meet with the producer and interviewer before getting in front of the camera. Confirm your title, and the spelling and pronunciation of your name.

- Ask about the questions the interviewer plans to ask. (The producer may have asked you in advance for input on questions.)

Workplace interview

- Determine a suitable, quiet location for the interview. Remove all unnecessary background clutter. Suggest additional locations that could be videotaped to show customers using your services.

During the interview

- Though television time frames are brief, don't let haste lead you to give a partial or misleading answer.

- If the reporter asks another question before you've finished your main point, try to get back to that point at some place in the interview.

- Speak naturally. However, be aware of your tendencies to speak too fast or too slow--or too loud or too softly.

- Stay in your chair until the camera-person or producer says you may get up.

- From the moment you enter the studio until you leave, assume your or another microphone is live and capable of picking up secondary conversations.

Appearance

- Even if you don't normally wear make-up, apply powder to your nose, forehead and cheeks. If the interview will be in a studio, ask the producer if make-up is available.

- Wear unpatterned clothing--dark colors are best. Unless covered with a jacket or scarf, white blouses/shirts reflect studio lights and will make your face appear pale. Lapels are good because they hide clipped microphones.

- If seated during the interview, unbutton your jacket. If standing, keep jacket buttoned.

- If seated, cross your legs at the ankle or knee. Avoid constant crossing and uncrossing.

- Sit straight with hands on armrests or lightly in your lap. Be conscious of sitting straight.

- Keep your chin up. Alternate looking straight at the interviewer and at the camera. Avoid the tendency to look down when thinking of an answer.

Radio

Before the interview

- As with television, arrive early to meet the interviewer, discuss possible questions and do a sound check.

During the interview

- Sit straight with your mouth a few inches from the microphone.

- Since you are not being seen by the audience, use notes if you wish.

- Give brief, to-the-point responses. Most answers should be no more than 20 seconds.

- Begin your answer only after you are sure the interviewer has finished the question.

- Speak naturally. However, be aware of your tendencies to speak too fast or too slow--or too loud or too softly.

- If you are doing an interview by phone from your workplace, use a phone in a room with no distracting background sounds.

Relaxation Exercises: Before an Interview or Speech

- Schedule 10 minutes prior to the interview or speech for relaxation exercises.

- Do up to five minutes of very slow, deep, in-and-out stomach breathing.

>Breathe in fully through your nose. At the same time, push your stomach out to fill your lungs entirely with oxygen. Don't hold your breath.

>Breathe slowly out through your mouth. At the same time, pull your stomach in all the way to exhale all the air.

- Continue breathing slowly, concentrating on your air intake and outflow.
- While deep breathing, contract and relax your muscle groups, starting at your toes and working gradually up your body.
- Rub your face--or "make faces"--to loosen your facial muscles; rub your neck.
- Rub your hands; shake your hands loosely by your side.
- Stomp your feet (to get grounded).
- Pull in your stomach, inhale, push against a wall with your arms extended, and slowly exhale, letting the air out between your teeth. Continue for two minutes.
- Avoid coffee--it dries your mouth and throat.
- Drink water; keep a lozenge in your mouth until right before you are going to speak.
- Remind yourself that you know more about your topic than your audience does.

Interview preparation checklist

1.Know the who, what, when, where, why and how of the interview.

2.Determine key message(s).

3.Be familiar with the reporter's background.

4.Be familiar with the news organization's background.

5.List questions you most want to be asked--and develop answers.

6.List questions you least want to be asked--and develop answers. List any concerns you may have about this interview.

7.After the interview, thank the reporter for his/her interest in your program.

Marketing Public Relations

April 1995

Media Relations--placing newsworthy information into the media to attract attention to a product or service.

Community Relations--internal and external communications that promote understanding of the organization and its services.

Marketing Public Relations in the 90s

- Assist in launching a new product or service; establish preferences
- Assist in repositioning existing service in a mature market
- Retain customer loyalty
- Attract the middle market--people who aren't using your service at all or using only a portion of it
- Emphasize brand or organization name and image--"It doesn't matter how good you are, but only how good your customers perceive you to be."
- Focus on core benefits

Developing the Message

1. List the service's attributes and benefits.
    - Attribute--quality, availability, functionality, convenience, price
    - Benefits--tangible, intangible

2. Review list to determine potentially strong messages.

3. Write a one or two sentence message. Examples:

"Wisconsin's depository libraries provide convenient, no-cost access to the vast store of documents produced by the Federal Government--an asset for researchers, students, businesspersons and consumers."

"One-stop access to the world of Federal Government information--in print and electronic formats--is provided year round by Kansas' depository libraries. Discover how this public service can help you."

Communication Process

Information receivers have set attitudes/expectations about what they will hear and see. They often add to the message (amplify), or do not notice portions of the message (leveling).

The communicator's task is to achieve message <u>simplicity. clarity. interest and repetition</u>.

Bureau of the Census Products and Programs

Lars Johanson
Bureau of the Census
Washington, DC

Good morning. It is my pleasure to be here and to give you some recent information about the status of various Census Bureau products and programs. During this time of budget uncertainties we are doing our best to continue to release both printed and electronic products that are useful to you and your library's clientele. I want to give you first some hard-core information about the status of various products and then review some recent changes in the availability of printed reports.

CD-ROMS

Within the last few weeks you should have received the 1994 edition of the Statistical Abstract on CD-ROM and USA Counties. This latest version of the Statistical Abstract has several changes in the Textware software and also includes for the first time a Macintosh version of Textware. USA Counties, an historical county database, contains not only the popular "GO" software but also LANDVIEW II mapping software. Complete technical documentation is also included on the CD. We will also release this spring the County and City Data Book 1994 CD-ROM which will contain even more data for counties, cities, and places than is found in the printed version.

The Bureau is also releasing now several CD-ROMs from the economic and population censuses. The latest economic census CD-ROM 1D contains complete geographic area reports for the censuses of retail trade, wholesale trade, and services as well as many manufacturing industries reports. We expect to release this summer the geographic area data for the new report series on financial businesses, insurance, real estate, transportation, communications, and utilities.

Among the latest population and housing CD-ROMS are the 1990 Census Metropolitan Housing Characteristics CD-ROM and various Subject Summary Tape Files. These specialized tabulations focus on various topics such as earnings by occupation and education, occupation by industry, poverty areas, and the aging population.

We will also release shortly an Income and Poverty CD-ROM based on material from the March Income supplement to the Current Population Survey. This redesigned version of the Current Population Survey CD-ROM will contain a sample of unidentified long-form housing-unit records for large areas so that users with special needs can prepare customized tabulations. Also included are historical summary data files for poverty and income. The user of the historical data files will be able to do searches using Textware software and to copy Lotus worksheet files.

The complete set of CD-ROMs for the Census Tract Street Index is now available. This first-time release on compact disc allows a user to enter an address and then find out the corresponding census tract number, zip code, congressional district number, and appropriate FIPS geographic codes. The discs come with both DOS and Windows versions of the software.

Another new release in the geographic area is the new Landview II series. This series, which is a joint venture sponsored by the Environmental Protection Agency (EPA), the National Oceanic and Atmospheric Administration, and the Census Bureau, will contain prepackaged county sets of boundary files. This should ease somewhat the problem of loading TIGER files on your hard drive.

The set of 11 disks will contain information from various EPA databases, including facilities that discharge into water, air, or underground; facilities that generate, treat, store, or dispose of hazardous waste; and abandoned hazardous waste sites (Superfund sites). It will also contain demographic and economic data from the 1990 Census of Population and Housing.

The data are presented in a geographic context that includes jurisdictional boundaries (e.g., counties, cities, census tracts and block groups, and metropolitan areas); detailed networks of roads, rivers, railroads, and landmarks; and watershed boundaries. Landview II data are integrated and accessible through software that provides thematic mapping, printed maps and reports, the ability to add new layers of information, and desktop mapping capabilities for displaying, searching, and identifying map objects. While on the subject of Landview software, we do have plans to develop Landview software for the Windows environment; however, its future release date is subject to the availability of staff resources.

Also newly available in the geographic area is the first disc from the 1994 TIGER/Line series. This development is sponsored by the Bureau of Transportation Statistics. The chief features of the new set of six CDs are the addition of geographic boundaries for traffic analysis, updated ZIP codes, and ZIP +4 codes for the entire country.

Internet

For several months now the Bureau has distributed data and other information on the Internet. Users can access our material through Gopher (address: gopher.census.gov), FTP (File Transfer Protocol) (address: ftp.census.gov), and the World Wide Web (Mosaic client software) (uniform resource locator URL: http://www.census.gov/). Telnet access is allowed for the Census-Bureau of Economic Analysis Economic Bulletin Board (telnet cenbbs.census.gov).

If you have not accessed our home page lately, you will notice next time that we are redesigning our home page. This home page will lead you to a wide range of demographic, economic, and small area data; product information (including on-line ordering); press releases; research papers; geographic data; and custom data extract capability.

Within the demographic menu you can lookup 1990 Census summary data at Census and University of California Lawrence-Berkeley servers. This online lookup allows interactive data retrieval. The user can also extract data files. You will also find historical and current population estimates for the nation, states, counties, and places as well as population projections. The popular Statistical Briefs and We, the American... series are also available in Postscript format. Among the new demographic material are charts and historical data from the Bureau's annual income and poverty reports.

The economic area provides key economic indicators such as monthly retail sales and current business and industry information. As an example of the riches in one subject alone, let's look at the foreign trade section. Here you will find the monthly press releases on exports and imports, the Schedule B Commodity Classification codes (with a search engine), instructions on how to fill out the Shipper's Export Declaration, ordering information for all foreign trade products and a list of contacts for further information. You can find similar riches in other economic areas of the Bureau's Internet menu.

Other popular sections are the profiles and rankings from the Statistical Abstract and the County and City Data Book, county business data from the County Business Patterns annual reports, and descriptions from the 1992 Economic Census. We also provide listings of our Internet

addresses, key telephone contacts, and tutorials and sample files from TIGER '92 and TIGER '94.

Availability of printed reports

Since the Census Bureau is now offering speedier access to statistics via Internet, it is also reconsidering the amount of information released in printed reports. Governments Division recently decided to replace most printed reports with Fact Sheets for two primary reasons. One is a desire to shorten the processing time between collection and public release and the other is a need to reduce printing costs. When the Bureau releases in the future a particular government finance or employment set on the Internet, it will simultaneously issue a separate printed fact sheet summarizing findings from the data set. This fact sheet will also be on the Internet. The fact sheets will provide information on how to access the data on the Internet, as well as how to get the data for those who do not have access to the Internet. This includes an offer by Governments Division to produce on demand printed output of any material in its data base. After data are released for all states, Governments Division plans to release a CD-ROM with the full data file and possibly some page images and historical data.

This follows a recent change in the Current Industrial Reports series. The Bureau discontinued several months ago the printing of monthly and quarterly reports. They are accessible online and by FAX (through a 900 number or by subscription). With the various Current Industrial Reports series, however, an annual publication does compile the electronically-released information.

Some astute observers of the Bureau's Current Population Reports may have also observed reductions in the number of reports and the amount of material released in those printed reports. Staff members in the Population Division are considering changes in the mix of paper products and electronic data releases but they have not made any final decisions.

Similar reevaluations of the balance of printed and electronic releases are underway for the 2000 Decennial Census. The Census Bureau will develop and implement a plan and system for data access and dissemination focusing on the decennial census but with the ability to accommodate other data sets having geographic detail, like those produced from the Economic and Agriculture Censuses. A design and implementation team will develop this vision into a complete proposal defining the main features of the system, including a scenario of how users would access the system, how data would be delivered, and a timeline for implementation. Some of the principles under which the system will be designed and developed include the following:

1. The system will provide direct access to a limited number of data summaries, to public use microdata samples, and to a process for specifying special tabulations. It will be accessible to the widest possible array of users through the Internet and all available intermediaries, including libraries and universities.

2. There will be limited standard, prepackaged data summaries, and no standard printed reports except those few profile reports necessary to show appreciation to the public for its cooperation. All reports, files, etc., will be rapidly prepared on demand.

3. All data sources with comparable levels of geographic detail will eventually be integrated into the system (e.g., economic census files, decennial census files, population estimates files).

In order to help the Bureau plan the future of its data delivery system, we would appreciate your comments on a one-page questionnaire which I have brought with me today. Please feel free to add any other comments on the back of the form. This questionnaire will give us information about the availability of Internet and CD-ROM technology to users of Census data and their preferred methods of receiving our data.

As this overview of our latest offerings on CD-ROM and the Internet and the future of printed reports has shown, change is quickly occurring at the Census Bureau. We wish to assure you that we value very highly your role in the dissemination of our data and we encourage you to let us know what information you need and how you would like to receive it. I will be happy to answer your questions and hear your comments.

Many Ways to S-WAIS and WAIS: The New Mexico Experience

Clark McLean
University of New Mexico
Albuquerque, NM

It is a pleasure to have been invited by Sheila McGarr, Chief, Depository Services, U.S. Government Printing Office, to present "Many Ways to S-WAIS and WAIS: The New Mexico Experience" for the Federal Depository Library Conference. Packets are available at the back table containing an outline, helpful hints for using S-WAIS, GPO Access gateway list, minimum technical guidelines and copies of all my visual overheads. I want to thank Judy Russell, Director, Office of Electronic Information Dissemination Service, U.S. Government Printing Office, for providing several slides I'm utilizing in today's presentation, and my colleagues at the University of New Mexico whose guidance, support, and encouragement have been instrumental in making possible today's presentation.

How many of you have had experiences with Internet resources of E-mail, Gopher, Telnet, File Transfer Protocol, Wide Area Information Servers, the trendy World Wide Web and associated browsers' Mosaic and/or Netscape? Many of these are the Internet access building blocks, allowing the exploration to the growing wealth of electronic information.

The tool I will focus on today is a Wide Area Information Server (WAIS) client/server software, an excellent tool to search through large text. A frequently asked question is to differentiate between S-WAIS and WAIS. The major difference is S-WAIS, or screen based WAIS, provides access to text where WAIS with the appropriate client/server software will provide access to text, graphics and pictures.

The basic equipment needed to access either S-WAIS, WAIS or the other electronic products being distributed through the Federal Depository Library Program is outlined in the minimal technical guidelines published in Administrative Notes, Vol. 16, # 2 (January 15, 1995). It is essential for depository libraries to request this equipment to be able to provide access to the continuing flood of complex government electronic information resources.

To provide access to S-WAIS resources, a personal computer with a modem or Ethernet connection with Internet connection is needed. Telnet capabilities, provided by an Internet provider, are also needed to access the service directly. For WAIS access, a personal computer with a modem or Ethernet connection to an Internet provider is required.

In addition to the hardware, software such as Windows, Winsock software (e.g., share-ware Trumpet), and WAIS client software (e.g., EiNet software available through GPO) is required for WAIS access. Your Internet provider might establish a serial line Internet Protocol (SLIP) or point-to-point (PPP) account for your library to provide Internet access. This method supplies a unique Internet Protocol (IP) address which can

be used in registering for GPO Access services. An excellent video recently distributed to depository libraries is Eliot Christian's Connecting to the Internet, which covers in detail how to set up your personal computer with Windows and Winsock (e.g., Trumpet) software. The other option for many libraries, based on financial resources and comfort with electronic resources, is to become a Model Gateway or connect to a Model Gateway which provides expanded access to government information resources. More concerning the Model Gateway project will come later in today's presentation.

The driving force which started our depository library and others down the WAIS pathway was announced a year ago with Public Law 103-40, The Government Printing Office Electronic Information Access Enhancement Act of 1993. This law mandates public access to selected Federal electronic information resources, without charge, through the Federal Depository Library Program and at incremental cost to other users.

The four major parts of GPO Access are the Federal Bulletin Board; GPO Wide Area Information Server (WAIS); Locator Service with the Monthly Catalog and Publication Reference File annotated with depository holdings; and the on-demand library delivery service (storage facility). When these services were described at last year's depository meeting, I became very excited with the prospects and began thinking about how we could incorporate GPO's services into our gopher server. Then we were informed about the one workstation - one access point requirement for free registration of a depository library. Our library already had a new 486 workstation ordered and an Ethernet card was quickly requested because our campus computer center and Internet provider, which doesn't support SLIP/PPP at this time, prefers hard wired connections to the network.

Sometimes the best plans are delayed. For instance, about the same time when GPO Access would become publicly available our Internet provider informed us our building was scheduled for fiber optic upgrade, changing all our Internet addresses. The equipment delay postponed having full WAIS service available until August of 1994. Then we started to explore the wonderful world of GPO WAIS via one workstation with EiNet Windows software. As many have heard this week, an enhanced version of the WAIS server is in the works at GPO. Proposed enhancements to the system, still six to nine months away, will require conversion to standard generalized markup language (SGML), new retrieval software procurement and a possible CD-ROM with common user interface for older information materials.

Contents and timeliness are what made our department initially very interested in the GPO Access WAIS service. The contents can be described in three large service parts: Congressional Record; Legislative Bills, Public Laws and United States Code; and Federal Register.

Each of the service parts has several components. The Congressional Record service includes the Congressional Record (1994 to date), Congressional Record Index (1994 to date, and 1995 updated biweekly) and the History of Bills (1994 forward, updated biweekly). Future developments coming soon are Adobe Acrobat portable document format (PDF) files for the Congressional Record, 1983-1991 back file for the Congressional Record Index and History of Bills databases.

The second major service part is the Legislative service which includes Congressional Bills (103rd Congress to date, all published versions, ASCII text and PDF formats, updated by 6 a.m. daily), Public Laws of the 104th Congress (ASCII text and PDF format, updated irregularly as Slip Laws are authorized by the Office of the Federal Register), and United States Code (codification of laws of general and permanent effect as of January 1994, ASCII text and TIFF graphic files).

The third service part is the Federal Register (1994 to date, ASCII text and TIFF graphic files, released by 6 a.m. daily). It includes the Unified Regulatory Agenda which is published in the Federal Register biannually. Adobe Acrobat PDF files for the Federal Register are planned to be available soon. Databases to be added to GPO

Access this spring include GAO Reports, House and Senate Reports, Documents and Calendars.

Our department initially selected the full WAIS option with the customized EiNet software provided by GPO. We wanted to be able to access both the full text and any graphic images available. As our department became more familiar with the full WAIS access, we found the sample questions in the manual and available online to be very helpful. These sample search questions also came prepackaged with the EiNet software.

We encountered challenging patron requests that prompted our learning more about the databases and the search retrieval strategies. When the crime bill was in the news last fall, we had several requests for a "final" version of the bill. We downloaded a copy of the enrolled version and provided it to patrons on floppy disk or as in one request, via e-mail. We advised the patron who wanted it through e-mail that the file was more than one megabyte. The patron seemed to think their e-mail system could handle this size message and we didn't hear from him after sending the large file. Another patron's question involved checking the Federal Register for regulations on a specific chemical. The full text of the regulation was retrieved easily by entering the chemical name.

Registration options for depositories have increased since the first announcement of the service. Now depositories can register either for WAIS and/or S-WAIS, registering once for WAIS and once for S-WAIS. A maximum of ten WAIS Internet Protocol addresses and/or S-WAIS user identifications are available to depositories. Registration involved a letter and forms sent to each depository last fall detailing the procedure. Access to GPO Access resources can also be shared with other libraries through a selective housing agreement. If you decide to work with a selective housing agreement, GPO must be informed and sent a copy of the selective housing agreement.

A challenge to depository libraries is how to incorporate the WAIS service at the Reference Desk. Our full WAIS service is provided by appointment and we are working to have an S-WAIS like interface available through our gopher server. With the full WAIS access available by appointment, we encourage patrons to bring floppy disks so their search can be downloaded.

In preparation for offering additional service access points, our library requested more telnet S-WAIS logins and passwords. At the reference desk single user S-WAIS connections could work well, but to expand access via our gopher server, the login and password would need to be scripted to run in the background. Our computer center advised the scripting process would require additional computer programing for the gopher and they were reticent to perform the task. Accessing S-WAIS via telnet provides limited on-screen help once you are deep in a search. Perseverance paid off and we were able to train our campus gopher to communicate with a WAIS client also on our campus computer network. I'm hopeful this will be the basis for our library becoming a Model Gateway participant. It is still text based, but using the gopher software provides more on screen help.

The Model Gateway will provide enhanced access both to our campus community and off campus users remotely dialing in with a modem. Our next step is to model our system on the excellent University of North Carolina - Chapel Hill site with their "lynx" interface. This site has provided a web like appearance with significant help screens available when you are searching. Many of the help tips derived from GPO guides are available on the screen as you search.

Exploring the databases further, our department wanted to become a Model Gateway so we could expand access to the services from more than the one WAIS terminal in our office. We initially requested a few S-WAIS logins and passwords so we could experiment. S-WAIS access would only provide text and no graphics but this seemed to be a workable option as our library and campus community supports a wide variety of platforms accessing the campus data computer network. Several patrons from rural areas in our state were also interesting in dialing-in to our resources, saving a long distance commute to campus. Improved access to

electronic government information will be achieved as we continue working to implement the Model Gateway project.

Recently we had a patron who requested the per diem rates for the continental United States (CONUS), published in the Federal Register. We searched S-WAIS and WAIS, selecting the Federal Register as the research source, typing per ADJ diem as the search strategy. Boolean operators need to be in all capitals or the WAIS server searches the operators as text.

Judy Russell recently announced a major improvement to the WAIS server software that will soon allow phrases to be placed in quotation marks to imply adjacency. The improvement will be a welcome and time saving enhancement. After entering the search the server responds with the search results. The "score" results concept is difficult to explain to patrons. The highest score attainable is one thousand. The score is not just the number of times the words appear, but the words are given a relevance ranking, more if they appear in the title or header.

Another helpful search result file is the "query report for the search" usually found as the last file listing. The query report is helpful to review especially if you want to see how the WAIS server interpreted your request. On the search result screen in S-WAIS you can e-mail the document by pressing "m" and typing your full e-mail address when prompted by the computer. Or if you wish to look at the full text, pressing the "space bar" retrieves the document. When the document is displayed on the screen with S-WAIS via telnet, there is little on-screen help, just the letters "stdin" at the bottom. This is computer jargon informing you the machine is waiting for standard input. By pressing the "space bar" you can get another screenful of text or by pressing "q" will bring up a message indicating "press any key" which lets you escape back to the previous screen of search results. One glitch we found in searching for this document was the appearance of two separate documents from two different agencies being placed together as one file in the search results. If you find such problems, please forward the discrepancy as well as your search strategy to the GPO Access User Support Team.

Another search we had difficulty with was searching the Federal Register for the Base Closure and Realignment Commission recommendation published March 1, 1995. These files are on GPO Access, but many of the individual base notices were provided to GPO by the agency in camera ready form. They are available as TIFF files on the full WAIS service. The full texts of the recommendations are also available on GPO's Federal Bulletin Board.

Even with all the glitches, GPO Access is a timely and authoritative resource for selected electronic government information. GPO has provided a manual which does provide some key examples on how successful searches can be accomplished on the WAIS server. The manual is available from several sources: the GPO Federal Bulletin Board, an automatic source file on S-WAIS telnet access, a source file on full WAIS access, or as an anonymous file transfer protocol from GPO.

Additional help is available from the GPO Access User support team:

Internet e-mail
help@eids05.eids.gpo.gov
Phone: (202) 512-1530 or
fax: (202) 512-1262

7 a.m. to 5 p.m. Eastern Standard Time weekdays

New challenges are resulting as access is expanded to electronic government information. Training and networking will be essential as libraries work with GPO to provide free access to government information. These are exciting times for the depository library community as we work together with GPO to be leaders in electronic access. Thank you again for the opportunity to speak about some of the many pathways to these resources.

Selected Addresses

URL: gopher://gopher.unm.edu

URL: telnet://unclib.lib.unc.edu
Login: LIBRARY

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Community Information Organizations: The Chicago Model

John A. Shuler
University of Illinois at Chicago

I want to thank Sheila McGarr, the Superintendent of Documents, and the Public Printer for the opportunity to talk with you today. They know all too well the dangers of allowing me to talk before a semi-captive audience for longer then ten minutes, which reminds me of a story about Groucho Marx. While on an European trip he was approached by the editors of a British newspaper and offered two hundred dollars to write a story of two thousand words. Groucho thought about it for a minute and said no, pointing out that he already had two hundred dollars and didn't know 2000 words.

Now there was a man who grasped the essentials of the information economy.

What I want to offer for your collective consideration this afternoon is a meditation on how the underlying concepts of a "national depository library system" may survive into the next century; and to further entertain the idea that this survival may not depend on the historical structural arrangements presently embodied within Title 44.

Indeed, in taking the long view on this point, we must recognize that the depository system has evolved through a complicated and interdependent system of power relationships, social/political contracts, and professional understandings over the past two centuries. Half that time it was an executive branch responsibility and the other half a duty assumed by the legislative branch. At the first level of this complicated web of relationships, and most fundamental, are the services we provide within our home institutions, other organizations we work with on a daily basis (both public and private) and the local communities we claim to serve. The next level is sustained on a regional scale, outlined by the often singular (if not peculiar) social developments, economic conditions and politics of our respective states and regions. The third exists at a national level, and creates much of our public rhetoric, our sense of information advocacy, and our system of "professional beliefs" (what I call our "documents to the people" thing). Much of this stems from our interactions with the Federal government and the several national associations who pledge allegiance to common policy goals.

What I have come to understand over these last five years is that these relationships have been seriously restructured during the last quarter century. This slow deconstruction of the depository library system began with 1962 revisions of Title 44, primarily through the creation of the regional/selective library dynamic, along with the inclusion of non-GPO produced documents in the depository system, and have only been accelerated by the growing use of information technologies and telecommunications. What many have already said at this conference, as well as in other forums, is that the system is being restructured as we speak. The forces unleashed with the 1962 law have been reinforced in significant (and some would say surprising) new ways with the implementation of the recent GPO Access program. It means that the purpose of the depository program shifts on a daily basis from a national system of coordinated collections

to a cooperative arrangement of local and regional service points. As a result, the GPO has become just one possible source of government information products demanded by citizens in our communities.

For the purposes of this talk today, I am going to briefly offer some observations of how and why this restructuring came about. In the second part, I will describe UIC's institutional response to these conditions, and the role a government documents department might carve out for itself during these times. And finally, I will conclude with a few remarks about possible future directions. I have placed copies of an outline for the talk on the back table so that you may follow some of the twists and turns more easily.

I begin with three simple observations about what is driving the changes at the national level.

i. The collapse of the legislative-centered model of Federal information.

ii. The National Performance Review and demand for direct government services to citizens; the ambiguities of the executive-centered model of Federal information dissemination.

iii. The Republican Contract with America: government information as the last unfunded mandate, and the democratic response.

John G. Ames, founder of our bibliographic world and one of the principal lobbyists for the 1895 Printing Act, created the three cardinal points of our profession: centralized printing; centralized distribution; centralized bibliographic control. However, the reliability of these reference points would prove to be very transient. Not soon after the law's enactment, congressional control over Federal printing and publishing policy would be immediately questioned by the executive and judicial branches. These challenges came in the form of legal decisions that would narrowly define the Act's scope, as well as in the growing use of printing technologies throughout the Federal establishment, especially from the Commerce and War departments.

The Joint Committee on Printing was the vehicle of administrative control chosen by Congress. However, the JCP's influence waxed and waned over the years because of repeated failures to secure a place for the law's true purpose: the effective distribution of "electioneering documents." Members of Congress were not so much interested in informing the people (though that was an important aspect of the public rhetoric surrounding the law); rather, the debates and legislative speeches of the time called for some rational order to keep the thousands of "free" publications (i.e., agriculture yearbook, diseases of the horse, congressional directory, etc.) flowing into the hands of voters during elections.

The distribution of the current Congressional Record is a vestige of this system: of the 18,000 copies produced each year, many are mandated by law and congressional designation to go to schools, non-Federal government agencies, veterans homes, and foreign legations. Ultimately, we have to recognize that our national depository library system remains an often misunderstood part of this kind of constituent service.

Another factor, and not an inconsiderable one, is that the Congress has been losing its political will, and fiscal savvy, to maintain its structure of staff and support services. Committee staff, Congressional Budget Office, General Accounting Office, etc., have grown in tandem with the expansion of the executive bureaucracies for the last half-century. This is perhaps the greatest threat to the GPO, whose traditional protection within Congress has always rested on a system of congressional committees dominated by staff. What's more, there remains the question of the constitutional separation of powers: that is, whether or not Congress can administer the printing and publishing policies of the executive branch.

From the perspective of the executive branch, however, we find little comfort. Administrative attempts for the last quarter century to reduce the distance between government and citizen, as well as increase the use of information technology to

deliver public programs/benefits, threatens many underlying concepts of a legislatively centered depository system. These improvements in citizen's services include: direct benefit transfers, electronic filing of Federal forms, electrifying statistical and other large databases, geographic information systems, negotiated rulemaking, and alternative dispute resolution. Each will ultimately replace or alter existing paper and electronic products now distributed through the depository system.

The Office of Management and Budget Circular A-130, and its companion Government Information Locator Service (GILS) standard, injects into the whole discussion the principles of Information Resource Management (IRM), which always favored executive direction over legislative. The Circular demanded that public monopolies be avoided, and a healthy balance between private and public information providers be maintained. It is within these precepts that the greatest amount of friction is generated over public information's dual nature: on the one hand it is a public good (national resource) and on the other it is a private market commodity.

Finally, there is the recent election of a Republican majority in Congress, and their quite credible promises to rewrite at least some of the social and economic understandings of Democratic liberalism: less active Federal Government in social and economic affairs; greater reliance on state and local governments, greater reliance on private sector organizations for the distribution of goods and services.

If these trends continue the following is likely to happen:

First, it is very unlikely that we will ever see enough political energy at the Federal and national level in the near future to recreate a centralized information agency. The rapid spread of information technology and its management throughout the government and the parallel development of technology and communication networks, all of which is only encouraged by such policy instruments as OMB's Circular A-130, will set up barriers to any attempt to restore the old order.

Second, the Superintendent of Documents will be transferred to another agency (either congressional or executive) without enough serious thought or consideration on how such a "centralized" form of information distribution relates to comparable programs in other agencies. If it is kept in the legislative branch (such as the Library of Congress), then the separation of powers issue will continue to fester, especially if the Superintendent of Documents operation is legislated to demand executive branch information productions for sale and distribution, or inclusion in locator services.

Third, as the Federal Government dismantles its bureaucracies, many state and local governments will find themselves faced with the same questions about setting up the best public information policy framework. And the solutions to these problems will grow out of 50 different political cultures without any comparable allegiance to the classic Federal/liberal system of free, open and non-copyrighted public information.

Just as our government institutions are now roiled in debate about the proper relationship between citizens and government, so too are our home institutions and their libraries struggling to find a place in this brave new information world order. As documents librarians, we must suffer from a further burden: our own uniqueness as a particular combination of art and knowledge that has been bred to deal effectively with a singularly nasty puzzle in acquisition, collection development, and public service.

For most of us, (and I base these observations on my own experience of having now worked in four different libraries, both public and private academic or public institutions in four different institutions on both coasts and now the Midwest), though we may serve at a common reference desk, or though the publications themselves may be processed in a common technical service department, have always been singled out by our colleagues and our profession because of our strong affinity for figuring out the obtuse and baffling government.

There is a historical tension within the depository library community that centers on the collective purpose of the program, versus the goals and needs of the individual institutions affiliated through the system. One example might suffice, and that is the predominance of academic affiliated depositories, another vestige of 19th century arrangements, when private (and some public) academic institutions held the largest libraries in many congressional districts.

Today sixty-six per cent of the by-law and designated libraries are housed in academic institutions. I would also argue that the historical influence of academic libraries has placed the primary concern of "building collections" over "service" as the primary goal of the depository program. The importance of service began to be addressed with the creation of regionals in the 1962 Act. But it is perhaps only since the advent of GPO Access, that the idea of service has come to the forefront.

i. Library organizations deal with the technological challenges of collecting electronic government information.

It demands expensive equipment, close management, and constant support for both staff and users. It competes with other electronic choices in the library. How are libraries going to play a role in a system of government that is "racing" to a form of direct electronic service to the citizen?

ii. Library organizations wrestle with conflicting forces of providing "free" public access to increasingly expensive government information.

From a recent article on how much money Georgetown University is spending on its Federal depository: four local dollars for every one GPO dollar. With small to medium libraries, the emphasis has been on service first, collections second. Usually there is a centralized public service point, and provision of government information may or may not be in separate collections. Technical services may handle the processing of the material.

Depository status burdens do not sit well for some these institutions, because of the perceived lack of wide use for much of the material. Libraries of all kinds begin to examine their patterns of use and try to decide which services can be carved off and given up. In fact, many of the smaller to medium size libraries are beginning to seriously consider giving up their selective depository library status, and opt for commercial solutions or to rely on other depositories in their region.

iii.Library organizations ask the essential question: Does a separate government documents department still serve a common good?

With larger libraries, there is a growing pressure to flatten the organization and reduce the number of services points as well. This process can be accelerated by adding Government publications to a library's online catalog.

What happens when the centralized sources of distribution (i.e. GPO) dry up?

What and how are these libraries going to organize the constantly changing environment of government electronic information for their patrons?

The University of Illinois at Chicago (UIC) has initiated several projects designed to create viable solutions to these challenges over the course of the next five or ten years. These efforts include the long and short term goals of access to both print and electronic databases from all levels of government to the broadest number of citizens, community organizations and small businesses.

Overall, the University has launched an extensive program of neighborhood and community involvement called the Great Cities Initiative. Through this program, the University has targeted specific areas of research and teaching that can bring benefits and opportunity to the Chicago metropolitan area's vast number of neighborhoods. Areas of specific interest include education, international trade, public health, and local community development. At the present time, the Library has launched several initiatives that attempt to make public information resources and their distribution part of the Great Cities program. These include the following five pilot projects directly related:

I.U.S. Department of State Foreign Affairs Network (DOSFAN)

This Federal/state cooperative computer information service has been available on the Internet since late December 1994. It is a gopher site (with an associated World Wide Web home page) that effectively functions as an "electronic reading room" for the State Department's major reports, studies, country studies, speeches, testimony, visa and travel information, and other public information products dealing with U.S. foreign policy. It also serves as a functioning "electronic reference desk" for the public, referring them either to specific offices in the agency, or answering their questions from the sources located in the gopher or from UIC's other collections of government information.

Within the next two months, librarians from UIC's Documents Department will be visiting specific institutions and other libraries with a portable computer to demonstrate DOSFAN, and encourage members of these communities to use and participate in its development. The first three months of statistics indicate a growing awareness and use of DOSFAN from the Internet community. The gopher and web sites average 3000 files transmitted daily. Questions and comments from users indicate both appreciation and helpful suggestions on how we might improve the service. We are in the early stages of developing more sophisticated evaluation tools.

II. Community Internet Training

Since the spring of 1994, the UIC libraries have been a partner with the Chicago Library System in developing an effective program of training seminars on how to access and use Internet resources effectively. The Documents Department has begun to use the Library's Electronic Learning Lab (the ELL) to sponsor specific training in the area of government information resources. On April 3rd and 4th, 1995, UIC provided these electronic capabilities to the electronic services staff of the U.S. Government Printing Office to train forty to fifty librarians on new government information products and services. Another session will be offered during summer 1995. For the Documents Department (and in the interest of this initiative) there will be a specific program of outreach to other major community organizations that need to know about these kinds of public information resources, but do not have the technological or staff resources to act on these interests, and bring them into the ELL for further awareness and training.

III.Chicago and Illinois State Public HealthNets

These two components are still in their development stages. Working from the experience gained through the DOSFAN project, the Documents Department contacted and won agreement from the Chicago Department of Public Health and the Illinois State Department of Public Health to develop gopher sites and World Wide Web home pages for their information products and services. Documents librarians are working with representatives from the two departments, demonstrating DOSFAN as an example of the kind of added-value public service, and identifying the kinds of information products that could be of general and specific interest to the public. The Documents Librarians plan to work with other sectors of the public health community to ensure the HealthNets wide distribution and general usefulness.

IV.Health Policy Archives

This is a companion project to the two HealthNets described above. The Archives enjoys both the recognition and an initial funding from UIC's Great Cities office. The Archives' purpose is to identify, collect, and organize an extensive collection of paper and electronic information sources on all aspects of health care policy and reform. Organizers are working with the Chicago area's major medical schools, health care providers, professional groups, and interested individuals to identify and collect material. An important goal of the Archives will be the creation of a gopher and world wide web site that will enable Chicago's health care providers and consumers to locate information through the various metropolitan local and wide area information networks.

V.Public Geographic Information Systems (GIS)

Through a national program sponsored by the Association of Research Libraries, UIC has started to plan for a program of GIS training and outreach to members of the public, elementary and secondary schools, and other community/ neighborhood organizations, and small businesses. Specifically, this training will create a greater public awareness of powerful mapping/statistical software and computer hardware. Examples include the creation of maps and market statistics for specific products, the mapping of health related conditions in local communities, and the graphic representation of specific effects that might come about if there are severe economic, social, or political changes within a given community.

VI. Putting up GPO Access

In the near future, the UIC library will be offering its version of GPO Access, which will rely on a combination of bulletin board and Internet access. Institutional politics are the greatest difficulty. Resources and knowledge must be shared in significant new ways.

In terms of equipment, UIC purchased and maintains the hardware, software, network fees, and software agreements to support two computer servers: one for DOSFAN, and the other for more general Internet government information products and services, which will include the HealthNets and the Health Policy Archives. In addition, the Library has recently purchased a Local Area Network to operate its Geographic Information System software and statistical data sources from the government.

Gopher server equipment
software: hardware: $9300
networking fees: $28/month
software: $1800
Local Area Network, with plotter
and laserjet printer: $30,000

Periodic use of other university computers to digitalize necessary graphics. So far, approximately 800 staff hours from the Library's systems and government documents department have been committed to these initiatives. Ongoing yearly staff hours should be about 500 hours/year.

If our experience at UIC is any indication, government information in libraries, the national system of depository libraries, and citizen information services will depend on two factors. The cultivation of local and regional Community Information Organizations (LRCIOs) offer libraries and other community information providers the chance to construct equitable local information infrastructure.

The deeper philosophy of this kind of information advocacy rests on the bedrock principle of the public's right to government information. Since the late 1980s, all levels of government have grown to rely on the new information technologies to deliver their programs and services directly to individual citizens. Government information librarians (along with other information providers) have studied, proposed, considered, debated, and lobbied for significant changes to the various systems of government information distribution, focusing primarily on an updated version of the traditional model of distribution; "a wired depository library" if you will. However, others argue that direct citizen access to public information without the assurance of direct civic participation, is, at best, a hollow promise.

This electronic expansion of the "public space" and the provision of direct electronic services to individual citizens erode the traditional centralized strengths of library collections and their supporting systems of distribution. This interactive electronic civic network demands a new leadership role from librarians. A deeper level of civic involvement will require a closer working relationship with government agencies, public organizations, local businesses, and other community groups to gain the promise of an equitable distribution of public information and services.

The specific community information organization pilot projects at UIC appeal to the same energies and broad purposes of other programs that support citizen information literacy and empowerment. Two that come to mind most readily are ALA Goal 2000 and the Dewitt Wallace-Reader's Digest's National Library Power Program. Both recognize and support the critical connections that bind information literacy, citizen empowerment, and the historic strengths of a well-organized library service. As the plan for ALA Goal 2000 states, it is the duty of librarians and library associations

"...to share what we have learned as one of the major information institutions...the place of libraries of all kinds must be developed and firmly secured with our active participation, not just as a by-product of larger decision-making process where we are not represented. And the public must be educated and involved in the issues so that they can reach an understanding of what alternatives and choices are being presented, with all of their associated benefits or liabilities."

The National Library Power Program follows this same sense of obligation and information empowerment through its support of viable and integrated libraries in the nation's elementary and middle schools.

Libraries and librarians must take their place as primary players during the construction of local public information infrastructures. Indeed, libraries have the expertise and public service traditions that offer a unique opportunity to serve as leaders in these early community information organizing efforts. With encouragement and support from their home institutions (as well as national associations with a vital interest in supporting citizen participation and education) librarians can confidently make a place for themselves in the new information society of the next century.

Mining the Electronic Documents for Local Collections

Raleigh Muns
University of Missouri at St. Louis

OUTLINE

I.Who am I?
In which a personal and individual context is set.

II.Why am I doing what I am doing?
In which motivation and opportunity are explored.

III.What am I doing?
In which the overall approach is explained.

IV.How am I doing it?
In which some nuts and bolts are examined.

V.Bells and whistles
In which some fancier things about mining and providing are explained.

VI.Risks
In which some unforeseen problems are put forth.

VII.Results
In which feedback on activities is presented.

VIII.Conclusion

Some initial quotes about information:

"When action grows unprofitable, gather information; when information grows unprofitable, sleep."

-Ursula K. Le Guin (The Left Hand of Darkness (1969), ch. 3).

"Information is the oxygen of the modern age. It seeps through the walls topped by barbed wire, it wafts across the electrified borders."

-Ronald Reagan (Guardian; London, 14 June 1989).

"The government is us; we are the government, you and I."

-Theodore Roosevelt (Speech, 9 Sept. 1902, Asheville, N.C.).

I.Who am I?

By design and trade I am a Reference Librarian and not a Government Documents specialist. I used to belong to GODORT as a "gov docs junkie" but the reality of having children and a librarian's pay caused me to forego that frill and thrill after about two years. As a product of UCLA I had access to their extensive documents collection and probably became unabashedly addicted to the information the government provides when I ran across a tattered volume of hearings from the 1950's on how comic books were turning America's youth into a bunch of crazed and violent communists. I love that kind of stuff!

The University of Missouri-St. Louis is a state-supported university that honestly delivers a fine education but to be honest, has no real reputation as a flagship of higher learning. Established in the early 1960's, living within a budget imposed by a frugal state government, and existing in a country that appears to increasingly be supporting its educational institutions and libraries with Nike slogans ("Just do it") the university decided, as many others have done, to gorge on the govdocs teat as a full depository; this was followed by a re-scaling four years later to about 90 percent selectivity which is where we stand today.

Because we are young and under funded, necessity has led us to rely heavily on the documents collection. Under funding also means under staffing which at UM-St. Louis means that we are all multi-specialists, or, as I like to say, at UM-St. Louis we are ALL government documents librarians. Our single dedicated government documents librarian is a REAL reference librarian and all of the REAL reference librarians can cite SuDoc numbers in our sleep.

One of the final pieces in the puzzle has been the intellectual integration of the collection by including the Government Printing Office/OCLC tapes in our online catalog, allowing patrons to access the collection transparently.

II.Why am I doing what I am doing?

1.I see this as traditional librarianship.

2.We are poor.

3.We can.

4.The information we are providing has real-world applications in our mission.

"1. I see this as traditional librarianship." The main activities of our profession revolve around activities of "access" and "preservation." Simple, basic librarianship consists of acquiring materials (collection development); organizing (cataloging, shelving); intermediating (reference services); and maintaining (preserving). Technical considerations aside, this is exactly what I am doing with a local Internet gopher-based collection.

"2. We are poor." This is a flip way of pointing out the value of the depository program. Because of the materials we receive, we can put resources in other areas not covered by the depository program. There should be nothing new here to any in the audience. What I do is an extension of the desire to extract value from existing resources at a minimal cost.

One of my colleagues contends that what I do is not traditional librarianship. She points out that I am more in the publishing business than the library business. I counter that when we take the traditional roles of librarianship, and apply the context of a specific institution with a specific mission, what I am doing is the same as what we have always done in the profession. This last part is the practical key to all that I do: the context of what we do.

Let me elaborate: rather than become a vacuum cleaner for everything that is out there, I suggest that you act as I do and deal in a world where acquisition decisions of electronic materials (i.e., mined electronic government documents) are the same as acquisition decisions for "real" documents, or "real" non-documents. A projected need must be met.

For example, I do not choose to put an electronic document up on our Internet gopher because I think it will be used; I put it up because I know it will be used. This is based on my hands-on experience with the government documents collection via our Reference Desk. When I ran across the Occupational Outlook Handbook on CD-ROM from the depository program, I knew that this was an item that would be in demand because of the constant use of the print version.

Sometime last year I gave a talk in San Francisco that stated "Everything I ever learned of value I learned in library school." The struggle many librarians are having with the new technologies can be mitigated by stepping back and realizing that though information formats are changing radically, the underlying concepts of what we do have not changed.

Evaluation of a resource, for example, should be independent of the medium. What good is it? What need does it meet? Are there alternatives? If the process of accessing an electronic document seems stupid, confusing, and non-intuitive, it is probably because it is stupid, confusing, and non-intuitive. I think what I am saying is that if you are a confused, yet fearless, librarian, you will do fine. Now, we may still use stupid, confusing, non-intuitive resources, but at least we should be doing it with open eyes.

Why are we doing this? "3. We can." Two conditions come together in a large amount of the Federal documents I use which make mining the electronic documents a minor technical exercise, and they are:

•The documents are already in an electronic format.

•Uses of the documents are (usually) not restricted by copyright.

Lots of useful print documents are not copyrighted and require extra effort (prohibitive effort based on most of our resources) to utilize; lots of other electronic documents are simple to use, but are under copyright; but the synergy of these two simple conditions creates an explosive mix that ignited one over-caffeinated, altruistic librarian's ongoing activities.

I would like to point out that one of my frustrations is the problem of determining the copyrighted nature of a depository item. For example, one of the products I have raided is the eminently useable National Trade Data Bank (NTDB) CD-ROM. On the NTBD is an excellent small monograph:

Opportunities in Mexico: A Small Business Guide is the product of a public/private sector initiative among the U.S. Small Business Administration (SBA), the Service Corps of Retired Executives (SCORE) and AT&T. This guide provides U.S. small businesses with practical trade information on exporting to Mexico.

Unfortunately, the Program Description part of the file unambiguously states:

> Contents of this publication are copyrighted. All rights are reserved to Free Trade Consultants. No portion of this book may be reproduced mechanically, electronically or by any other means, including photocopying, without written permission from John L. Manzella, Author, President of Free Trade Consultants, Buffalo, New York.

Since this item is available on the official NTDB gopher (gopher://sunny.stat-usa.gov:70/00/STAT-USA/NTDB/) worrying about this seems absurd, but violation of copyright in our profession is serious, even when it is absurd.

Another item I would dearly love to mine is the Joint Electronic Library CD-ROM (D 5.21:994/2/1 A) which is chock full of all sorts of historical papers from Military War College sources. I have neither the time nor the inclination to pursue determining to a conclusion the true copyright nature of this source (and suspect that it is a piece-by-piece answer anyway and not global to the entire CD-ROM). However, this is again a barrier to mining information I rather was not there. In any case, although these items are coming through the depository program, as with printed materials via the program, there is no guarantee that they are in the public domain. This problem is magnified in what I do because of the nature of providing electronic information on the Internet, even locally. It is one thing to make a single photocopy, and yet another to create a resource that can be easily reproduced by fifty million people.

The final piece of "Why am I doing this" is that, "4. The information we are providing has real-world applications in our mission." The information items provided are inherently useful. This is not an exercise in academic experimentation, but another dimension in providing desired information to those who need or want it. If I can inspire anyone to contribute to this common pursuit of our profession as I am doing, then I have again leveraged more value than it would appear out of these "dry as dust" government documents.

III.What am I doing?

In brief: raiding, stealing, pointing, mirroring, manipulating documents received via the depository library program or on the Internet. As institutions, especially government institutions, shift from paper to electronic formats, the availability of electronic documents is exploding, and thus the available opportunities are exploding.

Based on what is currently on our gopher, a user can find the Army Area Handbooks, Economic Reports of the President, the U.S. Industrial Outlook, "The Green Book (1994)" Overview of Entitlement Programs, and a list of all depository libraries organized by state.

I would like to even brag a bit about preceding the official National Trade Data Bank gopher site by about a year (and grouse at the same time at the initial announcement of the NTDB's availability on the Internet as "for the first time anywhere"). Though we did not mount all NTDB files on our gopher, we did extract, again, those we found most useful from our immediate experience such as the Background Notes and aforementioned Army Area Handbooks (among others). In fact, by extracting the most useful files (again reflecting our experience with local user needs) we have found that we have cut down on what I call the "noise" on the NTDB CD-ROM of having too rich a body of information. This is application of the selection and collection activities of traditional librarianship. The pleasing thing about this is that in mining the electronic documents we are less tied to pure economic forces (how much does an item cost?) and more tied to the intellectual activity of determining patron needs in an almost abstract manner.

Though I am addressing "Mining the Electronic Documents for Local Collections," the borderless nature of the Internet really means that everything is universally accessible. I admit to, and encourage you do the same: to be driven by local needs. The truth is that many of our local needs are the same local needs as users of the Cleveland Public Library, the Library of Congress, or the America Online service. In fact, according to our user logs, the largest group of users of our Internet gopher government documents are subscribers to America Online.

IV.How am I doing it?

Also, how can YOU do it. Undeniably, a certain level of technical expertise is required. The more expertise you have, the more you can do, the fancier you can get, the sexier your site, and the happier you can make your patrons. However, you do not need to know how to do computer programming (though if you know any programming, you can do some fun things); you do not need to know calculus or algebra; you do not need to know assembly language programming; in fact, if you have conquered any modern word-processing program, you have already learned what is probably the most difficult (and onerous) part of all I do.

What DO you need?

1.An existing Internet infrastructure of some kind.

2.Public domain files in an electronic (ASCII preferred) format.

3.The aforementioned word-processing skills.

4.The ability to download/upload files from/to local PC's/Mac and your net site.

5.About one hour of instruction (or decent documentation).

Whether you are dealing with the World Wide Web, gopher, ftp sites, or whatever, a necessary but not sufficient condition is that someone at your institution be running a machine on the Internet. Mainframes, PC's, Macs, whatever, can all be used to run freeware Internet server software. You will be hard-pressed to find institutions with sites on the Internet that do not have an existing server of some kind already up and running. Your job, Mr. and Ms. Phelps, should you decide to accept it, is to make the human connection to the people running the machines. Without an existing Internet infrastructure of machines, software, and people, you cannot do any of what I am about to describe.

Interestingly, there is a growing array of commercial providers who will do this for you. For $9.95 a month you can lease space on the World Wide Web with a company called Webcom (http://www.webcom.com). They become the infrastructure about which I am talking. This is not a recommendation of Webcom. I am just using them as what I consider a prototypical example of how the commercial sector can provide the needed Internet infrastructure.

In my situation, I noted that some of our computer techies had set up a prototype gopher server on the campus mainframe and I innocently asked if I could have an account called "The Library." After about fifteen minutes of instruction and with a single sheet of paper showing me how to set up gopher menu structures (all done with simple text editors), I was told I could start uploading files that could be accessed.

For those of you who think some mysterious and arcane knowledge is required to put files on the Internet I cannot stress how far from the truth is such a misconception. You can do mysterious and arcane things on the Internet, but being a basic provider is incredibly simple, provided you have an existing Internet infrastructure (or buy access to one).

Now, being a depository library, we (and you no doubt) receive tons of CD-ROMs. This is the crop from which you will harvest. Remember, WHAT you harvest is partly limited by technical considerations, but more critically related to understanding in a real-world sense what information is worth mining.

Initially, I install the software for accessing a CD-ROM as directed by any accompanying documentation. There are still many people that do not know that the information on a CD-ROM is as accessible as files on a diskette or your workstation's hard drive. One does not necessarily need to install special software to look at files on a CD. It is not unusual to have workstations, old and cheap ones, which cannot use the interface software supplied. It may not have enough memory; it may not have a color monitor; it may not have the most recent version of the DOS operating system. By looking at the files on a CD as you would files on a diskette, one can still extract valuable information that would be otherwise inaccessible.

Certainly much of what you can probably look at directly may require other programs. For example, by looking directly at the directories of files on GPO distributed CD-ROM's I've found groupings of Lotus 1-2-3 spreadsheet files that require spreadsheet software to access. If you have your Internet infrastructure in place and working, it can become as simple as setting up a gopher menu item "1-2-3 Spreadsheets from the 1995 Federal Budget" and then just uploading all of the files from the CD-ROM to the Internet server account. Though not recommended, this could be done without even having such a spreadsheet program yourself.

The key here is to poke around directly and not to rely on the native accessing software. You may find all kinds of neatly arrayed files just sitting around. The Joint Electronic Library CD-ROM mentioned above is an outstanding example. I have used the same technique to extract GIFs or pictures from USGS CD-ROMs to create a local exhibit of disaster photographs.

Also, do not keep yourself from understanding how the "native" search software for a CD-ROM product works, either. The NTDB, and other Dept. of Commerce products, usually have two available interfaces. By familiarizing yourself with the software you can select files on the NTDB to be extracted as separate files (e.g., all Department of State Background Notes come out as separate files for each country) or create one large file with all sections appended.

Here is where you could create an ftp (file transfer protocol) archive with the entire text of a single Army Area Handbook, or create, as I have done (and as is done at the STAT-USA site that carries the NTDB on the Internet) Army Area Handbooks with each chapter a separate file.

Each product is different and subsequent editions may have updated or changed interface software. The general approach again is to:

1.Access the CD-ROM directly

2.Familiarize yourself with the supplied interface software.

Of special note is that for those products that (hopefully) come out with a certain regularity, such as the NTDB, the familiarization process will pay off over time as you understand how to extract information with each new edition, and then carry over that expertise to subsequent issues.

V.Bells and Whistles

So far I have spoken broadly about how easy it is to just pull files off a CD-ROM and post them to a gopher or World Wide Web site (and begged the question of exactly HOW to do that as beyond the scope of this, or any presentation - how you do things is so tied into local resources that it is impossible to say in any generic sense how one should proceed). You can do some fascinating things with these files with a little expertise.

First, some files are prohibitively large. Putting the entire Occupational Outlook Handbook on an Internet server is trivial since the CD-ROM version has a single file with the full-text on it. By writing programs that can chop up larger files into constituent pieces, one can add value to the product. Accessing five or six paragraphs on the occupation of "library clerk" using the Internet gopher software is a lot more efficient, and faster, than using that same gopher software to transfer the entire Occupational Outlook Handbook. The same thing can be said for documents such as the North American Free Trade Agreement (NAFTA), the entire Federal Budget, or the Economic Report of the President.

Overall, the value one can add is by judiciously chopping up larger documents for easier access to the constituent pieces. As dull and dry as this may sound, I consider this a necessary component to providing universal access. By catering to the lowest common denominators, whatever the components of those denominators are, the universal access (hopefully) mandated by various Federal information distribution programs can be met. One never knows whether an accessor is using a dumb terminal logged onto a Unix computer account or a top-of-the-line, fully networked, high end workstation on the Internet. The least common denominator here requires designing for the slowest transfer speed as possible. It is going to take a while for someone with a 2400 baud modem to look at a document than someone with Mosaic on a networked Macintosh.

Another level of value that can be added involves organizing the pieces of chopped up information. By expending more effort, complex documents can be arranged in hierarchies for easier access. Chapters can be listed within which sections can be arranged within which tables can be arrayed, all at different levels. There are no shortcuts to doing this, but when such judicious arrangement is done, we are again acting like librarians more than technicians.

No shortcuts. Librarians, of all professionals, have little problem understanding the importance of thankless tasks. I like to point out a difference between technicians and librarians. If you ask a technician to do something onerous and time-consuming, you are likely to be told "it cannot be done" (and what they mean is "I do not want to spend the time doing this onerous and time-consuming task"). As a counter example, when our government documents librarian was asked about shelf shifting and rearranging our growing collection, the answer was twofold:

1.An analysis that the job would take six months of hard work.

2.Six months of hard work.

Similarly, many of the best things one can do in mining electronic documents for both local and universal collections are time-consuming, onerous, thankless, invisible, and absolutely critical for providing useable and useful online resources. It is fine if you can find files on CD-ROMs or on the Internet chopped up into nice packages. Nevertheless, if you cannot, roll up your sleeves and start hacking.

The chopping up need not be difficult. Most word processing programs can take large documents while allowing cutting and pasting. I have written some programs in BASIC that do the chopping automatically. The level of programming skill is that required by the most basic courses of even twenty years ago. In the case of the Occupational Outlook Handbook, all sections of the one large file were flagged with the unique characters of two backwards slashes. By writing a program that chopped up the larger file on every occurrence of "//" I was able to quickly produce files consisting of separate occupations to be mounted on the Internet.

Note again that the driving force for doing this was based on a first-hand knowledge at the Reference Desk of the utility of this specific work, and how people use it - it is not read cover to cover but is accessed by specific profession.

Another bell and whistle possible when you create and provide local access to government document collections is what I call commercials on the Internet. I've long proposed (to the snorts of disdain of my colleagues) that we put commercials on our online catalog, or OPAC. When I chop up larger files for local collections, I do just that when I make sure that each piece has a bit of advertisement for the University of Missouri-St. Louis. With the exception of some of the first documents I placed on our gopher, all other electronic documents placed on our gopher and World Wide Web servers have, and will have, innocuous little tags saying something like "access to this chapter of the China Army Area Handbook is brought to you courtesy of the libraries of the University of Missouri-St. Louis." Additionally, information as to the source of the electronic document (e.g., the NTDB for a specific month) is also included. Note these two important functions:

1.Providing provenance information of the document.

2.Advertising the expertise of the university.

Both of these things are extremely relevant. The issue of provenance comes into play when patrons wish to find similar items at a local depository. How many times have you had to deal with a patron carrying a photocopy of a single page of a government document asking "where is the rest of this item?" It is more than a courtesy to include the source of a document in a piece of a larger electronic file - it is a necessity. When a patron retrieving a chapter of an Army Area Handbook from a UM-St. Louis Library Internet node brings the printout to you, there should be no problem directing them to your local holdings. I strongly suggest that this is another dull, dry, and thankless area that is crucial to proper maintenance of local electronic collections.

Advertising one's expertise, I hold, is also relevant and not an ego trip. In an environment where dependency on public support is crucial, it is important that we toot our own horns in an attempt to keep ourselves visible to our local, national, and even international patrons.

When America Online subscribers consistently run across "free" depositories of useful information, it is in our mutual self-interest to let these voters on tax issues understand from whence this information is coming. Without tooting our horn these prototypical America Online users are likely to erroneously assume that it is their network provider (America Online) who is giving them this information.

We did it. We do it. We will do it. And if the citizenry benefits from our services it behooves us to let them know to whom to give credit. This is less an ego issue than a survival issue. For an honest public institution as mine, this is also an opportunity to demonstrate value returned for tax dollars invested. If we can all proceed in this manner, our modest and invisible profession can only benefit.

VI.Risks

Erroneous attribution

A recurring theme of this talk is the connection between local collections and universal access. In practice, what this means is that local activities can be criticized by anyone on the Internet. I have received messages from Norway explaining to me that their country voted NOT to join the European Economic Union (EEU); Austrians have told me about abbreviations in the CIA World Factbook which are in error; and Pakistanis have corrected me on the transcription into English of the name of their currency. By providing access to information you will be setting yourself up as appearing to be the publisher of that information.

Personal Attacks

As a local/universal provider of access to government information, erroneous attribution can lead to personal attacks. I was recently called a jew killer and Benedict Arnold for my efforts of mining government documents for our local collection. My crime? I posted "as is" a copy of the Yugoslav Army Area Handbook from the National Trade Data Bank. The irate virtual patron decided that my publication of this work was a racist slap in his face. As a good librarian I calmly responded to his complaint and apologized and explained the situation. I said that, at his request, I would forward to my colleagues on the internet a proposal to remove all magazine articles, atlases, globes, and books with the word "Yugoslavia" in them. I heard nothing more.

Responsibility

By providing access to this information you should be setting yourself up as a consistent and responsible provider of information. Another area where we can add value to our local electronic collections is by maintaining our documents, continuing to update them, and making sure that access is robust. The risk is that irresponsibility can be seen immediately by all users of your information.

VII. Results

Relative fame and no fortune are the results. The best we can hope for is enough recognition to continue support for us and our institutions so we can continue to provide resources and services to our constituencies. One of the most interesting things about setting up local electronic collections on Internet servers is the ability to monitor use. Gopher and World Wide Web servers typically have the capacity to create user logs. These files contain the date, time, accessor, and files accessed by anyone utilizing the local server's resources. At UM-St. Louis we have provided for about two years information other than that mined from, primarily, GPO distributed CD-ROMs. Our gopher logs, however, indicate that the items most heavily used are from the Government Documents section of our virtual collection. Specifically, the Army Area Handbooks are the single most heavily used items.

Due to technical problems, we are only able to track what I call "accesses" or "transactions." Whenever a user presses a key to move to another level of the gopher or to retrieve a document, a line of text is written to the day's gopher log indicating, again, date, time, user, and file or path accessed. Accesses of government documents is up from a hundred transactions per month two years ago, to over one hundred THOUSAND transactions monthly today. In abeyance is my desire to demonstrate WHICH documents are being accessed. Efforts to cease publication of things like the Occupational Outlook Handbook or the Industrial Outlook might be combatted by hard statistics showing continued and heavy use of these documents.

VIII. Conclusions

My conclusions are handwritten at the last minute because, for the life of me, I couldn't come up with any way to tie everything together. I posit that the reason for this is because this is an open-ended, ongoing, amorphous and ambiguous process (a salient feature of these new technologies). There is no conclusion to these activities; products, changing formats of information (e.g., the increasing use of Adobe Acrobat and the PDF file format), and technologies in general are all in flux.

My conclusion, and advice, is to invert the popular environmentalist's aphorism of "think globally and act locally," to the new Internet maxim of "think locally and act globally."

E-mail Address: srcmuns@umslvma.umsl.edu
WWW home page URL:
http://www.umsl.edu/~muns/

TJL Electronic Resources

The Electronic Resources Area is your gateway to a wealth of information available online or via CD-ROM. It is located near the Reference Desk on Level 3 of the Thomas Jefferson Library.

DATABASES AVAILABLE

FULL-TEXT SERVICES

Full-text services offer complete articles in addition to citations and/or abstracts. These services include: ABI/INFORM," BRIDGE," "LEXIS-NEXIS," and the "ST. LOUIS POST-DISPATCH."

"ABI/INFORM" provides full-text for articles in over 400 business journals and abstracts for over 800 journals. It is a CD-ROM service.

"LEXIS-NEXIS" is an online service which provides comprehensive news, business, legal information. Many of its extensive files are updated daily and offer full-text information. USE OF THIS SERVICE IS LIMITED TO CURRENT UM-ST. LOUIS FACULTY AND STUDENTS.

The "ST. LOUIS POST-DISPATCH" includes articles from 1989 until the present in a full-text format.

Full-text information can be downloaded from "LEXIS-NEXIS" and the "ST. LOUIS POST-DISPATCH." "ABI/INFORM" allows downloading of citations and abstracts only. Full-text of the articles may be printed on the laser printers at the workstations. Printing is also available on the other full-text services. All full-text printing requires a photocopy card and is debited at 7 cents per page.

INDEXES

Indexes supply information on journal articles, including author, title of article, name of journal, date of publication, page numbers, and some brief description of the article's contents.

Indexes available in the Electronic Resources Area include the following: "APPLIED SCIENCE AND TECHNOLOGY INDEX," "ART INDEX," "AUTO-GRAPHICS," "COMINDEX," "GENERAL SCIENCE INDEX," "HUMANITIES INDEX," "MLA" and the "SOCIAL SCIENCE INDEX."

Each index allows you to search several years of journals at once. Electronic indexes offer the added advantages of printing citations or downloading them onto a disc.

ABSTRACT SERVICES

Abstract services also supply information on journal articles, but they offer more in-depth information by including an abstract, or summary, of the article.

Abstracts services available in the Electronics Resources Area include "EXPANDED ACADEMIC INDEX" and "PsycLIT."

"EXPANDED ACADEMIC INDEX" includes scholarly and general-interest publications, and many of its citations include abstracts.

"PsycLIT" covers over 15 years of world's serial literature in psychology and related disciplines. It offers an abstract for every citation.

Like indexes, abstract services allow you to print information or download it onto discs.

OTHER SOURCES

Several other sources are available in the Electronic Resources Area. They include: "CARL Uncover," "FirstSearch," "GOPHER," "AUTO-GRAPHICS," government information, "OXFORD ENGLISH DICTIONARY (OED2)" and phone directories.

"CARL Uncover" is an online service and contains the table of contents for over 14,000 journal titles.

"FirstSearch" is an online system which provides access to more than twenty databases. USE IS LIMITED TO CURRENT FACULTY AND STUDENTS.

"GOPHER" allows for limited access to the Internet. A variety of information can be retrieved using "GOPHER".

"AUTO-GRAPHICS" is a CD-ROM product which indexes all government documents catalogued by the U.S. Government Printing Office from 1976 to the present. (An article about the Libraries' government documents collection appears on page 2.)

The U.S. government is now distributing a wide variety of information in CD-ROM format. Notable titles include: the "NATIONAL TRADE DATA BANK," "1990 CENSUS OF POPULATION AND HOUSING," "U.S. EXPORTS OF MERCHANDISE," "U.S. IMPORTS OF MERCHANDISE," and the "NATIONAL ECONOMIC, SOCIAL AND ENVIRONMENTAL DATA BANK."

The "OED2" is an electronic version of the printed "OXFORD ENGLISH DICTIONARY, 2ND EDITION." It allows for sophisticated searches of the world's most authoritative source on the English language.

The "PROPHONE NATIONAL DIRECTORY" is a compilation of phone directories from across the United States. It includes residential and business listings.

HOW TO USE ELECTRONIC RESOURCES

The Electronic Resources Area is staffed from noon until 6 p.m. Monday through Thursday and noon until 5 p.m. on Friday.

Students may use the Libraries' electronic resources on a first come/first serve basis when the workstations are available. You may reserve time slots up to a week in advance. Sign-up sheets are located by each individual computer.

"LEXIS-NEXIS" and "FirstSearch" may be used only by current UM-St. Louis faculty and students. Present your valid UM-St. Louis ID at the Reference Desk to obtain the current passwords for these services.

Printed user guides are placed by each workstation to assist patrons in searching the databases. Reference librarians are available to answer user's questions about the systems.

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Last update: March 30, 1995

Government Documents Collection

Need information on what the government is doing to encourage recycling, what is being done with the "Information Superhighway," or how health care reform has fared, now and in the past? Want to read the report on the Tailhook scandal, find how to calculate the nutrition in what you're eating, or look at a map and description of a national park or wildlife preserve you might visit? One place to look is in the Libraries' Government Documents collection.

The Government Printing Office (GPO) administers a program for distributing materials published by government agencies to libraries around the country. There are approximately 1400 libraries in the Federal Depository Library Program (FDLP). Depository libraries may choose to receive as few or as many of these publications as they want. Libraries do not pay for these items, but they agree to maintain their documents collection under some very specific rules. The UM-St. Louis Libraries have been a part of the FDLP since 1968 and are currently selecting about 93% of the materials available through the program

There are two ways to find out what the Libraries have in the Government Documents collection. Many items received since July 1991 are included in LUMIN, the Libraries' online catalog. You may search for government documents by author, title, or subject just as you would for other library materials. When the LUMIN location reads TJL DOCS, EDUC DOCS, TJL DOCS MICRO, or EDUC DOCS MICRO, you know you've found a call number for a government document. There is also a separate CD-ROM (compact disc-read only memory) index, called "AUTO-GRAPHICS," in the Electronic Resources Area. It allows you to search for many government items published from 1976 to the present.

The call numbers assigned to government publications differ from the Library of Congress (LC) call numbers given to the other books and journals in the Libraries. Government call numbers are called Superintendent of Documents numbers (SuDoc, for short). Unlike the LC system, which is subject oriented, SuDoc numbers represent the agencies and bureaus which produce the items. Sudocs are arranged in alphabetical order, then numerical order by whole numbers. (C 3.24 before C 3.186 before C 3.283). Materials from the U.S. Department of Education (SuDoc numbers beginning with ED) are kept at the Ward E. Barnes Education Library on the South Campus. Most other government documents are located in the Thomas Jefferson Library (TJL) on the North Campus. Documents received in microfiche format are shelved in SuDoc number order in the microfiche cabinets on TJL's Level 2. Paper documents are in call number order on Level 3 in the northwest corner and on Level 2 in the northeast corner.

More detailed information on the arrangement of the government documents collection is available in a brochure at the Thomas Jefferson Library's Reference Desk.

Go back to UM-St. Louis Home Page

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Last update: March 30, 1995

Finding books and periodicals on LUMIN: the online catalog

Almost all books and journals owned by the UM-St. Louis Libraries can be found using LUMIN, the University of Missouri online catalog.

Easy instructions allow you to access books by author, title, or subject. You can access journals by title. LUMIN does not contain information on specific journal articles. Therefore, to find references for specific journal articles by a specific author on a specific subject, use the printed and computerized periodical indexes first. Then check LUMIN to see whether we own the title of the journal you need.

You can also find books and journals owned by the other University of Missouri campuses in Columbia, Kansas City, and Rolla using LUMIN. Not all of the campuses have all of their titles in LUMIN; many older titles may not have been entered into the database. But almost all UM-St. Louis holdings are in LUMIN.

LUMIN also lists reserve items for UM-St. Louis courses by course number and by professor's name. In addition, it includes a separate database for items owned by the Center for Research Libraries. (Please ask at the TJL Reference Desk for a CRL handout for information about this organization.)

Besides access at terminals throughout the Libraries, you can access LUMIN from your home or office. Pick up a handy guide on LUMIN at the Libraries' reference desks, and watch for future developments which will make a new online catalog with access to more sources available to you.

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Before you connect to LUMIN, read these steps:

1. Connect using the link at the bottom of this screen.

2. When you see the Login/Password prompt, press the TAB key twice to move the cursor down to the COMMAND line.

3. At the COMMAND line, enter **DIAL VTAM**, then press Enter.

4. When you see the "Enter Active VTAM LOGON" prompt, enter **LIBCICS** then press Enter.

Connect Now

Note: Connecting to LUMIN requires a "tn3270" program associated with your web browser.

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Last update: March 30, 1995

National Library of Education: Electronic Initiatives

Keith M. Stubbs
National Library of Education
Washington, DC

Agenda

- National Library of Education
- ED Internet Services
- INet
- The Next Challenge
- Questions and Answers

National Library of Education

- Created in 1994 by Goals 2000 Legislation (Title IX)
- Brings together existing functions within ED's Office of Educational Research and Improvement (OERI)
  - Education Research Library
  - Education Information Office
  - Online Search Services
  - ERIC (Educational Resources Information Center)
  - INet (ED's Public Access Internet Services)
  - Technology Resources Center
- New responsibilities include:
  - One-stop information and referral service
  - Provide central location within Federal Government for information about education
  - Comprehensive reference services
  - Resource sharing among repositories of education information
- Reference and Information Services
  - A "one-stop" shop that responds to telephone, mail, electronic, and other inquiries for education information
- Collection and Technical Services
  - Directs the acquisition, preparation, and assessment of all collections in all formats
- Resource Sharing and Cooperation
  - Develops and maintains a network of national educational resources

National Library of Education Telephone Numbers

(Area Code 202)

(Two blocks west of Union Station, Red Line Metro stop)

	Voice	Fax	E-mail
Library Administration	219-2289	219-1970	
Reference/Research/Statistics	219-1692	219-1696	library@inet.ed.gov
Outside Washington area	1-800-424-1616		
Circulation/Interlibrary Loan	219-2238		libloan@inet.ed.gov
Collection Development/ Technical Services	219-1883		
Legislative Reference Service	401-1045	401-9023	
Technology Resources Center	219-1699		
Data Tape Sales	219-1522		
ACCESS ERIC	1-800-LET-ERIC		accessceric@inet.ed.gov

Hours: 9 a.m. to 4 p.m. weekdays except Federal holidays

555 New Jersey Avenue NW, Washington, DC 20208-5721

Internet Sites & Services
Sponsored by the U.S. Department of Education

- INet (ED World Wide Web, Gopher, FTP, and E-mail Servers)

- ERIC (Educational Resources Information Center)
  - AskERIC
    - •Q&A Service (electronic reference desk)
    - •Virtual Library
  - National Parent Information Network (NPIN)
  - ERIC Clearinghouses

- Regional Educational Laboratories -- Lab Network

- National Educational R&D Centers
- Eisenhower National Clearinghouse for Math/Science

- and a growing host of others

INet Electronic Information Repository

- General information about the Department's mission, organization, key staff, and programs

- Information about key initiatives such as GOALS 2000, Family Involvement, School-to-Work, Technology, Standards, and ESEA Schoolwide Projects

- Full-text publications for teachers, parents, and researchers

- Statistical tables, charts, and data sets

- Research findings and syntheses

- Directories of effective programs and exemplary schools

- Directory of education-related information centers

- Announcements of new publications and data sets

- Press releases, funding opportunities, and event calendars

- Pointers to public Internet resources at R&D Centers, Regional Laboratories, ERIC Clearinghouses, and other ED-funded institutions

- Pointers to other education-related Internet resources

INet
High Demand for Education Information

- INet and AskERIC named two of fifteen most useful education resources on Internet by *Internet World* (Jan '95)

- INet and AskERIC selected as "featured databases" by America Online

- Featured in PC *Computing Magazine's* Road Map to the Internet; one of 7 Federal agencies listed among 40 "Internet Highlights" (Sep '94)

- Featured in White House World Wide Web press conference and HPCC demonstration

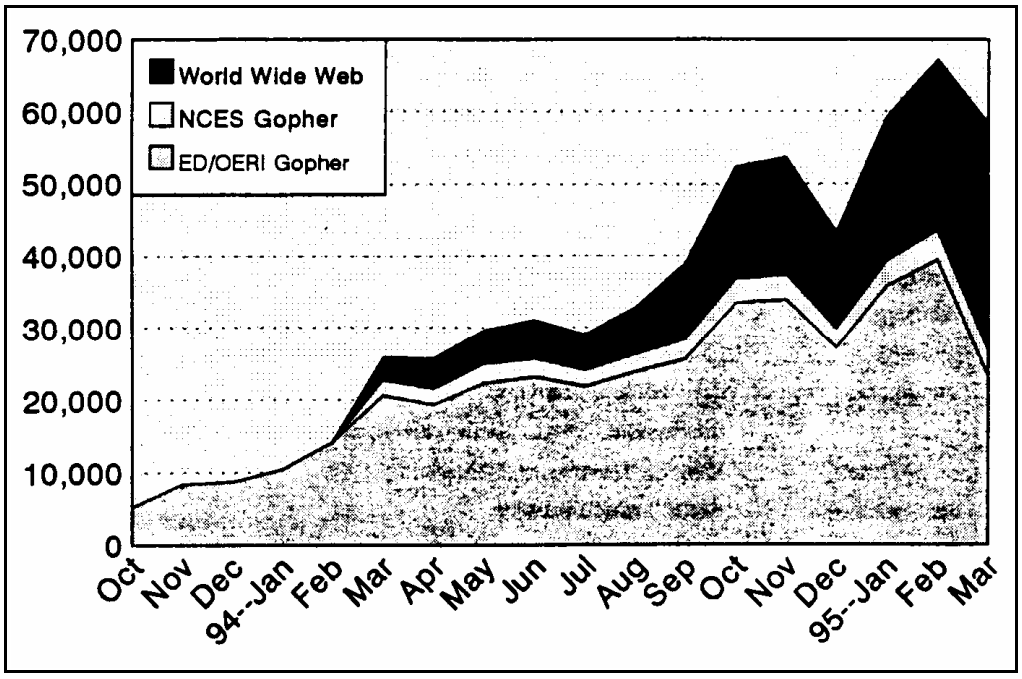
- More than 600,000 user connections to date (more than 1,800 per day in March)

- More than 4.5 million file/menu accesses to date (more than 20,000 per day in March)

INet Public Access Internet Services

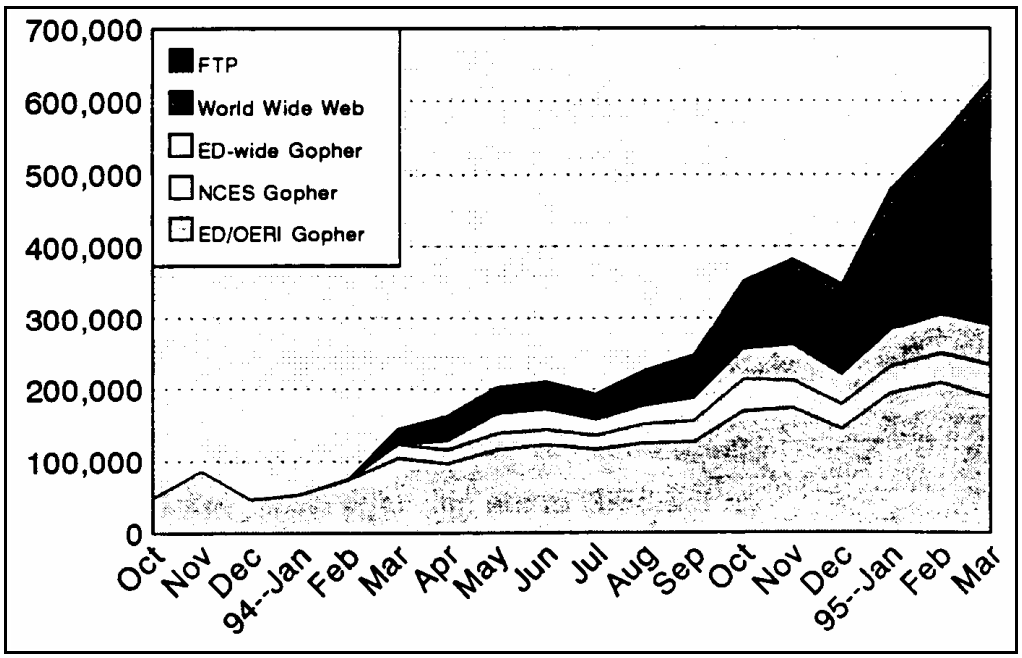
Monthly "Front Door" Access Counts

(October 18, 1993 through March 31, 1995)



Inet Public Access Internet Services

Monthly Access Counts
(October 18, 1993 through March 31, 1995)



ED/OERI World Wide Web and Gopher Servers

Top User Sites - March, 1995

# Hits	Network Domain	Description	% WWW
66413	ed.gov	INet and ED LAN	49
29229	aol.com	America Online (Commercial Network)	
25137	ibm.net	IBM/Advantis Corp. (Network Access Provider)	93
7699	netcom.com	Netcom (Network Access Provider)	55
5272	tenet.edu	Texas Education Network	11
4907	ibm.com	IBM	95
4255	prodigy.com	Prodigy (Commercial Network)	66
3511	umd.edu	University of Maryland	20
3202	stanford.edu	Stanford University	22
3151	enc.org	Eisenhower National Math/Science Clearinghouse	4
2817	umich.edu	University of Michigan	33
2592	tn.us	Tennessee (K-12, Community Colleges, Tech, State)	14
2416	delphi.com	Delphi (Commercial Network)	10
2388	ohio-state.edu	Ohio State University	34
2371	ca.us	California (K-12, Community Colleges, County)	70
2358	ohio.gov	Ohio State Government	13
2355	edu.tr	Turkey (Education Domain)	2
2336	wednet.edu	Washington State Education Network	22

(plus more than 10,000 other sites around the world)

Public Access to INet

World Wide Web
http://www.ed.gov/

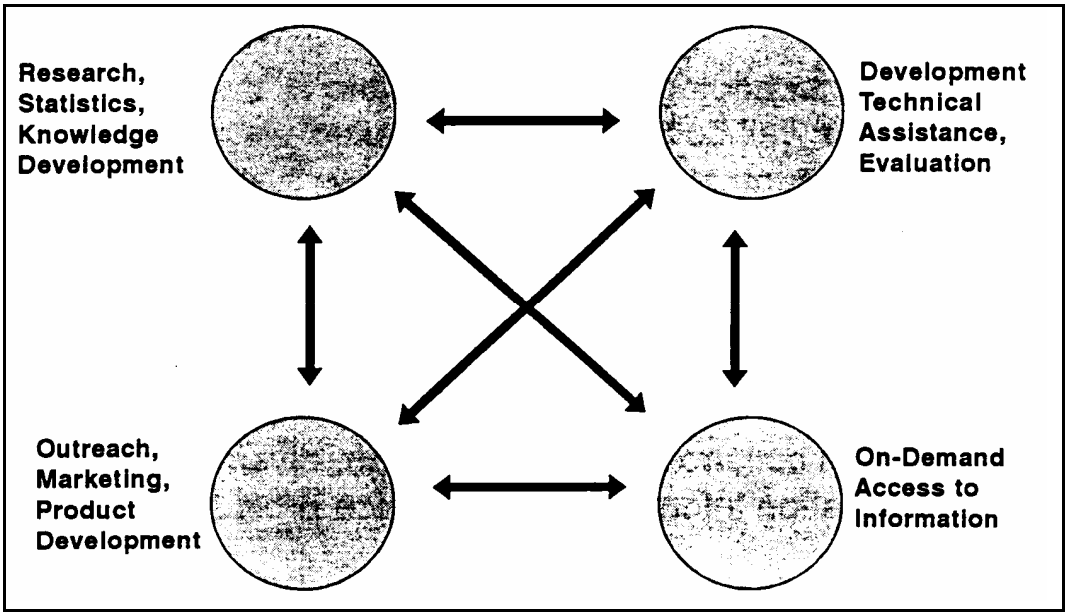
Gopher
gopher.ed.gov
(or select North America-->USA --> General --> U.S. Department of Education from the All/Other Gophers menu on your system)

FTP
ftp.ed.gov (log on anonymous)

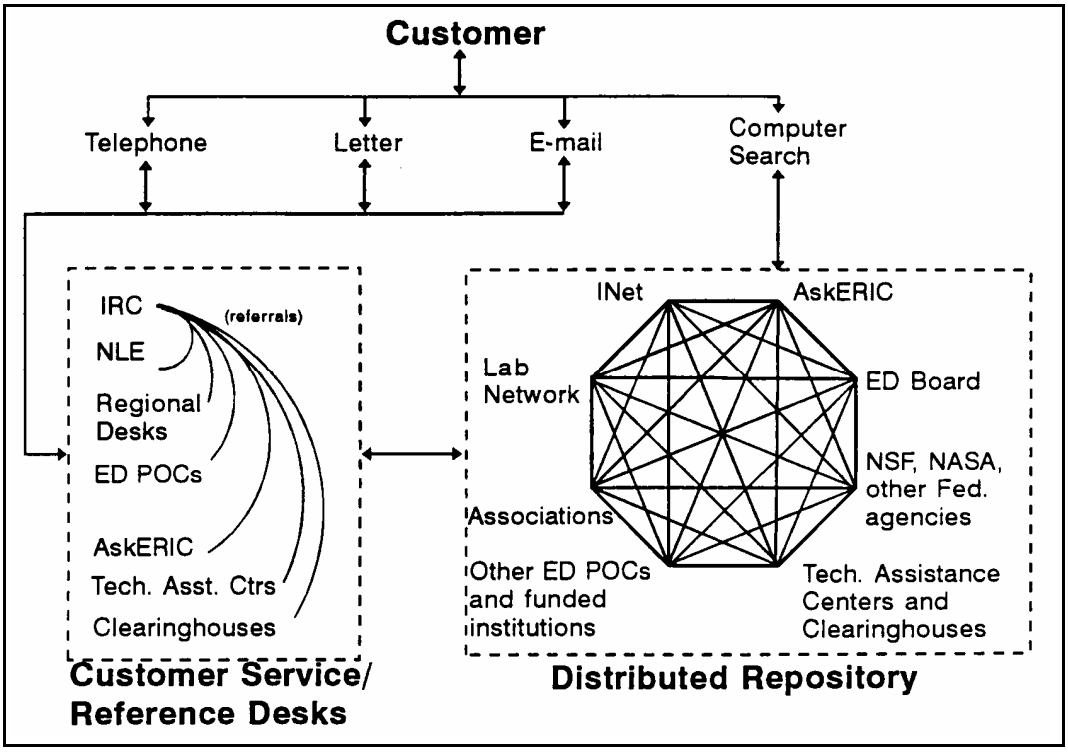
E-mail
Send e-mail to: "almanac@inet.ed.gov"
In the body of the message type "send catalog"
(avoid use of signature blocks)

Note: We do not offer public access WWW or Gopher clients. Users must have access to an appropriate client, such as Mosaic or Lynx. Users cannot telnet directly to INet. Access will be denied.

National Education Dissemination System (NEDS)



One-stop Shopping with Many Entrances



The Next Challenge
Coordinating Access to Distributed Electronic Resources

- Internet technology makes it feasible to start work toward a well-coordinated, distributed electronic dissemination system and repository

- Information and user base reaching critical mass

- Explosive growth of education information on network must be managed for customers' sake

- Requires collaboration among large, diverse group of education information and service providers

- Focus initially on:
  - key subjects (education topics, Department initiatives)
  - geographical areas (regional desks, SRRS, Labs)
  - target audiences (teachers, parents)

- Develop:
  - directory of education information providers
  - profiles of key information types (promising practices)

- Collect/point to best research findings, effective programs, promising practices, resources, sources of help

- Provide forums for user discussion, comment, contributions, and peer advice

- Support customer service desks and self-service

GAO: Access to Information

Phyllis Christenson
U.S. General Accounting Office
Washington, DC

The Agency

The U.S. General Accounting Office is a nonpartisan agency within the legislative branch of the government, headed by the Comptroller General of the United States. GAO conducts audits, surveys, investigations, and evaluations of Federal programs, with its findings and recommendations published as reports to congressional members or delivered as oral testimony to congressional committees. Through its reports, testimony, legal opinions and comments on proposed legislation, GAO contributes independent, nonpartisan information needed for congressional decision making.

Office Responsibilities

Within GAO, I serve as the Director, Information Services Center, (ISC), a unit in our Office of Information Management and Communications (OIMC). OIMC was established in 1990 in order to centralize services relating to expanding technologies, publishing, and information dissemination. ISC has responsibility for the GAO libraries, records management, and the distribution of GAO publications in both paper and electronic form. My job is to make sure that you get the information and products you need from GAO.

GAO Products

GAO's primary products and the ones most frequently in demand are our audit/evaluation reports, commonly known as "Blue Cover Reports," which contain the results of our wide-ranging work. GAO's recent work has included a myriad of subjects--from the budget deficit to LSD cold war experiments; from the D.C. government to derivatives; from student loans to aviation safety. GAO reports are identified by a number indicating the internal division which performed the work, the year of issue and the report number, e.g., GAO/NSIAD-95-23.

The second most requested products are GAO's testimonies. GAO staff members are frequently asked to testify before a Congressional committee regarding a specific area of interest to the Congress. Testimonies can be as wide-ranging as audit reports; subjects of recent testimony include the Paperwork Reduction Act, Federal downsizing, and public housing. Testimonies have a numbering system similar to audit reports, with the addition of the letter T, e.g., GAO/T-GGD-95-97. GAO also issues numerous legal decisions and special publications.

Of special interest to all of us as librarians are a variety of finding aids. The Monthly List, formally titled Reports and Testimony, provides a listing of those reports and testimony made available for distribution in a given month. The information includes full bibliographic information, with abstracts, as well as a form for ordering by mail or FAX. At the end of each year, our organization compiles an annual 2-

volume index, Abstracts of Reports and Testimony and Indexes for Abstracts and Testimony, which includes a listing of all reports and testimony for the previous fiscal year, with bibliographic information and various indexing.

Access to GAO Publications

GAO has a "never out of print" policy. If a requester needs a copy of a report, testimony, or decision, we should be able to provide that in paper copy either from current stock or as a copy made from either microform or optical disk. We also have a policy of free access to information--the first copy of every report and testimony is free of charge; additional copies are $2.00. (There are, however, a few substantive publications, usually in hard cover or looseleaf binding, which are sold through the GPO sales program, with pricing determined by GPO).

For depository libraries, we have an agreement with the Government Printing Office (GPO) to provide silver microfiche of GAO publications from which they produce diazo copies for distribution through the Federal Depository Library Program.

We believe that there are currently two difficulties with this process. First, because these are copies of GAO microfiche, they are produced to GAO specifications. The microfiche headers include a great deal of information necessary to GAO, e.g., an accession number, report number, title, but they do NOT include SuDocs numbers. I know that this is extremely important to depository libraries in maintaining their microfiche collections, and we hope to remedy this with time; however, currently, all microfiche you will be receiving through the depository program will not be identified with SuDocs numbers.

The second difficulty is timeliness. First, GAO must microfiche its documents, then GPO must duplicate them; therefore, it may be many months before you receive required publications for your collection. There are, however, other avenues available which will provide timely access to GAO documents.

Paper copies of most agency publications can be obtained directly from GAO. As mentioned earlier, the first copy is free of charge and we are never out-of-print. Most recent reports are available with the familiar blue cover, although these are sometimes reprinted with a plain white cover. Our collection of publications goes back to the mid-1970s, and for many of the older products, we will "blow-back" a copy from microfiche or print from optical disk.

Many of our customers subscribe to the Monthly List and order regularly from that publication. Frequently, however, you may read about a report in your local newspaper and have only minimal information about the subject and no bibliographic information about the publication, e.g., title or report number. GAO will provide research services to assist in locating a document. Through our central telephone number, (202) 512-6000, you can order a document, obtain research assistance, or use our "Fax-Back" system, which will provide you with a listing of GAO reports released that day (GAO Day Book).

GAO also has some electronic access to GAO publications and information. Several years ago, in conjunction with GPO, we began cataloging our reports and testimonies through the GAO library staff, resulting in our records becoming available on OCLC. We also have bibliographic information about our audit products on the Department of Commerce's National Economic, Social, and Environmental (NESE) Data Bank on CD-ROM. This information is updated quarterly. Our Day Book and Monthly List are available through the Internet. And our Comptroller General decisions are accessed through both Westlaw and Lexis. You may also find our publications elsewhere electronically because some enterprising individual has added a report or a bibliographic citation somewhere on the Internet.

Our most recent venture--and certainly the most exciting for us-- is our joint effort with GPO to put GAO reports on the GPO WAIS server. Beginning Monday, April 10, GAO provides ASCII text files (and PDF files, as they are

available) to GPO, within 24 hours of release. Because of our "no-charge" policy, GAO is making this database available free of charge directly to the public 24 hours a day, 7 days a week. Currently, it includes reports for FY 1995, going back to October 1, 1994; however, we hope to add all FY 1994 reports in the near future. The data base includes only GAO's audit and evaluation reports; it does not contain either testimonies or decisions.

Where do we go from here? Recently, a staff member predicted that we will probably be out of the paper business in 5-10 years. I have also been told that "everyone" wants "everything" electronically. I will not presume to make my own predictions; however, it is my hope that we will "always" be in the business of providing information by and about GAO in the best format possible to meet the needs of our customers. Please let me know what we can do to help you, as depository librarians, to better serve your customers.

GPO And GAO Expand Free Online Access

An unprecedented agreement between the Government Printing Office (GPO) and the General Accounting Office (GAO) has expanded free online public access to Federal Government information. The GAO database is fully sponsored by the GAO. As a result, it is the first database made available free of charge directly to the public 24 hours a day, seven days a week, through the GPO Access service's Wide Area Information Server (WAIS).

Users can directly access the online system from home or office via Internet SLIP/PPP and telnet connections and soon from the World Wide Web. Users may dial-in via modem as well. Those without a personal computer and modem can use GAO Reports online via the GPO Access service at a local Federal depository library.

"We are delighted to make GAO reports available on the GPO Access service because of its accessibility," said Phyllis Christenson, Director of Information Services at GAO. "Working in conjunction with the GPO to place our reports online is part of our continuing effort to provide the public with information electronically."

The GAO, a nonpartisan agency, audits, surveys, investigates, and evaluates Federal programs. In 1994, GAO's staff of evaluators, statisticians and analysts produced 1,149 audit and evaluation reports, averaging 5 reports a day. All reports will be available in ASCII text the day after publication, excluding restricted and classified products.

"We are pleased to be working with GAO to provide the public with immediate access to official Government information," said Public Printer Michael F. DiMario. "The GAO database is an excellent addition to our current online services."

The GPO Access service was launched on June 8, 1994, and offers:

- Federal Register Service, including the daily Federal Register and the Unified Regulatory Agenda

- Congressional Record Service, including the daily Congressional Record, the Congressional Record Index, and the History of Bills and Resolutions

- Legislative Service, including Congressional Bills, Public Laws, the U.S. Code, and the History of Bills and Resolutions.

These three services are available free of charge to users who access them through Federal depository libraries or through public gateways established in cooperation with depository libraries. There are 1,400 depository libraries nationwide, with at least one in every congressional district. Over 440 now provide public access to the GPO Access service. There are nine public gateways in operation, with others under development. Access to the Federal Register, Congressional Record, and Legislative Services databases by non-depository users is available at the incremental cost of dissemination. The GAO database, however, is free of charge to all users of the GPO Access service.

To access the GAO database, users with a SLIP/PPP Internet connection and WAIS local client software should:

- obtain source file information through anonymous FTP at eids04.eids.gpo.gov
- login as anonymous
- use their own e-mail address as the password. (Customized client software can be purchased from GPO. Contact the GPO Access User Support Team at the numbers below to order a copy.)

Users with Telnet capability should:

- telnet to swais-access.gpo.gov
- login as gao

Users with Dial-in capability should:

- dial-in to (202) 512-1661
- type SWAIS
- login as gao

Access via the World Wide Web will be possible in the near future at url: http://www.access.gpo.gov.

Inquiries about GPO Access electronic services should be directed to the GPO Access User Support Team at (202) 512-1530; fax: (202) 512-1262; Internet e-mail: help@eids05.eids.gpo.gov.

*** GENERAL ACCOUNTING OFFICE "BLUE BOOKS" ***
*** NOW AVAILABLE ONLINE VIA *GPO Access* ***

Effective April 10, 1995, the General Accounting Office (GAO) will be providing FREE access to GAO Reports online via GPO Access.

An unprecedented agreement between the Government Printing Office (GPO) and the General Accounting Office (GAO) has expanded free, electronic public access to Federal Government information. The GAO database is fully sponsored by the GAO and, as a result, is the first database made available free of charge directly to the public 24 hours a day, seven days a week through the GPO Access Wide Area Information Server (WAIS).

If you access the GPO Access WAIS system through SWAIS the GAO database will automatically appear on your Source Selection Screen as soon as it is available. However, if you use WAIS client software to search the GPO Access online databases, you will need to add this source to your Source file. (Instructions are provided below.)

General Description of the GAO Reports Database:

This database contains the GAO "blue book" reports. The database is updated daily and reports will be available by 6:00 a.m. Eastern time the day after public release. The reports will be available in ASCII text and contain GAO's findings and recommendations to members of Congress or to congressional committees. Restricted and classified products, as well as correspondence are not included in this database. (The database will eventually include all reports from October 1994 to present with Abstracts.)

Two methods you can utilize to add source files are:

A. Manually create new Source Files
B. Download new Source Files from the GPO FTP site.

A. Manually create Source files:

Execute the following steps to add the GAO database to your Source File:

1. Open the EINet WinWAIS system
2. Pull down the Edit menu
3. Select the Select Sources menu item
4. Click on the button labeled New;
5. In the Name window type: GAO Reports
6. In the Host window type:
   swais. access. gpo. gov
7. In the Database window type: gao

If you desire, enter the following information in the Source Description window;

Database contains the GAO "blue book" reports. The database is updated daily and reports will be available by 6:00 a.m. Eastern Time the day after public release. The reports are available in ASCII text. The following abbreviations indicate divisions and offices that appear as part of the report number.

AIMDAccounting and Information Management Division
GGDGeneral Government Division
HEHSHealth, Education, and Human Services Division
HRDHuman Resources Division
NSIADNational Security and International Affairs Division
OCGOffice of the Comptroller General
OGCOffice of the General Counsel
OIMCOffice of Information Management and Communications
OP Office of Policy
OPP Office of Program Planning
OSI Office of Special Investigations
PEMDProgram Evaluation and Methodology Division
RCEDResources, Community and Economic Development Division

8.Click on the *OK* button in the *Edit WAIS Source Definition Window.*
9.Click on the *OK* button in the *Selected WAIS Sources Window.*

B. Downloading from the FTP Site:

1.Get source file through anonymous FTP at eids04.eids.gpo.gov;
2.Login as anonymous;
3.Use your e-mail address as your password
4.Go to path d:\gpo\access\info\sources\windows *(or|mac)*
5.Get filename: gao.src

For searching assistance, please refer to the Helpful Hints for searching the GAO database which will appear in your list of candidate documents after an unsuccessful search or if you search the word help and in the GPO Access User Guide for Online Databases.

For more information on GPO Access, contact the User Support Team;
Internet e-mail: help@eids05.eids.gpo.gov; Phone: (202) 512-1530; Fax: (202) 512-1262

HELPFUL HINTS FOR SEARCHING THE *GAO REPORTS* ONLINE VIA *GPO ACCESS*

The General Accounting Office (GAO) conducts audits, surveys, investigations and evaluations of Federal programs. GAO's findings and recommendations are published as reports to members of Congress or delivered as testimony to Congressional committees. The *GAO Reports* database contains all published reports, except correspondence and reports are restricted or classified. The database for FY 1995 is updated the day after reports are released. The report series are identified by the initials in the report number. A list of these initials is in the User Manual and also in the file entitled "Information on database" that is retrieved by executing an empty query.

The fields in the *GAO Reports* database are:

Report Number:	reportnum
Report Title:	title
Report Issue Date:	date
Subject Terms:	subject
Identifiers:[1]	identifier

A field can be searched by typing the field name, followed by an equals sign (=), followed by the term or terms that are sought. Numeric fields, such as the date field, can use the greater than (>) and less than (<) symbols to search a range of numbers. All queries that do not specify a field search the entire document.

Good sample searches[2] for the *GAO Reports* database are:

Report Number (HEHS9542.ASK)[3]
QUERY: "HEHS -95-42"
ALTERNATE: reportnum="HEHS 95 42"
RESULT: Charter Schools: New Model for Public Schools Provides Opportunities and Challenges

This search demonstrates the correct phrasing to retrieve a GAO report by number. The report number may be typed with or without the punctuation; however, spaces must be inserted between segments if no punctuation is used. To identify all reports in the HEHS series, search for reportnum=hehs. (NOTE: The GAO control number is not in the report number field. It does appear in the cover letter accompanying each report and can be searched using a query like "b-256567".)

Subject (CHILD-ASK)
QUERY: child* ADJ (health (OR care OR abuse)
ALTERNATE:child* health* OR child* care* OR child* abuse*
RESULT: Child-Care: Child Care Subsidies Increase Likelihood That Low-income Mothers Will
Health Care: School-Based Health Centers Can Expand Access for Children

This search demonstrates the use of multiple boolean operators (AND, OR, NOT, ADJ) in a single query. This query will retrieve GAO reports that include the phrase "child health" (child ADJ health) OR "child care" (child ADJ care) OR "child abuse" (child ADJ abuse) somewhere in the report. A phrase may be entered surrounded by quotation marks (" ") or with each searchable word separated by the ADJ operator. Use of the asterisk (*) after the word child retrieves phrases including the word children or other words with the root child.

Title Field (CHILDCAR.ASK)
QUERY:title="child care"
RESULT:Child Care: Child Care Subsidies Increase Likelihood That Low-income Mothers Will

This search retrieves GAO reports that include the phrase "child care" in the report title.

Subject Field (NAFTA.ASK)
QUERY:subject="unemployment compensation" AND NAFTA
RESULT:Dislocated Workers: An Early Look at the NAFTA Transitional Adjustment Assistance

This search retrieves GAO reports that include the phrase "unemployment compensation" in the subject field and mention NAFTA somewhere in the document.

Identifier Field (CANADA.ASK)
QUERY:identifier=canada
RESULT:Dislocated Workers: An Early Look at the NAFTA Transitional Adjustment Assistance

The search retrieves GAO reports that include "Canada" in the identifier field.

Date Range (TRADE.ASK)
QUERY:date=1/1/95 TO 1/31/95 AND trade
ALTERNATE:"january 1995" AND trade
RESULT:U.S.-China Trade: Implementation of Agreements on Market Access and Intellectual

This search uses the date field[4] and the operator TO in order to find reports on trade published between January 1 and January 31, 1995. The alternate search uses the narrative date that appears on the report cover to identity a report; the use of the date January 1995 is less accurate than the use of the date field since a report may refer to an event that occurred in January 1995 when that is not the publication date.

If a date (or date range) is used by itself, the database will list all documents with that date, regardless of subject matter. When a report has no specific day of issue, the date field will contain the dates for the first and last days of the month. (NOTE: The results list presents the reports in relevance ranked order, not chronological order. Relevance is computed based or several factors, including the occurrence of the search terms in the document title, the frequency of the terms as a percentage of the total document size and conformance with the exact search phrasing.)

March 27, 1995

1.Identifiers are additional terms for counties, states, organizations, treaties or other named things that are relevant to the subject of the report.

2.The results of these sample searches are described as they will appear using SWAIS or the WinWAIS and MacWAIS client software customized for use with GPO Access. The searches can be performed with other WAIS client software but the display of the results may vary.

3.When a file name, such as HEHS.ASK, appears in brackets at the beginning of a sample search, there is a saved search with that file name distributed with the GPO Access WinWAIS and MacWAIS client software. The saved searches are also available on the Federal Bulletin Board and by anonymous FTP from gids04.gids.gpo.gov.

4.The available operators for the date field and other numeric fields include equal to (=), greater than (>), less than (<), greater than or equal to (>=), and less than or equal to (<=). When the equal sign (=) is used, the range may be specified using TO between the beginning and ending date, as shown in the sample search.

The Department of Energy Virtual Library: Today and the Vision for the Future

David Henderson
U.S. Department of Energy
Oak Ridge, TN

The current administration is encouraging a vision for an infrastructure of government information which is readily accessible to the public and global in nature. The Department of Energy (DOE) has a wealth of energy and environmental information of value to not only DOE and DOE contractors, but to industry, business, education, the general public, international partners, etc. This information resides in a variety of forms and on systems geographically separated. Currently, a master "road map" to this information, electronic or otherwise, is being developed in the Department of Energy. Though the Department has far to go to make its vision of "one-stop-shopping" a reality, the first pieces are already in place.

THE VISION FOR THE DEPARTMENT OF ENERGY VIRTUAL LIBRARY

Concept for the Virtual Library

The virtual library is a conceptual tool for linking extensive collections of electronic information and data residing on a variety of systems and formats in locations around the world. The purpose of the virtual library is to provide access to information through a single location on the information superhighway; a "one-stop-shop" for data and information.

Rather than creating a single enormous database containing this information, the virtual library will provide links to centers of expertise and major collections of data while leaving the management and ownership of the information with the sponsors and/or creators.

The Department's vast energy information resources currently reside at numerous sites across the country--with no single point of easy access to the entire collection. A variety of programmatic efforts have been undertaken across the Department to make information accessible. However, even DOE users are often unaware of the existence of information that does not reside at their local sites. And sometimes local information is known only to a few. In addition, information is in both electronic and non-electronic (e.g., paper and microfiche) formats, further hampering efficient access and use. As the plethora of energy information resources increases, it becomes more and more difficult for users to navigate to and through them. The average user has neither the time nor the training to extract information from dozens of online systems using several different command languages, and information from multiple sources cannot easily be combined and refined. It is imperative that a coordinated DOE information management program be established:

1)to make DOE information resources available to external users, e.g., the library community, consumers, students, private industry, etc.;

2)to provide DOE personnel access to the information they need to do their jobs, and

3)to leverage our international information partnerships so that the breadth of world-

wide information resources is accessible to all our users.

Continuing technological advances bring the goal of national, and global, information accessibility closer to reality. Tools such as the World Wide Web, Wide Area Information Servers (WAIS), Gophers, harvesters, and others like these, are first steps toward a wide realm of intelligent agents, customized clients, interfaces, and other information appliances. These tools and agents will be the key to a "one-stop-shop" of data and information for a broad spectrum of users.

From everyday consumers and students, to private industry and laboratory researchers, each information request will be met at the point of need and in a manner and form that is meaningful to that individual user. For example, a consumer purchasing a new car might access the virtual library to confirm carbon dioxide emission statistics for that model, while a student might at the same time download carbon dioxide emission tables for inclusion in a research paper. Across the country a laboratory researcher could view, in realtime, the progression of a carbon dioxide model while at the same time downloading the data files and visualization software for later use and study. A project manager in private industry could check the virtual library for the status on a patent pending on a new carbon dioxide filtration process. Each and every need will be identified and met at a level commensurate with that of the user.

In April 1994, Vice President Gore suggested at a conference in Rio de Janeiro that libraries in the future would be global--providing a means for sharing the world's information. Many current initiatives, including the Government Information Locator System (GILS), are stepping stones to the realization of the National Information Infrastructure envisioned by the Clinton Administration. Virtual libraries are thus an integral part of the Administration's vision for a National Information Infrastructure and Global Information Infrastructure. Secretary O'Leary has repeatedly stated her own strong commitments to global science, industry access to Departmental information, openness, public outreach, a scientifically literate public, support of national education, and other goals linked to the availability and accessibility of data and information. The successful achievement of these national and international goals are dependent on the continuing success of research and development efforts that will make the virtual library a reality.

Content of the Virtual Library

Types of information contained in the library will include models, technical reports, global environmental information and satellite data. Another important aspect of the library would be online access to human experts at laboratories, universities, and industry for assistance in answering complex questions. The intent of the virtual library is to provide one-stop-shopping for energy and environmental information from a single point of access available 24 hours a day.

Who Will Use the DOE Virtual Library

The primary audience for the DOE virtual library will be the American public, private industry, educators, the national library community, academia, and students at all levels. However, access would be universal, and available to anyone in the world with an interest and need for energy or environmental information. In addition to providing a valuable resource to schools, business, and government agencies, the virtual library will support and facilitate home-based learning and the flexible work style/work place--both of which will become increasingly prevalent as we enter the new millennium.

How Will It Work

The virtual library will be a comprehensive source of energy-related and environmental information from national and international sources. Rather than attempting to create a single master database of all the information, the virtual library will provide seamless access to the information wherever it is located. Geographic distance will be irrelevant to the user.

Based on recognized standards and communications protocols and therefore not limited to any specific vendor, the virtual library will accommodate many platforms, software interfaces, and data formats. Widely accessible wherever needed--home, workplace, or school--the virtual library will provide real-time answers to questions at every level of complexity.

Sound information management principles will form the foundation of the library, ensuring that the right information in the right format can be located easily. Advanced search algorithms and massively parallel processors will permit simple key word searching of diverse and widespread information sources. Users will be able to 'mine' the library with the assistance of intelligent interfaces which will translate natural language queries into the language and syntax of the source information systems.

The current cooperative approach to information sharing and program and strategic planning, as demonstrated in the development of the DOE home page, will continue, since the links created thereby will form the foundation of the virtual library. To ensure that the concept is thoroughly tested and evaluated prior to a major commitment of resources, prototype systems will be developed on a small scale. Program Offices, national laboratories, DOE contractors, and other current information providers will retain management and control of the information they produce or sponsor; however, the prototypes will provide enhanced and integrated access across data sources and systems. Just one example of such a prototype is the electronic version of the Fossil Energy Public Awareness publications being put up electronically on the DOE home page. On a test basis, these bibliographic publications are going to provide hyperlink connections to full text scientific reports.

Benefits to the Department, the Nation and the World

Consistent with the National Performance Review and OMB Circular A-130, the virtual library will maximize access to DOE information and ensure easier integration with information from other government agencies. By ensuring quick access, promoting synergy of ideas, and helping users stay current with research, the virtual library will improve the quality of education as well as research and development. The single most important benefit of the virtual library is that it will provide the most comprehensive access possible to energy and environmental information from around the world. This improved access will allow for more effective use of the Department's information resources in support of U.S. competitiveness, improved science education, public participation in environment and health issues, and that public's inherent "right to know".

The DOE Virtual Library Today:

The Requirements

Before settling on the World Wide Web / Mosaic configuration for presenting the Department's information, some system requirements had been identified. The system would need to be user friendly and therefore probably menu driven. It would need to support customers on various platforms, such as PCs, MACs, and workstations. It would have to handle distributed data, including multimedia, yet at the same time support search and retrieval operations. The Department wanted a centralized approach to distributed information and the sophisticated look of online publications. Supporting international standards was an important criteria as was access by both freeware and commercial software. The system would need to allow for frequent and timely updates and yet have low-cost maintenance.

The opportunities presented by this undertaking are immense. The virtual library supports DOE initiatives such as serving existing customers in new ways; giving public access to Departmental information; creating an atmosphere of openness and trust; supporting U.S. competitiveness through technology transfer and access to research results; and developing the workforce of the future through support for education. At the same time the Department is positioning itself for the future by developing customized information delivery; high-speed, efficient document exchange; cradle-to-grave electronic records management; and support for the National Information Infrastructure. And in this age of shrinking budgets, the Department is doing more with less by reducing application development costs; reducing operation and maintenance costs; and reducing printing and distribution costs.

The DOE Home Page

The objectives for the DOE home page are clear: to provide a single address for access to DOE information by other Federal agencies, academia, private industry, the general public, and the world; to provide a well-marked, logical point of entry into DOE information that can aid users in navigating through the maze of DOE and DOE contractor servers; to clearly, accurately, and attractively provide a DOE "presence" on the Internet and a place where the Department and its mission are described; to provide linkage to DOE and DOE contractor servers and linkage to other home pages in the U.S. Government; to provide a "multiple pathways" approach to DOE information through organizational, geographic, or programmatic pathways; to enable the multimedia presentation of DOE information; to provide linkage to other network technologies and information resources such as Wide Area Information Servers (WAIS), gophers, etc.; and to promote the use of DOE information.

Work on the DOE home page began in the Fall of 1993, when the first WinMosaic client became available. While some DOE laboratories had already created their own World Wide Web pages by that time, these had been geared to and were only accessible by a small group of the most sophisticated computer users in the Department labs. Since then, almost all DOE Headquarters (Program) Offices and laboratories have established home pages that are linked together under the umbrella of the DOE home page.

There are far too many home pages and information resources available from the DOE home page to give fair treatment to them all. The following is a brief description of just a few of the resources available. The selections are made in part because of the author's familiarity with these particular resources, but hopefully they will provide the reader with a feeling, however inadequate, of the variety of information currently available online through the Department of Energy's home page. The Universal Resource Locator (URL) for the DOE home page is "http://www.doe.gov/".

From the DOE home page the user can access information by navigating a tree structure to the desired site or by selecting the site from a map. Special projects and collaborative home pages, such as the DOE Digital superLab or the Human Radiation Experiments Information Management System (HREX), can be accessed by the site(s) involved, or from a separate page listing these projects. Still in development are a subject based browsable tree structure to DOE information and keyword indexing of the entire DOE environment. A preview of both of these approaches may be seen in the Office of Energy Efficiency and Renewable Energy's home page (EREN).

Supporting the Depository Libraries: The DOE Reports Bibliographic Database

Of particular interest to the government depository library community is the DOE Reports Bibliographic Database (URL "http://www.osti.gov/", then select the DOE Reports option from the menu.) This WAIS database includes citations for all Department of Energy (DOE) sponsored scientific and technical reports sent to Government Printing Office (GPO) depository libraries, covering the period of January 1, 1994 to present.

Current Department citations are added weekly as new reports are shipped to participating depository libraries. Patrons searching the DOE database will be directed to the depository libraries in a chosen state or states that received the full text of the selected DOE report. Full text of reports are currently supplied to depository libraries on microfiche. The "locator" mechanism embedded in the database allows users to find the depository libraries in the state(s) of choice that actually have received the report.

Programmatic Organization of Information Resources: The Energy Efficiency and Renewable Energy Network (EREN)

The Office of Energy Efficiency and Renewable Energy (EE) has led the way in the Department by providing access to a broad spectrum of resources focused on a specific programmatic area. (URL http://www.eren.doe.gov/). In the EREN system, information specialists have carefully separated information resources by subject, type of server, source organization, and alphabetical listing of resources. The EREN project is also evaluating the use of the Harvest software, developed at the University of Colorado, to create a searchable index of the content or content descriptions of all information resources linked to EREN. This feature can be used by accessing the EREN home page, selecting "Information Resources", and then selecting "Keyword Search."

EREN currently makes available links to over 250 information resources, including databases, energy maps, and full text documents. These resources are both governmental and privately owned. A subset of the Department's Energy Science and Technology database (EDB) has been made available for the EREN system. This subset contains all of the citations for U.S. published information in the fields of energy efficiency and renewable energy contained in EDB. The subset also makes use of the Reports database locator mechanism when presenting DOE report literature, and therefore can be used as an access vehicle to the DOE microfiche collection. The subset is also browsable by DOE Subject Category. By navigating the Subject Category tree structure, a searcher can at any time retrieve a set of all documents in the current category or limit the set by adding a search term.

Bibliographic and Full Text Pilot Project: The Office of Fossil Energy Current Awareness Publications

Beginning in January 1995, the Office of Fossil Energy (FE) has begun to make its current awareness publications available on the Internet, rather than on paper. The current editions of these bibliographic publications are presented in the same format as the former printed product, with citations manually arranged in logical groupings. The current editions are available for browsing just as if looking at the old paper product. Old editions are combined into a WAIS database and citations are locatable by performing standard searches.

An important innovation to this database, currently in the prototype stage, is the introduction of full text access by hyperlink from the bibliographic citation to the full text report. If the prototype proves a success, the full text of many of the FE reports will soon be available by access from the current awareness publications.

Coordinating Departmental Initiatives: OpenNet and HREX

Under the current administration, the Department of Energy has directed great attention to presenting information about present and past

activities to the public. Two elements of this Departmental effort are the OpenNet system and the Human Radiation Experimentation (HREX) system.

OpenNet will include references to all documents declassified and made publicly available after October 1, 1994. In addition to these documents, OpenNet references older document collections from several DOE sources. These collections include citations to several types of documents. Some have been declassified in total, and are termed "declassified." Others have had classified or other restricted information removed to produce a "sanitized" copy.

HREX, being developed by the Office of Human Radiation Experiments, established in March 1994, leads the Department of Energy's efforts to tell the agency's Cold War story of radiation research using human subjects. They have undertaken an intensive effort to identify and catalog relevant historical documents from DOE's 3.2 million cubic feet of records scattered across the country. Internet access to these resources is a key part of making DOE more open and responsive to the American public. HREX will combine full text indexing of documents with image storage to allow the user to search the full text and also see the document as it actually appears in DOE's archives.

Since many of the documents contained in HREX are also cited in OpenNet, a proposal is currently under review to establish hyperlinks between these databases, thereby maximizing their benefit to searchers.

These projects are only a very small part of the work being done in DOE to make the vision of the virtual library a reality. We believe that the virtual library and more broadly speaking, the National Information Infrastructure, is an important key to U.S. economic success. Much work still needs to be done to define and develop the National Information Infrastructure and the Department of Energy will continue to play an important role in leading the way.

DOE Reports Bibliographic Database

The Department of Energy Reports Bibliographic Database contains citations for all Department of Energy (DOE) sponsored scientific and technical reports sent to Government Printing Office (GPO) Depository Libraries, covering the period of January 1, 1994 to present. Current Department citations are added weekly as new reports are shipped to participating Depository Libraries. Patrons searching the DOE database will be directed to the Depository Libraries in a chosen state(s), that received the full text of the selected DOE report. Full text of reports are currently supplied to Depository Libraries on microfiche.

Search The DOE Reports Bibliographic Database

Database Search Help
Document Ordering Information

This page is maintained by U.S. DOE Office of Scientific and Technical Information (OSTI). All comments and suggestions are welcome. Technical Contact: David Henderson at (615) 576-3615 (David.Henderson@ccmail.osti.gov)

Automated Records Project: Bureau of Land Management, General Land Office

Linda Brooks
U.S. Department of the Interior
Springfield, VA

The Bureau of Land Management (BLM) is involved in a very large imaging project. The General Land Office Automated Records System (GLO ARS) is imaging more than 5 million Federal Land Patents bound in approximately 10,000 volumes of 500 pages each. The GLO ARS is giving better access to important historical land records while providing for better preservation of the original historical documents.

These records, dating from the late 1780's to the present, are the original title documents transferring land ownership from the Federal Government to an individual or other sovereignty, such as a State. Land transfers to individuals resulted from many laws, for example, the cash entry act of 1820, Homestead Act of 1862, and various military bounty land acts that gave land to soldiers from the Revolutionary War and the War of 1812. The BLM documents are sometimes the only remaining copy of the patent. The original patents were prepared in three copies: a signed original for the land owner, one copy for the landowner to record with the county, and a copy for the government. Over time, many landowners' documents were lost or destroyed; the same thing has happened to the county copies. This makes the GLO Project more crucial.

The BLM at Eastern States does not have land title documents for all the United States. They have records for lands acquired by the United States by treaties or purchases, such as the Northwest Territory and the Louisiana Purchase. They also have records dating up to 1960 for the western states. The land records for the colonies that pre-date the formation of the United States reside with these states. The post-1960 records for the western states are maintained in the BLM's western offices. These records are being automated under a separate, but compatible, system that will be available in the other State Offices.

These land records are both legal and public information documents. They are used extensively by title record companies and attorneys in preparing title abstracts. Most recently, individuals engaged in genealogical research are using them. BLM only maintains the patent or deed. The National Archives maintains any related application documents. The Archives' contact is Mr. Greg Brasher, Assistant Chief of the Suitland Reference Branch, National Archives and Records Administration, Washington, D.C. 20408.

Since 1989, about 1.5 million documents have been imaged and are available on GLO ARS. The system has both an image of the land document and a database of specific attributes of information taken directly from the land document. Before the documents are imaged, a BLM bookbinder removes them from the bound volumes and cleans them of any material, such as tape, that could cause further deterioration. They are then placed in acid-free archival boxes and returned to the climate controlled vault with the remaining volumes.

The initial phase of the project calls for imaging land title documents. Pre-1908 documents have been imaged for the States of Alabama, Arkansas, Florida, Louisiana,

Mississippi, Michigan, Minnesota, Wisconsin, and Ohio. Missouri documents are in production and will be followed by Illinois. After the documents are imaged and indexed, the attribute database is created using information such as the patentee name, legal land description, document authority, document number, and county. This is a very labor intensive process because the data entry person must decipher old penmanship styles, often in fading ink. The imaging and data entry is performed by a local contractor, Dynamic Concepts, Inc.; BLM staff performs the final quality assurance review and accepts the contractor's product. About 9,000 documents are automated each week.

The creation of the attribute database has significantly broadened and simplified the ability to use the land records for searches based on an individual's name. In the past, the 10,000 bound volumes of records were indexed only by the legal land description (township, range, and section). Researchers were dependent on knowing certain information linking the individual being researched to a specific location. This involved using the cumbersome and complex tract book indexes to find the correct patent volume.

The entire GLO ARS database and images are accessible to anyone by visiting the BLM Eastern States office in Springfield, Virginia, the entire database is accessible by remote access via a computer and modem, or by purchasing the CD-ROM discs users have access to the databases for the States of Arkansas, Louisiana, Florida, Michigan, and Wisconsin. The disc for Minnesota will be available in Summer 1995. The Michigan CD contains an index of the survey plats for Michigan. The CDs for Michigan, Wisconsin, and Minnesota contain sample patent and plat images.

The CD-ROM version of the GLO ARS attribute database has been very popular. The disc allows searches in many fields: name, document authority, date, land description, and more. CD users can order copies of images from BLM Eastern States for $1.25 each; the CD contains an order form. The CDs are very user friendly. Installation is simple and directions are on the case. The CDs were not designed to run in WINDOWS or on a LAN. A tutorial is included on each; help screens are available at each step; and these screens can be printed if a paper copy is needed. The Government Printing Office (GPO) is selling the CD's for $15.00 each and is making the CDs available to all Federal depository libraries. BLM is providing copies of the CDs to the States, one for each county clerk. The CDs offer a very economical alternative to the GLO ARS remote access system.

Anyone wishing to use the remote access system or the online access system in the Springfield office must establish a declining deposit account and obtain a password. It is easy to establish an account by using a credit card with a phone call, letter, or a fax to the Eastern States office. We furnish a User Guide and communications software plus an order form for KERMIT software. The user needs KERMIT communications software, sold by Columbia University, and a modem. The remote access system costs two dollars per query session minute.

Once the attribute database has been searched, using either the CD-ROM or online access, the user can request a copy of the appropriate land record be faxed or mailed to them. Each certified copy of a Federal land patent costs a dollar and fifty cents. There have been no objections raised by the title record companies, or other researchers, to receiving a certified laser printed copy of the imaged document rather than a photocopy of the original document. The BLM has clearly documented how the images are created, that they cannot be altered once they are stored on the optical medium, and that system security is maintained to ensure the integrity of the database and images.

Some States, and some counties within states, are embarking on similar land record automation projects. Some are imaging all their historical documents, similar to BLM. Others are more concerned with current land transfer information and are imaging current records. Imaging projects are going on in Wisconsin, Arkansas, and Florida.

When BLM has completed imaging all 5

million Federal land patents, the original documents will be transferred to NARA for permanent storage. At current funding, the anticipated completion date is September 2001. While the imaging process is underway, the original documents are considered the official working record. Once they are transferred to NARA, the imaged documents will become BLM's official record.

Phase 2 of the Project is to automate the survey plats and field notes maintained at Eastern States. More than 4 million documents dating back to 1788 will be indexed and scanned to make them more accessible. The Land Ordnance of 1785 declared "survey before patent." It also tasked the surveyors to describe the lands they surveyed and report on the conditions.

Surveyors' field notes are often filled with what they observed as they walked the land: descriptions of hardwood forests, prairies, stands of pine, and marshes and swamps. These descriptions enabled the GLO to make decisions on what lands would be opened to settlement, by cash sale or homestead. (A side note: several universities have taken descriptions from these old notes and compiled State vegetative maps from them to use as comparisons to how the vegetation exists today.) Presently, these documents can be accessed by knowing the land descriptions; after automation, researchers can call up notes or plats by surveyors' names, dates, survey offices, special instructions dates, and survey types.

The BLM Eastern States welcomes visitors. We have demonstrated the GLO Project to many visitors: the Egyptian government, the Mexican government, the Israeli government, genealogy groups, State and local governments. Anyone wishing a demonstration should call our office at 703-440-1600.

The National Digital Library

Herbert Becker
Library of Congress
Washington, DC

Library of Congress at a Glance

The Collection

- 110 million items on over 500 miles of shelves
  - 16 million books
  - 15 million photographs, prints, posters, and architectural drawings
  - 2.2 million recordings
  - 4.2 million maps
- Collection items in over 460 languages
- Materials dating from 2040 B.C. to contemporary CDs

National Digital Library

Enabling Technologies

- National network infrastructure - "INTERNET"
- Powerful desktop PCs
- Improved scanning technology
- Standards:
  - Communications protocol - TCP/IP
  - Document structure - SGML; HTML
  - Image formats (TIFF, GIF, JPEG)
  - Query protocol (Z39.50)

Vision

- Network access to selected segments of the collection

- Cooperative projects in digital conversion
- Distributed electronic collections
- NII navigation/guide services
- Educational resources

Goals

- Digitize 5 million images by the year 2000
(approximately 220,000 items already digitized)
- Identify first 200 collections to be digitized
- Highlight Americana collections

Challenges

- Equity of access
- Intellectual property rights
- Digitization of core materials
- Finding aids
- Training
- Powerful and affordable technology
- Preservation

Activities at LC

- Special preparation of collections
- Digitizing and archiving
- Partnership programs with:
  - Libraries and archives
  - Private sector (including publishers)
  - Educators (K-1 2)
- Copyright pilot projects
(intellectual property rights)

Meetings

- Technical experts
- Cataloging experts
- Representatives of major research libraries
- Federal librarians
- Corporate leaders
- LC Network Advisory Committee
- Copyright community

Funding Strategy

- Public and Private Partnerships:
  - $15 million in Congressional appropriations over 5 years
  - $45 million in private contributions

INTERNET Growth

Number of Hosts

JANUARY 1993	1.5 million
JANUARY 1994	2.2 million
JANUARY 1995	4.9 million

Number of WWW servers

OCTOBER 1993	500
MARCH 1995	10,000

LC World Wide Web Offerings:

- LOCIS online
- Historical collections
- Exhibits
- Country Studies
- LC MARVEL (Library's gopher)

In Development:

- Electronic Copyright Management System
- Global Legal Information Network
- Electronic Cataloging In Publication

LC INTERNET Activity

March 1995 Statistics

- 728,00 Internet connections
- 8.9million transactions processed

LOCIS	4.1 million
MARVEL	2.1 million
LC WEB	1.4 million
THOMAS	1.1 million
*OTHER	.2 million

*anonymous FTP; WAIS

World Wide Web/MOSAIC

Exhibits

- Columbus Quincentenary
- Vatican Library
- Russian Archives
- Dead Sea Scrolls
- African American Culture Mosaic
- Russian Orthodox Church and Native Alaskan Cultures
- Gettysburg Address
- Temple of Liberty

Thomas

Congressional and legislative information online

- Available on Internet since January 5, 1995
  - •24 hour availability
  - •Nearly 750,000 transactions first month
  - •2.6 million transactions through April 3, 1995.
- Content:
  - •Full-text of bills - 103rd and 104th Congresses
  - •Congressional Record

How to Connect

Library of Congress home page
http://www.loc-gov

THOMAS
http://thomas.loc-gov

LOCIS
locis.loc.gov

MARVEL
marvel.loc.gov

Environmental Information to Go: Update on Products, Services and New Electronic Initiatives

Rachel Van Wingen
U.S. Environmental Protection Agency
Washington, DC

Mandates for Public Access (The White House)

- Reinventing Environmental Regulation Regulatory Reinvention Initiative
- Setting Customer Service Standards
- Freedom of Information Act Memorandum

Internal Forces for Change (Environmental Protection Agency)

- Common Sense Initiative
- Community-Based Environmental Protection
- Executive Steering Committee for Information Resources Management

IRM Vision Element on Public Access (EPA IRM Strategic Plan)

- EPA will actively disseminate and provide access to its information to educate and empower its partners and the public.

Connecting to EPA on the Internet

Public Access Server

- gopher.epa.gov
- http://www.epa.gov/
- wais.epa.gov
- ftp.epa.gov
- *for problems with the server, contact* internet_support@unixmail.rtpnc.epa.gov
- *for information requests, contact* public-access@epamail.epa.gov

Top Level Menu (Proposed EPA Gopher Menu)

- About the EPA's Gopher/
- What's New on the EPA Servers/
- Frequently Asked Questions and Hot Topics/
- Search the EPA Gopher <?>
- Information About the Agency/
- News and Current Events/
- EPA Libraries and Other Information Locators/
- EPA Publications/
- Rules, Regulations and Legislation/
- Clearinghouses, Hotlines and Bulletin Boards/

- EPA Data Systems/
- Other Environmental Information/
- Other Government Information/
- Other Internet Resources/

EPA Libraries and Other Information Locators/Second Level Menu (Proposed EPA Gopher Menu)

- About this Section
- US EPA National Library Network
- US EPA Libraries/
- Online Library System (OLS) <tel>
- Access EPA/
- Information Systems Inventory (ISI)/

EPA Publications/Second Level Menu (Proposed EPA Gopher Menu)

- About this Section
- Most Frequently Requested Publications/
- Administrative Publications/
- Scientific, Research and Technical Publications/
- Consumer-Oriented Publications/
- Small Business-Oriented Publications/
- Newsletters and Journals/
- How to Obtain EPA Publications/

Rules, Regulations and Legislation/Second Level Menu (Proposed EPA Gopher Menu)

- About this Section
- Search the Federal Register Environmental Subset/
- Federal Register -- Environmental Subset/
- Federal Register - Daily Table of Contents/
- Code of Federal Regulations
- Laws/
- United States Code/

Give Us Your Feedback

- What kind of environmental information do your customers ask for?
- How do they ask for it -- by industry, by chemical, by geographic location?
- How do they want to receive the information -- via Internet, CD-ROM, paper, telephone?
- What is the biggest barrier to getting useful environmental information?

National Center for Health Statistics

June Gable
National Center for Health Statistics
Hyattsville, MD

I want to briefly review the range of NCHS publications and services, then demonstrate one of our CD-ROMs, and introduce you to our home page on the World Wide Web.

Publications

Vital Statistics of the United States

Most of you will recognize these bound volumes. There are four volumes in a set, and they are issued independently. That means the volumes in a current set may have different data years. A current set includes: Volume I, Natality, 1990; Volume II, Mortality, Part A, 1990; Volume II, Part B, 1990; Volume III, Marriages and Divorces, 1987.

Monthly Vital Statistics Reports

The most current vital statistics are published in the MVSRs. Final data are published in MVSR supplements. There are annual supplements reporting final mortality and natality figures for each year. In addition, there may be one or more special topics each year, issued as supplements. An annual summary for the year is issued as an MVSR, but it is provisional data, as are the monthly reports. The MVSR issues contain more recent information than the bound Vital Statistics of the United States but it is presented in much less detail. If you have a patron who wants mortality statistics for the most recent years, use the latest bound Vital Statistics volume, for 1990, then (if the level of detail needed is in the MVSR) the MVSR supplements for the Advanced Report of Final Mortality for 1991 and 1992, then, only if provisional data is acceptable, the Annual Summary for 1993, and the most current monthly report for 1994, which will give cumulative 1994 data.

I understand that the depository libraries are no longer getting the MVSRs in paper. If it is used heavily at your library and you need paper copies, please contact us for a free subscription. The issues will be mailed directly from the printer. If you have very heavy use of these publications, you may want to put your two mailing list addresses on our list for your library.

Advance Data

About twenty Advance Data reports are issued per year. This publication is a quick means of reporting analysis of NCHS data. Each is on a specific topic and is usually less than 20 pages long.

Vital and Health Statistics Series

Vital and Health Statistics Series - the Rainbow Series are also published as irregular serials. I'd like to point out that Series 16, a relatively new series, is made up of compilations of the older Advance Data reports. That means if you are missing an Advance Data, you may be able to find it in a Series 16 report. In the same way, compilations of the Monthly Vital Statistics Reports supplements are published in Series 24.

Miscellaneous publications

Where to Write is one of the Center's most popular publications. It gives addresses and costs needed to obtain copies of certified vital records from the States. This publication is on our home page as a .pdf file and we are looking at ways to keep it up to date. The paper copy is printed about every two years and there are changes to the information in the interim. We are considering keeping the Internet copy up-to-date and printing the paper copies every year or so.

Health, United States is another widely known NCHS publication. It's the annual report of the Secretary for Health and Human Services on the status of the Nation's health. Data are presented from several agencies in charts, tables, and text. It addresses health status, health resources, use of health resources, and health care expenditures. For the past several years, it has also been distributed in electronic form. A minority chartbook is included every two years.

Healthy People 2000 Review and Newsletters report statistics from NCHS tracking progress toward the Healthy People 2000 objectives.

At the present time we do not have one catalog that lists all of our publications. We will in the future. For now, we have several catalogs that, together, list all of our publications. If you would like copies of each of these catalogs, which together will give you a complete list of all of the NCHS reports, please contact me. You can send me a message through our home page or call the telephone number on the handout.

Services

Public Inquiries

NCHS responds to requests for data received through the mail, over the telephone, and through our home page query button. There are handouts at the back of the room with information for contacting us. (National Center for Health Statistics, Data Dissemination Branch, 6525 Belcrest Road, Room 1064, Hyattsville, MD 20782; telephone: (301) 436-8500; Internet: http://www.cdc.gov/nchswww/nchshome.htm (How to Access Statistical Information contains interactive query function.) We receive 200 - 300 questions a day and they are answered in turn by technical information specialists.

Conferences

NCHS sponsors a Data Users Conference in the Washington area every two years. In the alternate year, there is a Public Health Conference on Records and Statistics, also in this area. Both offer sessions on use of the microdata and previews of recent and future products. Call us for more information, or watch our home page for updates about the upcoming Public Health Conference on Records and Statistics.

Electronic products

The Center collects more data than the staff could be expected to analyze. The microdata, or raw data, from the surveys and other collection systems are made available on data tapes for mainframe computers for analysis by researchers. Our Catalog of Electronic Data Products is a detailed listing of the tapes and information about the data they contain. In addition to the tapes, NCHS produces CD-ROMS containing raw data, documentation, and software to manage the large data sets. Information about them is included in the electronic catalog. Few floppy disks are produced. We do have an electronic version of Health, United States on disk. In fact, there are two types of Health, United States disks: the entire report with search software, and another disk with tables only, in spreadsheet format. We also have an electronic version of our electronic catalog with search software on floppy disk. If you would like a free copy of the electronic catalog on disk call us, our number is on the handouts: (301) 436-8500. There are also diskettes with selected data from the National Hospital Discharge Survey and some infant mortality data on diskette.

I know that many of you have our data CD-ROMs in your collections. I'd like to give you a quick demonstration of building a table using the software on the discs, the Statistical Export and Tabulation System (SETS) developed at NCHS for use with large data sets. This software is resident on all the NCHS data CD-ROMs.

Demonstration of 1992 NHIS CD-ROM

I'll be using a test set installed on a hard drive for this demonstration. While the functions are the same as the CD-ROM, the numbers are meaningless, since they are based on one out of every 1,000 of the records.

(Main menu, browse, file) The disc contains the encoded answers to the questionnaires. This is a flat file. The rows are one individual's answers. The columns are the fields and represent the questions. Notice that the name of the field is at the top and the definition of the value where the cursor is at the

bottom of the screen.

(Main menu, browse, documentation) To use the disc, you need to read the introduction, design and the weighting information. In addition, the record layouts for each file are necessary information. I'm selecting the Youth Risk Behavior file, then the Record Layout. These documentation files are searchable. I'll type "weapon". What we are looking at is the name of the field in brackets, the question, and all of the possible answers. The row of numbers to the left represent the frequency of the answers. Pressing F5 takes us to the next "hit". When you find a field you want to use, press F6 for the menu and select "print". Then you will have paper references to use as you work with the disc.

The disc offers three functions, creating a two way table, posing a query to get a single numeric reply, and creating a subset of the data to export. The export is the most frequently used function. The software we are using, the Statistical Export and Tabulation (SETS) works very well as a data manager but it has no statistical analysis capability. Most researchers want to use software like SAS or SPSS to analyze a data set. The SETS software, resident on all of the NCHS data CD-ROMS, allows you to create subsets to export to use with SAS and SPSS, and a few other software packages. For example, you might want to create a subset of librarians and export the fields reporting chronic diseases to analyze.

The initial steps for creating a subset and creating a table are the same, so I'm going to demonstrate how the disc operates by making a two way table. Let me strongly suggest that you think through what you will select before you start creating a table. In fact, it's helpful to write out a sort of search strategy after you finish reading the documentation and before you begin an export or a table.

After using the documentation for background information and printing out the information about the fields I want to use, I select Table from the main menu, then select the Youth Risk Behavior file. I'll specify the people who said they carried a knife or razor, using the Boolean help screen. From the blank spreadsheet, F2 for edit and F6 for table brings me to this screen of fields. Now for the table I need to select two fields to tabulate. F6 alphabetizes the fields so I can find the fields I've already identified when I used the documentation. I'll select sex and age at the time of interview (AGEINT). This is the Table Options menu (press F8), and I'll say "yes" for labels. I have a last chance to modify the instructions for the table, and press Enter to tabulate.

Remember that these numbers need to be weighted to represent the nation as a whole. We can create the same table with weighted data by moving the cursor down to an empty cell on this spreadsheet and pressing F5 for weights. I'll select the weight and then go through the same procedure to create the table again. This time the numbers are representative for the United States.

When the table displays, pressing F3 gives us the choices of saving the table as a spreadsheet, printing it, or changing the subset.

We've run through this quickly. To have meaningful data would require use of the CD-ROM and careful consideration of weights. The survey was conducted using a sample. Each of the persons interviewed was assigned a series of weights that appear as fields in the individual's record. By using the correct weight and thinking through the fields selected, you can create a table and save it as a spreadsheet or print a copy. When combined with the background documentation and record layout, you have a product to give to a user. If you need help planning the table, and you have read all of the documentation and still have questions, call us.

If you would like more information on using SETS software call the Data Dissemination Branch or contact us through our home page.

Demonstration of NCHS Home Page on the WWW

NCHS has had a home page for several months. It's accessible through our parent agency, the Centers for Disease Control and Prevention's home page. There are handouts with the address in the back of the room. (http://www.cdc.gov/nchswww/nchshome.htm) You need access to the World Wide Web and a Web browser to access our home page.

"About the Center" includes information about the major data collection systems. For example, here is information about the National Health Interview Survey, that we were just looking at.

Under "What's New, Publications," we find a list of the most recent publications. The blue text lets us know that there are reviews, or summaries, attached. Wherever there is an Acrobat symbol, the actual publication is attached. To look at the publications requires the Adobe Acrobat software, which is free, and, in fact, downloadable from our home page. It must be installed on your machine before you can view these Acrobat files. The directions are included in the Letter from the Editor, here on the home page. What can we do with an Acrobat file? We can turn the page. Or create thumbnails. I can see there is a graph on this page, so I'll go to it. This is too small to see clearly, so let's blow it up. There is also a search function - just press the binoculars.

"What's New" also contains a list of recent electronic products. Again, the blue text means there is an abstract attached.

The last item under "What's New" is a list of conferences where we will exhibit, including one we sponsor. You can see that there is a file attached here that contains detailed information and forms.

Under "Publications," you'll find lists of our publications for 1995, 1994 and the most recent publications catalog. The idea is to have a complete listing available, which, when combined with the list under "What's New," is complete and up-to-date. The files with the actual publication have been added fairly recently. When the files are archived, the publication files will be archived with them.

"How to Order" has GPO and NTIS addresses as well as NCHS's.

You may have noticed the Query button as we've taken our home page tour. Under "How to Access Statistical Information" you will see it again. It brings up an interactive form. You have selections for being added to our mailing list, ordering a free publication, or asking for an answer to a data request. We get about 50 pieces of e-mail each week from this query button and we process them as quickly as possible.

WINGS, the Electronic Government Gateway

Carolyn Youngblood and Velma McCuiston
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WINGS Draft Brochure

WINGS, the Web Integrated Network of Government Service, is a joint Federal, State and local government prototyping project being facilitated and managed by the Postal Service. The WINGS goal is to develop easy and convenient methods for public access to electronic, integrated government services, including the online sale of stamps and other electronic postal products.

About WINGS

The Postal Service leadership role ensures uniform delivery of electronic government services to even the most distant and remote locations. Public kiosks are targeted for locations that will best serve the public without ready access to computers or cable. Possible kiosk locations include post office lobbies, grocery stores, libraries, community centers, trading posts, and shopping malls. Access to WINGS will also initially be available through personal computers, and eventually, across interactive cable television to ensure convenient electronic interaction with government agencies.

The Vision

There is a great need to integrate government services to reduce the complexity and confusion people currently experience when dealing with their government. The Postal Service is uniquely qualified by virtue of our corporate mission to bind the nation together through the delivery of information and services. The Postal Service is positioned to facilitate this vital effort to improve customer service and refocus government efforts on the delivery of high quality services to our customers, the American people. The WINGS vision is:

- 24-hour, seven day-a-week public access to government services;
- One-stop shopping--no arcade of kiosks;
- Online Federal, State, and local information and services (transactions), and,
- Universal reach and coverage to ensure equal access for everyone.

One Stop Shopping

WINGS demonstrates an integrated suite of Federal, State, and local government services to enable people to simply and quickly access information and services to meet their immediate needs. WINGS shows that services from multiple agencies can be grouped around "life-changing events" to form one-stop shopping applications. Integrated applications will enable the public to complete such business as:

- MOVING ... Consolidating a moving experience into a single electronic visit to obtain demographic information, school listings, voter registration, complete motor vehicle transactions, and change your address with Federal, State, and local government sources.

- JOBS ... Finding a job, applying for benefits, identifying training programs and scholarships, and applying for positions across the country or within a target area.

- BENEFITS AND SERVICE ... Identifying services and benefits people are entitled to receive when faced with a life-changing event or family status change (such as a marriage, divorce, and a birth or death in the family).

It's Easy to Join

Delivering quality government services to our customers depends on the successful integration of services to reduce complexity and eliminate redundancy. Our goal is to avoid creating an arcade of government kiosks by coordinating application development and collaborating agency resources. Government agencies at the Federal, State and local levels are eligible to participate in this prototyping project. Agency partners must be prepared to demonstrate their commitment to this initiative through the following actions:

- Executive level commitment in writing for agency participation;

- An operative World Wide Web server with network connectivity;

- Contributing to the construction of integrated electronic government services, and

- Willingness to implement general guidelines established by the consortium.

It's Beneficial

Agencies participating in this partnership will form a government consortium. The consortium will set technical operating standards, establish operating policy and procedures, and determine the navigational templates used to deliver electronic government information and services easily and quickly to the system users. Participating agencies benefit by:

Presenting a model for collaboration that will improve allocation and use of available agency resources, improve agency customer service and information dissemination activities, as well as demonstrating a commitment to improve customer service through the use of information technology.

- Establishing agency network servers and developing an integrated set of interactive, multimedia applications. These servers and applications (as well as the knowledge-base built during this prototype phase) will continue to provide services to agency user groups well after the prototype effort has been completed.

- Sharing templates for successful customer service applications developed by other participating agencies, thus reducing the expense and effort required to bring new services online.

- Accessing electronic services from other participating Federal, State and local agencies, thus expanding the coverage of value-added services offered to the public beyond the agency's traditional boundaries.

- Guiding the creation of intergovernmental policy and procedures through membership on the advisory commission.

- Integrating agency information and services with those of other agencies to reduce confusion and eliminate redundancy.

- Grouping the service offerings of multiple agencies around life-changing events to form one-stop shopping applications.

For More Information

Although an evolutionary process, WINGS provides a structure for rapidly developing electronic interchange between government agencies, as well as demonstrating a viable method for delivering useful and convenient government services to the public.

If you have any additional questions, we welcome your inquiries about the program by telephone, FAX or through our web server. The numbers are listed below:

1-800-U.S. WINGS (Telephone Number)
(202) 268-4399 (FAX)
WWW.WINGS.USPS.GOV (Web Address)

Extending the Outreach: Documents Libraries and The Department of State

Peter A. Knecht
U.S. Department of State
Washington, DC

The Office of Public Communication would like to thank Sheila McGarr and her staff for their kind invitation to discuss our programs with the group we consider to be the prime user of them, the government documents librarians, who bring government information to the folks who paid for it all in the first place.

The Office of Public Communication, which set up the DOSFAN relationship with John Shuler at the University of Illinois at Chicago (UIC), has never been comfortable with the prevailing attitude that Washington is the center of information and that all eyes must turn to the banks of the Potomac to become well-informed. Consequently, its principal choice for multiplying information to the American public has always been the Federal Depository Library system. That was true in the paper era and even more true as we moved into the electronic era. At every juncture in program development on electronic dissemination or the CD-ROM, our staff's first question would be, how will this fit in with the depository program?

And this was simply making an old recognition electronic. When the office established the Department's Public Information Service in 1979, it didn't take us long to realize that one of the most helpful things we could do for many callers asking for information on the Department and its policies was to reach for a little congressional booklet entitled "A Directory of U.S. Government Depository Libraries" and ask the caller first where they were calling from and then say, "well, did you know that there is a collection of our materials at "XYZ Library," where you'll find skilled, knowledgeable librarians to help find what you need and provide additional guidance?"

It was a great concept--our staff was able to sound practically clairvoyant, callers got answers and materials more quickly than they would have through the mail, and there really WERE skilled knowledgeable staff there to help them. We like to think that at least for part of each day, we had 2-3,000 additional colleagues throughout the country. In short, we want to thank you for all your help. We think it worked well for all concerned.

How did we know it was a success? Easy. The only people who called back did so to thank us. There were never any complaints. And PA staff was able to spend more time on calls for which a depository library was not a viable option.

PA had to assume that you didn't object to us sending you business, because we didn't hear any complaints from you, either. Consequently, as soon as electronic communication came along, we knew that it was time to utilize the depository library system to our advantage in an entirely NEW way.

The result is DOSFAN, and the Department is very grateful to UIC and John Shuler for having the vision to undertake this innovative relationship. We know it was an expensive, time-consuming, and demanding challenge. We know also that it inaugurates a new level of communication with American and global publics for the Department of State. We see electronic

dissemination--through DOSFAN, GPO's BBS, or other networks--as the flagship of our public affairs outreach programs and the vehicle for our major initiatives and developments in the future.

Let me tell you about some of those developments.

One is called Country Briefings. If you liked the Background Notes, we think you and your clients are going to love the Country Briefings concept. Imagine you're a member of a Congressional fact-finding delegation or one of a group of university presidents or U.S. business CEOs visiting a U.S. embassy in a country of great importance to you and your constituencies. You've arranged a two-hour meeting with the Ambassador and outlined your interests and concerns. When you arrive, you are ushered into a conference room where the Ambassador has assembled what is called the "country team" to brief you on key aspects of that country's affairs and prospects, to give you the answers you came for. You will have received the "country briefing"--the best presentation of country-based information the U.S. Government can offer.

Well, we have in mind developing just such an informational resource so that ALL Americans with access to a computer and modem or CD-ROM player or fax can receive their own "country briefing" from the same authoritative sources. For 30 years, the Bureau of Public Affairs has offered country information through the Background Notes. And libraries, schools, businesses, and travelers have made the Notes one of the most popular publications in government.

But the Background Notes, good as they are, cannot possibly contain the increasing amount of useful information generated by our country desks in Washington and posts abroad, nor can they supply the volume or richness of information which U.S. universities, corporations, researchers, and others need to maintain our competitive edge in the global economy. Nor can they provide as much information as your student and faculty clients need in their academic pursuits. Nor could we afford to print all the available material nor could customers afford skyrocketing subscription prices. It became clear to us that we need a more advanced means of providing broad and specialist audiences with timely and comprehensive information on countries and international organizations.

On-line publishing solves this problem by letting us dramatically increase our country information output and requiring posts to maintain it at a higher level of currency than was possible with Background Notes. But at the same time, we don't want to lose the qualities that made the Background Notes as valued as they were. Inside every Country Briefing will be the basic content of a Background Note, but, over time, much, much more. We won't abandon our old audiences but do need to service many others.

This is how we see it working: Our long-term goal is to have our posts abroad upload information products as they become available without time delays in sending them to Washington and awaiting editing by the Department. Other information elements can be uploaded directly by the geographic bureaus in the Department. We in the PA Bureau can add yet other components.

It doesn't matter to you as consumers what the uploading source is, as long as it's in one place, authoritative, fresh, and, preferably, free. We are aiming to make Country Briefings the single best country and international organization electronic database in the world. Our hard copy will be the CD-ROM. We will also have hard copy available in various print-on-demand or fax-on-demand modalities, and your customers will of course print out what they need.

We need your help to bridge the gap and continue providing basic geographical information to readers from high school through graduate school. That is one reason we will be sending to every depository library and every subscriber to Background Notes a questionnaire asking what information you and your clients would like to see in an on-line database on countries and international organizations.

Another item we're developing with the electronic outreach is the high school and college debate programs. The Internet is an ideal means

of getting government information to debaters throughout the debating year. As many of you know, the Congressional Research Service of the Library of Congress produces a basic handbook of information on the debate topic at the beginning of the debate cycle. But after that, the debaters have been pretty much on their own to find additional information. Unfortunately, that has tended to mean that the schools with the richest resource base have an advantage over other schools or that urban/suburban schools have had an advantage over rural schools. We'd like to help level that playing field.

Our basic vehicles in supporting the debate programs are DOSFAN and CYFERNET, (Child, Youth and Family Education and Research Network) a program of the Department of Agriculture's extension service, which lets us offer many small communities a full range of documentary services. Included among its applications are the 4-H program, Department of Justice's Federal Partnerships Against Violence, Substance Abuse Prevention programs, Minnesota's Children, Youth and Family Information Clearinghouse, and others. This is the kind of service all educational communities turn to, and debaters should have no trouble finding it.

The GPO's Federal Bulletin Board Service, the BBS, because of its expense, is less attractive here, because we would like to say that we are offering the 200,000 debaters in this country absolutely free information on their topics. One can imagine that the Country Briefings will be a major asset to country-related debate topics. The debate topic for the upcoming debate cycle, for example, will be China, and we are planning to offer the widest amount of information on China possible, including consolidating information from other government sources.

That's an overview of a couple of concepts we're looking forward to. I'd like to take a minute to talk about some of our current projects and improvement we're making on them. For example, our U.S. Foreign Affairs on CD-ROM (USFAC).

As most of you know, USFAC is now a quarterly. The publishing schedule is December, March, June and September. USFAC has turned into a great little foreign policy library with more 4,500 documents from 1990 to the present. USFAC serves as an archive to information on DOSFAN, and every quarter about 300 documents are added.

The CD is probably unique: it was designed specifically for the American public by public affairs officers, not programmers, and it was designed with depository libraries in mind and in collaboration with librarians.

We invited members of the depository library community to advise us in its development, all the way from how to name it to conform to how students think about such materials, to beta-testing it. We greatly appreciated your practical suggestions. Many of you have also taken the time to provide valuable feedback on our current CD-ROM. Keep it up! Your clients are the beneficiaries of any improvements!

As a matter of fact, at your suggestion, the March 1995 edition of USFAC will include a Network Option Install program, which will turn off certain public access features such as the utility that lets a user quit to the DOS prompt. This Network Option is a direct result of feedback we received from some of you. Full directions on loading the NETWORK OPTION are in the WHATSNEW DOC on the March 1995 USFAC. This file pops up first when you load the disc.

As we get feedback from network users, we are enhancing the software. The June 1995 USFAC, for example, will disable the Notepad function to further protect your hard drives from meddling and provide strategies for redirecting temporary files. We are also working on other enhancements:

- USFAC IS NOW MAC and IBM COMPATIBLE.

- THERE ARE MORE "READY TO PRINT" FILES ON THE CD: The March 1995 release contains a full year of Dispatch and of Background Notes in Adobe Acrobat "portable document" files. ACROBAT is a new

technology that allows us to put the actual printed version on the CD. Although, at the moment, these print versions of publications are not searchable, they are printable, a handy feature for replacing lost copies of Dispatch magazine or Background Notes--and we know how publications like to wander.

- IN JUNE, WE'LL INCLUDE OUR FIRST FOREIGN RELATIONS VOLUME ON USFAC. This is an experiment for which we have high hopes. Basically, we are partitioning the CD to allow users to choose between current or historical data. The FRUS part of the CD will have its own separate search screens and reside in a separate database. PLEASE TAKE A GOOD LOOK AT THIS USFAC INNOVATION. Tell us what you think. The FRUS is: 1958-1960, Volume X, Part 1, Eastern Europe Region; Soviet Union; Cyprus.

- USFAC WILL BECOME WINDOWS COMPATIBLE IN OCTOBER 1995 AS WELL.

A final point. Librarians have consistently asked us about our plans to maintain hard copy. This much I can say. We are determined to maintain the hard copy Dispatch, particularly because of its importance as a publication of record and its continuity with the Department of State Bulletin. We wish we could maintain the faithful Background Notes in hard copy forever. We know what a mainstay they are for your libraries. But for reasons stated above, and because of the convenience of the CD, and because of budgetary and personnel realities, we are going to have to replace it with an electronic publication. But your clients can print them out, they'll never be lost or out of order again, and because of greater comprehensiveness and timeliness, we are confident that Country Briefings will eclipse in customer satisfaction anything the Background Notes were able to provide. Please keep us posted with customer comments and your own as this transpires.

Remember, we are all together in this great enterprise of making the best government information available to as many people as possible. We have benefited in the past from your efforts and abilities, and we know we can count on you in the future. Thanks for all your help; it's good to be your colleagues.

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Electronic Information Dissemination to the Public by the U.S. Treasury Department

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Treasury's public World Wide Web (WWW) server began providing services to the public in October, 1994. The server contains information on Treasury bureaus, services, who's who, and what's new. As might be expected during tax season, the most popular feature currently is the IRS tax forms and instructions found under the heading "Treasury bureaus" on the Treasury home page. An impressive feature for the student of history is the full color photo tour of the historic rooms in the Treasury building, which are not usually open to the public. Based on the very favorable comments received from the public to date, IRS tax forms, the Treasury Photo Archive, and information about the Bureau of Public Debt and the Customs Service are the most popular.

The server allows the public access through NCSA hyperlink to popular WWW client software such as Mosaic, which the customer can download. By supporting Lynx (in the future), the server will provide equal access to government information by sight-impaired individuals. Helpful hints for navigating the Treasury (WWW) server can be obtained by clicking on: "For a brief description on how to navigate...click here" in the center of the home page.

Treasury also disseminates business and economic information of interest to the public by means of the Treasury Electronic Library (TEL). The TEL is a directory of files contained on the FedWorld Bulletin Board System (BBS) and has been in use since August, 1993. The Treasury Secretary's speeches are posted to the TEL directly from the writer's desk, allowing the business and economic communities instant access to the data. The TEL also contains embargo and sanctions information of critical importance to the global online banking community, procurement newsletters and RFPs, information technology trends and studies, and status on important efforts such as simplified tax and wage reporting and electronic commerce implementation plans for Treasury procurements.

According to an NPR industry survey, there is an average reduction in resources on the order of seven to one that can be realized when processes are reengineered and information is disseminated electronically. Treasury is in the process of reengineering its internal processes by converting as much information as possible into electronic form. This improves productivity within Treasury by getting us closer to the paperless office, reducing the burden of responding to paper-intensive Freedom of Information Act (FOIA) requests, and allows for increased collaboration among Treasury organizations, other government entities, and industry. This increase in productivity enables a public good by also posting the information electronically for the public, at no cost to any user.

Treasury Electronic Library (TEL) currently contains the sanctions and embargo information for the global banking community. This is provided at an estimated savings of $50,000 annually to the banking community over previous methods. Since the TEL is also available internationally through the Treasury World Wide Web, it is estimated that Treasury saves $36,000 annually over previous methods. The global banking community can now more easily avoid

hundreds of thousands of dollars of unravelling innocently perpetrated illicit transfers due to lack of general knowledge, along with obviating ill-will on the part of foreign correspondents of U.S. banks.

Future Trend Alert, the most popular file on the TEL, is an instant way to communicate with the strategic planning community and exchange comments.

Treasury posted a new information systems life-cycle support manual on TEL that is in line with best practices in private industry. This saves not only printing costs, but also makes the manual easily accessible to those who are vision or hearing challenged. The IRS recently posted the entire Tax System Modernization (TSM) Design Master Plan on the TEL to request information from the vendor community and disseminate this document for industry comment. By posting it on the TEL, thousands of people are able to retrieve a copy instantly. One document, such as the Design Master Plan, can save as much as $5,000.00 in printing costs alone.

Treasury WWW Server demonstrations were held at the Partnership '94 small business conference in Los Angeles. The server also has a link to and from the White House server. The Treasury WWW server has received hundreds of favorable comments from the taxpayers and the general public extolling the benefits of receiving relevant and useful information. By keeping useful information in one electronic storehouse accessible to the Internet, it can then be accessed and used by an unlimited number of Internet connected PCs, kiosks, broadcast providers, and cable operators serving the global public on the State, local, Federal, or foreign government level anywhere in the world.

Access to the TEL can be verified via dial-up modem at (703) 321-3339 or the Internet via anonymous ftp or telnet to "fedworld.gov" or via Internet navigation tool (mosaic, netscape, cello, etc.) at http://www.fedworld.gov. Access to the Treasury WWW server via Internet navigation tool (Mosaic, Netscape, Cello, etc.) is at http://www.ustreas.gov. Accommodations for the disabled are provisioned by FedWorld and can be verified with Fedworld by calling (703) 487-4608.

The Government Information Technology Services (GITS) working group (chaired by Treasury) will provide the strategic planning and critical success factors to make an electronic government a reality. The faster the government leadership and workforce embrace the possibilities of information technology, the sooner the electronic government can become a reality benefiting the public.

IRS Federal Tax Forms CD-ROM

Dan Solari
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Washington, DC

Background - 1993 Pilot

The "1993 IRS Federal Tax Forms" CD-ROM was made available for the first time ever by the IRS as a pilot program in February, 1994. Multimedia Production, within the Chief, Strategic Planning and Communications area, released the CD-ROM of Federal Tax Forms for the 1993 filing season.

- The CD contained 500 of the most current Tax Forms and Instructions and 250 forms from 1991, all in Adobe's Portable Document Format (PDF).

- All required software to display, search words, and print the tax products was included on the CD.

- MS-Windows 3.x and a CD-ROM drive were required to display the tax forms and print them to various printers connected to a PC or network.

- The cost was $29 to the public, free to IRS offices.

- Distribution for the CD-ROM pilot included:

•180 CDs internally, i.e. Chief Counsel, Information Systems, Examination, Taxpayer Service, AC International, Service-wide Electronic Research Project Office, and Collection;

•640 sold to the public through the Government Printing Office; and

•562 distributed through the Federal Depository Library Program to depository libraries.

The 1994 Federal Tax Forms CD

An evaluation form was provided on the 1993 CD for feedback and evaluation. The CD was widely accepted as a powerful alternative to the paper equivalent. Many of the suggested improvements were implemented for the 1994 product. The improvements included:

- The addition of IRS Taxpayer Information Publications (TIPS), which included approximately 3000 pages of topic-oriented tax information in both Portable Document Format (PDF) and Standard Generalized Mark-up Language (SGML) formats.

- New search and display software making it easier to locate information across all products on the CD.

- A three-issue subscription plan for cumulative CD's released in December, January, and February. This would provide access to earlier-approved forms in December, with the later-approved items being added on the subsequent releases.

- The cost to the public for the three-issue subscription was $69. Free to IRS offices and depository libraries.

Ordering Information

IRS: Internal (IRS) distribution of the CD is made through the Area Distribution Centers.

Public: Subscriptions for the 1994 Federal Tax Forms CD-ROM can by purchased through the Government Printing Office's Superintendent of Documents. Using the stock number 648-094-00004-3, orders can be made:

- by telephone (202-512-1800);
- electronically through GPO's Federal Bulletin Board (202-512-1387); or,
- by mail using the Superintendent of Documents order form contained in the IRS Publication 1045 (Information for Tax Practitioners) mailed to many return preparers.

Printing Operations at the Treasury Department

Keith Lee
U.S. Department of the Treasury
Washington, DC

At Main Treasury, the Printing and Graphics Division consists of Printing Management, Graphics, Procurement and Reproductions Branches. Management Branch is primarily involved in developing Treasury printing policy and providing department-wide oversight, providing guidance and assistance on bureau printing and publishing requirements, ensuring compliance with JCP and OMB reporting requirements, managing the headquarters copier program, establishing performance measurements, providing strategic planning and automation planning, managing the departmental office forms program and the Division's overall budget.

The Graphics Branch is a "State of the Art" Mac Shop. It provides an array of graphics and presentation services, (vugraphs, 35 mm slides, PC slide shows), scanning and placement of photographs, typesetting, final artwork or negatives, color separations, photography, sketches, color copying service, calligraphy, poster, signs and certificate creations, forms and publications page layouts. The Graphics Branch also provides assistance with uploading and downloading to bulletin boards and electronic roadmaps to the information super highway; to name a few areas of their expertise.

We have an in-house printing plant that last year produced approximately 3,700 jobs totalling 26 million impressions. Those numbers reflect primarily departmental office duplicating jobs, but also include jobs from Treasury bureaus. We have procedures in place that send two copies of every pub/document to GPO to provide to the depository libraries if there is an interest.

Our Printing Procurement staff consists of six printing specialists, one printing clerk and the branch chief. They processed 4,500 jobs last fiscal year totalling approximately $15 million worth of printing for the departmental offices and bureaus. The printing specialists develop specifications, write printing contracts, serve COTR functions, conduct quality assurance inspections for printed products and assist their customers in the overall printing programs.

The Department of the Treasury is the largest civilian publisher of all Federal agencies. We are second Federally to the Department of Defense. Treasury bureaus include; IRS, Alcohol Tobacco & Firearms, Public Debt/Savings Bonds, The Mint, the Bureau of Engraving and Printing (BEP), Customs, Office of Thrift Savings, Financial Management Service, Office of the Comptroller of Currency, and Secret Service. IRS, Customs and BEP are our largest bureaus and have been sanctioned to buy their own printing through GPO. The Mint gets a special waiver through Congress to procure the printing for some of its special promotional printing. We buy over half of the printed products.

Treasury buys annually approximately $120 million worth of printing through the Government Printing Office. Approximately $15 million is for the departmental offices and all bureaus excluding IRS, Customs and BEP. IRS alone buys $100 million annually; of course the largest percentage is allocated for the major tax forms program area and the balance for other publications, documents and internal use forms. Customs procures in the

neighborhood of $4 million. The remaining one million of our estimate is spent through the agencies I mentioned that have special waivers to buy their own printing.

Some of Treasury's major publications that may be of interest to the general public include such items as:

Departmental Office (Headquarters)
- Foreign credit reports
- One-time reports of numerous studies on such diverse topics as banking reform; tax reform analysis; law enforcement (e.g., Waco Incident, White Security), financial markets.
- Historical information on Treasury and the Treasury Building

Alcohol, Tobacco and Firearms
- Quarterly Bulletin on firearms regulations
- State Laws and Ordinances for firearms
- Explosive Incidents Report

Customs
- Global Trade Talk magazine
- Customs Today magazine

Engraving and Printing
- History and features of currency
- Tour publicity material

Financial Management Service
- Government financial statements (monthly/annually)
- Treasury Financial Manual
- Promotional literature on electronic commerce and direct deposit
- Treasury Bulletin
- Government accounting systems information

Internal Revenue Service
- Tax Publications
- Internal Revenue Bulletin
- List of Tax Exempt Organizations
- Statistics of Income

U.S. Mint
- Promotional literature
- Coin and medal information

Bureau of the Public Debt
- Savings Bonds promotional material
- Savings Bonds redemption tables
- Buying Treasury Securities
- The Savings bond question and answer book
- Legal aspects of savings bonds

Secret Service
- Your money matters
- Counterfeiting and forgery information
- Recruiting publication

Electronic and Alternative Strategies:

Some of plans for the future include the installation of high speed reproduction machines that will allow electronic links throughout the Treasury bureaus and with other agencies to help offset the ever increasing cost of paper and to increase the speed of the dissemination of information.

Provide CD-ROM publishing of reference type products, and try to come up with ways of making better utilization of bulletin board and Internet access to share information.

A Universe of Information: An Introduction to NASA Electronic Resources

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NASA Headquarters Library
Washington, DC

National Aeronautics and Space Administration

World Wide Web (WWW) Information Services

Hot Topics -- NASA news and subjects of public interest

- NASA's Strategic Plan, Specific NASA Strategies & Policies
- NASA Public Affairs
- NASA Educational Programs, NASA Online Educational Resources

Starting Points for Finding NASA Information

- Point your Web browser to:
NASA's main home page at
http://www.nasa.gov/, or

NASA HQ Library's info locator at:
http://www.hq.nasa.gov/office/hqlibrary/sites/FindNASA.html

- Telnet to:
Spacelink at spacelink.msfc.nasa.gov

- Dial (with your modem):
Spacelink at (205) 895-0028
300 - 9600 baud

NASA Technical Reports

- Internal database:
  RECON

- Public Access:
  STAR (paper index)
  NTIS
  RECON select at
  http://www.sti.nasa.gov/RECONselect.html

A Few NASA Information Products

Planetary Data system provides digital data from NASA planetary missions and other observations.

http://stardust.jpl.nasa.gov/
ftp://starhawk.jpl.nasa.gov/
telnet://jplpds.jpl.nasa.gov/ (login: pds_guest)
dialup access: (818) 306-6914 (9600 baud) (login: pds_guest)
email: pds_operator@jplpds.jpl.nasa.gov

Space Telescope Science Institute operates the Hubble Space Telescope. Provides information about the telescope and data/ images retrieved from it.

http://stsci.edu/top.html
ftp://stsci.edu
gopher:////stsci.edu

Exploration in Education (ExinEd). As part of the Space Telescope Science Institute (StSci), this educational program produces Macintosh Hypercard picturebooks such as: Gems of Hubble, Images of Mars, and Apollo 11 at Twenty-Five (available via the Internet (free), or on CD-ROM or disk)

http://stsci.edu/exined-html/exined-home.html
gopher://stsci.edu/11/ExInEd
ftp://stsci.edu/ExInEd
dialup: (410) 516-4880 (login: guest
password: guest)
email: exined@stsci.edu

Spacelink provides resources for students and teachers. A good spot to find general NASA info.

http://spacelink.msfc.nasa.gov
telnet://spacelink.msfc.nasa.gov
(login: newuser
password: newuser)
gopher://spacelink.msfc.nasa.gov
dialup: (205) 895-0028 (300-9600 bps)
email: comments@spacelink.msfc.nasa.gov

Permanent Paper

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For more than a century most records have been produced on acidic paper. Acids severely accelerate paper deterioration, destroying paper fibers at the microscopic level. On October 12, 1990, Public Law 101-423, "Joint Resolution to Establish a National Policy on Permanent Papers" was issued, stating that Federal records, books, and publications of enduring value should be produced on acid-free permanent paper. Congress assigned joint responsibility to the Librarian of Congress, the Archivist of the United States and the Public Printer for monitoring implementation of P.L. 101-423 and reporting to Congress on such progress. The National Archives and Records Administration (NARA), Government Printing Office (GPO), and the Library of Congress (LC) have jointly prepared two reports to Congress on the progress of implementing Public Law 101-423. The most recent report can be accessed via the NARA Internet gopher, CLIO, at gopher.nara.gov.

In 1990, GPO and JCP surveyed Federal depository libraries and Federal publishing agencies to determine which kinds of publications should be created on permanent paper. The two groups identified the same top ten categories: legal material, monographs, statistics, journal and periodicals, catalogs and bibliographies, maps and atlases, reports, proceedings, handbooks and manuals, and environmental impact statements. The survey results are discussed fully in the 1990 GPO circular letter 328.

The Congressional Joint Committee on Printing (JCP) has defined two categories of long-lasting paper grades: permanent and alkaline. Alkaline is the category for paper expected to last at least one hundred years. Permanent paper has a life expectancy of several hundred years. (In contrast, generic paper has an uncertain life.) In the fall of 1994, JCP issued standards and specifications for paper grades that include five permanent paper types and sixteen alkaline paper types. Information about the standards are available in the "Government Paper Specification Standards, No. 10" which is available by subscription through the Government Printing Office, Superintendent of Documents.

NARA is currently preparing a bulletin to agency heads providing guidance on using permanent and alkaline papers for Federal records. The bulletin will recommend that agency printing officers and records officers work together to use permanent or alkaline paper grades for publications of enduring value.

U.S. Code on CD-ROM and on the Internet

Elliot Chabot[1]
U.S. House of Representatives
Washington, DC

In 1925 the U.S. Code consisted of one volume made up of a few hundred pages. This contained all of the Federal laws of general and permanent nature, then in force. The U.S. Code now runs over 30 volumes of over 1,000 pages each.

The Law Revision Counsel of the U.S. House of Representatives is, by law[2], the compiler and publisher of the U.S. Code. In 1977, the Counsel commissioned House Information Systems (H.I.S., the technology support arm of the House of Representatives) and the Government Printing Office to develop a pilot system to computerize the compilation and publication of the Code. The system (which became fully operational in 1979) gave the Counsel's staff the ability to electronically edit the Code. It also gave Congressional staff full-text search and retrieval access to the Code.

The system was expanded throughout the 1980's to cover more and more types of documents both at GPO (printing and publication) and H.I.S. (full text search and retrieval). These included the text of all Congressional bills and resolutions, the Congressional Record, the Federal Register, and the Code of Federal Regulations.

In 1991, the Law Revision Counsel (as part of his mandate to make the U.S. Code available to the public) asked H.I.S. to coordinate the production of a CD-ROM version of the Code. We surveyed the market, tested 13 different search products, narrowed the field to three, and finally recommended the I-Search and WPL products from Personal Library Software[3]. Because this was the first time an agency of the House of Representatives had produced a CD-ROM for public distribution, we were in unexplored territory. After extensive negotiations with PLS and after going through our own internal contract review process, the contract also went through the Law Revision Counsel, the General Counsel to the House Administration Committee, the Office of the General Counsel to the Clerk of the House, the General Counsel of the Joint Committee on Printing, and the Office of the General Counsel of GPO.

Once the licenses were all in place, technical development of the CD-ROM was carried out by the H.I.S. staff[4] with assistance from PLS and the Graphics Systems Development Division of GPO. Reed McMillan from GPO's Office of Electronic Information Dissemination Services[5] did the initial drafting of the CD-ROM's user manual.

The first edition was released in December of 1992 and sold out within five weeks. The second pressing of the first edition sold out in a matter of months. The second edition was released in October 1993 and sold out. The third edition was released in January 1995 and is still available through GPO[6]. We hope to have the 4th edition of the CD-ROM available for public distribution in July of this year.

For those of you who are thinking about producing your own CD-ROM, I would urge you to read Yvonne Kidd's article on the U.S. Code CD-ROM in the May-June 1994 issue of SIGCAT Discourse[7]. Each new edition of the CD-ROM has been an adventure--with software changes from the vendor and improvements in the data or the service. For the third edition (released last January), we moved the user support function from OEIDS to H.I.S. to bring support closer to product development. The fourth edition (scheduled for release this July) will add the Constitution, Declaration of Independence, Articles of Confederation, Northwest Ordinance, and U.S. Code Tables I to IX. The fifth edition (scheduled for release next year) will include a Macintosh search engine.

Timeliness of the U.S. Code has been a constant concern with the development of the CD-ROM. We currently issue a new CD-ROM after an entire new edition or cumulative supplement of the printed U.S. Code is completed. This means that, even under the best of circumstances, we do not release a new edition of the CD-ROM until the OK-to-print has been given on all 50 titles of the printed U.S. Code. Our solution to this time-lag problem is the Internet. On January 4, 1995, H.I.S. released the U.S. House of Representatives Internet Law Library[8], which includes a full text searchable version of the U.S. Code.

In fact, in addition to the version of the U.S. Code that is available through the GPO Access system, there are five versions of the U.S. Code available for free public use on the Internet. Two of these are available through the House (a gopher version[9] that is up-to-date through January 1995 for titles 1 to 12 and through January 1994 for titles 13 to 50, and a searchable World Wide Web version[10] that should shortly be up-to-date through January 1994) Additionally, there is a version available at Cornell[11] that is up-to-date through January 1993 and is searchable within individual titles; there is an experimental version of the U.S. Code (up through January 1992) available on the Internet through the Center for Intelligent Information Retrieval at the University of Massachusetts[12]; and a January 1991 version of the Code (with each title organized as a single file) on the etext.org gopher.[13]

We see the Internet versions of the U.S. Code as supplementing, not replacing, the U.S. Code CD-ROM. There will always be a need and a demand for permanent historical editions of the U.S. Code.

Notes

1. Elliot Chabot has headed up the automated legal support staff of the U.S. House of Representatives since 1981. Last year, in recognition of his work developing the U.S. Code CD-ROM, Elliot was named by Federal Computer Week as one of the 100 people who had the greatest impact of Federal computer use.

A graduate of George Washington University Law School, Elliot is a member of the Bar of the District of Columbia and of several Federal courts. On the Internet, Elliot has been known to lurk at Law-Lib, Net-Lawyers, Euro-Lex, Int-Law, and other such places.

2. 2 U.S.C. § 285b(3).

3. 2400 Research Boulevard, Suite 350, Rockville, Maryland 20850. Voice: (301) 990-1155. Fax: (301) 963-9738. E-mail: pls@pls.com.

4. The U.S. Code CD-ROM was the work of many hands. Special recognition, however, goes to Su-Hwa Chang (schang@hr.house.gov). Without Su-Hwa's contributions, the U.S. Code CD-ROM would have not been nearly as successful as it has proven to be.

5. Reed has since moved on to the SIGCAT Foundation, P.O. Box 3706, Reston, VA 22090. Voice: (703) 435-4661. Fax: (703) 435-5553. E-mail: mssigcat@aol.com.

6. The U.S. Code CD-ROM is available for purchase through the Government Printing Office (GPO) at (202) 512-1800, Monday through Friday, 8 a.m. to 4 p.m., Eastern Time. Orders

can also be sent by mail to:

Superintendent of Documents
U.S. Government Printing Office
P.O. Box 371954
Pittsburgh, PA 15250-7954

GPO accepts checks, VISA, and MasterCard. The cost is $36 and the stock number is 052-001-00389-6.

7. Kidd, Yvonne. "Federal Government CD's: U.S. Code on CD-ROM," SIGCAT Discourse, May-June 1994, pp. 6 & 14.

8. http://www.pls.com:8001

9. gopher://hamiltonl.house.gov

10. http://www.pls.com:8001/his/usc.html

11. http://www.law.cornell.edu/uscode/
Note: this database was created by the folks at Cornell downloading the text of the third edition of the U.S. Code CD-ROM.

12. http://ciir.cs.umass.edu/cgi-bin/web_query_form/morris/usc

13. gopher://gopher.etext.org/ll/Politics/Conspiracy/AJTeel/USC
Note: this database was created by the folks at etext.org downloading the text of the first edition of the U.S. Code CD-ROM.

Public Libraries and the Internet/NII

Peter R. Young
U.S. National Commission on Libraries and Information Science
Washington, DC

U.S. National Commission on Libraries and Information Science
P.L. 91-345 - 20 July 1970)

- NCLIS provides policy advice to:

•President and Congress
•State and local governments
•Private agencies

- Conducts studies, surveys and analyses of information needs of people of U.S.

- Develops overall plans

- Coordinates Federal, State, and local activities

- Recommends effective utilization of nation's educational resources

- Promotes research and development activities

NCLIS & National Research and Education Network (NREN): 1991-1992

- July 1991 White House Conference on Library and Information Services (WHCLIS):

•8 of 97 recommendations focus on NREN and library networks

- July 1992 NCLIS Open Forum: Library Roles in NREN:

•24 library and information services organizations involved

- November 1992 NCLIS report to Office of Science and Technology Policy:

•Rapid pace of change:
*Network access beyond research and education communities
* Institutional and personal network use
•Need to resolve conflicts & re-balance interests

NCLIS Survey of Public Libraries and the Internet: 1994

- January - March 1994 NCLIS conducts sample survey of 1495 U.S. public libraries re: Internet

•First national quick-response survey of public libraries and the Internet/NII
•Sample drawn from NCES public library universe file
•Study needed to provide base-line data to assist policy and plan development

- June 1994 NCLIS issues Report

•Public Libraries and the Internet: Study Results, Policy Issues, and Recommendations

*25 question survey instrument
*79 tables included in report
*85% response rate

NCLIS Survey of Public Libraries and the Internet: 1994

●Study findings:

•20.9% of U.S. public libraries connected to Internet
•13% of wired public libraries offer patron access to the Internet
•Support for public library provision of Internet services to patrons
•Disparities/variance between:
*urban/rural - size of population served
*geographic regions of country
*types of equipment and connection
*costs for Internet: $275 to $14,700
*Statewide initiatives and strategic planning are important motivation for Internet involvement
•42% of wired public libraries acquire Federal documents via Internet for patrons
•Support for Federal role in assuring public library connectivity to Internet

NCLIS Internet/NII Policy Forums: 1994

●September 1994 - NCLIS conducts briefing on role of state library agencies in Internet/NII

●15 State Library networking presentations

•TN, NC, FL, IA, NE, MD, NY, RI, NJ, DE, CO, UT, CA, LA
•Need to identify models for further development
•Great diversity of state networking environments
•Call for continued Federal investment (LSCA Title III, HEA IIb, NTIA/TIIAP)
•Support needed for training and connectivity

NCLIS Internet/NII Policy Forums: 1994

●September 1994 - NCLIS conducts briefing on federal role relating to libraries and the Internet/NII

•Planning the Federal Role
*Administration, Executive Branch Agencies, Congress, NCLIS:
•Work to clarify library roles and needs
•Critical need to restructure and reauthorize Library Services and Construction Act (LSCA) to address Internet/NII
•Coordinated Federal role essential to assure library involvement in Internet/NII
•Federal policy action needed on issues related to standards, privacy, security, intellectual property rights, fair use, and telecommunications regulatory reform

Libraries and the Internet/NII: Developing Cost Assessment Models: 1995

●September - May 1995: NCLIS project to develop cost assessment models for libraries and the Internet/NII

•Identify/explore economic impact
•Focus on public library and state networks
•Identify cost factors and develop cost models
*hardware and software
*facilities upgrades/maintenance
*telecommunications charges
*training and education
*program planning/management
*resource content
•commercial services
•location/organization
•digitization

Libraries and the Internet/NII: Developing Cost Assessment Models: 1995

●Public Library/Statewide network case studies/site visits
•Seattle Public Library
•Onondaga (NY) County Public Library
•Charlotte/Mecklenberg (NC) County Public Library
•Maryland State Library (Sailor)
•North Carolina State Library
•Nicolet (WI) Library System

●Planning/tracking cost worksheets

●Findings:
•need for more standardization
•comparisons difficult
•need to share experiences
•need to extend study to academic and school libraries

ReGo: Climate of Change and Uncertainty, 1995-1996

●New majority in 104th Congress

•Changing political priorities and issues
•Changes in Federal information dissemination policies and responsibilities
•New public/private relationships
•FY 1995 appropriation recissions
•FY 1996 budget decisions this spring/summer

●National Performance Review
•NPR Phase 1: How to make government work better and cost less?
•NPR Phase 2: What is essential Federal role?
•Eliminate, privatize, and devolve programs
•Reinvent, restructure, & reduce
•Performance partnerships

Changing Federal Perspective

1994
•Federal investment
•Reinvent government
•Equity
•Federal subsidies
•Deficit reduction
•VP Gore & NII
•NPR I - ReGo
•Universal service
•Reform regulations
•Preferential rates
•"Fair Use"
•Congressional gridlock

1995
•State/local initiatives
•Eliminate agencies
•Competition
•Block grants
•Balance budget
•Public/Private Partnerships
•NPR 2 - Elimination
•Universal access
•Unregulated market
•Privatization
•Protect ownership
•Contract with America

Concluding Personal Observations

●Networks change relationships
  •Access to public information
•Nature of community redefined
•Libraries essential for contextual meaning

●Library involvement with networks:
•Economic competitiveness rationale
•Evolutionary development of focus:
  *computers
  *conduit
  *content
  *context

●Interactive networks change political, economic, and social processes

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