

We've Come A Long Way... Maybe*

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Introduction

On the opening day of the 104th Congress in January 1995, the House of Representatives enacted what many considered to be the most sweeping institutional reforms in nearly 50 years. A number of academics and political commentators wrote books and papers, and held conferences throughout the country on the significance of those reforms on deliberation and accountability in Congress. But arguably the one change that has had the most profound impact on the way Congress does business was not part of that opening day package of reforms. It was the widespread introduction of electronic mail and the Internet, and it has only been recently that observers have begun to examine the effects of these technologies on the institution. As Ken Weinstein of the Heritage Foundation noted: "Congress's efforts to bring itself on line in the age of the information superhighway were an important, albeit largely unheralded, part of the reform efforts [of the 104th and 105th Congresses]."¹

By now, we are all familiar with former House Speaker Newt Gingrich's quote about making information "available to any citizen in the country at the same moment that it is available to the highest paid lobbyist."² At the time the Speaker made that statement, it is doubtful that anyone fully appreciated the technical constraints that Congress faced in turning his vision into reality. Updating the technological infrastructure of an organization as large and decentralized as the Congress was and continues to be an enormous undertaking. The resources dedicated to new technologies, and the familiarity of Members and staff in their practical use, were limited.

As the Computer and Information Services Working Group of the House Oversight Committee wrote in a 1997 report:

"The U.S. House of Representatives was intrinsically a 'paper-based' institution. Electronic legislative information, committee documents, and documents from the Library of Congress, Congressional Budget Office, Government Accounting Office, and other organizations all existed on separate computer systems or in hard-copy storage. Even though electronically stored, most documents were only available for mass distribution in hard-copy format, and there was no common architecture, language, or

¹ Weinstein, Kenneth R., testimony before the Subcommittee on Rules and Organization of the House, June 26, 1997.

² Former Speaker of the House, Newt Gingrich, January 4, 1995.

format by which documents could be easily integrated, shared, electronically distributed, or viewed among offices or organizations. Electronic mail systems ('E-mail') in Member and committee offices were available, but many existed as islands of technology. Communicating electronically among offices was clumsy and difficult, even for offices that were next door in the same building. Access to most legislative information was accomplished through the use of primitive computer equipment accessing a mainframe program first written over 15 years ago. No common computer platforms existed.”³

When you look back to where we were just a few years ago and look at where Congress is today, it is clear that the institution has made a remarkable transformation into the information age. According to estimates by the Committee on House Administration and the Legislative Branch Appropriations Subcommittee, the infrastructure of the House network has been substantially upgraded, at a cost of approximately \$1.5 billion over the past six years. Support and training of congressional staff has drastically improved, and the institution's presence on the Internet has been expanded to provide the public with unprecedented access to House documents, electronic communications to their Representatives, and audio and video streaming of committee hearings. We can say with certainty that Congress is a very different institution because of the Internet and its related tools.

How Far We've Come – Technology Use In The House Since 1995

Prior to 1995, the U.S. House of Representatives was almost exclusively a “paper-based” institution. While computers and electronic document production applications were used, they were largely limited to stand-alone computers or text-only “dummy terminals” not connected to any House-wide network and the mass distribution of documents was possible only through hard-copy means. Only 56 House Members had Internet access and there were virtually no personal office or committee Web sites. Electronic connections between Members' Capitol Hill and district offices were limited with fewer than 30 Members using high-speed network connections. Finally, the House supported nine disparate and effectively uninteroperable e-mail systems.⁴

Things began to change quite rapidly with the opening of the 104th Congress in 1995. At the direction of former Speaker Newt Gingrich and Rep. Bill Thomas (R-CA), the then Chairman of the Committee on House Oversight (now the Committee on House Administration), the House began an ambitious program to upgrade all of its computer systems. In short order the House made significant headway and by the end of the 104th Congress, 655 Member and supporting offices had connections to the Internet, 222 Members had high-speed network connections between their Washington, D.C. and district offices, the House adopted a set of Internet e-mail standards ensuring full interoperability, and more than 222 Member offices and 27 full

³ Available at www.house.gov/cha/publications/cybercongress/body_cybercongress.html

⁴ Figures from “CyberCongress Accomplishments During the 104th Congress,” Committee on House Oversight Computer and Information Services Working Group (CISWG). February 11, 1997.

committees had established Web sites on the House web server.⁵ In addition, on January 5, 1995, Gingrich, Thomas, and the Librarian of Congress, Dr. James H. Billington, unveiled the THOMAS Web site, a comprehensive database allowing the public unprecedented access to Members of Congress and legislative information including roll call votes, the *Congressional Record*, bill text and more.⁶

In addition to these upgrades in the infrastructure of the House information technology system, the House began to investigate and study early on the procedural impacts of technology on the legislative process and the House as an institution. In early 1996, I organized “*The 21st Century Congress Project*” to assess the potential implications of future technology utilization on the legislative process, and to recommend proposals for change. Its first hearing, held on May 24, 1996, aptly enough incorporated video-conferencing technology along with television, e-mail and the Internet to create the first fully interactive congressional hearing. Subsequent hearings of the Subcommittee have further investigated this topic, including examination of the experiences of a number of state legislatures and their utilization of technology.⁷ As part of the project, the Subcommittee also released a number of reports on technology and its real and potential impact on the U.S. House.⁸ At the beginning of the 105th Congress in 1997, the House Rules Committee recommended a new rule stating that “each committee shall, to the maximum extent feasible, make its publications available in electronic form.” Its passage marked the first Internet-related procedural change to House activities and saw quick results as committees began to require testimony in electronic format for publication to their Web sites along with meeting and hearing schedules, hearing transcripts, and other committee information and publications.

Today, Internet use by Congress is part of the everyday working environment. Every Member and standing committee has a Web page, e-mail is often the standard method used for communicating and sharing documents between offices, Capitol Hill and district offices are wired for high-speed Internet access, and the use of audio and video streaming technology, especially by committees, is becoming more and more common. The public has around-the-clock access to their representatives through e-mail and Web sites and the unprecedented

⁵ Ibid. Committee numbers include standing House committees as well as Joint Committees in existence during the 104th Congress.

⁶ Ibid.

⁷ Transcripts available on-line: “Legislating in the 21st Century Congress” (<http://www.house.gov/rules/21hear01.htm>); “Impact of New Information Technologies on Decision-Making in the House of Representatives” (<http://www.house.gov/rules/tran02.htm>); “Legislating in the Information Age” (http://www.house.gov/rules/rules_hear05.htm)

⁸ See “Information Technology in the House of Representatives: Trends and Potential Impact on Legislative Process” (<http://www.house.gov/rules/infotech99.htm>) and “Electronic Devices in the House Chamber” (<http://www.house.gov/rules/e-devices.htm>)

availability of Congressional proceedings, activities and legislative publications via THOMAS and other related Web sites gives them a clearer picture than ever of the activities of Congress. Add to this the fact that Members and their staffs are becoming more tech savvy and demanding, it would be hard to name any other government entity anywhere in the world that uses technology better than the United States Congress to both improve efficiency and productivity internally and provide transparency and access externally.

How Congress Uses The Internet

With the continuing expansion of the Internet into everyday life in the U.S. Congress, congressional offices have varied in their application of this technology. In general, however, over the past few years Internet use by Member offices and committees has grown rapidly in two primary areas:

- ***Internal Use -- Legislative/Policy Research & Communications***
- ***External Use -- Constituent/Press Communications & Services***

In addition, the growing use of technology has resulted in a real impact on the systems and staffing requirements of Member and committee offices. While the House itself provides a significant level of hardware and software maintenance through its supporting offices, many offices find themselves demanding or requiring services beyond that provided by the House. In addition, as Members and committees come to rely more on these technologies, they also find themselves requiring staff that is proficient in its use, including personnel specifically dedicated to maintaining and supporting their computer equipment and applications. Where the position of Systems Administrator is sometimes a secondary position often relegated to another staffer, many offices, in order to sufficiently support the hardware and software they use, now require a dedicated and experienced staffer whose sole responsibility is maintaining and supporting the office's computer equipment, Web site and other IT systems. As offices continue to rely on these technologies more, this position will only become more important.

Legislative/Policy Research & Communications

As a research tool, the Internet is quickly becoming the standard on which congressional staff rely. Until just recently office personnel were forced to depend on hard-copy delivery services provided by such entities as the Congressional Research Service (CRS), Congressional Budget Office (CBO), Government Printing Office (GPO), and others. While some electronic research tools were available (eg. Lexis-Nexis), their cost and/or limited content restricted their usefulness. The Internet has made such research, once a timely and labor intensive effort, straightforward and has greatly increased productivity in this area. For example, until recently, legislative staff spent a majority of their time responding to constituent comments, questions and requests. Today, the Internet and other tools, including massive database-driven Constituent Management Software (CMS) packages, have greatly reduced the time required to fulfill these duties, freeing staff for more involvement in legislative and policy planning. The resources and

documents of all the above-listed organizations, plus those of the entire Executive branch, public policy research organizations, and more are now available literally at the click of a button. In addition, improvements in Internet search engines have made Web-wide searching vastly superior to anything heretofore available.

In addition to the Internet itself, other commonly-used office applications have made it possible to enhance and supplement electronic documents with links to additional information. Word processing software, e-mail and scheduling programs and more have all been designed so that users can append Web pages as clickable links. Electronic documents can now be shared within and between offices via e-mail including these links, allowing staff to include and share supporting information found on the Web. Finally, the growing usage of such software as Adobe Acrobat® is allowing staff to access, produce, edit and share documents electronically in the same format in which they are produced. This is especially important when considering the visual representation and formatting of legislative documents.

As mentioned above, e-mail has allowed Member, committee, leadership, and supporting offices to share documents and other information on a larger and more rapid scale than previously possible. E-

In March 2001 alone, nearly 9 million internal e-mails passed between House staffers.

mail, scheduling software, and other related applications are used at all levels and have had a tremendous impact on the ease and efficiency of everyday life in a Member office. Rare is any activity that has not been coordinated, scheduled, discussed, or studied through the use of some electronic communications application. In March 2001 alone, nearly 9 million internal e-mails passed between House staffers.⁹ Increasingly, documents previously mass produced and distributed throughout the House are now sent electronically, providing significant labor and material savings in an era of cost-cutting. This trend promises to grow as publishing and related software applications adopted by the House continue to simplify and expedite these activities.

Finally, the House continues to expand and improve on the publication and management of legislative documents. According to a recent CRS memorandum:

“[A planned new electronic document management system (DMS) in the House] is part of a Hill-wide effort to facilitate publication of legislative documents on the Internet, provide for more current retrieval of legislative information, and allow for more rapid exchange of documents without having to convert them to different formats. This will enable Congress through a single source to have immediate access to core legislative documents, receive information on actions taken in committees and on the floor, and link to a wide range of information resources that are relevant to issues on the legislative agenda. Similarly, by rapidly making much of this information available via THOMAS, there will be greater public access to ever-increasing quantities of legislative

⁹ Source: House Information Resources

information.”¹⁰

In a relatively short period of time, the U.S. House of Representatives has gone from a largely “paper-based” institution to one that increasingly relies on the Internet and other related electronic communications technologies. Virtually every activity in the House, from administrative and support functions through the various stages of the legislative process, has been effected in one way or another by these technologies. Overwhelmingly, these effects have been positive, with visible increases in productivity and efficiency at all levels. And while the House will never be at the “cutting edge” of technology adoption, it will continue to implement the tools necessary to improve the internal functioning of the institution to the extent that they take into account and support the vital importance of the deliberative process that gives Congress its unique nature.

Constituent/Press Communications & Services

Member & Committee Web Sites

Starting with the 104th Congress, every Member and committee was provided with the opportunity to maintain an official Web site on House-maintained servers. At the end of the 104th Congress 222 Members had an official Web site. Together, these sites were accessed approximately 850,000 times per month. Today, every Member and standing committee has an official Web page and together they are accessed over 43 million times per month.¹¹ Of these, most are hosted by servers maintained by the House while a few, mostly Leadership, sites are served and maintained on office-owned or privately contracted equipment.

Congress	Member Web Sites	Accesses per Month
104th	222	850K
107th	440	43,000K

Source: House Information Resources

Side-by-side with the growing use of Web sites by Members and committees is the manner in which they are developed and maintained. Starting in the 104th Congress, a significant number of Member sites were developed and sometimes maintained by supporting House, not Member office, staff using a basic template design. Today, however, the overwhelming number of sites are developed and maintained by office staff themselves, the results being a wide variance in the design style and content of sites. Whatever the case, these Web sites have quickly grown into an important part of the Member’s and committee’s communications and constituent

¹⁰ “Information Technology in the House of Representatives: Trends and Potential Impact on Legislative Process for the 107th Congress,” Jeffrey W. Seifert, Congressional Research Service, Washington, D.C. April 19, 2001.

¹¹ Source: House Information Resources

service toolbox.

A critical function of any Member's office is illustrating the Member's work and legislative service on issues important to his/her district. Prior to the advent of the Internet, Members relied almost exclusively on labor intensive outlets such as Town Hall meetings and other public appearances to maintain visibility. Newsletters and other related mailings were often, and continue to be, used for the same reason. The local print, television and radio media remained the other available avenue for such activities, but this method includes the obvious lack of control that is so important. The Internet has changed this. While personal, hands-on appearances and related activities will remain indispensable, the Internet has allowed Members to speak directly to constituents, in their own words, without any filters, at any time of the day, through Web sites and related technologies that can be updated at a moments notice without the time-related and other costs that go into traditional hard copy mailings.

At their most basic level, Member Web sites provide a source of general information on the Member and his/her legislative activities including a bio, district information, floor statements, sponsored bills and press releases. On an active, frequently updated Web page, this serves as an around the clock brochure *highlighting* the Member and his/her service. In addition, the Member Web site allows the Member to directly present information in a manner free of any outside filters. While political and campaign content or links are prohibited, the Member Web page plays an important part in *promoting* the Member's legislative activities and policy agenda. At this level, the Member Web pages serve not only as a basic informational resource, but as a tool *advocating*, in the Member's own words, their work. As the Internet continues to grow in usage, this unfiltered and Member-controlled source of information will continue to grow in value as constituents, the press, and other people and organizations come to rely on it and as Members continue to come to terms with and appreciate its benefits and possibilities.

Along with legislative service, the other important function of a Member of Congress is in the constituent services arena. While each Member has staff in Washington, D.C. to assist with their legislative and policy activities, they also have personnel, most often located in their district office(s), and who often outnumber legislative staff, whose primary role is in working directly with constituents and local government officials who have problems, concerns, or questions regarding any of the various federal agencies. At any moment, these staffers may be handling dozens of matters including Social Security and veterans benefits delays, student loan issues, immigration and naturalization assistance, passport requests and postal delivery or IRS complaints. In addition, these staffers assist constituents planning trips to Washington, individuals interested in purchasing a U.S. flag, and high school seniors interested in service academy appointments. Any Member who values a strong constituent services record comes to rely greatly on these staff resources.

Prior to the advent of the Internet, Members and the constituents they serve were often limited to regular, often East Coast, business hours when attempting to request or receive information from federal agencies. As a Member representing the Los Angeles area, I recognized

early on the frustrations this can cause. For each request made, the Member office was often forced to contact multiple agencies or organizations for the information and then forward it on to the constituent, oftentimes leading to considerable delays. The amount of time spent handling “the basics” (*e.g.* providing constituent release forms for casework issues, answering frequently asked questions, taking constituent tour and flag requests) is often significant and can sometimes limit the time available for handling more substantive, time critical matters.

The Internet has changed this. Now, via the Member’s Web page, a constituent can submit an electronic tour or flag request, apply for a service academy nomination, or learn how to apply for a small business loan, become a U.S. citizen, get a passport, or obtain Social Security benefits, whenever they want, regardless of whether or not the Member’s Washington or District offices are open. This usage of the Internet as a tool saves both the constituent and the Member’s staff time, allowing them to fulfill basic needs on their own and providing more “quality time” for those requests that require more in depth attention and personal contact. As more of this information is made available on-line and as various e-commerce tools of the business world are applied throughout government, the effective Member Web site will continue to include these services and provide constituents with an increasingly important source of valuable information.

While Member Web sites vary across the board not only in design and focus but in content as well, they have become generally useful in providing the public with information and tools that highlight the Member’s service to his/her district and constituents. They have become an extremely valuable communications and public relations instrument in promoting the Member’s activities and as a tool, they offer time-saving self-help information and assistance to the public on matters concerning federal agencies and other matters. This source of information will only grow in importance as Web use becomes commonplace and constituents continue to seek, and expect to find, such information on their representative’s Web site.

Committee Web sites have similarly grown in use. As with Member sites, the design and content of committee sites vary widely but each has attempted to provide their audience with helpful and informative material covering their activities including, in most instances, the views of the minority membership. Unlike Member office sites whose primary target audience is their own direct constituency, the audience of a committee site is focused primarily on those who follow the specific issues within its legislative jurisdiction. While this audience certainly includes the general public, especially when concerning “major” issues, it is most often made up of groups and individuals, including lobbyists, government officials, interest groups and others, who follow and often seek to influence in one way or the other, specific legislation and other matters before the committee. For example, the House Committee on Agriculture’s audience primarily includes those groups and individuals focused on such matters as farming, food safety, conservation and other related issues. Other committees have a very different role and, therefore, a very different audience. The audience of the Rules Committee, for example, as the committee that sets the ground rules for legislative debate on bills coming to the House floor, is often made up of Members themselves and their staff, executive branch employees and outside groups and individuals tracking various legislation. For example, in May 2001 alone, the Rules Committee

Web site received almost 200,000 requests from within the House as well as over 16,000 from the U.S. Senate, approximately 3,000 each from the Congressional Budget Office and Department of Justice, over 1,000 from each of the U.S. Securities and Exchange Commission, Department of State, and Department of Education, and approximately 20,000 each from non-profit organizations (.org's) and educational institutions (.edu's).¹² Internationally, the committee site received almost 2,500 requests from Germany and over 1,000 from Japan during the same month.¹³ The Rules Committee Web site also provides valuable background reports and briefs on its site about congressional rules, procedures, processes and legislative terms in language that is easy for the average citizen or student to understand. This information is used by a number of colleges and universities around the country as an information resource for American government and political science courses.

A look at the various committee Web sites shows the extent to which the rule requiring publications to be available in electronic form has been implemented. Standard information on committee sites include hearing schedules, transcripts and written testimony, jurisdictions and procedure information (eg. committee rules, jurisdiction, oversight plan, history etc.) and; committee reports, prints and other publications.

Recently, many committees have begun to offer even more information via their Web sites. A number regularly broadcast audio or video feeds of hearings over the Internet and some offer e-mail subscription services for committee hearing announcements and other information. Again, this information has provided the public with unprecedented access to the activities of House committees and is another example of the largely unheralded reforms taken up by Congress.

As the bodies where much of the legislative "footwork" is accomplished, committees will continue to look for tools that help them fulfill their responsibilities in an era of increased cost cutting. At the beginning of the 104th Congress, for example, the House moved to cut committee staffs by one-third and the yearly battles to increase committee funding, no matter how small, remain pitched. Today, committee Web sites play not only an important role in providing important and relevant information to their users, but have helped increase productivity in committee offices. Prior to their availability on committee Web sites, staff spent much of their time on the phone answering questions about hearing schedules, the availability of committee reports and other publications, and other related activities. Today at the House Rules Committee the productivity increases have been quite significant, with many more hours per week now available for actual legislative work since the availability of this information on the committee Web site. For example, in April 2001, a relatively slow month for the committee with only three pieces of legislation before it, the Amendment Log-In Form on the Web page, which allows Members to print out the form required for submitting their proposed amendments to the

¹² Source: House Information Resources.

¹³ Ibid.

committee, was used over 40 times. Previously, each such submission required the involvement of Rules committee staff. Another example covers the issuance of special rules for each piece of legislation. Prior to the posting of this information on the Web site, which includes the amendments made in order by the committee for that specific bill, committee staff often took over one hundred phone calls from those, including Members who submitted amendments, requesting the information. It is estimated that these calls have been reduced by over 75% now that the information is immediately posted to the committee Web page. These applications have proven invaluable to the limited resources of the Rules Committee. Other committees have reported similar savings.

With a relatively minor and unheralded change to House rules, two significant results came about. The first, to be expected, was that information heretofore largely inaccessible to the public was posted on committee Web sites for all the world to see. Hearing schedules and transcripts, even live coverage, were no longer only available to lobbyists and other individuals and organizations “Inside the Beltway” but to interested citizens coast to coast. Along with other Web sites such as THOMAS, this has provided the public with an unprecedented view and access to the inner workings of their government and increased their ability to monitor and participate in the legislative process. Another result, perhaps less planned but significant nonetheless, has been increased committee staff productivity. The simple posting of committee schedules, hearing transcripts, and committee publications on their Web sites has resulted in substantial decreases in direct information requests that must be answered and fulfilled by committee staff. Taking into account the committee staff reductions passed at the beginning of the 104th Congress and limited increases in committee budgets, these savings have played an important role in freeing up valuable committee staff resources for important legislative and policy planning responsibilities. As additional information is made available on committee Web sites and their use becomes more widespread, the positive effects from both of these consequences will continue to grow and illustrate the ability of technology to play a vital role in informing and educating the public on their system of government in a continued era of cost savings.

E-Mail and Related Electronic Communications

Another fast growing Internet-related application used by Members and committees is e-mail and related electronic communications tools. Again, its use across offices varies widely, but it has had an overall positive effect on the sharing of information within and among offices, and with their constituents.

In addition to its use as an internal communications tool, e-mail’s other obvious application has been with constituent and press communications. In this respect, there is an even wider variance in its application across offices, but its impact has been significant nonetheless.

E-mail has made communicating with one’s elected representatives easier and faster than ever before. Overwhelmingly, the vast majority of electronic constituent communications is

incoming from constituents as opposed to outgoing from Members, with 48 million e-mail messages reaching House offices in 2000.¹⁴ According to a recent study conducted by George Washington University and the Congressional Management Foundation, this number continues to grow by an average of one million messages per month.¹⁵ While a significant number of these communications are legitimate and thoughtful constituent-written items, a large and growing number of them are produced by individuals and organizations engaged in practices more akin to spamming than anything else. Like the growth in advocacy group-coordinated postcard and fax campaigns, these practices have forced offices to adopt procedures to help ensure that direct constituent communications and services are not adversely affected while at the same time making sure that this new method of communication is treated no differently than other more traditional means.

Member offices have two general methods for accepting and managing constituent e-mail. They can choose to have either a public e-mail address or a form-based Web mail system. Each system has its own advantages and disadvantages and each has been adopted in one way or the other across most Member offices.¹⁶

Offices providing a public e-mail address offer the easiest method for contacting a Member electronically. With e-mail, individuals can contact their own or multiple Members at the same time with a single message, allowing them to create personal distribution lists using their e-mail software package. Depending on the platform, this also allows people to attach documents to the e-mail being sent. Approximately 255 Members have a public e-mail address allowing constituent contact.

The downside of this method is just as clear as its advantages. Short of the constituent including his or her street address within the e-mail, there is no viable way of confirming whether or not he/she is an actual constituent. In addition, the creation and use of distribution lists easily supports the practice of spamming and other activities that make managing these communications difficult at best. With some offices accepting public e-mail receiving as many as 8,000 messages a month¹⁷, it is easy to see why this has become a concern. Given that a

¹⁴ Source: House Information Resources

¹⁵ “E-Mail Overload in Congress: Managing a Communications Crisis,” a report by the Congress Online Project. Available at www.congressonlineproject.org/email.html.

¹⁶ Regardless of the format incoming constituent messages take, be they phone call, fax, public e-mail or Web mail, Members overwhelmingly choose to respond via hard-copy “snail mail” for a number of reasons including security and tampering concerns, internal quality control issues, and basic resource limitations.

¹⁷ “E-Mail Overload in Congress: Managing a Communications Crisis,” a report by the Congress Online Project. Available at www.congressonlineproject.org/email.html.

majority of these come from non-constituents only serves to highlight the problem even more. While some offices have successfully automated their e-mail response procedures to an extent, others have begun to reconsider this system altogether. In any instance, this situation has led many offices to install electronic mailbox management filters that, when unable to determine their origin, simply delete the e-mail unread altogether.

The system preferred by many offices is based on an on-line form where the communication is sent via a Web page to an established, usually hidden, e-mail account. Today, approximately 155 Members use this system instead of having a public e-mail address. In most instances, this system requires an individual to enter in his/her name, street address, e-mail address and other information before they can submit their message. Depending on the system and procedures in place, this method allows electronic communications to be automatically or manually sorted as coming from a constituent or non-constituent based on the information entered. This method prevents individuals from spamming using distribution lists and, by forcing the entry of personal information with the message, cuts down on the overall number of e-mail from non-constituents and advocacy organizations engaged in mass e-lobbying and related activities. Offices using this method receive approximately 300 communications a month, with the overwhelming number of them from constituents.

The overall advantages to using this system are that, as indicated above, by requiring individuals to fill in a certain amount of information prior to their message or comments, the quantity of incoming messages is far more manageable than that in many offices with a public e-mail address only system. In addition, the quality of the items, as measured by their origination from an actual constituent of the Member, far surpasses offices using a public e-mail address. While a certain level of automation and filtering is available with the public e-mail address system, the overall volume of incoming messages, including those unverified as originating from constituents, continues to present management problems with that system.¹⁸ While I initially maintained a public e-mail address, the volume of messages from non-constituents and the amount of spam and “junk mail” that I received made response management quite difficult and led me to switch to a Web form-based method of electronic communications. Since then, I consistently receive a steady stream of incoming messages from constituents and have yet to receive a single piece of spam-like e-mail. My constituents have been overwhelmingly positive in their view of this system and my office is now able to more efficiently manage and respond to their questions, comments, and suggestions.

The primary downside to the Web mail system is the possible “annoyance” factor that individuals attempting to regularly use the system may develop. While Web forms can be

¹⁸ During various meetings with state legislative staff and Members, the House Rules Committee, as part of its *21st Century Congress Project*, heard widespread anecdotal evidence that many state legislators, especially in larger, full-time legislatures like California, have also moved away from public e-mail towards a Web form system due to similar problems and concerns.

developed to remember the user's information and automatically fill in the required material, this would arguably defeat the purpose of the form and verge on permitting spam to at least the one Member using the form. This procedure, however, would still prevent multiple Member spamming. In general, however, most individuals come to appreciate the purpose of the Web form system when explained to them -- that it is a system developed to allow the same, near-instantaneous communications as e-mail, while helping to ensure that messages from actual constituents are handled expeditiously and spam-type messages are filtered out.

One area where an increasing number of Member offices are applying electronic communications applications externally is in the use of electronic list services (listservs), e-mail newsletters and, in a handful of instances, video newsletters. Similar to traditional Member newsletters, these electronic communications services allow constituents to "subscribe" to them, usually via the Member's Web page. Though the House does not provide for these services internally, Members have turned to outside vendors and off-the-shelf software applications to provide a service that is becoming increasingly popular among constituents. While in many instances, these e-newsletters are simply electronic versions of the hard copy newsletters sent out by the Member, they are increasingly being used to provide exclusively electronic monthly or even weekly updates of congressional activities including bills sponsored by the Member, legislative action on the House floor, and other updates on official House business. These electronic newsletters fall under the same House franking regulations as traditional mailings, including the regulation stating that mass mailings of over 500 identical pieces cannot be sent out "less than 90 days immediately before the date of any primary or general election (whether regular, special, or runoff) in which such Member is a candidate for public office."¹⁹ Interestingly, in the U.S. Senate, a similar 60-day rule applies to the updating of Member Web sites themselves while House regulations do not apply to "Web sites and other electronic bulletin boards that post information for voluntary public access."²⁰ Given that these mass electronic communications services have little to no per item cost following initial installation of the required software and hardware, it seems likely that they will continue to grow in use and may at some point become a functional answer to the increasing problem of how to most efficiently and effectively respond to constituent e-mail.

House committees are also increasingly turning to these types of electronic communications services in order to allow people to receive e-mail notices including committee hearing announcements, news releases, and other information. While these announcements are usually posted on the committee Web site, they are more effective as an active method of providing the information as opposed to their passive placement on the Web site that still requires people to look for it themselves. In the case of committee meeting announcements, this procedure has proven extremely helpful and effective.

¹⁹ Members' Congressional Handbook. Available at <http://www.house.gov/cha/handbook/>

²⁰ Ibid.

Another fast growing application of electronic communications is the use of streaming audio and video technologies by House committees over the Internet. Today a majority of the standing committees of the House provide audio or video streaming of their hearings. Most, due to cost limitations, are limited to audio-only Webcasts, but a few committees, most notably the committees on Science, Government Reform and International Relations, have made significant technical infrastructure investments that allow them to Webcast in video as well. While certain hearings have always been covered by C-SPAN and other broadcasters, this new technology allows committees to air every hearing, making them available to a far wider audience on a regular basis than ever before imaginable. While issues such as bandwidth limitations and high speed access availability have restricted the successful widespread application of this technology over the Internet in general, its use continues to grow.

Systems Management & Staffing Requirements

The House of Representatives provides and supports a significant amount of the technologies on which Member and committee offices rely. These include the backbone system through which Members and staff send and receive e-mail, browse the Web, and other Internet-related applications. In addition, House-maintained servers house the vast majority of Member and committee Web pages. Finally, the House provides supporting information, including a set of minimum standards, on computer and related equipment which offices may purchase from outside vendors. In many instances, however, Member and committee offices themselves make the decisions on what computer equipment to purchase and have the added responsibility of servicing the equipment. While vendor support contracts cover a significant portion of this equipment, the final decision and responsibility for a growing number of technological tools falls on the offices themselves.

Personal computers and, increasingly, laptops have quickly become the primary tool on which Member office personnel rely daily. While the House provides a list of minimum required hardware standards for such equipment, it is up to each office, often through third party vendors, to choose, purchase, install and maintain their own hardware and related software. As these systems become more complicated, more is required of those supporting them. Again, while vendor support contracts cover a great deal of this, a growing number of offices are finding it increasingly important to have in-office personnel who can, at a minimum, help troubleshoot problems.

In addition to the basic set of hardware and software found across all offices in general, a growing number of Members are demanding the use of other tools, discussed above, widely found elsewhere including videoconferencing, audio and video Web streaming, electronic newsletters and more. While in some of these instances the House offers support, there are a number of others where the office is left to purchase, install and maintain the equipment on its own or through an outside vendor. Internet streaming services offer the most vivid example of this. While this technology is not currently supported by the House, a number of Member offices and, especially, committees, have begun to offer streaming audio and/or video from their sites.

While this technology is expensive, offices have noted its usefulness in communicating beyond the simple written word via the Internet and have made the decision, on their own, to develop and administer streaming services. In a number of instances this has involved contracting out to third-party vendors, at least initially, but many offices manage this technology in-house. As this technology grows in popularity, the growing bandwidth requirements and other issues will at some point force the House to decide on support procedures for it or risk access and other problems that Member offices and committees, and their constituents won't accept.

These and other related technology uses by Member and committee offices have led to the growing need for experienced and dedicated technology staffers not only by House supporting offices, but in Member offices as well. As the use of these tools continues to grow, the demand for support staff will as well. Already, Members have increasingly come to realize the important need for such individuals in their offices as they continue to implement and use the newest gadgets and tools. From Web site design and management through office network administration, the skill requirements for these positions will continue to grow and track that of the private sector. Already the House spends more money and resources on training staff in these technical-related areas than in legislative or procedural-related ones. The ability of Member and committee offices to hire and retain these individuals will only continue to grow in importance, for while the House will continue to support a significant portion of these systems, their demand and implementation in congressional offices will vary widely and force Members and committee offices to depend on in-office personnel to best apply and support them.

Impact & Implications -- The Technology Paradox

While the Internet and related technologies have had an overwhelming impact by offering the public unprecedented access to, participation in, and understanding of the U.S. Congress, it has also raised some valid and serious concerns. Congress is not a one dimensional institution. It has many functions and responsibilities – among them to deliberate, legislate, educate, and communicate. Each of these functions and responsibilities is affected differently by institutional change. Where technology may improve the efficiency of Congress' internal operations and enhance its ability to publish documents, track legislation, and communicate with constituents and with each other, it also has the potential to undermine Congress as a deliberative institution.

“Electronic Democracy”

E-mail, Web pages and other tools of the Information Age have allowed information to flow faster than ever before and has increased the call from many corners for Congress to respond to this by streamlining the legislative process in order to make it more directly and rapidly responsive, calls that run counter to the very core of our system of representative democracy. As one observer notes:

“American democracy is about to change... It will involve deeper, more structural, even seismic shifts that will move this country away from its traditional reliance on 'representative democracy' towards newer, emerging forms of 'direct democracy.' ...

[The] rapid emergence of interactive communications technologies ... [along with a] growing frustration with institutions of 'representative democracy' ... will increasingly converge in the immediate future, possibly in an explosive manner, to transform our American system of electoral democracy into something very different than what we know today... The framework of this new form of *electronic democracy* is already beginning to emerge. There seems no stopping it." [emphasis in the original]²¹

If this trend continues and "electronic democracy" does indeed loom ever-larger in our system of governance, Congress may be forced to devise new procedures or mechanisms to check the popular passions of the moment and insure that reasoned debate can continue in an environment free from the undue influence of powerful but narrow interest groups armed with the latest communications technologies bent on fomenting a second, electronic, Shays Rebellion.

Already we have seen one consequence of this in the fact that real decision-making in Congress has increasingly moved behind closed doors. Today the rapid and widespread dissemination of information allows interest groups to more easily galvanize grassroots forces that, in turn, force Members to solidify positions before consensus can be reached. To avoid this scrutiny, more and more activities are taking place outside of the formal process and procedures of the institution including informal task forces and conference committees where Congress' open meeting rules do not apply. Ironically, the very technologies that have provided the public with unprecedented access to the official workings and functioning of the institution have at the same time forced some of those activities beyond its reach.

Document Preparation & Publication

One clearly significant impact that technology has had on the activities of Congress is in the preparation and publication of legislative documents. For example, House Legislative Counsel (Leg Counsel) uses electronic publishing applications and e-mail to draft bills and amendments and distribute them to Member and committee offices. The use of the Adobe Acrobat® (.pdf) format permits the electronic drafting, editing, and proofing of legislative documents while maintaining the necessary layout and formatting of the material. This allows documents at the various stages of the drafting process to be quickly transmitted back and forth between Leg Counsel and the Member or committee Offices without any loss of the material's original visual representation.

While this has been significant in that it has increased the speed and efficiency of the legislative and bill drafting process, it has also raised some substantive and serious concerns as well. First, there is always concern over the security of the transmission of legislative documents in their unfinished state. While Leg Counsel maintains a separate e-mail server and all information is transmitted internally through the House, there is still concern over the accidental

²¹ Westen, Tracy, "Electronic Democracy: Ready or Not, Here It Comes" Published in the Congressional Internet Caucus Advisory Committee's "E-Government Briefing Book" available at <http://www.netcaucus.org/books/egov2001/pdf/edemoc.pdf>.

release to the wrong Member office or even the public or press of such material in its unfinished stages. Once e-mail is sent, there is virtually no way to stop or retrieve it.

A second related concern is in the validation and authentication process as this material is transmitted back and forth electronically. Even with the coming implementation of digital signature technology, a number of questions and concerns will remain to be answered. For example, there will remain the question of authorized access to the electronic signature. How will Congressional offices ensure that only authorized staff have access to digital signature technology? Who will have the authority to digitally sign documents for a Member or committee chair? Are current rules governing the requirements for Member signatures adequate in an electronic environment?²² These and other questions are becoming more critical as the House continues to develop and implement advanced document preparations systems.

The speed with which legislative material can be drafted, from start to finish, has also raised concerns as to the reduction in quality control measures and the deliberative process as a whole. In addition, the ability to quickly edit or add text to legislative documents has been related to the growing length and complexity of legislation. For example, in 1956, the legislation authorizing the national highway system was only 32 pages. The bill to improve that system in 1998 totaled 403 pages. In 1956, a 403-page bill would have taken months to put together. Just because we can prepare such a lengthy and complicated piece of legislation in such a short time does not mean we have produced a better product. Arguably, the speeding of the process can serve to mask the fact that there has been little time to analyze or validate the content. “As legislative text moves seamlessly from initial drafts through final publication,” notes one CRS analyst, “one loses the time between each stage of the process that historically has been available for further consideration of the wording and for performing quality control.”²³

The electronic preparation and publication of legislative documents for matters of internal efficiency has also seen a corresponding move to make the material available to the public over the Internet as quickly as possible. Members’ floor statements can be found on their Web pages almost immediately after being made. Committee Web sites often include witness testimony and hearing transcripts just as fast. In addition, all of these documents can include links to other information elsewhere on the Web and corrections or additions can be made at a moment’s notice. None of these, however, are considered “official” congressional documents. The growing and widespread posting of such “unofficial” information on official congressional Web sites raises a number of important questions that are just now being considered. If these materials are to be considered “official”, then who is ultimately responsible for the control of its content? Can links to material even be considered a “document”? What responsibilities are there for long-term archiving of the electronic versions of this information? What will the role of

²²Congressional Research Service memorandum prepared by Jane Bortnick Griffith for the House Rules Committee.

²³ Ibid.

such entities as the Government Printing Office (GPO) be in the future as Congress continues to move towards the use of electronic means for preparing and publishing legislative documents? And as Members, committees and the House as an institution continue to provide more proceedings through audio and video coverage, what steps will need to be taken to establish standards and criteria for the relationships between the printed, on-line and multimedia versions and their consideration as “official” records of Congress?

Finally, while Congress has implemented reforms and policies that give the public unprecedented access to the official activities and publications of the House via the Internet, we have seen increasing expectations for on-line access to additional documents as well. For example, Congressional Research Service (CRS) Reports have long been available to the public when requested through and provided by their Member of Congress. These reports are also available in electronic form via a congressional Intranet, for Members and staff only. For a number of reasons, CRS and the Library of Congress have decided not to place these documents on THOMAS or some other publicly accessible Web site. Recently, however, legislation has been introduced which would require CRS to do just that.²⁴ Proponents of the legislation correctly point out that CRS products are produced at taxpayer expense and they provide valuable information that will help educate the public about the complicated nature of the issues facing Congress. While CRS’s concerns about potential litigation, public lobbying over content, and the erosion of candid advice to Members are legitimate, it is doubtful that making these reports available to the public over the Internet will undermine the deliberative nature of Congress as envisioned by the Founding Fathers. It is likely that they will be put on-line sometime in the near future. In fact a number of Members and committees, including the House Rules Committee, have begun to make them publicly available on their Web sites.

A number of people and organizations have gone a step further however, demanding that such documents as bill drafts, chairmen’s marks and draft amendments and draft conference reports be made available on-line “as soon as they are printed or made available to lobbyists or members of a committee or subcommittee.”²⁵ While the argument exists that making these documents publicly available would increase public trust in the system and permit enhanced citizen input into the process, it is also true that, as a CRS analyst notes, “the time gaps that have traditionally existed as drafts were revised, bills marked up, and committee and conference reports prepared – time which is often used to reach compromise, eliminate errors, and consider alternatives – may be lost if electronic versions of bills are rapidly composed and placed on Web

²⁴ H.R. 654 available on-line at <http://thomas.loc.gov/cgi-bin/query/z?c106:h.r.654.ih:> and S. Res. 21 available on-line at <http://thomas.loc.gov/cgi-bin/query/z?c107:s.res.21.is:>

²⁵ From the Congressional Accountability Project’s “Fact Sheet on Congress and the Internet” available at <http://www.congressproject.org/infopolicy/factsheet.html>

sites.”²⁶

The House is in the process of developing and implementing a new document management system that will further enhance the means by which legislative documents can be prepared and published, both internally and for public consumption. While these tools will continue to perform a needed role, and the demand for continued enhancements will be strong both internally and externally, it will be just as important, if not more so, for the House to develop the necessary rules and guidelines for the technology’s use as it pertains to the overall legislative process and all its components. As these technologies are developed, it will become increasingly important to the institution itself that these guidelines be developed and defined so that it is the legislative and deliberative process that drives the implementation of these tools, not that the technology be allowed to define the process.

Committee Activities

The premise of the committee system in Congress, that Members serve on committees to gain expertise on issues important to their constituents and that Members generally rely on the judgment of the committees when legislation is considered by the full House or Senate, has served well since the very first Congress. Today, however, the Internet and other related tools allow Members, other committees, and staff to bypass these specialized bodies and gain immediate access to a wealth of documents and information heretofore unavailable with such ease, making the premise for serving on a standing committee questionably obsolete. As this trend continues, and the committee system, as the authority figure for matters within its jurisdiction, loses its primary *raison d’etre*, we will likely see increasing amounts of legislation authored by Members in areas where they heretofore lacked the “expertise” or experience that came from sitting on a certain committee. The rapid and widespread availability of information that the Internet and supporting technologies has provided has doubtlessly had an impact at the committee level and will most likely force a re-examination of the roles and responsibilities of the committee system in the near future. But it has certainly provided individual Members the ability to more independently come to informed conclusions on matters before the House and has allowed them to participate in a far wider range of policy and legislative matters of local, national or international concern.

Another area of concern for committees that has been raised by the increasing use of technology is in their regular proceedings. As committees have increasingly begun to broadcast the audio or video coverage of their hearings over the Internet, it is only a matter of time before Members begin to question the necessity of physically attending hearings. Already committees have held hearings involving witnesses appearing via remote video conferencing. While current House rules prohibit proxy voting (*House Rule XI, Clause 2(f)*) and require a majority to be physically “present” before a measure or recommendation can be reported (*House Rule XI,*

²⁶ Congressional Research Service memorandum prepared by Jane Bortnick Griffith for the House Rules Committee.

Clause 2(h)(1)), the pressure will inevitably build to allow Members to remotely listen in on hearings, e-mail questions to colleagues to be asked, or demand remote attendance rules for quorum requirements and even voting.²⁷ Already some Members have proposed, unsuccessfully, remote voting allowances from their district under such circumstances as serious illness or family emergency. While these options may offer a solution to some of the difficulties facing a Member and are clearly technically possible, the consequences may be even more damaging. The deliberative process in the House relies in large part on regular interaction between and among Members. For all its possibilities, no technology exists that can reproduce the consensus building engagement that occurs during the face-to-face, physical sharing of ideas and passions that is at the core of the legislative process. This is a vital concern that the advocates of these proposals must seriously consider.

A number of other regular committee activities are being reexamined in light of the growing use of technology. The House is being forced to question the entire legislative document publication process. Committees, like Congress as a whole, have historically required written, hard copy publication of its official documents. Among other things, House rules require committees to:

- adopt written rules governing its procedures - *Rule XI, Clause 2(a)(1)*;
- provide witnesses with a transcript copy of his/her testimony - *Rule XI, Clause 2(k)(9)*;
- submit a report on its activities - *Rule XI, Clause 1(d)(1)*; and
- consider as read a proposed report if available to Members for at least 24 hours - *Rule XI, Clause 1(b)(2)*;

To what extent does the electronic posting or publishing of these documents suffice to fulfill the necessary requirements? How will the audio or video components of committee activities be incorporated into these rules? What standards will be necessary to provide for archiving the electronic versions of this material? These and other similar questions are at the heart of the discussion concerning the new electronic environment Congress increasingly finds itself in.

One recent item that vividly illustrates some of the questions and concerns facing House committees in an ever increasing electronic environment is that of the audio and video broadcasting of committee hearings. As noted above, a number of committees have undertaken significant hearing room infrastructure upgrades in order to broadcast their hearings over the Internet. These upgrades have included various computer hardware and software purchases, broadcast-quality audio and video equipment, and significant hearing room renovations easily totaling in the tens of thousands of dollars. As internal House-wide funding and support of this technology has not been available, the purchase, installation, control and maintenance of this

²⁷ Even state legislatures, which have gone much further than Congress in allowing for the use of computers and other electronic devices, have so far refrained from permitting remote committee attendance for purposes of voting or quorum requirements.

equipment has been done on an *ad hoc* basis by each individual committee resulting in a significant variance across committees in equipment and procedures for its use. This process has resulted in a number of questions and problems that have forced the House to more closely examine the impact of this technology and to consider more formal and standard procedures for its implementation across House committees.

A related concern raised over the use of Internet broadcast technology by committees was in the procedures by which the transmission and its content was controlled. Simply put, while the chairman and committee majority has traditionally controlled the agenda and proceedings of the committee, the minority has always had the ability to have its views published and portrayed. Even on the Internet, committee Web pages include links to the Web site representing the views of the minority members. Such procedures aren't always directly relevant where the broadcasting of hearings over the Internet, or any medium for that matter, is concerned. What is relevant, however, is the ability and rights of the minority to ensure representational coverage of their views during committee hearings and how that coverage is broadcast using committee equipment. In many cases, the control of the camera and other equipment during these transmissions is in the hands of the majority staff. Does this result in unfavorable broadcast coverage of the views of the minority? Are more formal procedures and standards required to cover the control of audio and video broadcast equipment by committee staff? Should this equipment even be controlled by committee staff or should the House itself assume control and maintenance over its use?

After examining these issues and their long-term impact on the ability of the House to adequately meet the increasing demands for increased public access to committee hearings and other congressional proceedings, including those concerns raised above, the Committee on House Administration recently determined to standardize the procedures concerning the upgrade of committee hearing rooms, including that equipment necessary for the Internet broadcasting of hearings. Specifically:

"The House Administration Committee believes that a standardized approach is the most logical and efficient solution to dealing with committee room upgrades. It is also critical that minimum technical standards be implemented to ensure the efficient use of resources and the compatibility of equipment and infrastructure. ...

"The Chief Administrative Officer is directed to provide support staff to operate the broadcasting functions for each committee Room that is renovated under the Committee Room Renovation Program. Committee staff are not authorized to operate broadcasting functions for such renovated committee rooms. The Chief Administrative Officer is authorized, but not required to provide staff to operate the broadcasting functions of committee rooms that have been renovated prior to implementation of the Committee Room Renovation Program. The Chief Administrative Officer at the request of any such committee shall operate the broadcasting functions in such committee rooms."²⁸

²⁸ House Report 107-25, "Providing for the Expenses of Certain Committees of the House of Representatives in the One Hundred Seventh Congress" Available at

Prior to these recommendations, such upgrades and their funding requests were made during the regular committee funding process. By removing and funding these upgrade requests through a separate process and adding certain restrictions, committees have raised some concerns over loss of decision-making and equipment-use control. For example, what impact will this have on the already significant investments made by a number of committees? How will these standards be grandfathered to take into account the equipment and procedures already in use? What impact will this have on the prerogative of the Chairman to control the proceedings of the committee? What resources will be necessary for those authorized House staff to adequately support Internet broadcasts of committee hearings? What impact will these recommendations have on third party organizations, including accredited news media, that are looking to broadcast committee hearings to the public? Clearly the need for a move towards standardization on this issue is necessary, as the House sees no need to repeat the problems of uninteroperability seen with the initial House e-mail system as indicated above, but these concerns serve to illustrate the difficulties facing an organization as large and decentralized as the House when it comes to the implementation of various technologies. These and related questions promise to be mirrored across other areas as the House continues to increase its use of the Internet and other related tools for both internal and public use.

State Legislatures – A Comparison

As part of its *21st Century Congress Project*, the House Rules Committee held hearings to assess the implications of technology utilization on the legislative process by State Legislatures, held meetings with the National Conference of State Legislatures (NCSL), and visited a number of state legislatures. These meetings have been informative in illustrating how these tools have been adopted and implemented in a similar but significantly different environment.

Most state legislative bodies, acting under constraints of time and staffing, have designed and implemented an extensive legislative information system that serves to provide representatives, staff, and the public with information on all aspects of the legislative process from bill drafting, through committee work, to final passage. In addition, state legislatures have taken notice of, and have begun to study quite seriously, the overall impact of technology on the legislative process including staffing requirements and the rules and procedural changes made necessary by technology.

The main forces driving the development and implementation of information technology in state legislatures includes term limits, short legislative sessions, limited staff resources, the small size of legislative bodies, and the demands of elected representatives, many of whom use sophisticated information technologies in their private professions.

Time and again, state legislators and their staffs have pointed out that the implementation of term limits has greatly increased the number of legislators that lack a strong understanding of

<http://thomas.loc.gov/cgi-bin/cpquery/z?cp107:hr25.107:>

the legislative process. This, along with the fact that most state legislatures are part-time bodies, has forced legislators to adopt to a very steep learning curve in a short period of time. With limited staff resources available, technologies such as laptops, the Internet, e-mail and others are proving critical in assisting state legislators in "getting up to speed" and providing them with the training, information and tools needed to understand the rules and procedures of the legislative process.

In addition, as more legislators demand the tools they use regularly in their private occupations, implementing uniform, standard technological tools has become necessary in order to prevent problems associated with compatibility, scalability and security. Prior to the introduction of the Colorado Legislature's legislative information system, for example, many legislators were using personal equipment to communicate with colleagues and constituents and to access various information available via e-mail and the Internet. As this number continued to rise, it was necessary to develop a system that provides legislators and staff with the infrastructure and equipment vital to ensuring that information could be easily shared, future technological needs and requirements could be met, and any legal or ethics questions raised by the use of personal equipment would be minimized.

Finally, the demands brought on by increasingly complex legislative matters that must be dealt with during limited legislative sessions, along with other restrictions such as single-subject provisions, bill introduction limits, and deadline rules, has increased the complexity of the legislative process for many states. Unable to lengthen the legislative session, technology has helped state legislators deal with the increasing workload without dramatic increases in staffing or budget levels.

The point to emphasize is that, in state legislatures, the process is driving the development and implementation of technology, not the other way around. Technology hasn't been adopted for technology's sake nor has technology been allowed to diminish the deliberative nature of the process. In some instances, state legislatures have been slow to adopt technology, such as the video streaming of floor sessions, over concerns of disrupting or pressuring the vital deliberative, consensus-building nature of the legislative process.

Perhaps one of the most widespread uses of technology in state legislatures that differs significantly from the U.S. Congress is the use of personal computers or laptops in the chamber. Today 35 states now permit the use of computers in the chamber and during committee hearings²⁹. These allow Members to read legislation and proposed amendments as they are offered on the floor, communicate with fellow Members and staff, and even surf the Web. While there have been similar efforts in Congress to permit the use of such technology³⁰, it is interesting

²⁹ Source: National Conference of State Legislatures.

³⁰ See, for example, "Congress mulls laptops in sessions" at <http://news.cnet.com/news/0,10000,0-1005-200-322160,00.html>

and important to note a number of significant differences between the two situations, some of which were alluded to above.

In the overwhelming number of states, legislative action on the floor is extremely structured and regimented, often including strict rules on the offering of amendments and single-subject provisions, unlike Congress where debate on the floor is more free wheeling and open. Logistically, most state legislatures have assigned seating and during floor debate, attendance is often mandatory, again unlike Congress. This too contributes to an environment where the development and adoption of various legislative information systems, including the use of computers in the chamber, has been a necessity rather than a choice. Interestingly enough, California, one of the first states to use computers in its chambers for access to legislative material, is still constitutionally mandated to provide hard copy prints of the same material at every Member's desk. Given the provisions that these bodies must work with and their reluctance or inability to lengthen the legislative session or significantly increase the number of personal support staff, these tools have allowed them to meet their legislative responsibilities, and provide the public with a high level of access to their activities, making for a more *effective* system while maintaining a process that is meant to be *inefficient* by design.

As a side note, a number of states make use of processes that are much more open to direct democracy and therefore may be much less likely to see any threat to representative government arising from the expanding use of technology. Specifically, there are currently 27 states that provide for some sort of Initiative or Popular Referendum (I&R). Adopted by states ranging from South Dakota in 1898 to Mississippi in 1992, these procedures allow citizens to directly adopt laws or amend the state constitution (Initiative) or reject laws or amendments proposed by the state legislature (Referendum).³¹ States that permit these processes may in fact more enthusiastically embrace the use of technology, especially where it can be used to enhance the I&R process, however it also serves to illustrate another significant difference between the legislative processes and procedures of the states and federal government. Pure direct democracy advocates aside, the call for advancing the use of technology by Congress comes from those who largely seek to promote and enhance public participation in and understanding of its activities, not in implementing processes in use by various states that are ill-fitting at the federal level.

Congress clearly works in a different environment. While the overall process is quite similar, the institutional environment varies widely. In a number of areas, the use of technology in Congress and in state legislatures is quite similar and serves convergent purposes, especially in the areas of communications and access to legislative information in electronic format. In other areas, however, where the institutions diverge in terms of process, including the length of the legislative session, term limits, staff resources, committee and chamber activities, and more, the tradition and the environment of Congress differs significantly from that of the state legislatures and makes comparing the use of technology across these bodies at times irrelevant. While

³¹ Initiative & Referendum Institute's "I&R Factsheet" available at <http://www.iandrinstitute.org/factsheets/WhatisIR.pdf>

Congress will continue to adopt technologies to improve the inner workings of the body and to provide wider public access, often at the urging of Members who served in various state legislatures and successfully used similar tools there, it will also continue to do so in a manner that serves to strengthen and protect the deliberative, consensus-building process that has historically served the institution and the nation so well.

Conclusion

In a short time, the Internet's impact on Congress has been real and substantial, and it continues to grow. Internally, its research and communications applications have significantly improved on many of the labor intensive and cumbersome procedures of the recent past. Externally, it has provided the American public a clearer and more immediate view of the activities of the House, arguably bringing them closer to their government than ever before. In addition, and similar to the demands seen elsewhere, the application of these technologies has forced upon Members the need for staff experienced and knowledgeable not of the legislative or policy process, but in supporting and maintaining these new tools. As the tools of the Internet and related technologies continue to expand throughout society, their application in Congress will continue to grow as well. And while the House will never be at the cutting edge, the improvements they allow in research, communications and other areas will be appreciated and applied by both Members and the public they serve.

While many continue to criticize Congress for limiting access to certain information or for not being open and responsive enough to the immediate demands of the public, it is unarguable that in a very short time, Congress has made itself more accessible and its activities more transparent than ever before. While it certainly has more to do in this area, it also has an important responsibility to help educate the public on the reasons it functions as it does. Congress is not meant to react to the public emotions and demands of the moment. By its very design, it serves to check the popular passions and develop legislation through a deliberative, consensus-building process. While this process may often frustrate those demanding immediate action on any number of issues, it is a time tested method that has served our country admirably in good times and bad. While technology can serve to help Congress and the public communicate more effectively and to improve the internal efficiency of certain congressional operations, its impact on the deliberative nature of the legislative process *may* be detrimental. As Congress continues to use such tools as the Internet and other technologies, it remains crucial that it do so in a deliberative and thoughtful manner that serves the interests of both an often critical and frustrated public as well as the solemn responsibilities of the institution itself.

* Prepared for a forthcoming book on Congress and the Internet.