Stop the Presses!

Let's Begin Conversion to the New Depository Library System

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B y 1997, the last working photo-offset printing press owned by the Government Printing Office will be dismantled for shipment to the Smithsonian Institute. The presses will be sold one by one over the years because less and less government information will be published in printed form. The specialized printing jobs still remaining will be contracted out.

The libraries in the depository system will not have space problems or large processing backlogs because they will no longer have to handle the large doses of paper produces by the presses. They will still have the problem of finding the right information for the right user.

The information available in the depository libraries will not depend upon a publication date. The latest population, vital, business, and economic statistics; historical and "real time" national weather data; legislative bill status and votes; and changes to legislation and administrative regulations will be available without being delayed by the vagaries of printing schedules and the US Postal Service.

Users of government information in business, industry, and academia will have their own computerized access directly into government data files through personal or institutional accounts and passwords, and through subscriptions to commercial online files of government information.

Depository libraries will be doing much less clerical and much more analytical processing of information. They will be working hard to coordinate and facilitate the use of the mass of government data available to the public through a wide selection of government and commercial automated sources. In addition, they will be busy providing services to a wide range of users; those who do not have the means or knowledge to access

government data bases themselves, those doing comprehensive research requiring the use of many different types of data, and those needing occasional access to data not in the systems the commonly use.

Budges for depository libraries will be used for purchasing computer hardware, and the gateway and user friendly software produced by private publishers necessary to access and manipulate the government data. Additionally, money will be spent on duplicating the information for special uses and providing hard copy for individual users.

Instead of subsidizing the depository library program by giving it printed material "free," the federal government will provide it with standard computer equipment, or the money to purchase it, and free access to its data files. This will be supported with funds gained from the paid accounts of independent to commercial publishers, and the discontinuation of large scale government printing operations.

Additional subsidies will be forthcoming in kind from commercial vendors. Special discounts will be set up for depository libraries and special agreements will be made to produce specific data files that would be less profitable on the open information market.

The archival function of depositories will persist. Larger, or regional depositories and state data centers with computation facilities will store backfiles of government documentation on tape, magnetic disks, and optical disks. Smaller, selective depositories will act as government information centers or "switching" stations, transferring off-line data to the user from its point of storage.

Pie in the sky? It's not an outlandish prediction. The printed word will always exist in some form because it fills particular needs. But, I do think that in less than ten years the bulk of the government information we will be dealing with will not be arriving in our libraries on neatly printed paper or on 4x6 inch pieces of plastic.

This is no great revelation. We are constantly talking about it. But, government documents librarians seem to be more than a little frightened by having to handle government information in non-traditional media. Why is that? Is it not likely to continue to be the same huge, wildly diverse, inconsistent mass of data that we have always handled with considerable effect if not always with outstanding efficiency? Of course it is, even under future presidents who may do everything they can to control the flow of information. However, the tools with which we do our jobs will change radically. And our knowledge of and capability with those new tools will determine whether or not we are still working in 1997. And that, perhaps, is what frightens us into ignoring the reality around us and holding tightly to the status quo of press and print.

In addition, there are a number of things we seem to be unwilling to admit to ourselves. They are not necessarily frightening in and of themselves, but are, in fact, frightening because we have been able to ignore them for so long and can no longer do so. The first is that the Depository Library System, as it currently exists, will not survive the next decade. Management problems aside, information demands of the next few years will cause it to be ineffective for the users of government information. The second is that the means by which information is currently transferred and preserved itself is transient. Crumbling yellow paper and fading pieces of microfiche show us that the information they contain can be as fleeting as it is when represented by a bunch of electrons lined up in a microcircuit. Third, is that government information costs us a lot of money. Depository libraries pay heavily for the conveyance of that information to the user and our present budgetary mentality does not account for this. Fourth, privatization is not the bugbear of the late twentieth century. All kinds of government services are privatized from communications to trash collection. A close look at the resources in our libraries shows that government information is no exception. And finally, who is that class of "information poor" that we worry about increasing? Has our paper-based system of information distribution been so effective that we do not have a very large number of them with us already? Preserving a paper system of information dissemination is unlikely to keep their lot from getting worse.

Now is the time when we must begin, as government documents librarians, to admit these things and dissociate ourselves from print to become 'government information' librarians.

The Morton/Dylan Philosophy and Government Momentum

I agree with Bruce and Bob, "The Times They are A-Changing." As Mr. Morton pointed out in his article published in

the June 1986, issue of *DttP*, due to the costs of producing, managing and disseminating information, and the opportunity that technology offers, the federal government will be establishing new "ground rules" for developing its information by-products as a national resource and for distributing the use of that resource. The work is already well under way. Both executive and legislative branches of the government have been busy over the past couple of years examining the problems of information management. We are all familiar by now, or at least we all should be, with the activities of the Office of Management and Budge and the Joint Committee on Printing. However, publication of circulars A-76 and A-130, efforts to privatize NTIS, and studying the means for providing federal publications to depositories in electronic format, only happens to be the three issues in the limelight.

Action is taking place throughout the federal government, among most executive agencies, in Congress, and indeed, among the state governments and private groups as well. A few examples will suffice to illustrate the current moment toward a "new age" for information.

About the same time the JCP was conducting its study of electronic means for providing government information, J.F. Coates, Inc., was working on a report under contract for the Federal Government Information and Technology Project of the Office of Technology Assessment. In June 1985, Coates presented its report entitled Scenarios of Five Federal Agencies (1991–1995) As Shaped by Information Technology.² The study hypothesized that the 101st Congress would pass legislation establishing a Joint Committee on Information Technology and Government, and enact a citizens security law in 1990. The Census Bureau, NOAA, the IRS, the EPA, and the Social Security Administration cooperated on the study to assess the impact of the hypothetical legislation and information technology on their collection, storage, handling, access, and dissemination of information. Procurement, contracting, and purchasing were key issues considered in the report. Coates advised the OTA and Congress to press ahead with implementation of plans for use of new information technology and adapt the structure of government as need be.

On March 16 of this year Rep. George Brown did just that. The California Democrat introduced two bills; HR 1615, The Government Information Action of 1987; and HR 1616, The Contractually Obtained Federal Scientific and Technical Information Act of 1987. The former establishes an independent Government Information Agency and Joint Committee on Government Information to oversee it. The new agency would take over the functions of NTIS and would assume the responsibilities of all other federal agencies involved in the sale

and distribution of government information. Its job would be to collect information, maintain an electronic database, and make this information generally available. The latter bill sets requirements for federal contracts involving scientific and technical information, key among which is that contractors would be required to provide all information in electronic form.

Whether these particular bills pass or not, there is little doubt that we are moving toward similar changes in the federal information system. I am sure we can all name at least one pilot project which is going on right now for automating the records and work of at least one federal agency.

Nor is this just a federal phenomenon. State governments, in many cases harder pressed for case and other resources, are constantly eliminating printed publications in favor of data online. In addition, they have recognized that technology now offers them the ability to collage data for all levels of government and effectively organize and share information between governments. On May 27-29 this year, the US National Committee on CODATA, the Integrated Data Users Workshop, and the Center for Public Policy Research of the National Governors Association are holding a conference in Washington that will examine using information from multiple sources and the development of analytic tools for decision making in government, industry, and academia. They also plan to focus on the state of information management and on federal and state issues affecting the availability and compatibility of information.3 Government agents, and those individuals involved with government work, are examining their technological options and getting ready to take advantage of what the advancements in technology have to offer.

The Electronic Depository System: New Age, Same Old Stuff

Indeed, it is not just coincidence that this activity in government has gained momentum at this time. If the hypothesis of Michael Koenig is correct, we just beginning the major stage of technological development in information handling.

Koenig postulates that we are about to enter a stage of development in automation in which the ability of computers to rapidly manipulate large amounts of data, and to cheaply store vast amounts of information, will be increasing at a rate that will be in close phase with new developments in the ability to transmit data quickly, efficiently, and at low cost over great distances.⁴ This means that the various elements of the technology needed by government agencies to handle the problems of information gathering, analysis, and distribution are coming together—and that the foundation for a wholly electronic government information dissemination system is being laid.

Government agencies at all levels are planning now to embrace technology and to stop using printing presses as the chief means of storing and disseminating information. The press may not become entirely a relic for the Smithsonian, but technological advances will radically define its use and make its products very specialized. It behooves us government depository librarians to change our outlook, or we too will find our function specialized and out of the mainstream of government information.

But before we start gazing too far into the future and scaring ourselves to death, we should stop to think that maybe our fear, or our resistance to change is based on misconceptions about our current situation. I do not believe all that stuff I read in literature about libraries and librarians of the future, nor even everything I wrote at the beginning of this article. I think it is more wishful thinking or paranoia that rational thought. I believe that we will continue to do pretty much the things we are doing now, only with different tools. If we closely examine the depository library system as it exists, I think we may discover that an electronic alternative is not so alien or awesome.

First off, organizing and controlling government information and getting it to the right user is our job, has been, and will continue to be regardless of whether the GPO continues to exist, a super information agency is formed, or the medium in which the information is transferred is electronic or paper.

Another misconception under which we labor is that the printed information which we have is in permanent unalterable form. We argue that if most government information comes to us electronically, we will not be able to fulfill our role as preservers of our government's archives and guards against unethical officials who would change the historical record. In addition, since electronic impulses are intangible, we view them as consumable, and therefore, not as valuable as the hard goods like to put on the shelves.

We hold these truths to be self-evident while we watch our bound US Serial Set volumes turn to dust with no hope of preservation. We are forced to stand helplessly by while the government officers remind us that the materials we have are merely on loan to us and that certain publications are to be returned immediately. We continue to store masses of material and rage about our space problems while arguing against a medium that could shift entire document collections onto a few flat six or twelve inch disks.

Information in electronic form is merely the same information we have always dealt with, but in another medium. The difference is that it is easier to transfer, manipulate, and duplicate. Additionally, it can be stored compactly and unchanged for many years, and will probably be much easier and cheaper

to preserve and restore when the storage medium itself reaches the end of its life expectancy.

The next major misconception we have is that the government information we now collect and possess is free, and that if it is henceforth available only in electronic form, many depositories will not have the money and resources to continue acquiring and handling it.

We have always paid for it. We pay to receive it, to process it, to store it, to retrieve it for the user, to market it, and to preserve it. Given the mass of material even a rather selective depository deals with, it costs big money. We have been able to ignore the costs, however, because they do not show up as a line on the acquisitions budget. Perhaps we should be asking ourselves how much we are going to save if we can acquire government information in electronic form and do not have to pay so much for its storage and handling? That is what the government agencies are asking themselves. It may turn out that it is more expensive, but I do not think the difference will be great enough to support an argument against it.

Converting to an electronic depository system will not be cheap. The corollary to the argument above is that when we talk about automation, we usually think about increase efficiency, productivity, and effectiveness. But, we always seem to labor under the illusion that it will also be cheaper. Cost effective, yes, cheap, no. We will need to spend hundreds of thousands of dollars for special equipment and training and for special tools and resources produced by commercial publishers from "free" taxpayer purchases government information—just exactly as we do now to support our system of print and microform. And no, not all depository libraries will be able to afford it and handle it in terms of staff and other resources.

The nearly 1,400 depository libraries spread across this country vary widely in size, selectivity, and service. Although we may only grudgingly acknowledge Messrs. Hernon and McClure, we have to admit that the individual depository user is unlikely to get the same level of service or even the same information from one depository to the next. This is not likely to change and it is not necessarily a bad thing, as I have implied, because each depository hopefully develops its collection and designs its service to meet the needs of its locality. However, it is important that we not hold up conversion to a system of electronic dissemination of information because some depository libraries are only capable of being distributions points for the output of government presses—and only desire to be such.

We should also try to put aside our misconceptions regarding the privatization of government information services and jerk our knees up every time we hear the word. I doubt that privatization will be the deficit buster the Grace Commission and the OMB seem to think it will be. I just cannot see a horde of private publishers in a "gold rush" to by and sell government information. Given the conditions in federal procurement and contracting, privatization is unlikely to be extraordinarily attractive to commercial producers. Besides, it has been going on a state level for years, with more beneficial effects than ill.

Furthermore, neither is it likely to be the scourge to the public interest that many librarians and other doomsayers seem to think. Indeed, it may be a key factor in making the transition to an electronic depository system possible and even bearable for us.

Many government services are privatized and most of them are performing better than government agencies could do themselves. In large part, handling information is one of those things. The best indexes, the best access, and, often, the best organization of government information is now provided by commercial vendors. In the future, private publishers are likely to be better at producing the special software needed to manipulate the government data in Washington, DC, from a PC in Jerwater, Pennsylvania.

But, I have to admit a prejudice. I am a little uncomfortable with the idea of the government controlling the collection, development, production, and delivery of electronic information from beginning to end.

Finally, a misconception related to privatization is that if we allow government information to become a commodity to be bought and sold in the marketplace, we will dislocate an entire class of library users who will become "information poor." I think this hypothesis has some substance, and it demands caution from us. However, if pressed, I think we would have difficulty identifying exactly who our users are, or, for that matter, those who do not use us, with enough specificity to reassure ourselves that a growing class of information poor does not currently exist. As for dislocating a group of our current users, I still wonder who would go, so long as depository libraries stayed in business, planned to commit some of their budgets to government information, and did not suddenly set up exorbitant user fees.

What we need is some very serious research in this are before we use it as an argument to defend the status quo. We cannot point the finger at government agencies—who are also trying to conserve budgets based on taxes—while not admitting that we are just not willing to spend our money on non-traditional library goods and services.

Of course these arguments are simplistic. They gloss over a very complex array of difficult issues. But my point is that by converting our thinking first, we can do a great deal to help ourselves understand what we are facing in the conversion of the depository system.

Action Steps for Building a Non-Print Information System

All librarians are grappling with upsetting notions about the future and what technology is doing to the profession—not the least among these folks are documents librarians. But I believe that we can put aside our fear and speculation, ignoring the rosy rhetoric about the priesthood of information specialists and dire prognostications about the diaspora of documents librarians, if we remember one thing.

Of all the people who deal with the conveyance of government information, we are the only ones who provide that information in a neutral environment. With knowledge of, but without regard for the point of origin, the message, and the medium, we bring all kinds of government information to a point where it can be compiled and used in a situation without conditions. Nobody else does that. As long as we continue to do it, we will have our jobs, power, and influence, and no technological developments will be likely to change that.

Within that context, however, there are some other things we must do for the future. First, we should learn more about our users, those who are not our users, and ourselves; more about our technology and its potential; and learn to revisit our thinking about how library budgets should be spent. There is no question that we will need to make some very hard decisions about where the money will go, so we had better be prepared with the information we need to make those decisions, and, then, to defend them. I think that we will not only have to admit that we are paying a high price for government information, but also that we will have to account for that cost, spend more, and shift our dollars from buying paper to purchasing computer hardware, software, and access to electronic data so that we do not have to charge the user for it.

The second thing we should busy ourselves with is the developing solid relations with information specialists in all agencies and at all levels of government—not just the GPO—and with the members of the information industry. We should prepare ourselves to provide leadership and cooperation in a new information process rather than continue to involve ourselves only as advocates in a cause for an old system.

We should recognize that even under the vagaries of the Reagan Administration with its attempts to slash government services in order to support its national defense psychosis, there exists in government a corps of dedicated public servants who share our views about the importance of government information and want to do their jobs as best they can. Likewise, there are many in the information industry who, believe it or not, are not avaricious profiteers and who are sincerely interested in developing better information products.

Third, and the final item, is that we should be working closely with the people in government and the information industry to develop standards for electronic information collection, dissemination, storage, and retrieval. In addition, if there is a cause that we should take up, it is to develop and pass legislation and regulations which will ensure the security of government information and the confidentiality of its use. We need to be cognizant of changes and new issues in computer law and to work with legislatures to establish legal codes for the collection and use of government data.

As well as being influential consumers, we have proven ourselves to be an effective lobbying group. We must recognize that we exercise some amount of power and influence. Libraries, and library networks and consortia, comprise the largest block of information consumers in the country. With little doubt, we are probably the most important information market there is. If we do not buy it, figuratively and literally, it does not sell. Besides, on questions of information handling and confidentiality, remember we are the only disinterested party with the answers.

With apologizes to Daniel Boorstin, I paraphrase his thought: "High-Tech" will not replace our habits. We will adapt technology to our purposes. So I urge you, all of my colleagues, to stop the presses and fear not.

Notes

- 1. Morton, Bruce, "The Waters Around Us Have Grown: The Government Information Environment and Agenda for the Late 1980's," *Documents to the People*, 14:2, June 1986, pp. 72-74.
- US Congress, Office of Technology Project. Scenarios of Five Federal Agencies (1991-95): As Shaped by Information Technology by Henry H. Hitchcock et al. of J.F. Coates, Inc., Washington, DC (Contract No. 433-0125). 1985. (CIS/MF 86 J952-52).
- 3. "Piecing the Puzzle Together: A Conference On Integrating Data for Decision-making," *State Government Research Checklist*, 29:1, February 1987, p.1.
- Koenig, Michael E.D., "Information Systems Technology: On Entering Stage III," *Library Journal*, February 1, 1987, pp. 49-54.