From "Govdocs" to cyberspace: The transformation of government information

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From the beginning of the computer era, many observers have recognized that computerization has the potential to profoundly impact the ways in which libraries carry out their mission. Early scholars investigating potential uses of computers posited new types of information retrieval systems with direct and profound implications for libraries (Bush, 1945). Such speculation was not limited to the academic world, however. The 1957 movie The Desk Set, starring Katharine Hepburn and Spencer Tracy, gave a lighthearted look at a corporate executive's efforts to replace librarians with a computer. Such early predictions presaged the eventual movement of computer technology into libraries, which affected everything from how we acquire and process materials to how our patrons access data. Recent years have seen a marked quickening of the pace of innovation. What began as a gradual and manageable incorporation of new technologies has become a revolution in our methods and activities, fundamentally altering what it means to be a library.

The recent development of the Internet as a widely used research tool has been a major contributing factor to this revolution. Government agencies have participated fully in this technology-driven revolution, moving swiftly to take advantage of new methods to disseminate information. The field of government information has become one of the most rapidly changing specialties in librarianship over the past decade.

As the widespread availability of personal computer technology worked its changes on society in the 1980s and 1990s, budgetary constraints caused government publishers to be among the first to adopt new electronic methods of distribution. For congressional budget makers grappling with soaring budget deficits, agency publishing programs and the Government Printing Office's operations have been tempting targets for potential cost savings. This has led data collection agencies in particular to look for ways to disseminate their products in the most cost-effective manner. The Internet provides an ideal vehicle from an information producer's point of view. It avoids the materials costs and transportation costs associated with traditional print publication, allows for rapid dissemination of data, and provides information to users in usable form.

Users are most affected by the drawbacks to Internet dissemination. The need to purchase expensive equipment, the need for a telecommunications link, the need to provide paper for hard copies when needed, and the need to develop new skills in using electronic formats are all barriers encountered by users. In such a situation, it is no wonder that government agencies as publishers have moved swiftly to embrace the technology, while libraries and end-users face a more ambivalent situation with both benefits and drawbacks.

This transition to electronic dissemination of government information has been both swift and widespread, covering all types of government information products and all levels of government. Getting an intellectual grasp of such a broad and profound transition can be difficult, but perhaps the easiest way to track and understand it is to look at selected key information programs and examine how the transition has occurred.

Census Data
The decennial census of population and housing is perhaps the best known and most widely used statistical activity of the U.S. federal government. Required by Article 1, Section 2, of the Constitution for legislative apportionment, the first population census was conducted in 1790, with subsequent censuses every 10 years since. Statistical tabulations of data from the census have been published in print format from the beginning. These tabulations were published as volumes in the Congressional Serial Set in the 19th century and more recently in increasingly voluminous series of print reports from the Bureau of the Census.

Prior to the 1990 census, print was the only format in which data was distributed through the Federal Depository Library Program. While data in electronic formats was available for censuses dating back to 1960 (and some data from even earlier censuses was converted retroactively), such data was not widely distributed and was available only in large research institutions with adequate computing power. The 1990 census was the first for which electronic formats were part of the regular mix of data products for inclusion in the depository library program and for sale to the general public. The Census Bureau produced a full range of print reports tabulating results of the census for all geographic levels, while at the same time producing several series of CD-ROM products. These CDs were produced for Summary Tape File 1 (short form data), Summary Tape File 3 (long form data), Public Use Microdata Samples (PUMS), TIGER files (including spatial data for inclusion in GIS systems), and a variety of special-
use and subject-specific tabulations. All of these products were made available through the Federal Depository Library Program, the State Census Data Center program, and the Government Printing Office sales program. As the Internet gained wide popularity in the middle part of the decade, the data was also made available online, both through the Census Bureau's own Web site and through other sites such as Oregon State University's Government Information Sharing Project. Thus, data from the 1990 census was the first to be widely available in electronic formats.

As of this writing, the year 2000 census is two years away. The Census Bureau has announced plans for the distribution of data from this census, and they look quite different from what occurred with the 1990 data. The primary mode of access for data from the year 2000 census will be the Data Access and Dissemination System (DADS), an Internet-based data retrieval system (United States. Bureau of the Census, 1997). CD-ROMs will still be produced, but will have relatively less importance than the online DADS system. While some print reports will still be published, these will be greatly reduced in size and scope, serving as summaries of the data rather than as detailed tabulations. It is clear that 1990 was truly a transitional year for the population census. Prior to 1990, most people obtained data from the census via printed reports. Subsequently, most data will be accessed via electronic means. The 1990 Census is destined to be the only one in which print and electronic formats play a roughly equal role in disseminating data to the general public.

GPO ACCESS
One of the most significant Internet sites for government information is GPO Access, the Government Printing Office's collection of online databases. GPO Access provides access to the full text of congressional bills and resolutions, the Congressional Record, and other significant legislative and regulatory documents. This site was developed as the result of the Government Printing Office Electronic Information Access Enhancement Act of 1993 (107 Stat. 112). This landmark legislation, signed into law June 8, 1993, required GPO to establish and maintain an online directory of federal publications stored in electronic format and to provide online computer access to the Congressional Record and the Federal Register, along with other federal publications deemed appropriate by the superintendent of documents. This legislation gave GPO a mandate to move forcefully in the direction of providing online access to publications it had traditionally produced as paper documents. GPO had eagerly sought this mandate (United States. Congress, 1992, p. 10-12) as a means to preserve its traditional role as the government's publisher in the new era of electronic dissemination.

As initially implemented in the summer of 1994, GPO Access was a subscription-based WAIS server. Depository libraries were provided a free subscription for a single workstation; all other access was by paid subscription only. GPO implemented this subscription model on the basis of the cost-recovery concept included in the enabling legislation. Within a few months, pressure from the depository library community led GPO to provide additional access to depositories, giving each library up to 10 subscriptions to the service. Under pressure from public advocacy groups such as the Taxpayer Advocacy Project, GPO also instituted a “library gateway” program in which selected depository libraries would serve as gateways for larger numbers of public users to access the databases.

GPO was soon to come under additional market pressures, however, as the congressional elections of 1994 led to the Republican Party taking control of Congress for the first time in a generation. Acting under the directive of the new Republican leadership of the 104th Congress, the Library of Congress brought the “Thomas” World Wide Web system online in January 1995. “Thomas,” named after Thomas Jefferson, provided much of the same information as GPO Access, but at no charge and using standard Web browsers as the access tools. This was great news for Internet users but had the effect of making GPO look bad. While Congress had required GPO to charge for its services, it had encouraged the development of a competing product that used GPO’s source data but was provided free. GPO responded by expanding and re-emphasizing the free access available through the depository library gateway program and eventually dropped subscription fees altogether.

WORLD NEWS CONNECTION
A third major data product that highlights some important points about the transition toward Internet distribution is the World News Connection (WNC). WNC is an online news service that provides translations of news and information from local media throughout the world. It is the electronic continuation of the Foreign Broadcast Information Service (FBIS), a translation service of the Central Intelligence Agency. Although geared toward providing U.S. government officials with access to foreign news media, FBIS has long been popular among researchers as a good means of tracking news reports from around the world. The National Technical Information Service (NTIS) provides access to WNC on the World Wide Web through its FedWorld server. Access to the database is by subscription.
only, with depository libraries required to pay for access along with everyone else.

WNC has been the target of criticism from a variety of sources. NTIS has long had a somewhat antagonistic relationship with the depository library community due to its cost-recovery model for disseminating government information and its narrow definition of what material is subject to depository distribution. It was no surprise, then, that government documents librarians expressed unhappiness about the previously depository FBIS material now being made accessible only as an electronic database controlled by NTIS, with no provision for depository access. NTIS has also been strongly criticized by the Information Industry Association and NewsBank, Inc., because they perceive the WNC as a government subsidized for-profit venture that unfairly competes with private sector publishers (United States Congress, 1997).

**Issues and Concerns**

These three quite different government projects illustrate some key issues surrounding the conversion of print publications to online distribution, many of which are far from a satisfactory resolution. Although all three examples are drawn from the federal government, these issues are equally relevant for all government entities, from the smallest local jurisdiction to international organizations, as they cope with the task of establishing policies for handling the transition.

The question of how long to continue providing the data in both the old format and the new online version can be a difficult one. Online distribution provides savings of money and resources only if the print equivalent can be discontinued or distribution drastically curtailed. Yet, with the availability of personal computers far from universal and with widely varying levels of technical skills for accessing online information still very evident within the general population, premature discontinuation of printed reports represents a real decrease in accessibility of vital government information and a further exacerbation of the gap between the information-rich and the information-poor. Dual formats are an ideal solution from the standpoint of making the content widely available, but cannot realistically be continued for long except for the most important publications. The Census Bureau has decided that in the future printed reports will be limited to small digest-like summaries, the 1990 census serving nicely as a bridge between the earlier print era and the new digital age. GPO, while having committed to transitioning to a more electronic depository library program, has a less clearcut timeline for phasing out print equivalent publications.

Archival issues are another major concern. In the past, an agency could consider its responsibilities met once the process of printing and distributing a publication had run its course. The fact that a report had gone “out of print” and could no longer be obtained from the publishing agency usually did not have a disastrous effect on its availability, thanks to the copies that had been obtained by libraries and archives. If the publication is only distributed online, an altogether different situation exists. Libraries will then provide access by linking to the online source and providing assistance to patrons trying to find and use the data. No copy exists in the library, so a conscious decision must be made at some point to permanently store the information in an accessible format. For data of obvious enduring significance, such as census data and congressional documentation, that should not be a problem, as the responsible agency will take pains to store the data indefinitely. In other cases it may not be so clear. If an agency keeps a Web server with only its most recent reports online, what happens to the report once it is taken off the server? One would hope that, at the least, the agency would provide a copy to the official archive. Such a copy would be only minimally accessible to most citizens, however. Even seemingly insignificant ephemeral publications potentially have value to future scholars and historians. Unless publishing agencies have a definite plan for archiving, however, much of our total output of electronic information is in danger of being lost because no one is assuming responsibility for storing it. Government agencies are not accustomed to taking such responsibilities themselves. Neither is a given library likely to unilaterally take the responsibility for particular sets of electronic documents,

![1997 World Factbook](image)

The CIA World Factbook, while still being published in a print edition, is now available on the web.

Online dissemination of information provides real benefits, both in terms of cost savings and better access. Publishing agencies will reap the full effects of both these benefits only if they carefully plan their online distribution strategy. Access is improved both in timeliness and in wider availability. In terms of government information, this is particularly a boon to those libraries that have not participated in depository library programs in the past. These libraries now can provide their patrons access to a wide

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Into the Next Century
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forth by GPO are similar to those of the IAWG, but there are also some significant differences.

Regardless of the prospects for Title 44 reform, it is noteworthy that critical reform affecting public access to government information has already been made with the passage of the GPO Electronic Information Access Enhancement Act (P.L. 103-40), which gave GPO statutory direction to disseminate and build electronic locator services for electronic government information products. GPO’s current activities and future planning are based on the success of GPO Access.

Government Documents
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libraries in Oregon would be a shared subscription to a Web-based database of GPO records. Both Autographics and Marcite offer such databases, which include records for U.S. depository documents from 1976 to date. A library holdings feature enables users to find out which depository libraries in the state select a particular document title. The holdings information in these databases is based on current item selection profiles rather than bibliographic records, so only the information for new and recent documents could be considered completely reliable.

Longtime DIGOR members recalled that the organization had surveyed Oregon depository libraries some years ago on their collection strengths and interests. An update to this survey could be used to construct a state prospectus for documents collections. Such a document would aid cooperative collection efforts and help both depository and nondepository staff make more effective government information referrals.

Several participants expressed concern about whether existing standards for cataloging electronic versions of publications are meeting the needs of government information users. When does a “version” warrant creation of a new bibliographic record? How should “holdings” for electronic publications be expressed in the catalog record? How do catalogers decide which URL (Universal Resource Locator) to include in the MARC 856 field for Internet linking? In this age of shared cataloging and shared union catalogs, it is important for us to reach consensus on these issues here in Oregon, as well as on national and international levels.

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range of information that was previously very difficult for them to acquire. Depository libraries likewise stand to benefit from easier access without having to process and catalog incoming print documents. They will have vital roles to play in serving as a resource for those less familiar with government information, in training others how to locate and interpret the data, in developing finding aids and other tools to enhance access to the online data, and in advocating for responsible approaches to ensure continuing access to the information. The realization of these benefits will occur only if we take care to resolve the remaining difficult issues in managing this important transition.

REFERENCES:

CONCLUSION
The public, depository libraries, and the government all benefit from the efficiencies afforded by a centralized indexing and distribution system, such as the FDLP, which ensure the wide availability of government information products in all formats and media at no charge to the user. This will continue to be true in the future, as the amount of electronic information products produced by government agencies grows. GPO will be working to develop and evolve its systems so that citizens are assured of having permanent access to federal government information even after the calendar flips to that magical year of 2000.


Growth and Development
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Director at PSU to study whether or not it should remain the regional depository, documents librarians rallied and provided strong reasons for PSU to continue as the regional. I appreciated that support very much. In order to increase the base of support for these activities and to educate more people about the importance and usefulness of government publications, DIGOR last year voted to become a roundtable of the OLA. Members hope that this new formal affiliation will broaden DIGOR’s membership base and be another step in spreading the word about the importance of government information.

Documents librarians have had to fight for years to keep the depository system afloat. There have been constant attempts from various groups inside and outside the government to break up the GPO, privatize it, move it to one or more other agencies, or to move or change the depository system. During these battles, various agencies have either refused to distribute publications or attempted to charge for publications in microform or electronic format. Both the GPO and federal depositories have had to work hard to maintain and increase the numbers of publications in the depository system.

During the 1990s the Internet revolution struck government agencies just like it struck everyone else. Congress thought that the Government Printing Office could be virtually eliminated by having agencies publish everything electronically. Little practical thought was given as to how much money it would cost to convert everything to electronic format and how such a move would be received on the public’s end. Documents librarians have led the way in educating over-eager government officials to the fiscal and technical realities of relying solely on electronic access to government information. This battle has also been waged on the local level here in Oregon. The issue of electronic access is the most important issue facing documents librarians today. Ways must be found to ensure that government information is available promptly, easily, and permanently. Given the record of involvement Oregon depository librarians have shown in the past concerning access to government information, I have no doubt that they will continue to be involved in this issue in the future.

It has been a privilege to work with some fantastic librarians over the past 29 years in Oregon and the Northwest. I feel that documents librarians are among the most underrecognized librarians of all. There are many unsung heroes in the documents world, and Oregon has had a number of them. I don’t want to slight anyone, but among the people I have had the pleasure of working with over the years are Candy Morgan, Craig Smith, and Dick Myers of the Oregon State Library; Patrick Grace and Judy Cross of Oregon State University; Deb Hollens, Southern Oregon University; Roy Bennett, Western Oregon University; Arlys Fonnes, Multnomah County Library; Louise Gerity, Lewis and Clark College; Alex Toth, Pacific University; Karen Hadman, Bonneville Power Administration; Tom Stave, University of Oregon; and Oren Ogle, Portland State University. In addition, I have worked closely with librarians in Washington and Idaho, particularly Ann Bregenti, the Washington State Library; Eleanor Chase, the University of Washington; and Ili Wai, the University of Idaho.

As access to government information is increasingly only available electronically, it becomes even more apparent that no one library can have everything available that patrons might need. It is especially obvious that the regional library cannot be all things to all people. A strong movement has begun to develop partnerships with government agencies to help spread the load among depositories, agencies, and the GPO. Because Oregon documents librarians have always worked cooperatively in this state and the Northwest, I have no doubt that they will soon be involved in some of the partnerships now being developed.

A new group of bright young documents librarians have now moved into the state who will, I am sure, carry on the tradition of those I have mentioned. Among these are Ted Smith, University of Oregon; Carrie Ottow, Oregon State University; Arlene Weible, Willamette University; and Dena Flutto, Reed College. I will watch the work our documents librarians have done and are doing with that of any state in the country. Our librarians have the dedication and knowledge to ensure that Oregonians continue to have free and equal access to government information in whatever new formats are developed. The people of Oregon should be proud of what all these dedicated librarians have accomplished and are accomplishing. The depository library program in Oregon will be in good hands for some time to come.