Government Information in the Digital Age:
The Once and Future Federal Depository Library Program

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ABSTRACT:
Rapid technological change has caused some to question the need for the Federal Depository Library Program (FDLP). We argue that the traditional roles of FDLP libraries in selecting, acquiring, organizing, preserving, and providing access to and services for government information are more important than ever in the digital age.
In the United States, there are deeply rooted values that a democracy requires an informed citizenry, that government must be accountable to its citizens, and that citizens therefore must have full, free, easy access to information about the activities of their government.\(^1\) These values have led to the creation of the Joint Committee on Printing (JCP), Government Printing Office (GPO), and the Federal Depository Library Program (FDLP)\(^2\) to facilitate this process.

Over the last several years, developments in publishing and Internet technologies have affected the way government information is produced, disseminated, controlled, and preserved. These changes have affected the policies and procedures of the GPO and, in turn, have affected the depository library program. Despite the often-heard promises that these new technologies will bring more information to more people more quickly and

\(^1\) The Declaration of Independence listed among other grievances against King George that "He has called together legislative bodies at places unusual, uncomfortable, and distant from the depository of their public Records, for the sole purpose of fatiguing them into compliance with his measures." Thomas Jefferson wrote to Charles Yancey in 1816, "The functionaries of every government have propensities to command at will the liberty and property of their constituents. There is no safe deposit for these but with the people themselves, nor can they be safe with them without information." Thomas Jefferson, *The Writings of Thomas Jefferson*, ed. Andrew A. and Bergh Lipscomb, Albert Ellery (Washington, D.C.: Issued under the auspices of the Thomas Jefferson Memorial Association of the United States, 1905). v.14 p.384. James Madison famously noted, "A popular Government without popular information, or the means of acquiring it, is but a Prologue to a Farce or a Tragedy; or perhaps both." James Madison Letter to W.T. Barry, August 4, 1822, in James Madison, *The Writings of James Madison Comprising His Public Papers and His Private Correspondence, Including Numerous Letters and Documents Now for the First Time Printed*, ed. Gaillard Hunt (New York: G.P. Putnam's Sons, 1900).

easily, the actual effects have been decidedly mixed. The few highly visible, short-term successes of rapid dissemination of single titles directly to citizens (e.g., the large number of downloads of the 9/11 report\(^3\)) mask the loss of a secure infrastructure for long-term preservation of and access to government information.\(^4\)

Many earnest people are confused by these developments and even what the issues are. Libraries and librarians wonder aloud what their roles will be in the future provision of government information.\(^5\) Some of the reasons for this confusion are that the changes have been rapid and pervasive, the technological nature of the changes has made their implications obscure, and their effects are not only technological but also economic and affect the financial conditions under which GPO operates.


While GPO has taken a leading role in developing online access tools\textsuperscript{6} and proposing "a new model for no-fee public access"\textsuperscript{7}, the steps it is taking and the plans it is outlining are, at best, incomplete and, at worst, badly flawed. Oddly, even as GPO identifies the need for adequate funding for public access to government information it deprecates the role of depository libraries that provide large amounts of independent funding for long-term preservation and access to government information. While recognizing that it cannot rely solely on Congress for funds it nevertheless plans to increase the scope of its role without any long-term guarantee of adequate funding. While talking about public access it omits and avoids opportunities to assure that access will be free and fully functional.

We believe the GPO’s proposed model will do more to endanger long-term access to government information than ensure it. Libraries have been slow to offer alternatives. Many librarians have even supported GPO's proposals -- perhaps because the long-term implications are not clear.

This paper will examine critically GPO’s proposed vision and its possible effect on public access and preservation of government information. We will explore this within the context of the life cycle of government information and address the roles of various stakeholders in that life cycle. Such an examination will help identify all the stakeholders and define their roles in creating an infrastructure that will guarantee, not just the creation and rapid distribution of government information, but the integrity of that information and assurance of the long-term preservation of and free access to the record of our democratic government. Furthermore, this paper will provide a vision of the future of the FDLP that recognizes the values the country places on public information and will outline the role of libraries in ensuring long-term access to government information.

\textbf{Background}

Since 1860, GPO has had primary responsibility for the printing, distribution, and sale of government publications. This has had two important effects. First, ideally, every government publication would pass through GPO giving GPO an opportunity to create a

\begin{itemize}
  \item \textsuperscript{6} Most notably, \textit{GPO Access}, \url{http://www.gpoaccess.gov}.
  
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"classified list of Government publications." The effect of this has been to create bibliographic records – not just a single "classified list" – and thus enable a national bibliographic infrastructure to include publications of the federal government along with other publications. The value of the GPO's work was not just the creation of a list (the old *Monthly Catalog*), but also the creation of bibliographic information that was usable and reusable by others to create library catalogs, bibliographies, and so forth.

Second, GPO then "distributed to depository libraries" copies of these publications. The explicit effects of this were to provide long-term preservation of and free, local access to government information in a distributed system of federal depository libraries. In this system, the cost of preservation and access is borne by, and the control of the information is therefore located with, hundreds of entities, not just the federal government or a single federal agency. This was a true partnership where GPO and FDLP libraries played complementary roles.

**Current Conditions**

This almost 150 year old partnership between GPO and FDLP has worked well. However, the rapid expansion of digital publishing and the World Wide Web have brought about challenges to this traditional system.

The traditional mission of GPO (printing and selling publications) is being made increasingly irrelevant by technological change. Because so much government information is being produced digitally and not in paper and ink, GPO is doing much less printing and is selling many fewer publications.

In addition, it is becoming increasingly routine for government agencies to produce their own documents digitally and make them available directly to the public through the World Wide Web. One consequence of this is that agencies increasingly bypass the

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9 Ibid.

GPO’s processes as well as the requirements of Title 44, resulting in so-called 'fugitive' government publications – publications that are not entered into the national bibliographic record nor distributed to FDLP libraries. Fugitive documents are a problem because they are harder for citizens to identify, locate, and obtain than documents that are listed in and distributed to depository libraries.

**GPO’s response to current conditions**

GPO has been attempting to change what it does and even its very mission in order to cope with these new conditions. It is attempting to focus on information dissemination rather than printing. As it attempts to deal with the technological and financial changes brought on by digital publishing, it is beginning to define a “new economic model” for


the GPO sales program, a “new model for the Federal Depository Library Program”\textsuperscript{15} and, in turn, an expanded role for itself that ignores the successes of the current distributed system.

\textit{Free access vs. cost recovery}

GPO’s recently released strategic plan lists three “essential missions.” Two of these missions conflict with each other. The mission of providing “free and ready public access” to electronic documents conflicts with the mission of distributing electronic documents “on a cost recovery basis.”\textsuperscript{16} This is not just a theoretical problem. GPO has already tried to do this and failed when it charged for \textit{GPO Access}.

10 years ago, GPO tried to charge for information distributed on the Internet, but it cost GPO more to collect the money than was made. So GPO made it free to the general public. This cannot continue. GPO needs to create a business model and bring revenues in the door so it doesn’t have to go to Congress all the time.\textsuperscript{17}

The problem GPO came up against when it tried to charge for \textit{GPO Access} was that depository libraries had full, free, unencumbered access to the exact same service. Any new plan that creates a business model that will bring revenues in the door will fail again if it also provides equally functional access to the public through depository libraries. Thus it would seem that GPO must either inhibit free access in some way or face another business-model failure.

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Further, this is not just a difficult technical problem for which GPO needs to find a clever solution; it is an important policy issue that has troubling implications for free public access. The reason for this lies in the very nature of digital information – information packets that can be freely and easily distributed and reproduced. In order to charge for digital information, it is necessary to reduce functionality of or limit access to that information until payment is made. The use of technical tools to accomplish this is already widespread in the entertainment and information industries. To use such tools to provide a technical solution to GPO’s conflicting missions could greatly diminish free public access to public information by, for example, reducing the functionality of information products by prohibiting downloading or printing to non-paying customers or by requiring users to register to read public documents.

This is not a hypothetical concern. The issue of “viewing” versus downloading and the question of full functionality of freely accessible materials is one that has been discussed publicly. At the 2003 Depository Library Council (DLC) meeting a librarian asked Mr. Bruce James, Public Printer of the United States and head of the GPO, about the model that the National Academies Press uses (viewing one page at a time is free but a fee is charged for downloading a document). Mr. James did not say GPO would not do this, he...


19 For example, Digital Rights Management tools that restrict access and use of sound recordings and movies; web sites that require payment to get copies of documents that are downloadable or printable; services that require users to register and provide personal information to obtain or read documents; and authentication tools such as the Digital Object Identifier (DOI) that are designed, not just to verify the authenticity of a document, but also to check “the customer’s authority to access it,” protect copyright, and prevent “piracy.” For more details on DOI, see David Sidman, “The Digital Object Identifier (DOI): The Keystone for Digital Rights Management (DRM)” Draft submitted to the SIIA Digital Rights Management (DRM) Working Group, January 26, 2001. [http://www.contentdirections.com/materials/SIIA-DOIandDRM-DavidSidman.htm](http://www.contentdirections.com/materials/SIIA-DOIandDRM-DavidSidman.htm) (Accessed February 4, 2005). For an example from GPO, see how it made its own 2004 Annual Report available through a commercial service: [http://www.gpo.gov/congressional/index.html](http://www.gpo.gov/congressional/index.html) (Accessed February 4, 2005). Note the 3700 word “terms of service” document [http://www.zinio.com/terms](http://www.zinio.com/terms) (Accessed February 4, 2005).
simply responded noncommittally, "Interesting."\textsuperscript{20} The issue of full-functionality was brought up twice on govdoc-l, the government documents librarians’ mailing list,\textsuperscript{21} but GPO did not respond. GPO has yet to demonstrate how it can provide fully-functional, freely accessible information while pursuing a cost recovery model.

\textbf{FDLP under the GPO vision}

What of the FDLP? Mr. James\textsuperscript{22} and the GPO strategic plan have addressed the issue of the FDLP’s restructuring. GPO’s new model for the FDLP is evidently designed to accommodate its mission of cost recovery and avoid another business-model failure. GPO lays the foundation for this in its strategic plan but has yet to specify the details of implementation. The plan calls for a “partnership with federal depository libraries,”\textsuperscript{23} but describes a partnership in which the traditional role of libraries is greatly diminished.

The plan’s ‘new model’ for the FDLP includes providing FDLP libraries “access” to documents, but says nothing about depositing digital publications in depository libraries. It speaks of providing search tools and “training to depository librarians to enable them to


\textsuperscript{21} Jim Jacobs, email to Govdoc-l mailing list, October 27, 2004, \url{govdoc-l@lists.psu.edu} “Depository Library Conference and DLC Meeting” \url{http://lists1.cac.psu.edu/cgi-bin/wa?A2=ind0410d&L=govdoc-l&T=0&F=&S=&P=7778}. Mr. Jacobs’ question “Will GPO Guarantee full functionality of free access” was addressed to Council members, GPO, and other DLC attendees. In a separate email to govdoc-l, a report of Cathy Hartman, GODORT Councilor, forwarded by John Stevenson, GODORT Chair, listed the same as one of GODORT’s “issues and concerns.” John A. Stevenson, email to Govdoc-l mailing list, November 11, 2004, govdoc-l@lists.psu.edu "Update from the Government Documents Round Table" \url{http://lists1.cac.psu.edu/cgi-bin/wa?A2=ind0411B&L=govdoc-l&P=R5207&I=-3} (Accessed January 21, 2005).

\textsuperscript{22} Regarding the restructuring of the FDLP, see for example Mr. James’ March 2004 testimony to the Legislative Branch Subcommittee Hearing on the FY05 Budgets for the General Accounting Office, Government Printing Office, and Congressional Budget Office. etc. regarding restructuring of FDLP \url{http://appropriations.senate.gov/hearmarkups/record.cfm?id=218689} (accessed February 14, 2005)

\textsuperscript{23} GPO, \textit{Strategic Vision}, 1.
better serve their clients in locating and using Federal information” but nothing about managing digital collections. It says that FDLP libraries will be able to “substitute available electronic documents for printed documents” but again avoids saying that it will distribute or deposit such documents.\(^\text{24}\) In the GPO plan, digital materials will be in a "Digital Publication Content system" which it describes as "a complete FDLP digital information collection."\(^\text{25}\)

With these goals, GPO treats libraries as it does other users – no documents are deposited, and libraries are free to “access” materials held by GPO and other government agencies. This leaves GPO free to impose access restrictions, or charge for information access, or both. The plan significantly omits any mention of FDLP libraries having collections that they manage and even omits specifying that the public will be permitted to download or print documents.

These omissions are either severe oversights or intentional changes in policy. If they are changes in policy, then this, coupled with the drastic reductions in printed publications,\(^\text{26}\) means that GPO will no longer be depositing documents in depository libraries. This, combined with GPO’s cost recovery model of distribution of digital information, will mean a reduction in free public access. The government, not libraries, will have collections and will decide what will be in them and who will have what level of access at what cost.

GPO’s new model for the FDLP envisions not 1300 libraries but “a reasonable number of comprehensive collections of tangible Government publications.”\(^\text{27}\) To us, this “reasonable number” implies a reduction in the number of depository libraries. The GPO

\(^{24}\) Ibid, Section IV. C., 2.

\(^{25}\) Ibid, Section V. I. 4, 8.

\(^{26}\) GPO recently announced their intention to produce and distribute to FDLP libraries only the 50 titles listed on “Essential Titles for Public Use in Paper Format” [http://www.access.gpo.gov/su_docs/fdlp/pubs/estitles.html](http://www.access.gpo.gov/su_docs/fdlp/pubs/estitles.html) (Accessed February 14, 2005). GPO's plan eliminates print distribution to FDLP libraries and will take effect on October 1, 2005. The American Association of Law Libraries (AALL) released an action alert on January 26, 2005 urging librarians and the public to contact their congressional delegations to ensure that libraries and the public have permanent access to government information. [http://www.ll.georgetown.edu/aallwash/aa01262005.html](http://www.ll.georgetown.edu/aallwash/aa01262005.html) (Accessed February 14, 2005).

\(^{27}\) GPO, *Strategic Vision*, Section V. I. 4, 8.
plan makes no mention of working collections of digital publications in FDLP libraries and only specifies two “collections of last resort.”

The changes that GPO is outlining are significant and disturbing. So far, GPO has not been explicit about how the changes it wants to make will affect public access, but three things are clear. First it is clear what GPO has not done: it has not designed a service or mission or plan for digital deposit of digital materials with depository libraries. The strategic plan mentions pushing information "over the Internet to primarily business customers on a subscription basis," but there is no mention of "pushing" (i.e., depositing without charge) documents to depository libraries.

Second, it is clear that GPO plans to change not only the role of depository libraries, but its own role as well. GPO plans the "creation of a fully digital database of all past, present and future government documents." This, combined with omission of any intention of depositing digital publications with depository libraries effectively describes a vision in which depository libraries are replaced with a single monolithic database of government documents.

Third, GPO intends to distribute electronic documents on a “cost recovery basis” and develop a “business model” that will “bring revenues in the door.” GPO has been quite clear about this: it wishes to raise money by selling content services. To the extent that it wishes to sell services to government agencies to facilitate the free and steady flow of information, this is appropriate and a possible good source of revenue. However, where it involves a mission of "information dissemination," to "customers" that include "the

28 Ibid.

29 Ibid, V. I. 5, 8.


public,"\(^{32}\) it remains for GPO to show how it can do this while providing information for free to the public. GPO’s commitment in this context to “free and ready public access” remains undefined, unexplained, and in seeming conflict with its business model.

The Once and Future FDLP

The traditional mission of FDLP libraries has been to select, acquire, organize, preserve, and provide access to and services for government information in conjunction with information from other sources. The effect of the existence of the FDLP has been a secure, authentic, permanent network of local collections of government information, provided to the public without charge and preserved for the future. The shift to digital production of government information does not change or lessen the need for FDLP libraries. In fact, in the digital environment, a system in which the responsibility of preservation and access is shared among distributed depository libraries will provide a better, more secure environment than a monolithic, government-controlled database.

While GPO has stated that depository libraries are important,\(^{33}\) it has been reluctant, indeed refused, to actually deposit digital publications in depository libraries (except for so-called 'tangible' materials, e.g., CD-ROMs\(^{34}\)). This has resulted in drastically limiting the amount of important government information available in depository collections


\(^{34}\) GPO's treatment of CDs and DVDs shows a misunderstanding of digital information issues. CD-ROMs and DVDs are simply tools for transferring digital information – just as protocols such as FTP and HTTP are tools for transferring digital information. GPO's treatment of one method of transferal differently from another confuses content with transmission of the content. The transmission mechanism, whether "tangible" or not, has nothing to do with whether or not the content will be usable or preservable once transferred.
across the country.\textsuperscript{35} We have seen repeated examples of the loss of information (by removal from government web servers) that would not have been lost if it had been deposited with FDLP libraries. The losses we face include the innocuous and trivial as well as the political and controversial.\textsuperscript{36} This has become such a problem that organizations and individuals are starting to create their own collections of government information.\textsuperscript{37} Even libraries that once received deposits of government publications are beginning to set up alternative methods of obtaining them because GPO will not deposit


\textsuperscript{36} While there is no comprehensive list of digital information withdrawn from publicly accessible federal government websites, a perfunctory search will quickly find a disturbing pattern by the Federal government since 9/11 to recall documents and information from public government websites deemed "sensitive". See for example, ALA Government Documents Roundtable (GODORT), "Balancing Information Access Since September 11 -- A Background Issues Kit", http://sunsite.berkeley.edu/GODORT/education/current/ (Accessed December 12, 2004).

\textsuperscript{37} See for example, the Memory Hole (http://www.thememoryhole.org/), Project on Government Secrecy (http://www.fas.org/sgp/index.html), and Outraged Moderates (http://www.outragedmoderates.org/).
them. While documents that are deposited with FDLP libraries can be withdrawn, it is cumbersome and can be controversial to do so\(^39\) and much easier to quietly remove a single digital copy from a government controlled web server. The attempted withholding of the volume *Foreign Relations of the United States, 1964-1968, vol. XVI: Cyprus; Greece; Turkey* demonstrates how even the intention of depositing publications with libraries can stave off a political decision to withdraw, withhold, or destroy government information.\(^40\)

There is a strong consensus in the many studies of the FDLP that a democracy requires open, free, easy access to information produced by the government.\(^41\) We believe that a robust FDLP, consisting of multiple collections of government information in multiple locations, selected and organized for specific constituencies, is a key component of ensuring this.

\(^38\) The University of California’s California Digital Library (CDL) “has been awarded a three-year, $2.4 million grant from the Library of Congress as part of the National Digital Information and Infrastructure Preservation Program (NDIIPP). The award is for a project to develop web archiving tools that will be used by libraries to capture, curate, and preserve collections of web-based government and political information. CDL will be partnering with New York University, the University of North Texas, the UC libraries, and the San Diego Supercomputer Center, among others. In addition, the UC Santa Barbara libraries received a three-year, $2.6 million grant from NDIIPP to form a multi-partner repository for digital geographic information such as maps, aerial and space photographs, population figures and other data.” “CDL Receives $2.4 Million Library of Congress Grant,” *CDLINFO Newsletter* 7(18) (October 14, 2004). [http://www.cdlib.org/inside/news/cdlinfo/cdlinfo101404.html](http://www.cdlib.org/inside/news/cdlinfo/cdlinfo101404.html) (Accessed February 14, 2005).

\(^39\) See, for instance the controversy over instructions from GPO to FDLP libraries to destroy certain already distributed Department of Justice documents. The decision was changed and replacement copies were offered after the issue became public. Judith C. Russell, message to FDLP Listserv [fdlp-l@GPO.GOV](mailto:fdlp-l@GPO.GOV), August 9, 2004, “Replacement copies of five DOJ documents for depositories that had removed them” [http://listserv.access.gpo.gov/scripts/wa.exe?A2=ind0408&L=gpo-fdlp-l&F=&S=&P=280](http://listserv.access.gpo.gov/scripts/wa.exe?A2=ind0408&L=gpo-fdlp-l&F=&S=&P=280) (Accessed, January 21, 2005).


We envision an FDLP of the future described by the following five criteria:

1. Information is available and fully functional to all without charge.
2. Information is easy to find and use.
3. Information is verifiably authentic.
4. Information is preserved for future access and use in a distributed system of digital depository libraries.
5. Privacy of information-users is ensured so that citizens can freely use government information without concern that what they read will be subject to disclosure or examination.

We see FDLP libraries fulfilling these criteria by concentrating on their traditional roles of selecting, acquiring, organizing, and preserving information and providing access to and service for that information.

These five criteria may look familiar because they are the very ones that the FDLP has been meeting for decades. We examine each in turn below and show why distributed collections of digital materials meet the criteria.

1. **Information is available and fully functional to all without charge**

The easiest way to ensure that information is freely available for all is to distribute government information to FDLP libraries. FDLP libraries are required by statute to make such information freely available to the public. Anything short of this (e.g., creating non-legislated partners without this mandate, relying on private sector partners) endangers the free access of information by removing the information from the legislatively required free-access system of the FDLP. As we will show below, following GPO’s plan of relying on a collection maintained by GPO is also an inadequate way to ensure permanent public access.

2. **Information is Easy to Find and Use**

As librarians, we understand the challenges of making information easy to find and use. Solutions that work well for small, homogeneous collections often do not scale well to large, heterogeneous collections.

One useful way of making information easy to find and use is to select, acquire, and organize a body of literature for a particular constituency just as FDLP libraries have

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done in the past through their different selections of “depository item numbers” to meet the needs of their particular communities. This results in libraries with specialized collections (e.g., law, agriculture, public policy).

While GPO’s intent to establish a "Digital Publication Content system" would provide one avenue of access, by itself it would be inadequate. While having “all Federal documents – past, present and future” in a single collection would provide obvious advantages, it would not make it easier for all users to find or use what they need. Monolithic collections of the type GPO describes create unnecessary obstacles for users by requiring them to negotiate large amounts of information that is unrelated to their needs. Separating of federal government information from other information and from private sector finding aids and value added products would also increase the difficulty in finding information. The separation of information by provenance creates under-utilized “information ghettos” which force users to look in several places rather than in collections built from many sources around common communities of interest.

Access would be much enhanced by a system that consisted of, not just one monolithic collection, but, in addition, many libraries creating many collections, focusing on communities of interest and integrating federal government publications with publications of other governments and non-government publications. GPO could facilitate and encourage this by depositing materials with depository libraries so that they could organize government information to serve the needs of their particular constituencies. This is not a radical proposal, but a proposal to continue what has been working for decades in the paper and ink world. GPO should make use of its existing, experienced, legislatively authorized partners by including them in its planning for the housing of digital collections. The type of system we are suggesting will help assure that information is easy to find and use.

43 GPO, Strategic Vision. IV. A, 2.

44 Although it is technically possible to accomplish some of this by integrating bibliographic records from various sources pointing to materials not held by a library and thus create a catalog for a 'virtual collection,' there are problems with this solution. First, GPO has yet to guarantee that it will make bibliographic records for materials in its database available to depository libraries. Second, GPO cannot guarantee that it will be able to maintain the accuracy of pointers to virtual documents forever. Third, libraries cannot predict the costs of managing a 'virtual' collection over which they have no control.
3. Information is verifiably authentic

It is essential that users of government information know that the information they get is authentic. In the digital world, it is easy to alter, fabricate, and imitate documents so that one can appear authentic without being so. Technology cannot solve this problem; it can only give us tools and techniques to aid users in determining authenticity. Ultimately the problem of authenticity is a social problem, not a technological one. By using technical tools (e.g., the Public Key Infrastructure -- PKI), creators of documents can provide a way for users to verify, through a third party, that a document is what it purports to be and has not been altered. While that is good, it does not solve the problem, but shifts the trust from the party that delivered the document to a third party. The user must still trust that third party. Trust is a social phenomenon, not a technical one. Abby Smith, Director of Programs at the Council on Library and Information Resources, has noted that technologists understand this quite well.

Interestingly, the scholar-participants suggested that technological solutions to the problem [of establishing the authenticity of a digital object] will probably emerge that would obviate the need for trusted third parties. Such solutions may include, for example, embedding texts, documents, images, and the like with various warrants (e.g., time stamps, encryption, digital signatures, and watermarks). The technologists replied with skepticism, saying that there is no technological solution that does not itself involve the transfer of trust to a third party. Encryption -- for example, public key infrastructure (PKI) -- and digital signatures are simply means of transferring risk to a trusted third party. Those technological solutions are as weak or as strong as the trusted third party. To devise technical solutions to what is, in their view, essentially a social challenge is to engender an "arms race" among hackers and their police.45

In the case of government information, there is an additional need to separate the roles of producer-of-information and provider-of-authenticity in order to ensure that agencies cannot alter, delete, or deny access to information in order to avoid accountability.

One particularly promising solution to authenticity and trust is to rely on libraries as the trusted source of information. Libraries have a long, well-established social role of providing information; people trust libraries because of it. Libraries have a vested interest in ensuring that the information they provide is authentic and that they are trusted to do so. The trust people place in libraries in general can be increased in specific application

by relying, not on one or two libraries, but on many libraries with different funding streams and missions. Any unforeseen compromise in one institution becomes a single error in a large system of information-provision. Add technological techniques that make it easy for institutions to accomplish their mission of providing authentic information and you have a recipe for ensuring authenticity.46

4. Information is preserved for future access and use in a distributed system of digital depository libraries.

Digital information must be preserved against corruption and loss; there must be ways of ensuring that information created today can be used tomorrow. One of the key issues in digital preservation is that the work is never done; digital materials will become unreadable or unusable or both without regular attention. There are many approaches to addressing these difficult issues and there is some promising and encouraging research. We do not yet have a solution, though. So far, we have only ideas, research, broad outlines of what to do, and hope for solutions to come.

We do, however, have examples of successful preservation for decades of born-digital information. The premier case is that of social science data files. These are files containing numbers that record the results of survey research, public opinion polls, censuses, and the like. The social science community began archiving data sets in the early 1970s and has continued to do so successfully for more than thirty years. In every case where the social science data archives community successfully preserved data files, three key factors were responsible. First, data were created and stored in a format designed for long-term preservation and use in different computing environments. Second, data files were always accompanied by very rich metadata. Third, the actual preservation was accomplished by a network of trained data archivists working at different facilities throughout the world.

We can learn much from this experience and apply it today as we begin to preserve complex digital objects. Preservation will require planning, standards, trained professionals, and cooperation among many different facilities. While that may sound obvious to those who have thought about these issues, the implications may be less obvious. We will focus on two.

46 One such system already exists: The Lots of Copies Keeps Stuff Safe (LOCKSS) system developed at Stanford University. It provides a network of libraries with simple technical tools that keep many copies of the same materials, stored in separate digital library collections, from becoming damaged, lost, or altered. http://lockss.stanford.edu/, http://lockss-docs.stanford.edu/ (Accessed December 13, 2004).
First, we need specialists in the government at the point of production of government information to ensure the planning of long-term preservation, the conformance to standards, and the creation of rich metadata. We believe that it will be more efficient and more effective for the federal government to rely on a single agency such as GPO to provide such services rather than to hope that every agency will be equipped to do so. GPO's strategic plan takes a similar position and accepts that role, wisely so in our judgment.

Second, we need many libraries acting as curators. Once the information and metadata have been produced and made available to the public, the government’s role should end and others must take up the role of selecting, acquiring, organizing, and preserving the information as well as providing access to and service for that information. The role of preservation (as noted above, a never-ending task) should be separate from the role of information creation. It would be imprudent and unwise to assume that creating information obligates the creator to preserve the information.

If these steps are not taken, it is almost certain that the country will lose valuable information. If we rely on any single source (e.g., the federal government) for government information, and the single source fails, the information is lost. "Failure" in a single-source information culture includes technological failure, accidents, intentional altering or destruction or removal of information, changing budget priorities that are unable to keep up with a rapidly growing amount of information, changing political priorities, and other unforeseen technical, economic, social, and political problems.

By contrast, in a multi-source information culture, the failure of one node (e.g., the loss of a copy of a document in one FDLP library) does not mean a complete loss of information. With multiple copies of documents at multiple locations under multiple collection policies and budgetary authorities, no single agency, organization, or private company controls access to or preservation of government information. Negligence at one organization affects the materials only at that organization. No act, intentional or unintentional, by any single organization can lose, replace, alter, destroy, or remove information from 1300 separately located, separately controlled, separately budgeted collections.

It is worth noting here a small but important technical point. While Libraries, information researchers, and computer scientists will continue to seek technological solutions to digital preservation, it is unlikely that we will find a single solution that works for everything for all time. The reason is that technology changes fast and what we call digital information changes equally fast; digital preservation solutions will always be playing catch up. At any given point in time, then, it is likely that different organizations will employ different technological techniques for preservation. Because the failure of one technology will not cause a loss by another technology, we will have a
much better chance of avoiding loss of information through technological failure by distributing government information among many FDLP libraries. Assuming that any given solution (no matter how clever or expensive or well thought out) will survive and preserve everything for all time is technological hubris at its worst.

Patricia Cruse, the director of the Digital Preservation Program at the California Digital Library summed up the preservation issue nicely when she said, “Since digital preservation is so new, it is very important to have a diversity of preservation approaches including different technical, funding and policy approaches.”

GPO planning should take into account the FDLP’s long successful model of distributed preservation in its future digital system. This will be a true partnership and will help ensure a robust, freely accessible system of government information into the distant future.

5. Privacy of information-users is ensured

“Protecting user privacy and confidentiality has long been an integral part of the mission of libraries.” There is no question that these once widely-accepted rights are now under attack. Those attacking these rights face strong opposition from those who believe the rights to privacy and confidentiality are intimately part of both the First and Fourth Amendments. Libraries, librarians, and library organizations such as the American Library Association (ALA) are at the forefront of the battle to protect these rights.

While we cannot predict the outcome of these battles, we do know that those who value the right to read and the right to privacy will do far better trusting their rights to libraries than to governments. Libraries have policies and procedures that guarantee these rights and a long-established culture of valuing them. Governments either do not, or are re-


evaluating their policies, or are attempting to actively pursue new procedures that not only allow them to examine what is being read by whom, but mandate that they will do so.

Any system of government information dissemination that relies solely on users fetching digital information from government controlled web servers (including checks for authenticity and permission) will be a system that invites the government to examine what is being read. Anyone who wishes to have a system of government information dissemination that, at minimum, seeks to protect the right to read privately will look to a system where fully-functional government information is obtainable directly from privacy-protecting libraries.

Finally, any information dissemination system that relies on centrally-controlled access is subject to intentional and unintentional abuse and failure, while a system of many libraries providing access to information avoids the catastrophic nature of such problems through decentralized control. Centrally controlled systems invite abuse. Dispersed, decentralized systems make abuse difficult.

**Stakeholder Roles**

In order to achieve a government information system that includes the criteria described above, many people, organizations, and institutions must have a stake in the creation, access, preservation, organization and dissemination of government information. No one of them can accomplish everything alone. Each has a role to play. We conclude our vision of the digital FDLP by looking at the roles that government agencies, GPO, Congress, FDLP libraries, the National Archives and Records Administration (NARA), and the private sector, might play to accomplish more than any one could.

**Government Agencies**

The role of each government agency is clearly defined by Congress. Most agencies have an obligation to collect, compile or otherwise create information for the public. Few agencies have any explicit obligation for long-term access or preservation. Technological advances have made it easy for many agencies to disseminate information directly to the public using the Web. This convenience does not ensure preservation, though; in many cases it actually works against preservation. As one long-time data-archivist has noted, “there seems to be an inverse relationship between convenience of dissemination and preservation standards.”

50 In this new digital system, the main information role of

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50 Charles Humphrey, Head, Data Library and Academic Director of the Research Data Centre, University of Alberta, e-mail message to James A. Jacobs, November 26, 2004.
government agencies will be to continue to create information as legislatively mandated to inform the public of their activities.

**GPO**

The role of each government agency requires a complementary role of a 'publisher' who can do for many agencies what it would be expensive and inefficient for each agency to try to do for itself. GPO is perfectly suited to play this role; its strategic plan wisely addresses many of the tasks associated with such a role. GPO should be able to help an agency conform to preservation and dissemination standards and facilitate the creation of metadata and use of standards for language, authority control, and markup. Also, GPO should be able to help non-publishing agencies by maintaining secure web servers, state-of-the-art content management and indexing tools, and by maintaining security, enforcing accessibility standards (e.g., Section 50851), and maintaining load balancing and other technological tools to ensure 24/7 access under wildly fluctuating load demands. GPO is already providing many of these services and is well suited to do more in these areas.52

This role, of helping agencies package and deliver their various information products, is a role that Congress can fund one year at a time. If GPO instead attempts to arrogate to itself the role of permanent public preservation and access (the role traditionally fulfilled by FDLP libraries) it will create for itself a financial problem that does not exist now. If GPO’s mission is long-term preservation and access and GPO is under-funded in any given year, the effect will be to damage preservation and access for materials from earlier years. However, if its role is digital publishing as described here, a budget shortfall will affect the output of information for that year but will not affect access to information from prior years. Permanent public access is expensive; it is unwise to assume that Congress will always provide adequate funding to GPO to provide this service. It is also unlikely that GPO can raise sufficient funds to do so on its own without charging for access.


52 On page 15 of GAO report #04-830, there are listed various services that the GPO already provides or can successfully provide that are little known to federal agencies. Among these are: web hosting and design, electronic publishing, archiving, financial management services, preflighting, etc. U.S. Government Accountability Office. “Government Printing Office: Actions to Strengthen and Sustain GPO’s Transformation” Report 04-830, June 30, 2004, [http://www.gao.gov/new.items/d04830.pdf](http://www.gao.gov/new.items/d04830.pdf) (Accessed December 13, 2004).
Mr. James wishes to minimize GPO's reliance on Congressional funding. He has pointed out on more than one occasion since his appointment that GPO cannot be "at the mercy of Congress" and expect to survive.\footnote{See for example, “Fall Council/Depository Conference Meeting October 19-22, 2003, Arlington, VA Remarks by Bruce R. James, Public Printer of the United States, Tuesday October 21, 2003,” \url{http://www.access.gpo.gov/su_docs/fdlp/council/ney_james03conf.html} (Accessed December 13, 2004).} He has also characterized Congressional funding as "a hand out."\footnote{Ibid.} This is a fundamental misconception of the role of GPO. It is perfectly appropriate for Congress to fund activities of GPO that involve creation and dissemination of government information. This is a legitimate, indeed an essential, activity of government, not a “hand out.”

It is crucial that GPO assume an appropriate and sustainable role. For GPO to assume the role of preservation and access traditionally associated with FDLP libraries is unlikely to be sustainable and is certainly inappropriate. It is unlikely that GPO, with or without Congressional support, could accomplish alone what 1300 libraries can collectively. It would be wiser and more efficient for GPO to continue the collaboration with FDLP libraries and rely on libraries to fulfill a role that GPO cannot. This will create a more stable structure for long-term access and preservation.

\textit{Congress}

The role of Congress is to adequately fund the dissemination of information and avoid redundancy and inefficiency. The constraints of the Paperwork Reduction Act\footnote{“Coordination of Federal information policy.” Title 44 U.S. Code Chapter 35. 2000 edition. \url{http://www.gpoaccess.gov/uscode/index.html} (Accessed December 13, 2004).} and OMB Circular A-130\footnote{Office of Management and Budget, Circular A-130, \url{http://www.whitehouse.gov/omb/circulars/a130/a130trans4.html} (Accessed February 14, 2005).} require agencies to avoid duplication of effort including information technology infrastructure. Congress has the opportunity to save money by funding a single government digital publisher. It will be necessary for Congress to understand that agency 'publishing' is expensive, inefficient, and seldom meets standards for longevity. Congress must understand that access to a document on a government controlled web server is not the same as deposit of that document in libraries and that short-term access is not the same as long-term access or preservation. Congress should provide for a digital publishing agency with sufficient financial support to meet the many needs outlined above for GPO.
FDLP libraries

FDLP libraries should be able to select government information, acquire digital files, preserve them, organize them through integration into collections of other information, and provide access to and service for that information.

Libraries have been slow to take on the task of building collections of digital government materials. This is not surprising as libraries are often risk-averse, slow to change, and under-funded. Change, however, is coming. Government documents librarians are increasingly aware of the issues of digital preservation and the opportunities that local collections provide. More and more libraries are starting institutional repositories using popular software tools such as dSpace and ePrints. Libraries are beginning to build the local infrastructure for housing, preserving, and providing access to their own, locally controlled digital collections. Librarians and the public are also increasingly aware of the potential for information abuse when the government has complete control over the only authentic copy of government information. In short, libraries are becoming ready to take on the responsibility of building local collections of digital government documents.

As we look at what libraries might do in the near future, it is worth looking to the recent past to see how far we have come. Government documents libraries did not buy microfiche cabinets because they preferred microfiche. They did so out of necessity because GPO started depositing microfiche in FDLP libraries. Similarly, when government information started arriving on floppy disks and then CD-ROMs and recently on DVDs, libraries adapted. Change is not always easy or inexpensive, but it is often necessary. The changes we need to adopt are not always obvious, either. In 1990, a proposal for government agencies to put their information on the Internet was met with skepticism by some government information librarians who worried that only big university libraries could possibly afford Internet connections. Today, of course, we take Internet technologies for granted. If libraries act wisely, we will have a flourishing system of digital collections in a few years and will have forgotten that we ever wondered if we could.


The National Archives and Records Administration (NARA)

NARA’s role is long-term preservation of the record of government. This includes both published as well as unpublished materials – e.g., the U.S. Congressional Serial Set as well as minutes of internal meetings of federal agencies. Ideally, we would like to see NARA preserve both kinds of information comprehensively and provide easy-to-use online access tools where appropriate. In reality, we know that NARA faces a daunting, overwhelming task that seems to be growing exponentially. We know that NARA will have to choose carefully which things it does. Given that, we suggest that for NARA to know that 'published' materials are being preserved and made accessible in FDLP libraries would help NARA in preserving and making accessible those materials that have no other home but NARA.

If GPO does a good job of its role of assuring that digital government information is 'published' to meet standards of preservability, then GPO will also be able to fulfill its partnership role with NARA, or it will be able to deposit materials with NARA just as it deposits materials with FDLP libraries, or both.

The Private Sector

The private sector provides excellent tools and products. It adds value to government information by re-packaging, re-organizing, and re-distributing the information. In our vision of the FDLP of the future, the private sector will continue its strong tradition of providing products that fill gaps and complement government dissemination of public information. There is no inconsistency between, on the one hand, the government and libraries providing fully functional digital government information for free to the public and, on the other hand, the private sector adding value to that government information and creating new information products. GPO could even enable such services by providing profiled products to the private sector for repackaging and could do this without competing with the private sector and without reducing the functionality of its own information products.

Conclusion

GPO’s attempt to assume inappropriate roles beyond its mission will have long-reaching and possibly detrimental consequences. GPO should not compromise the principles of democracy over its short-term financial needs. There are many stakeholders in the life cycle of government information. In order to ensure the ideal of perpetual free access to government information, each stakeholder needs to assume its appropriate role.
Rapid technological change has caused some in the FDLP community to question the need for the FDLP. We believe that the inherent nature of digital information actually increases the need for a network of dedicated, legislatively authorized libraries. It would be prudent to draw upon the existing infrastructure of FDLP libraries and the almost 150 years of cumulative experience of these institutions in assuring preservation of and access to government information. We must reinforce FDLP’s traditional mission of selection, collection, access, and preservation of government information in the digital era in order to assure free access to this information into the foreseeable future.

The library community, the FDLP libraries specifically, and all citizens must realize that we cannot accept promises from GPO that it will be able to find a technical and economic solution. GPO must state specifically how it will do so and how it will guarantee the policy of free citizen-access to public information that is fully functional – not crippled with access restrictions.

Technology forces change upon us. In libraries we do have choices, though. We can be passive and follow the lead of technologists, government bureaucrats, and politicians or we can be active and take a leading role in our own future. In the area of government information, the stakes are much higher than any local parochial issues. Democracy depends on citizens being able to easily find and freely use information about their government. Libraries have historically played a key role in assuring both the preservation of and access to information about the functioning of our government.

Ceding responsibility and control of such information to those who must be held accountable with that information is unwise. While governments will continue to fulfill their role of creating and disseminating information, there is another continuing essential role for preserving and organizing that information for users and providing long-term access to and service for that information. In America, we are blessed with laws that help us ensure this, but these laws bring with them a responsibility. Libraries will abrogate that responsibility to others at the peril, not just to their own continued relevance, but to democracy itself.

We are attempting to do just that with the creation of Free Government Information (FGI). FGI’s mission is to build consensus among the various players (libraries, government agencies, non-profit organizations, researchers, journalists, etc.) who have a stake in the preservation of and perpetual free access to government information. FGI promotes free government information through collaboration, education, advocacy and research. http://freegovinfo.info (Accessed February 14, 2005).