Chapter 8

Electronic Dissemination of Congressional Information

From the top: Congressional Research Service Inquiry
Unit (photo credit: Library of Congress); and the
Congressional Record coming off the press
(photo credit: U.S. Government Printing Office).

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Electronic Dissemination of Congressional Information

SUMMARY

Congress, like the rest of the Federal Government, is presented with new technological opportunities and choices for the dissemination of information. Congress has a long and valued tradition as an open political institution and has, over time, made information about congressional processes and actions more readily available to the public. The advent of electronic formats for congressional information has created a window of opportunity for Congress to set the direction of congressional information policy for the years and perhaps decades ahead.

Electronic formats—such as online computer systems or compact disks—offer significant benefits to knowledgeable users, including, most importantly, improvements in timeliness of information, access to information, and efficiency of information search and retrieval. Those who have access to electronic formats, therefore, gain significant information advantages over those whose access is limited to traditional paper and microfiche formats.

At present, the members of Congress and congressional staff have access to electronic formats via internal legislative branch information systems and/or private sector vendors. Members of the general public have access through commercial information services if they can afford the rather substantial user fees. The problem is that many segments of the public cannot afford commercial rates, and, therefore, are effectively disadvantaged in terms of access to congressional information. Congressional information products such as the *Congressional Record,* bill status, committee reports and hearings, materials from support offices, and the like are vital to informed and effective participation in the legislative process. Therefore lack of access, or the inability to afford access, to electronic formats can easily translate into a political handicap.

Congress needs to determine the level of responsibility y it wishes to assume for electronic information dissemination, and how active its role should be. In doing so, Congress may wish to establish an overall congressional information dissemination policy (which is currently lacking) that would help define the types of congressional information that Congress desires to be readily and publicly available in electronic formats. At the same time, Congress should also consider the roles of the various congressional offices and agencies (including U.S. Government Printing Office (GPO), House Information Systems [HIS], Senate Computer Center, Office of Technology Assessment (OTA), Congressional Research Service (CRS), General Accounting Office (GAO), Congressional Budget Office, and the like), as well as publicly funded programs such as the Depository Library Program (DLP), in making such electronic information available. Because of its growing role in providing electronic formats to Congress as part of the electronic publishing process, GPO is positioned to more actively participate in disseminating electronic formats to the depository libraries and public at large.

Congress may wish to review policies on public dissemination of support agency materials. For example, congressional policies limit direct public distribution of CRS reports to a small fraction (perhaps 1/10 of the total), although copies of many more are obtained by the public indirectly through individual member offices. As another example, a limited number of GAO reports and OTA summaries are available to the public free while OTA reports are available for a fee through the GPO sales program.

Congress also may wish to develop, as part of an overall policy, a clear intent as to the role of private vendors. Presumably, vendors would be able to obtain any publicly available congressional information, and repackage and resell that information, as they already do to some extent now. However, some vendors would like to contract directly with Congress, perhaps on a bulk rate discount basis, for electronic dissemination of congressional information to depository libraries, the general public, and the Congress itself.

Finally, given the large number of House, Senate, and congressional support offices and units involved with the creation and dissemination of congressional information, Congress may wish to establish an index to such information (through a congressional agency or a contractor), and a formal coordinating mechanism to maximize the exchange of learning and minimize the potential overlap, and to take advantage of the opportunities for technologically enhanced access. In many respects, congressional decisions on electronic dissemination of congressional information are just as important as prior decisions on radio and television coverage of congressional hearings and floor sessions.

INTRODUCTION

Congress has traditionally supported and endorsed meaningful citizen participation in its deliberations. One key facilitator of participation is the dissemination of congressional information, which has occurred in a variety of ways since the earliest days of the Republic and continues today with a mix of public and private information services participating in the dissemination process.[1]

Initially, Congress relied upon newspapers to publish information concerning the deliberations and acts of Congress. The first appropriation for public printing was made in 1794, and policies were effected which ensured distribution of Federal statutes to rural areas not well served by newspapers. And with the December 1813 resolution concerning government printing, "Congress became committed to the formal and regular distribution of its publica-

tions."[2] Reliance upon private printers ended with the establishment of GPO in 1860. GPO was created due to charges of corrupt printing practices and concerns about newspaper patronage. The establishment of GPO gave government, and particularly Congress, the means to produce documents for its own and the public's use. Congress also established the DLP to make Congressional and other governmental information more broadly available to the general public. The creation of the depository system was further affirmation by Congress of the need for a sound distribution system for congressional documents and information about governmental deliberations, to ensure widespread information dissemination in support of the democratic form of government.

The Printing Act of 1895 was the next major legislative action concerned with the printing and publishing practices of government. This legislation combined pertinent past legislation relating to the printing, binding, and distribution of government publications. This Act centralized the printing functions of government at GPO, institutionalized the distribution of the *Congressional Record,* and strengthened the depository library provisions

I The information in this chapter is based in part on contractor reports prepared for OTA by Stephen Frantzich, "Public Access to Congressional Information: The Potential and Pitfalls of Technology Enhanced Access, " January 1987; "Public Access to Congressional Support Agency Information in the Technological Age: Case Studies, " Nov. 12, 1987; and "Public Access to Congressional Information in the Technological Age: Case Studies," September 1987. For related discussion also see, U.S. Congress, Office of Technology Assessment, Federal Government Information Technology: Congressional Oversight and Civil Liberties, OTA-CIT-297 (Washington, DC: U.S. Government Printing Office, February 1986), especially ch. 8.

²P. Hernon, C. McClure, and G. Purcell, GPO's Depository Library Program (Norwood, NJ: Ablex Publishing, 1985), p. 4.

among other things. The Act and subsequent amendments continue to be the basis for existing regulations and policies.

Throughout this time, GPO and congressional lawmakers continued to place emphasis on improving the quality, timeliness, and efficiency of dissemination mechanisms. The predominant format available has been and continues to be paper or hard copy, with microfiche serving as a secondary format since the 1970s. Recent advances in information technologies present Congress with new opportunities for creating, producing, packaging, and disseminating the *Congressional Record* and other congressional materials in a more timely fashion. The issues facing Congress are not unlike those facing the Federal agencies as they move to incorporate information technologies into ongoing information activities.

As with debate concerning the future of the depository program, the central issue in the debate over congressional information concerns the level of public access to congressional information envisioned by Congress, particularly as facilitated by the new information technologies. In exploring this issue, there are several questions that require examination, including: the extent to which electronic formats permit enhanced access to congressional materials, and, if they do, what types of congressional information are especially useful in electronic formats; the degree to which Congress has a responsibility to ensure equitable access to congressional information in all formats; the need for an index to congressional information in order to improve public access to such information; the extent to which the introduction of new electronic technologies might change the GPO and private sector roles in dissemination of congressional information; and, finally, the extent to which the increasing pace of automation activities within the legislative branch requires a more coordinated information dissemination plan to enhance public access to congressional information.

This chapter will explore these questions through a description of current dissemination practices, and by case studies of the *Congressional Record* and of bill status information. These are followed by a brief review of other types of congressional information available and current dissemination practices of selected support offices. Finally, the chapter discusses several key cross-cutting issues.

CURRENT METHODS OF CONGRESSIONAL INFORMATION DISSEMINATION

Numerous access channels are available to users of congressional information, though not all avenues are open to all users nor do many users know how to access certain types of congressional information. Once a document is identified, it is possible to receive information directly from a congressional office, from a congressional committee, from House or Senate Document Rooms, and from the GPO Sales program. DLP is another avenue available to those who seek access to congressional information. This depository library channel, though not part of a' 'congressional' office or agency, is available throughout the country in approximately 1,400 libraries. Also, though not an "information' product per se in the traditional sense, C-SPAN (the Cable Satellite Public Affairs Network) provides direct access to televised congressional proceedings and stimulates interest in congressional materials. Finally, access to congressional information is available through the press and via private information services that provide congressional information in all formats.

Congressional offices are often the first stop for many seeking congressional information, Congressional staff will obtain for constituents congressional documents from other offices, committees, and congressional support offices

such as OTA or CRS. An estimated 25 percent or more of incoming congressional mail are information requests from constituents.

Congressional committees distribute their own hearings, committee prints, and reports. The Balanced Budget and Emergency Deficit Control Act of 1985, Public Law 99-177, resulted in a tightened limit on the number of copies available to committees, thereby reducing availability of congressional information to the public through this channel. Committees are provided 300 copies of each product today, compared with an average of 612 in 1985. It has been noted that committees are now less willing to give away copies of congressional materials from their limited supply.[3]

The House and Senate Documents Rooms were originally intended as the primary access point for those seeking free congressional products. Distribution rules for the two Rooms are similar, though not identical. The stock of the Rooms is composed of the following: bills, resolutions, committee reports, laws, and congressional documents from the current Congress. Committee reports are only in stock on a "as available" basis, and other documents are generally reprinted or photocopied as necessary. Committee hearings are not distributed by the Document Rooms. *Calendars of the United States House of Representatives are* available from the House Document Room, and the *Senate Calendar of Business* is distributed through the Senate Post Office with no direct public dissemination. Finally, both Rooms retain selected materials from previous Congresses, although coverage is very incomplete.

Requests to Document Room staff are either in person over the counter, by phone, by mail, or through electronic mail. No formal records are maintained, though Document Room staff do estimate the number of individuals served and do distinguish between congressional staff requests and those of the general public. It is important to note that many of the congres-

sional staff requests are in response to constituent inquiries. The House Document Room serves approximately 300 in-person requests per day, with over half of these being "direct" requests from the public. The Senate Document Room serves approximately 400 to 500 in-person requests daily with no comparable estimate on the number of 'direct" public requests. The Senate Document Room responds to phone requests only from congressional staff, totaling approximately 300 daily calls that are usually for multiple documents. The House Document Room responds to approximately 275 congressional staff requests for information each day by phone, and another 45-50 requests are recorded each night on a telephone answering machine. The volume of mail requests varies depending on the day of the week and the visibility of congressional proceedings. The House Document Room receives between 125 to 250 mail requests per day, and the Senate Document Room receives approximately 200 to 250 mail requests per day. Both Senate and House Document Room staff note along term growth in mail requests. Finally, congressional staff can place orders for documents from the House Document Room through an electronic mail system.

The Document Room distribution is primarily used by more "sophisticated observers of government. Commercial firms, lobbyists, public interest groups, and law firms systematically use the Document Rooms to access congressional information.

Budget reduction measures resulted in the establishment of the Congressional Sales Office under the Superintendent of Documents (SupDocs) at the GPO. This Office receives 25 copies of hearings and prints. Staff do order more copies for those materials thought to be of greatest interest and, therefore, likely to be in higher demand. Items are sold on a non-subscription basis over the counter, by mail, and by telephone. GPO also offers permanent subscriptions to government documents, and this includes subscription sales of electronic tapes of selected congressional documents.

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3 Stephen Frantzich, "Public Access to Congressional Information in the Technological Age: Case Studies," op. cit., footnote 1, p. 16.

'Ibid., p. 21.

Private information services also provide access to congressional information. For example, Congressional Information Service (C IS) serves as a source of congressional material. CIS offers extensive indexing and abstracting of congressional documents, sells hard copy indexes to congressional information, and provides online indexing via DIALOG. The CIS indexes have become the standard source and, in fact, are used by GPO as a master list. In addition to these other services, CIS sells yearly microfiche subscriptions and individual microfiche subscriptions of bills, laws, committee prints, committee reports, committee documents, and hearings.

Several private information vendors are offering congressional products in electronic format. Commercial efforts focus on products such as the *Congressional Record* and bill status as these are time sensitive and can be much more useful in an online format. The vendors purchase the computer tapes produced by GPO that are used in support of the printing process, remove the GPO printing codes, and add search and retrieval software. The searching software employed by the different vendors varies considerably.

In addition to the access channels described above, there are two other not so direct avenues for those interested in obtaining congressional information. These are telephone hot lines operated within Congress and outside and the DLP. The LEG IS office within the House Information Systems Office provides bill status information over the phone or will send a printout with information concerning House and Senate actions. Party leadership offices' also provide scheduling information (recorded messages) that is accessible by the public. Finally, different interest groups, such as the Chamber of Commerce, have recorded message services for members but these services are available to the general public as well. These services usually provide minimal information concerning current congressional actions and news.

The DLP is a cooperative program between the Federal Government and approximately 1,400 libraries. The Government provides copies of government-produced materials free of charge, and the libraries, in return, provide housing for the documents and access to this information free of charge to their patrons. Congressional documents are some of the most frequently used materials in depository collections. Many of the congressional materials are dual format items, available in either paper or microfiche. (For more information on depository libraries, see chs. 6 and 7.)

CONGRESSIONAL INFORMATION PRODUCTS CASE STUDIES: CONGRESSIONAL RECORD AND BILL STATUS INFORMATION

Case studies of the *Congressional Record* and of bill status information are presented to illuminate many of the issues and questions facing Congress as electronic information technologies are introduced in support of ongoing programs.

Congressional Record

Production

The *Congressional Record* is produced nightly and delivered to Congress by 8:00 a.m. the following morning, before the session begins. Information in all formats, typed, hand written, and electronic, is received by GPO for reproduction in the daily printed Record. Material from the floor includes typed transcripts from floor reporters (approximately 20 percent), typed speech drafts from Members, copies of bills, newspaper articles, and other documents Members wish included in the *Record.* Much of this information to be inserted includes hand written corrections. Members have the right to "revise and extend" their remarks as taken down on the floor, or to insert an entirely new speech. It is GPO's job to "weave and blend' this material into the *Record.*

GPO keystrokes all documents anew, except for the text of some bills and resolutions and recorded votes in the House. Approximately 56 percent of the text of bills are in electronic format; the remainder require keystroking by GPO. Although much of the material inserted in the *Record* is created on word processors, it is not received in electronic form by GPO. GPO must transfer this information into electronic format to produce the typeset pages and the photographic plates from which the hard copies of the *Record are* printed. In the process, magnetic computer tapes of the *Record* database are created. From this perspective, the creation of the magnetic tapes is solely to support the printing process and, therefore, is a byproduct of the printing process.

As material is received from the floor reporters of the House and the Senate, it is marked for identification purposes, edited for proper format, and keyed into the database. Those materials, such as bills, that are pre-stored in electronic form are then inserted, and the data are proofread. Since all sections of the *Record* do not arrive at the same time or in the order they are to be printed, electronic assembly of the final product is required prior to the creation of typeset pages, plates, and printed copies. Proofreading is accomplished in galley format prior to electronic assembly, and final corrections are made to the photocomposed page before negatives and printing plates are prepared. The presses then begin running the hard copy version of the *Record.* Final corrections to the electronic version are not a priority effort at GPO but are completed as soon as possible.

In addition to the paper format, microfiche copies are produced for distribution. A contractor produces both the microfiche master and copies for the GPO.

There are two other products, the *Congressional Record Index* and the bound *Record,* related to the daily *Record.* The Index is created largely by hand and is published by GPO bi-weekly, though automation has been introduced to speed up this process. The yearly index accompanies the bound *Record. The* bound copy of the *Congressional Record* requires a second revision to the daily *Record* with new photographic plates created. Production of the bound *Congressional Record* is a number of years behind; the last bound volumes published covered the years 1982 (vol. 128) and 1985 (vol. 131) with work proceeding concurrently on years 1986, 1984, and 1983 (vols. 133,130, and 129). The last Index produced was for the year 1980 with the 1981 Index due out in 1988, and the 1982 Index also in production and expected to be completed in late 1988.

Dissemination

Over 22,000 copies of the *Congressional Record are* distributed daily when Congress is in session. Distribution is made mostly on a pre-determined basis, with many copies distributed free to individuals and organizations as required by law or designated by Members of Congress. SupDocs also sells single copies of the *Record.* Each Member of the House is allocated 25 copies of the *Record* to distribute and each Senator, 37 copies.[5] Recipients can request copies of the *Record* in paper or microfiche format. For DLP distribution, the *Record* is a dual format item with libraries indicating a preference for hard copy over microfiche formats (942 for hard copy v. 307 for microfiche). Table 8-1 provides data on the current GPO distribution of the *Record.* Several private firms also distribute microform and hardcopy versions of the *Record.*

Since July 1, 1987, *Congressional Record* magnetic computer tapes have been sold by GPO.[6] Individual tapes can be purchased for $175 or yearly subscriptions at $29,300 from the SupDocs Sales Office. The tapes sold are equivalent to the printed copy with all "stripped in" corrections; there is a delay for the corrected computer tape of up to 72 hours.

Three commercial vendors, Legi-Slate, Mead Data, and Congressional Quarterly, purchase

5 Microfiche copies of the record count as only one-third of a hard copy in Member distribution quotas.
6 June 17, 1987 resolution by the Joint Committee on Printing directed GPO to sell government publications in electronic format.

Table 8-1 .—GPO Distribution of the *Congressional Record*

	Microfiche	Paper
Free distribution		
Designated by Representatives	676	7,765
Designated by Senators	175	3,147
Government departments	1	2,788
Joint Committee on Printing (additional distribution to Congress)	18	2,002
Depository libraries	306	942
House of Representatives (by law) . . .		680
Congress (officials)		301
Press.		202
Ex-members		182
Government agencies	25	174
Governors, independent establishments	3	40
Courts.		36
Public Printer ., ...		31
International Exchange	83	
Sales *Distribution*		
Superintendent of Documents (subscriptions)	100	2,860

SOURCE: U.S. Government Printing Office 1987

subscriptions to the *Record* tapes which are used in support of online services. Congressional Quarterly and Legi-Slate offer the *Record* online as a subscription service, charging a single yearly fee for unlimited searching. Mead Data Central charges an hourly connect fee. Each service has employed different search and retrieval software; hence access to congressional information within each file is different and varied.

GPO, utilizing its own tapes, has developed an online *Congressional Record* database for use by Members and staff. This service is currently being tested in several congressional offices and is planned to be offered to all congressional offices and support agencies within a year. The GPO online service will include Senate and House proceedings, Extensions of Remarks, the Daily Digest, and the Congressional Record Index. The system will provide electronic search and retrieval capabilities, but is also designed to facilitate the creation of secondary products for Members and staff. The House Information System Office (HIS) also has the *Congressional Record* full text online for House Members and staff. HIS relies upon GPO tapes for original input into their online system. Finally, the Library of Congress pro-

vides search and retrieval of *Congressional Record* abstracts in the SCORPIO system.

Over two-thirds of the Members of the Senate have purchased private sector services, primarily Legi-Slate, with congressional information online, whereas the House has relied upon HIS and its information services pursuant to a decision by the Committee on House Administration.

The growing demand for an electronic version of the *Congressional Record* has generated concern regarding the role of the GPO in the future and the nature of its products. First, some have noted that an electronic *Record* could reduce sales of the hard copy version. Others contend the opposite, namely, that electronic searching of the *Record* will boost sales because it will improve indexing and access to the hardcopy version. Experience with some other information products has indicated that, when hard copy documents became available electronically, sales of the hard copy did not diminish but, instead, increased. Also, to the extent that paper is the preferred format for certain classes of users, the demand for paper copies of the *Record* is likely to be unaffected.

Second, a gradual shift to an electronic *Record* and phasing out of conventional printing could eventually realize some productivity improvements and savings at GPO. It would also help cut costs if GPO were able to receive a higher percentage of the *Record* input material in electronic form so as to minimize rekeyboarding.

Third, there could be changes in GPO net revenues for the *Record,* both in paper and electronic formats. Sales of the hard copy version realize $675,000 per year for SupDocs. The bulk of the costs associated with producing the *Record are* fixed and not heavily dependent upon the number of copies printed. A reduction in the volume of copies printed could increase unit costs and reduce revenue to GPO unless prices were raised. Conversely, if the electronic *Record* encouraged additional demand for the hard copy, GPO revenues could increase without significantly increasing costs. In terms of revenue, each of the 3 current com-

puter tape subscriptions is equivalent to over 125 hard-copy subscriptions.

Fourth, HIS and private vendors are in a potentially competitive position with GPO with respect to online access to the *Record.* These relationships need to be examined with respect to minimizing overlap and duplication (with regard to HIS), and to developing complementary roles to the extent possible.

Fifth, there is concern within both Congress and GPO about the content and accuracy of government publications. GPO is striving to improve the turnaround time for corrections to the daily *Record* electronic database and, hence, to reduce the time lag for making corrected tapes available to subscribers. A priority is to ensure that the online *Record* is accurate and complete, regardless of the provider. Some further *Record* corrections and revisions are made by Members (approximately 5 percent of the total material) after the corrected tapes go out, but prior to production of the bound *Congressional Record.* There is no procedure at present for exchanging an incorrect or incomplete daily version for a revised bound copy version of the computer tape. Once GPO distributes the electronic tapes to subscribers, all control or revision of the information is lost.

The *Record* serves as a primary source for determining legal intent and is widely used by the legal community and government alike to this end. The ability to search the *Record* electronically, particularly over several years, would aid in such research. There is concern that the information maintained by the vendors will not match that found in the bound *Record.* A related concern is that the new flexibility inherent in an online system allows for cutting and pasting of congressional information, creating anew information product, possible not reflecting the appropriate context of a Member's vote or statements. Changes in congressional procedures regarding Member corrections and revisions to the *Record* could be considered in order to minimize or eliminate content differences between the daily and bound *Record.*

Bill Status Information

With thousands of bills introduced by Members each Congress, it is important for individuals or interest groups to monitor the progress of legislation. Monitoring the status of legislation requires tracking bills through numerous stages and different committee jurisdictions. Entire bills can be included in other pieces of legislation, and the official title may not reflect the true or full content of the bill. It is possible to miss amendments to bills or other substantive changes if an individual is only following a bill by number or title.

Current Practices

The Congressional Research Service (CRS) creates the hard copy *Digest of Public General Bill and Resolutions.* This includes a summary of bills introduced, the sponsor and cosponsors of the legislation, and any action taken on the bill. Originally, the *Digest* was printed a number of times each year and provided relatively frequent updates on legislative action. Since CRS automated the *Digest,* it is only printed on an annual basis, and is not a priority item, and thus is usually even further delayed in reaching the public. However, the Joint Committee on the Library has recently authorized the Library of Congress to discuss with GPO the possible sale of daily computer tapes prepared by CRS which update the online system.

The bill status system was one of the first automated information systems of Congress, and is a timely system reflecting Congressional legislative action less than 12 hours after it occurs. The Bill Status system is, in fact, 3 separate systems which share information. The House and Senate create computer tapes of all official actions taken within the chambers, and CRS develops bill digests, abstracts, and indexing for each bill introduced. Each bill is indexed by one or more categories to facilitate searching. HIS, the Senate Computer Center, and CRS share their data and then create separate comprehensive databases for their users. Users can search for bills by bill number, sponsor, index terms, and more. Once identified,

information is available on bill sponsors and co-sponsors, actions on bills at successive stages of the legislative process, and a summary of the legislation. Within the LEG IS system for those bills reaching the floor voting stage, aggregate voting totals are available, though only the Members and staff can access how individual Members voted for the first 24 hours after a vote; after this time, only the leadership can access this information.

The bill status system also permits retrospective searching of previous legislation. This capability is helpful when trying to shepherd current legislation through the process and to research the history of prior legislation. For example, retrospective searching can illuminate types of legislation a Member tends to sponsor or co-sponsor or oppose, or determine the types of legislation certain committees favor or oppose. As a consequence, the previous year's data is maintained online. The ability to search current and retrospective data on Members has been used by interest groups, national political parties, and individual candidates to gather information on Member's voting records, legislation introduced, supported, or opposed, and their legislative success rates. HIS and the Senate Computer Center will, for a Member, provide a summary of the individual's legislative efforts and the results. Comparable services can be purchased from commercial sources by individuals or comparable information can be gleaned with considerable effort from hard copy records.

Access to Bill Status Information

The daily *Calendar of the United States House of Representatives* provides a bill status chart of major legislation and a detailed "History of Bills and Resolutions. The *Calendar* is a product of the Office of the Clerk. Complete cumulative histories of legislation are printed on the first legislative day of each week the House is in session, with subsequent daily listings including only new action. Calendars are distributed free by both Document Rooms and are also distributed to the depository libraries.

The *Digest of General Bills and Resolutions,* a CRS product, is disseminated to depository libraries and subscribers. The hard copy is less accessible than the electronic format for two reasons. First, the hard copy is not timely or current for those trying to keep abreast of congressional actions. Secondly, there is limited indexing in the *Digest,* inhibiting easy bill identification and tracking, particularly for those bills amended more than once. However, as noted earlier, GPO and the Library are exploring the possibility of making daily computer tapes available to the private sector.

Private sector information products such as the *Congressional Quarterly* and the *National Journal* track major legislation, but do not cover a full range of issues. CIS publishes an annual CIS *Index of Legislative Case Histories,* with abstracts of those bills that become law and some detailed analysis of major legislation. The Commerce Clearinghouse produces the *Congressional Index,* a looseleaf service, containing the status of both congressional and state legislative bills, listed by number. There is also a daily tracking service available from Commerce Clearinghouse, known as the Congressional Legislative Reporting Service.

Both the House and Senate Bill Status Offices respond to phone requests from their chambers. Public requests are directed to the House LEG IS office, located in the Clerk's office, for an oral response or for a hard copy of the relevant print out from the LEGIS system. The cost of the LEGIS print out is $0.20 per page with a $5.00 minimum. Table 8-2 details the volume of external and internal phone requests for bill status information handled by the House LEGIS system.

Members and congressional staff have direct access to LEG IS from their own terminals. It is possible to specify bills of particular interest and receive updated information whenever there is action on this legislation. Most congressional offices respond to constituent requests for bill status information, but there is no information on how many requests are answered in this fashion. Terminals are available to the public at the Library of Congress

Table 8-2.—Volume of Telephone Bill Status Requests Handled by the House LEGIS Office

Source of request	Total number of requests and percent of total by year		
	1984	1985	1986
House offices	183,635 (66%)	152,062 (65%)	137,839 (64%)
Senate offices	6,438 (2%)	5,331 (2%)	5,684 (3%)
Others (public and agencies)	87,420 (32%)	72,811 (33%)	82,648 (33%)

SOURCE House LEGIS Office, 1987

to access the bill status system. This system does not permit public access to information on a Member's voting record or to tag certain bills for monitoring on a continuous basis.

A number of commercial firms have developed online databases with bill status information. Vendors purchase bill text computer tapes from GPO; the vendors then add additional information such as action on bills and voting records of Members, and necessary

search and retrieval software. Legi-Slate, Congressional Quarterly's Washington Alert Systems, and Commerce Clearinghouse's ELSS or Electronic Legislative Search System, are current online services offering bill status information, all with differing capabilities, pricing schedules, and information.

In sum, there are multiple avenues for dissemination of bill status information, but with differing levels of access and cost. In the case of bill status information, electronic information technologies employed to improve congressional operations have, at the same time, altered access by the public to this same information. Members of the public who rely on only the printed versions of the bill status information, the *Digest of General Bills and Resolutions* and *Major Legislation of the Congress,* have access to retrospective information, but not to current information about the legislative process.

DISSEMINATION PRACTICES OF CONGRESSIONAL SUPPORT AGENCIES

Several congressional support agencies were established by Congress with the primary purpose of providing Members and staff with information and analyses for congressional decisionmaking. In the process of assisting Congress, the agencies develop numerous information products. Each agency employs differing access and dissemination practices, and the introduction of electronic information technologies presents new opportunities and challenges with respect to their philosophies and operations concerning public access. Dissemination practices of three of the congressional support agencies, the Office of Technology Assessment (OTA), the General Accounting Office (GAO) and the Congressional Research Service (CRS) of the Library of Congress are briefly described. Some of the changes and opportunities resulting from the introduction of

technologies are discussed in the following section.[7]

Office of Technology Assessment

OTA was established in 1972 to provide Congress with information on a wide range of public policy issues concerned with scientific and technological change. OTA was created to remedy a perceived lack of objective, non-partisan, and expert analyses on scientific and technical issues relevant to congressional deliberations.

OTA's organizational structure and the nature of its work processes set it apart from its sister agencies. OTA is governed by the Tech-

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[7]Dissemination practices for the Library of Congress and the Congressional Budget Office are not discussed.

nology Assessment Board (TAB), composed of 12 Members of the House and Senate. The TAB determines which assessments OTA staff will undertake based on proposals developed by OTA staff and requested by either the chairman, ranking minority member, or a majority of committee members of any congressional committee. If approved by the Board, these assessments can take up to 2 years to complete and are comprehensive in nature.

Throughout the study process, OTA research efforts are open for external review and public participation. This process includes extensive use of outside consultants, formal reviews by panels of experts, distribution of draft reports and papers to interested parties, and extensive internal and external review prior to publication. The Technology Assessment Act of 1972 (Public Law 92-484) stipulates that OTA products (as distinct from the research process) may be made publicly available:

> Assessments made by the Office, including information, surveys, studies, reports and findings related thereto, shall be made available to the initiating committees of Congress. In addition, any such information, surveys, studies, reports, and findings produced by the Office may be made available to the public except where—(1) to do so would violate security statutes; or (2) the Board considers it necessary or advisable to withhold such information . . .

OTA offers a number of information products to the public, including final reports, one-page briefs of each report, and summary documents which highlight the full reports. OTA also produces staff papers, technical memoranda, special reports, background papers, testimony, and contractor reports. OTA draft reports, testimony, and other materials are keyed in on word processors. A "paste up" camera ready version of the final assessment is prepared by OTA publishing staff using electronic photocomposition where possible, and this version is then sent to GPO for printing.

There are multiple avenues for dissemination of OTA information products. Summary reports are sent out to congressional staff and Members, interested persons on OTA mailing lists, and individuals and organizations requesting information on a particular subject. Full reports are also sent out, but to a more limited mailing list, usually including study participants, advisory panel members, and interested congressional staff and members. OTA reports can be purchased from the GPO SupDocs, and from NTIS; NTIS also stocks selected OTA contractor reports. Sales of OTA reports vary widely depending upon the topic and press coverage. GPO may sell several hundred to over 25,000 copies of a report.

OTA reports are available to depository libraries. Of the depository libraries, 771 elect to receive OTA reports. OTA reports are distributed in hard copy or paper, but contractor reports are only available in microfiche.

The OTA Information Center receives a number of telephone calls per month to confirm a report title, learn how to purchase an OTA report, inquire about a study, and the like. The Information Center is open to the public, and some users rely on the Center for access to OTA reports. The Information Center also maintains QuOTAtion, an in-house database of OTA publications. This file includes citations to 375 reports, staff papers, and technical memoranda. The database is used to answer staff and public information requests.

The OTA Publishing Office produces *OTA Publications* (annually) and *Assessment Activities* (quarterly) pamphlets; these are widely distributed. This office also responds to numerous inquiries for OTA reports-and other publications.

OTA provides summaries and reports to congressional staff for mailing to constituents in response to information requests. This distribution is in addition to copies sent by OTA to congressional offices at-the completion of a project. Practically all formal OTA informa-

tion dissemination is in the form of printed documents. There have been a few videotapes, audiotapes, and diskettes produced in connection with specific projects.

General Accounting Office

GAO was established in 1921 as the auditor for the Congress, and today this role has broadened to include agency program reviews to better assist committees and Members. These reviews can include social, organizational, technical, and financial aspects of programs and activities.

GAO assists Congress with a number of information services. Program reviews are carried out in response to specific congressional requests from committee chairman, ranking minority members, and/or individual members. GAO also has a significant number of on-going reviews required bylaw. The agency's primary function, the provision of audits and program evaluations, is supplemented by other services such as provision of legal services to Congress on issues concerning government programs and activities, and reviews of proposed recisions and deferrals of government funds. Other services include "resolving bid protests that challenge government contract awards, assisting government agencies in interpreting the laws governing the expenditure of public funds, and adjudicating claims for and against the government."[8]

GAO produces a number of research products for Congress. This can include fact sheets, testimony, staff studies, Comptroller General Decisions, and briefing and detailed reports. Fact sheets provide limited background information, no conclusions, and pertinent information on specific questions. Staff studies are compilations of previously produced GAO and other work on a given subject. Comptroller Decisions are rulings from the Comptroller General on personnel and procurement issues. Detailed reports provide in-depth information on the operation and background of agency

programs and include conclusions and recommendations. Briefing reports contain much of the same information found in detailed reports, including conclusions and possible recommendations but provide less background data. Table 8-3 summarizes the volume of GAO information products distributed in 1987.

All unclassified GAO products are available to the public through a variety of channels.[9]

- First, GAO maintains a mailing list of interested parties who receive copies of selected materials.
- Second, individual depository libraries can elect to automatically receive all or selected GAO reports.
- Third, GPO maintains a distribution outlet (operated by a contractor) that handles orders for GAO materials. The first five copies of GAO reports are free to requestors with a $2.00 fee for each copy thereafter.
- Fourth, GAO publishes several newsletters or pamphlets announcing their publications: a monthly pamphlet entitled

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[9] Requesting committees control the time of release of some GAO materials.

Table 8.3.—GAO Information Products Distributed in Fiscal Year 1987

Product	Free distribution	Sales
Briefings	184,616	
Fact sheets	97,606	
Reports	536,582	15,508a
Staff studies	9,684	
Testimony	77,812	
Solicitor General's decisions	8,296	
Letters	3,930	
Memos	566	
Other	34,932	
Total	954,024b	

Depository library standing orders

GAO Annual Report	802 (microfiche)
Reports to Congress	587 (microfiche)
Bibliographies of publications	651 (microfiche)
Documents, catalog of reports, decisions, testimony	653 (paper)
Comptroller General decisions and testimony	505 (microfiche)

a Virtually all sales are of Reports
b 484,782 of the free items distributed did not involve a specific request, but rather were sent to individuals on established mailing lists.

SOURCE: General Accounting Office and U.S. Government Printing Office, 1987

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8 GAO, *Serving the Congress* (Washington, DC: GAO, n.d.) p. 20.

Reports Issued in . . . (listing of current month); an *Annual Index of Reports Issued in FY 19xx;* a monthly catalog of GAO publications entitled *GAO Documents;* and bibliographies on specific subjects such as Energy, Health, and the like. A newly revised and reinstated service, the *GAO Journal,* is intended to serve as an internal communication tool and as a means of informing a larger public audience about GAO's activities.

GAO maintains an online bibliographic database in its Information Handling and Support Facility (IHSF). This facility is contractor operated and provides bibliographic cataloging, indexing, and abstracting of GAO documents. The IHSF facility also maintains the document inventory which contains GAO Audit Reports (Reports, Fact Sheets, and Briefing Reports) from 1978 to the present and some from as early as 1972. This facility processes requests for copies of GAO materials. In 1987, the IHSF received over 190,000 requests. Of these, nearly 30,000 involved database searches to track or locate information products. GAO products are disseminated in hard-copy format but originate in electronic form. Short reports, those under 60 pages, are printed in-house; an outside contractor is employed for the electronic photocomposition phase of the printing process. Longer reports are printed by GPO.

Congressional Research Service

CRS provides both immediate and in-depth, detailed analyses on all subject areas of interest to Members of Congress and staff. As the reference and research arm of Congress, CRS draws upon the broader resources and services of the Library of Congress. The CRS began as the 'legislative reference bureau' (later known as the Legislative Reference Service) in 1914 to better respond to Congressional inquiries as distinct from library operations and functions. The *Legislative* Reorganization Act of 1946 authorized the Legislative Reference Service as a permanent department within the Library, and the development of staff specialists in a wide range of subjects. The Legisla-

tive Reorganization Act of 1970 provided the newly named Congressional Research Service with research, administrative, and fiscal autonomy within the Library and expanded CRS capabilities and services.

CRS produces a variety of information products for Members and staff. These products include responses to telephone inquiries, confidential reports, CRS reports, issue briefs, info packs, and databases, among others.

CRS receives well over 1,000 inquiries per day from Congress and responded to a total of 443,400 inquiries in 1987. CRS performs confidential analyses on policy issues for Members and committees. These analyses remain the property of the requestor unless the Member or committee explicitly provides approval for a wider dissemination. Annual appropriations language prohibits CRS from publishing its research without prior approval of one of CRS' oversight committees. While 10 percent of CRS research is published by Congress in congressional documents such as hearings, 90 percent of CRS research remains unpublished.

CRS Reports, Issue Briefs, and Info Packs are three products developed for use by Members and staff. CRS Reports are in-depth, longer term analyses on particular subject areas whereas Issues Briefs are short and succinct analyses of pressing policy issues. Each Issue Brief contains information on current legislation, relevant hearings and documents, a chronology of events, and a bibliography, all pertinent to the topic of interest. Congress has online access to Issue Briefs. Info Packs are designed to satisfy general audiences, and these packs include a collection of clippings, CRS Reports, speeches, and the like. Over 100 Info Packs are actively maintained on a broad range of subjects.

CRS also produces an SDI (selective dissemination of information) online and in offline print-outs for congressional staff. Congressional staff develop a profile of policy *interests,* and the CRS database is searched weekly to alert staff to new articles, or other information products on these topics. Staff, following a review of the SD I information, can order spe-

cific articles of interest. Some of the SDI information is maintained within the Library's optical disk project, which maintains full text of over 70 periodicals.

CRS maintains several of the files in SCORPIO, the Library of Congress' automated information system. The legislative file (as discussed earlier), the bibliographic citation file, and the issues file are the responsibility of CRS.

CRS actively disseminates its products to congressional offices. For example, once released, reports and issue briefs are listed in the annual *Guide to CRS Products,* with new products highlighted in the monthly *Update.* Some CRS products are also announced in the CRS Review, a digest of recent CRS policy analyses. It is published 10 times each year for congressional use and is sold by GPO to the public. When responding to congressional information calls, these same products may be a part of the information package offered to staffs. Finally, CRS information products are listed in the Citation File (CITN) which is available online to all congressional offices through the SCORPIO system.

The CITN file is a bibliographic database designed to support the research needs of the CRS research staff and congressional clients and includes citations to articles, reports, and papers of potential relevance to congressional policy making. An abridged form of this file, BIBL, is available to the public via terminals in the Library of Congress. Those items not directly available to the public such as CRS *Reports are* excluded from the database. The CITN file is undergoing revision at present and will eventually be replaced by two files: a CRS Products File, and a public policies literature file. The new products will augment the current bibliographic information with a one page summary of each CRS document, and are intended to both speed up the searching of files and increase the awareness and accessibility of CRS materials within the Congress.

Congressional offices serve as primary disseminators of CRS materials. CRS products can be ordered by congressional staff via telephone, letter, or electronic mail. CRS cannot determine the amount of information used by congressional staff for internal use versus that ordered to answer a constituent request for information. The volume of CRS products distributed (in hard copy format) in 1987 is indicative of their use and popularity: about 83,000 CRS Reports; 230,000 Issue Briefs; and 166,000 Info Packs.

There is some dissemination of CRS materials through private sector services. For example, University Publications of America (UPA) offers a set of CRS *Reports* on microfilm and a limited index. This company does not receive the information directly from CRS, but instead receives the materials, including *Reports* and some *Issue Briefs,* through Member offices.

DISCUSSION OF CROSSCUTTING ISSUES

The incorporation of electronic information technologies into congressional operations, its deliberations, the work of its support agencies, and of the GPO, changes access to congressional information by all participants in the process. The introduction of electronic technologies to assist in the recording, management, and dissemination of congressional information, in fact, challenges the traditional modes of information access and provides new opportunities for enhanced access by both Congress and the public to congressional information. The increasing use of these technologies to support congressional operations presents Congress with a new opportunity to examine its dissemination practices and to determine what level of access to congressional information should be afforded to the public beyond current publicly and privately offered services.

Five key issues are discussed below.

Benefits of Electronic Formats

Electronic versions of congressional information involve considerably more than a new

storage medium for the production of the hard-copy document. There is an unlocking effect to information found in the electronic *Congressional Record,* for example, because of the search and retrieval capabilities inherent in online and CD-ROM systems. Electronic products can permit a user to perform tasks that are difficult or impossible through the manipulation of the hard copy version; a user can undertake full-text word searches, simultaneous searches for segments indexed under more than one term, automated cut and paste editing, print on demand production, content analysis through word counts, and more. Transfer of information electronically increases timeliness, and has no geographic limitations.

There are several other criteria that can be applied to compare dissemination formats, such as: timeliness, comprehensiveness, searchability, ease of use, user support required, archivability, flexibility, and stability of the technology. The differences in accessing congressional information in different formats can be better appreciated when these criteria are applied to bill status information, as discussed below for illustrative criteria.

- Timeliness: Timeliness is the most important characteristic for consideration of bill status information. For the vast majority of users, bill status information has a relatively short "shelf life. For example, delayed knowledge of when legislation passes through crucial stages (e.g., reporting from the full committee) is no better than complete lack of information. Online formats permit access to up-to-date information whereas printed formats typically provide the information on a much less frequent (e.g., weekly or even annual) basis. CD-ROM potentially falls somewhere in between.

- Comprehensiveness: Comprehensiveness is important in order to retrospectively analyze previous related bills and to track fully the history and status of current legislation. The cost of online formats may limit its historical completeness; CD-ROM may offer the most complete and cost-effective coverage.

- Searchability: The more specific a searcher's interests, the more important the ability to search for particular bills and sections of bills. Online systems and CD-ROMs clearly enhance the ability to search for specific legislation or topics of interest.

- Archivability: Historical bill status information is of interest when analyzing the record of prior legislative activity. Microform and CD-ROM appear to be best suited for archival purposes.

- Flexibility: The flexibility of combining bill status information in different ways can be important, (e.g., matching topics and sponsors). Online and CD-ROM offer more flexibility to the extent this capability is needed.

- Stability of the technology: The technology for both printed and online formats is stable. CD-ROM technology is still changing rapidly, although standards on readers and disks protect to some degree against technological change.

As with bill status information, access to information in the *Congressional Record* is improved for the user when employing electronic information technologies and especially online services. Access to committee reports, hearings, and prints typically is less time sensitive, and CD-ROM may be particularly helpful in ensuring the availability and indexing of these materials.

The GAO Survey of Federal Information Users found that, for example, depository libraries already make considerable use of congressional information, primarily in paper format, with some microfiche and online access (the latter via private vendors). As shown in Table 8-4, the depository libraries desire to dramatically increase their use of online and compact optical disk formats, while reducing use of paper modestly and microfiche substantially. More specifically, the majority of depository libraries responded that an online *Congressional Record* and online committee calendar and bill status would be useful or greatly useful, as summarized in Table 8-5. CD-ROM format was assessed as somewhat less useful than online for these types of congressional information, but the majority of depository libraries re-

Table 8-4.— Library Use of Congressional Information°by Format, Currently and in Next 3 Years

Library group/Selected formats	Number of libraries responding		Net change	
	Currently use	Desire to use in next 3 years	Number	Percent
Regional depository libraries				
Paper	46	41	−5	−12
Microfilm	10	3	−7	−70
Microfiche	46	40	−6	−15
Electronic mail or bulletin board	1	6	+5	+500
Online data base	14	24	+10	+71
Magnetic tape	1	3	+2	+200
Floppy disk...	2	2	—	—
Compact optical disk	3	23	+20	+600
Selective depository libraries				
Paper .<.......	302	262	−40	−13
Microfilm	53	23	−30	−57
Microfiche	302	248	−54	−18
Electronic mail or bulletin board	0	13	+13	+
Online database	61	144	+83	+136
Magnetic tape	0	1	+1	+
Floppy disk.....	0	31	+31	+
Compact optical disk	2	112	+110	+5,500
Nondepository libraries				
Paper	99	90	−9	−9
Microfilm	8	11	+3	+38
Microfiche	31	41	+10	+32
Electronic mail or bulletin board	0	3	+3	+
Online data base	13	36	+23	+177
Magnetic tape	0			
Floppy disk.	0	10	+10	+
Compact optical disk	0	21	+21	+

°Defined as Congressional *Record,* Committee hearings and reports, and bills

SOURCE: GAO Survey of Federal Information Users, 1988

Table 8-5.—Library Assessment of Usefulness of Congressional Information in Electronic Formats

Library group/information product	Number of libraries responding				
	Greatly useful	Useful	Moderately useful	Somewhat useful	Little or no
Regional depository libraries					
Congressional Record					
Online 20		13	9	2	2
CD-ROM 22		13	5	3	2
Committee calendar and bill status					
Online 30		8	6	1	1
CD-ROM 17		14	6	4	4
Selective depository libraries					
Congressional Record					
Online 109		87	68	58	33
CD-ROM 95		103	57	65	36
Committee calendar and bill status					
Online 133		65	46	63	49
CD-ROM 80		66	55	77	76
Non depository libraries					
Congressional Record					
Online 25		21	36	39	66
CD-ROM 18		30	27	32	78
Committee calendar and bill status					
Online 26		19	29	33	79
CD-ROM 15		19	27	36	85

SOURCE: GAO Survey of Federal Information Users, 1988

spending felt that the CD-ROM format would still beat least moderately useful. Overall, the nondepository libraries assessed electronic formats as less useful than did the depositories, but the majority of nondepository respondents still rated electronic formats as at least somewhat useful.

In sum, electronic formats do permit enhanced access to a variety of congressional information, as reflected in the desire of the library community (and especially the depositories) to increase use of electronic formats.

Congressional Responsibility for Electronic Access

Congress has a long and valued tradition as an open political institution, sharing its information with a wide range of groups and individuals. Public access to congressional information is a dynamic concept and dependent upon a number of avenues of dissemination using various technologies. The use of electronic information technologies enhances congressional operations but at the same time produces some inequities in public access to congressional information. As more electronic technologies are incorporated into congressional processes, Congress will find it necessary to consider what level of public access to congressional information in electronic formats is desirable.

The debate concerning congressional information is no different than that with other government information. The debate is focused on the level of and type or format (paper, microfiche, and/or electronic) of public access. Some argue that as long as paper and microfiche documents are available to the public, then a sufficient level of access is permitted. In contrast, others contend that characteristics of the electronic media, for example, search and retrieval capabilities and timeliness, are so powerful that lack of comparable access to these formats constitutes inequitable access to congressional information. In this view, failure to provide comparable access to these products will exacerbate the gap between the information "haves and have nets. " The arguments as put

forth by those advocating a more active congressional role in the dissemination of congressional information and those supporting a more limited congressional role are presented below.

If one accepts the need for Congress to insure equitable access to congressional information in electronic formats, then the debate shifts to how equitable access should be provided. A key question concerns the role of the private sector. Private vendors have suggested that the most cost-effective way to provide access would be for Congress to contract with vendors, presumably on a competitive basis, for bulk rate online services made available to, for example, depository libraries. The Senate currently has a bulk rate contract with Legi-Slate for online congressional information.

On the other hand, Congress could offer its own online information services (e.g., via HIS and/ or GPO) to the depositories libraries and even the broader public. Advocates argue that a direct congressional role would help guarantee the accuracy and continuity of the information provided, would ensure at least a minimum level of electronic access to the general public, and would be cost-effective by utilizing systems already developed for internal congressional use.

Private vendors argue that such a congressional role would duplicate private offerings, be a wasteful use of public funds, unfairly compete with commercial enterprise, and possibly result in excessive reliance on Congress as the source of congressional information with the attendant potential for manipulation and control of information flow. However, at the same time, vendors point out that their services are state-of-the art and that it is unlikely that HIS or GPO would catch up soon or ever. If true, then it would seem rather unlikely that HIS or GPO offerings would be very competitive with private sector services. Perhaps more likely, Congress would itself provide a basic level of subsidized, low cost electronic access. and vendors would provide highly enhanced access to those who need and can afford to pay for such services. Even here, Congress could negotiate bulk rate contracts with vendors to

the extent highly enhanced service was needed for congressional and/or depository library users.

In considering the issue of public access to congressional and, in fact, all government information, three potentially competing goals impinge on the discussion. These goals relate to *efficiency, equity,* and *cost.* The desire to increase the efficiency of producing congressional information and also to make it more usable by Congress has led to extensive internal applications of and investment in information technology (which will continue to change and improve), and this, in turn, has resulted in unequal access to congressional information by the public. For example, with the development of the online capabilities for bill status information, Congress made a clear choice in favor of an electronic format in response to legislative information needs and demands. However, the production and distribution of congressional information involves significant expense, and Congress must balance the need for subsidized public access to congressional information against these production and dissemination costs.

The GAO survey found that libraries, perhaps typical of many public users, are willing to pay only modest amounts for electronic formats. As shown in Table 8-6, relatively few libraries are willing to pay more than about $25 per hour for online congressional information or about $50 per CD-ROM. Consideration by Congress of possible new dissemination techniques in concert with current methods (e.g. the depository library program) will affect future public access to congressional information and ultimately the degree to which the public is an active participant in the political process. In many respects, the resolution of these issues may be just as significant as

Table 8-6.—Library Willingness to Pay for Congressional Information in Electronic Formats, Maximum Acceptable Charge

Information product/library group	Number of libraries willing to pay				
	$1-$9 per hour	$10-$24 per hour	$25-$49 per hour	$50-$99 per hour	$100 + per hour
Congressional Record online					
Regional depository libraries	16	8	11	—	2
Selective depository libraries	98	81	48	15	1
Nondepository libraries	56	16	15	9	1
Committee calendar/bill status online					
Regional depository libraries	14	10	8	2	1
Selective depository libraries	110	66	43	13	2
Nondepository libraries	51	17	13	5	1

	Willing to pay				
	$1-$19 per CD-ROM	$20-$49 per CD-ROM	$50-$199 per CD-ROM	$200-$499 per CD-ROM	$500-$999 per CD-ROM	$1000+ per CD-ROM
Congressional Record CD-ROM						
Regional depository libraries	17	12	3	—	1	1
Selective depository libraries	119	71	22	6	1	1
Nondepository libraries	55	24	4	1	—	1
Committee calendar/bill status CD-ROM						
Regional depository libraries	20	10	1	—	1	1
Selective depository libraries	141	41	14	4	1	1
Nondepository libraries	59	13	3	1	—	1

ªExcludes "do not know" responses (about 50 Percent) and "not willing to pay anything" (about 1 Percent)

SOURCE GAO Survey of Federal Information Users, 1988

prior decisions on radio and television coverage of congressional proceedings.

Need for an Index to Congressional Information.

A vast amount of information is developed to support congressional operations. This information, as described previously, is created and disseminated in a combination of paper, microfiche, and electronic formats. Most of this information is available to the public, though not always in the same format as it is available to Congress. There is no central government produced index or catalog of congressional publications. Some items for sale at GPO are listed in the *GPO Publications Reference File* (in microfiche or on-line via DIALOG) and in the GPO *Monthly Catalog of United States Publications* (in hard copy or online from a number of vendors). There are also private sector indexing products available for a fee.

Several channels of access to congressional materials are available to the public, and how one chooses to access congressional information can depend upon the information needed, the skill level of the requestor, the financial resources of the requestor, and the geographic location, and personal or political contacts of the requestor. There is also no common dissemination policy employed by congressional offices and support offices. The introduction of electronic media to congressional operations presents Congress with the opportunity to improve public access to congressional materials, and this improvement could be effected, in part, through better tracking and indexing of congressional information. If Congress determines that an index is needed to facilitate improved access to congressional information, then Congress could authorize one (or more) of its offices to create an index, or could contract with a private or not-for-profit vendor for such service.

Role of GPO

As described in chapter 4, "Alternative Futures for GPO, " GPO already uses electronic photocomposition for many types of congressional documents or significant portions of these materials. As a result, congressional documents originate in electronic format, yet are disseminated in a printed format. This shift in GPO's production technologies presents Congress with the opportunity to disseminate its information in printed and/or electronic formats.

There are a number of trends and issues considered throughout this report which relate to the role of GPO. First, as described in chapters 2, 3, and 4, and in this chapter, the Federal Government as a whole is increasingly adopting information technologies in support of on-going programs and agency missions. Second, the hard copy or printed version of a document (if it still is printed) becomes, increasingly, a byproduct of the electronic publishing process. Third, there is no common information dissemination policy within the executive branch and Congress which specifies how government information is to be disseminated in other than hard copy or microfiche format (see ch. 11 for a discussion of policy issues). Fourth, GPO is a primary avenue for dissemination of government (including congressional) information to the public through the depository library program and SupDocs, and there is a debate as to which electronic products to disseminate and how.

Some electronic databases created in support of the printing process (e.g. for the *Congressional Record) are* already for sale by SupDocs. This practice is consistent with the sale of traditional hard copy or microfiche products in that GPO is providing to the public another avenue and format for dissemination of government information; this practice could be extended to a wide range of congressional information in *electronic* formats. Some members

of the information industry have expressed concern about the potential for competition with private enterprise if the GPO role in electronic information expands. The Information Industry Association has previously taken the position that the "government should only provide those information products and services which are essential to society's wellbeing and which are not, and cannot be, provided by the private sector".[10]

GPO's role in electronic media has already changed and is likely to change further, if only because GPO's primary client, Congress, is requesting products in electronic formats. In providing electronic formats to Congress, however, GPO is positioned to more actively participate in disseminating electronic formats to the public at large. The previous discussion of congressional responsibility for electronic access and the role of the private sector is relevant here. Congress is in a unique position to assist GPO in defining its responsibilities with respect to congressional information dissemination in an electronic age.

Need for Congressional Coordination

Congress invests over $100 million annually in automation activities, and this figure has increased steadily since the 1970s.[11] This investment in information technologies has been made by Congress in response to legislative needs and demands, and to technological opportunities. Recognizing the size and nature of this investment, Congress established the Policy Coordination Group (PCG) in the late 1970s to "coordinate the development of technology-supported information systems during the present and succeeding Congresses."[12] This group's actions were successful, but, recently, its coordinating efforts have diminished. Given the importance and complexity of the congressional information technology activities, Congress may wish to consider

or examine its current automation practices, including information dissemination activities, evaluate the current and anticipated information needs of the legislative branch, and possibly establish new or revised coordination mechanisms.

The 1987 CRS report, "The Legislator as User of Information Technology, " describes many of the resources available to Congress. For example, it is estimated that there are 5,000 computer terminals connected to the Senate computer support system and between 3,500 to 4,000 terminals within the House of Representatives. This does not include terminals and related equipment supporting other congressional offices. In the Senate, the Committee on Rules and Administration establishes overall policy for computer related operations, and the Committee has supported and developed a combination of four systems to address Senate automation and information requirements. The systems serve different office and legislative functions, and included in this resource base is the ability to access commercial online information systems. In the House, the Committee on House Administration and its Subcommittee on Office Systems determine House information policies and practices, and the House Information Systems (HIS) is responsible for information systems planning and operations. For example, HIS operates the Members Information System (M. I. N.) which includes newswire services, information services such as LEGIS, government statistics, the *Congressional Record* in full text, federal funding files, and administrative services such as electronic mail, scheduling information, and the like.

The Congressional support offices–CBO, CRS, the Library of Congress, GAO, OTA, and GPO—are all in different stages of automation, each with differing future plans and goals for incorporating electronic media within their programs. Appropriate use of electronic information systems permits these offices to improve their operations, and hence their service to Congress, but, also, increases the amount and types of possible interactions with other institutions and the options for information dissemination to the public.

[10] Information Industry Association, "Public Policy Activities of the Information Industry Association, " June 1987, p. 26.
[11] Congressional Research Service, "The Legislator as User of Information Technology, " Dec. 28, 1987, p. 3.
[12] Ibid., p. 18.

The expanding use of electronic dissemination may necessitate that Congress review, in particular, policies on public dissemination of support agency reports and materials. As noted earlier, GAO reports are publicly available directly from GAO with the first five copies free to any requestor. OTA reports are publicly available but, for most requestors, via the GPO sales program and at the established sales price and sometimes via private vendors who reprint OTA documents. OTA one-page briefs and summary reports are available free to the public. CRS reports are available free to all member offices, and to the public through these offices at the discretion of members. Only about one-tenth of CRS reports are available directly to the public. The dissemination of other support agency documents (e.g., GAO testimony, OTA staff papers, CRS issue briefs) is even more variable. Congress may wish to consider revisions to existing policies to help ensure more equitable public access to support agency materials, including the possibility of consolidated indexing and more consistent approaches to pricing and availability.

Expanding electronic interactions will also influence and could change the nature of some congressional operations. The cooperative program between the LOC and the Research Libraries Group is illustrative. The Library's Linked Systems Project (LSP) enables eight other libraries to input (online) cataloging information into the LOC's computer. And work is currently underway which will permit the exchange of bibliographic data from computer to computer using the LSP so that, when the data is transmitted to the LOC, it can also be redistributed to other bibliographic utilities. The role of the LOC in the future, as it is seen by the new Librarian, James H. Billington, fully employs the electronic technologies:

> By imaginatively using new technologies, for instance, we might aspire to share by the year *2000* much of the substantive content and not merely the descriptive catalog of this remarkable national collection with citizens and students directly in their local communities. Using new technologies boldly may enable us to become less preoccupied with the means and freer to pursue the ends of enhancing the direct interaction between people and ideas within and beyond the Library.

In sum, the integration of information technologies into congressional operations is changing the nature of congressional processes and the possibilities for enhanced public access to information created, generated, and disseminated by Congress. There is a window of opportunity for Congress to examine the congressional information infrastructure (including House, Senate, and support offices) in light of changing technology and user needs, and to consider new or alternative ways to harness the technology to strengthen congressional information dissemination and more fully realize the goal of public access.

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13 U.S. Congress, Senate, Committee on Rules and Administration. Confirmation Hearings of James Billington as Librarian of Congress, 100th Cong., 1st sess., July 14, 1987.