

Section III.

Commentary

Reinventing Archives for Electronic Records: Alternative Service Delivery Options

by David Bearman & Margaret Hedstrom

THE SITUATION OF ARCHIVES

Archives, public and private, large and small, are unable to cope with the volume of records for which they are responsible given the methods at their command.¹ The problem is not just one of degrees. It reflects a fundamental gap between the task that archivists have assumed for themselves -- ensuring adequate documentation of our society -- and the resources at our disposal to accomplish this task. In many cases several orders of magnitude separate the responsibilities of archivists from their current capacity to achieve them.

Dramatic changes in electronic communications and data processing are transforming the business processes that archivists must document and overwhelming archives with new demands that few archivists feel competent to meet. In a period of down-sizing, right-sizing and just plain cutting back, the impact of new information technologies is not the only challenge that archivists must confront. Organizations in the public, private and third sectors are reexamining the way they do business, reengineering their business functions, and redistributing responsibility and resources for carrying out their mandates and operations.

Confronted with these challenges, it is time that archivists re-examined the program structures and methodologies which served them reasonably well up until a generation ago but within which they still largely practice their craft. In a time of "re-inventing" government and organizations, archivists would be well served by thinking through alternatives to their current methods. In an age of measuring outcomes rather than outputs, archivists must demonstrate that they are achieving the ends for which archives are established - preserving access to records of continuing value - and not just increasing the volume of records accessioned, the numbers of researchers, or the percentage of holdings described in national networks.

The problem is that these actions are not sufficient to accomplish the fundamental purpose of archives, even though increasing accessions, researchers or cataloging may be valuable (depending on the quality of accessions, the satisfaction of researchers and the quality of description). If all these measures rise, year after year, but the evidence of important events and decisions in the organizations served by archives remain undocumented or inac-

¹ David Bearman, *Archival Methods*, Archives and Museum Informatics Technical Report #9 (Pittsburgh, Archives & Museum Informatics, 1989).

cessible, then archives are failing to accomplish their purpose. If new record keeping systems are being implemented which increase the insecurity of records, rather than assure their security, then archives are failing to ensure the keeping of adequate documentation. And this is where many American archives find themselves in the 1990's.

In May 1993, the authors found themselves together at a conference on Archives and State Information Policy in Montgomery, Alabama organized by the state archivist and the state director of information management who had decided to try to reinvigorate accountable information management across the state government. We found ourselves exploring with archivists and EDP directors of State agencies, approaches to organizing their respective jobs that respected none of the traditional assumptions about organizing archives. We asked about turning each function of the archives over to private or other public interests. We explored merging archival documentation and EDP documentation tasks. We considered the possibility of completely non-custodial archives and examined the arguments for and against selling data and even selling records. Earlier in the month we met with the NAGARA Committee on Information Technology and SAA Committee on Automated Records and Techniques at the session documented in this volume and we heard archivists asking themselves how to envision alternative futures and program structures that might work better than those in place now.

REINVENTING ARCHIVES

We found numerous principles and concepts from *Reinventing Government* especially useful for rethinking archives, whether they are located in the government, university, private, or non-profit sector.² David Osborne and Ted Gaebler propose that governments rethink their service delivery options, define areas of strength, shift performance measures from outputs to outcomes, separate direction and oversight from service delivery (or steering from rowing -- in their terms), encourage entrepreneurship and action by others, and they urge experiments with a host of new methods in order to create governments that are more effective, efficient, responsive and equitable. We believe that many of their basic concepts can be applied to rethinking archives.

From our years of thinking about alternatives, and an initial exploration of how the ideas proposed by Osborne and Gaebler in their book *Reinventing Government* might be applied to archives, we compiled a list of dozens of blue sky ideas. Subsequently one of us (DB) conducted a workshop on electronic records management in Australia at which participants imagined additional options. From these we have selected some ideas with special relevance to electronic records management that hold out some chance of improving outcomes without increased resource allocations for archives. None of these ideas is fully

2 David Osborne and Ted Gaebler, *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector* (New York: Penguin, 1992).

tested and we are not recommending wholesale abandonment of traditional approaches in favor of them, but we are urging pilot tests with results reported back to the profession as a way of trying to break out of the cycle of failure in which we are now trapped.

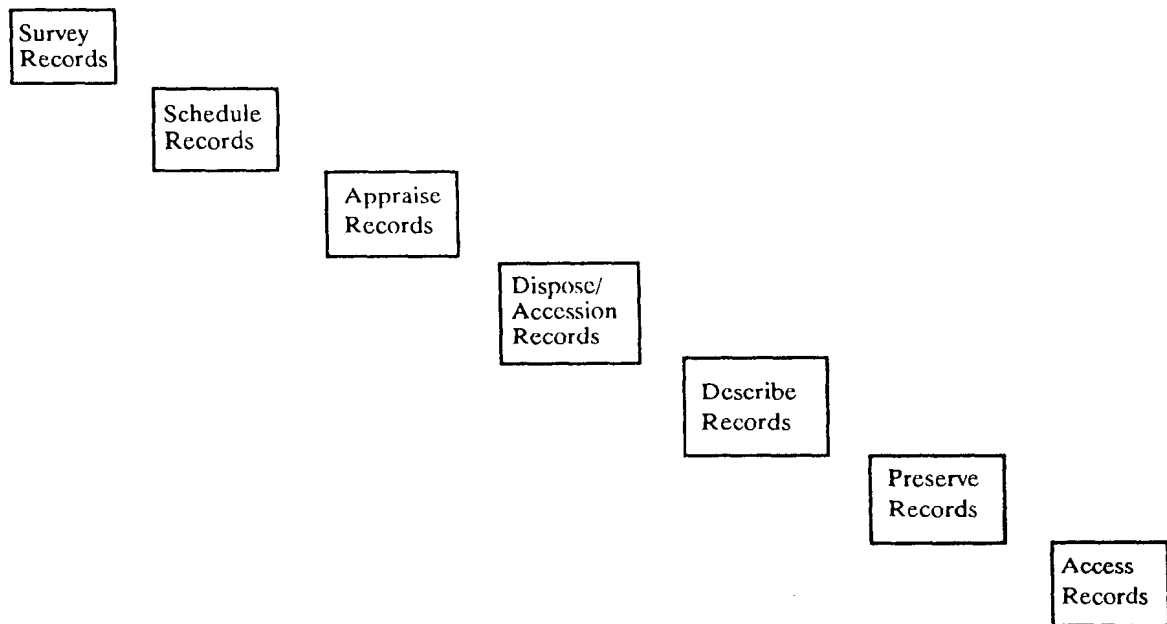
The fundamental change in record keeping practices by the organizations that archives are designed to serve provides the catalyst for reexamining how archives define and accomplish their work. The flaws we have identified in existing archival programs are numerous. In order to present them we discuss them in relation to the life cycle of the archival record, although they are inter-related and reflect some larger problems with how archivists approach their work, which we discuss after the specifics. Two issues should be noted up front. First, neither archivists nor the public seem to know what kind of organizational entity archives are. This is reflected in the plethora of organizational locations to which the function is assigned and the inability of archivists to identify their customers without accumulating new and equally important audiences. The entities to which archives report are usually not clear about what services archives perform or why they exist. In government, archives typically report to the executive branch which is appropriate if their function is to improve management. But it is noteworthy that the legislative branch wants the oversight facilitated by archival records and is willing to pay for accountability, yet no archives in a major U.S. political jurisdiction reports to the legislature or is an independent entity serving all three branches of government.

Second, we believe that these flaws are the result of several decades of unchallenged thinking in which it was assumed that archives were best designed as autonomous units with their own staffs, budgets and methods, and with responsibility for carrying out, within those resource limitations, all activities associated with appraisal, accessioning, preservation, description, and access to records. Archivists' limited success in dealing with electronic records, more than any other single issue, has exposed the limitations of this approach. We believe that the problems discussed below result from the methods and systems used in archives, not the people who work in archives, and that archivists can do much to remedy this situation.

WHY CURRENT METHODS FAIL FOR ELECTRONIC RECORDS

Our traditional model of what archivists do can be illustrated by the cascading task diagram below. Unfortunately, this model is not very helpful in structuring programs for electronic records although most existing programs are still trying to structure themselves around it.

Figure 1



Survey Records

Electronic information systems are being designed and implemented so as not to make records, but to provide up-to-date information which is seen as better by being changed to reflect the latest circumstances and knowledge. Nevertheless, archivists continue to begin their work by surveying records holdings and conducting inventories. They have, until recently, not even been able to articulate what is wrong with the design premises of systems that do not create or capture a record of every business transaction. While important activity of organizations is everywhere going undocumented as a consequence of information systems that are designed not to be adequate record systems, archivists forego involvement in systems design and implementation required to assure the creation of adequate documentation. They cling to the assertion that they lack sufficient authority to require records creation, adhere to a dictum that causing records to be created would result in proliferation of records of unimportant transactions, fail to notice when critical information systems are being designed and implemented, and have little advice to offer on how to implement systems in organizations in a way that will satisfy record keeping requirements. Therefore archivists are not considered as potential allies even when management discovers that it cannot account for recent functions or activities. Managers implicitly realize that existing archival methods have as their object records that have been created rather than functions and activities that need to be documented.

Schedule Records

In order to identify the 1-3% of records that are archival, archivists traditionally have attempted to schedule all the records created by an institution. Even if electronic systems always created records, reviewing 100% of records created in order to select the less than 3% which should be saved beyond the time they are needed for on-going operations is inefficient. By focussing on series, archivists have reduced the scheduling task, but electronic records are not filed in "series" unless archivists have been present in the systems design process. Scheduling approaches, therefore, fail to identify records of significant transactions because so much effort is involved in disposing of the routine material that there is no time to locate the documentation of more important, and less routine, activity. Few agencies ever complete the scheduling of all the records under their jurisdiction. Because archivists provide no criteria for what records to schedule and no sanctions are imposed for failing to develop schedules for the most important records, the tendency is to schedule large, routine series. When records retention involved significant space costs, archivists asserted the benefit of scheduling routine series for administrative efficiency, but in an electronic environment space is not an important criterion and administrative efficiency is achieved by being able to locate records germane to particular types of transactions over time. Because archivists don't develop an independent knowledge of record keeping systems and organizational functions which would support asking why no schedules had been developed for historically significant materials, they tend to be fully occupied with trivial work. In focussing on scheduling records rather than on identifying the significant activity of the organization, archivists miss an opportunity to build a knowledge-base on the structure and functions of the organization which is much needed by other divisions within the organization and by outside interests. Moreover, insisting on details of records disposal perpetuates the impression that archivists are bean counters rather than management partners. One effect of this perception is that senior managers do not take archival requests for documentary accountability as seriously as similar demands made by auditors which have explicit management consequences.

Appraise Records

In paper-based systems, archivists have generally attempted to appraise records when they are inactive or even after they have been received by the archives, at which point they are removed from both the record systems which created and maintained them and the organizational processes which they supported. Professional expertise is directed towards trying to reconstruct the context of creation of the records in order to understand their significance as evidence. Because of the limited number of ways that paper records are maintained and the visibility of these structures to the archivist, this reconstruction of the likely use of records is plausible for paper systems. The electronic record, however, is stored randomly and the structures which support its use by the organization are documented only in software code not accessioned with systems, so appraisal of electronic records after accessioning is typically not reasonable. While the information the records contain can be discovered through external software functions such as full-text searches, the evidence they supply is based on their link to activity which will have been lost. The activity for which the records were created must be considered independently as the reason for retaining the records and must be rigorously identified in the appraisal process. Otherwise only those factors which data archivists have tended to call "technical", such as the ease of use of the

records, their completeness and documentation, will be criteria for retention. Instead of keeping valuable evidence we will be reduced to keeping easy to use information.

Dispose/Accession Records

Archivists insist on preserving the authority for records disposition, including disposal, but this assumes that an act of disposing is required in order to rid oneself of records. In the electronic environment most records will cease to be available, usable and understandable as a consequence of lack of action rather than as a result of disposal. Thus the focus on disposal authority is misplaced in electronic records creating organizations, and emphasis must instead be placed on providing help to management to keep records useful.

In order to preserve records that are archival, archivists have traditionally accessioned them into archival repositories where they are physically controlled by archivists. But obtaining custody of electronic records in archives is no guarantee of better control. Indeed in the electronic age, custody of archives may require the on-going maintenance of a range of hardware and software and continuing migration of both data and applications, both of which activities are never ending and very expensive. This puts records in archival custody at relatively greater risk than those whose on-going management is regulated by archivists but which remain in the physical custody of agencies that created them. Also, as a consequence of serving in a custodial role, archivists are perceived as keepers of old records, become experienced in obsolete technologies, and are constantly involved in migrating data and systems, instead of becoming experts on the most recent technologies and how to control them.

Describe/ Document Records

Traditionally archivists have described records after appraising them and accessioning them, by examining their content and structure. Not only does this process miss the opportunity to use information collected about the structure and functions of the organization, and the link between transactions and records, it assumes that post-accessioning description will be possible. In electronic records systems, metadata about the records and the configuration of permissions, views, and functions is created and controlled in the active data environment. In principle, this metadata if correctly specified could fully describe and document the records without post-hoc activity by archivists. Archivists will need to specify what metadata must be kept and how it should be linked to records over time. The effect of such a proactive stance towards active information systems will put archivists in control of an information locator function which is needed by, will be used by, and could even be sold to, other divisions within the organization and outside interests. Privacy, security, vital records management, auditing and archives all require the same metadata management program, so they could share the responsibility and/or the cost.

Preserve Records

The greatest expense in preserving records is associated with keeping their physical form rather than retaining their evidential value. The most expensive records to keep are those

whose physical form is most fragile. Because there is no way to actually keep the original artifact in the case of electronic records, physical preservation becomes a non-issue. All records must be copied over time and retained in software independent formats or with appropriate software to read them. All copies have the same evidential value and there is no limit on the number of copies that can be made without degradation. Indeed, paper archives would not be in any way diminished as sources of evidence or information by selling original records with significant market value. Instead, archivists tend to resist disposing of originals even after adequate record copies are created, thus contributing to the perception that they are antiquarians.

Access Records

Archives provide reference services to the public at considerable cost in manpower and space, but traditionally they have had only one "outlet" per repository and provided substantially less documentation of their holdings than libraries. This has rendered archival records less available and less accessible than published information sources. Paper records are, of course, unique and difficult to reproduce or distribute remotely as well as inherently difficult to describe in detail, so these limitations on access were not noticed or were considered necessary characteristics of archives. These same limitations need not affect access to electronic records. It is easy to provide copies of electronic records to numerous "outlets" at the same time and through metadata management to support item-level description of records without archivists engaging in item-level description. By employing networks we could greatly expand ability of individual citizens to get information from archives. Distributed points of access could also be supported by a proactive reference service staffed by public librarians and other information providers rather than archivists.

ALTERNATIVE MODELS/PROGRAM OPTIONS

What traditional archival methods have in common is that archivists take on the burden of doing the work. Archivists survey records and develop schedules. Employees in organizations are instructed in great detail about when to dispose of records and how to transfer records to the archives. Thereupon the archivists appraise and describe the records, preserve them and make them accessible. The tasks are all envisioned as being the responsibility of archivists. It is presumed that archivists are required to assure they are done correctly. Resources to do them come from archival budgets, the work is conducted in centralized archives and archivists are the gatekeepers for users whose needs they understand.

In *Reinventing Government*, Osborne and Gaebler explore some alternatives for the delivery of any governmental service which have applicability to archives, whether they are governmental or not. By allowing our minds to invent alternative program models we hope to have exposed a few ideas which, when pursued further and refined, will help archives overcome the limitations of traditional practice.

STEERING RATHER THAN ROWING

Osborne and Gaebler use the metaphor of steering rather than rowing to distinguish innovative governments from traditional organizations. Many of the governments that Osborne and Gaebler critique are caught in a cycle of taxing and spending to meet increasing demands for government services with declining revenues. They argue that governments should shift from a pattern of direct service delivery (rowing) to governance based on setting policy direction, fostering healthy social and economic institutions, and providing requirements and incentives for others to provide services. This approach empowers communities to solve their own problems, permits competition among service providers, and provides governments with maximum flexibility to respond to changing needs and opportunities. Shifting from rowing to steering means that governments replace their propensity to do everything with governance by directing. Steering organizations make more policy decisions, put more social and economic institutions into motion, and do more regulating.

We believe that archives can benefit from a similar shift from rowing to steering. Most archives today are typical "rowing" organizations, taking actions on records after they have been accessioned into an archival repository and providing services to users who visit research rooms in order to access and retrieve records. Traditional methods assume that records adequate to document transactions of the business are created in the first instance, and that archivists can take corrective actions (through arrangement, description, and preservation) to compensate for ineffective access systems or the poor physical state of records when they are taken into custody. Efforts to improve control earlier in the records life cycle focus on use of retention and disposition schedules, typically enforced only when regulated agencies wish to dispose of records they no longer want or need. Rather than providing overall policy direction for adequacy of documentation, archivists deliver services to records and to researchers that make up for poorly designed systems. Rather than steering records creators toward adequately documenting government business, archivists and records managers regulate the disposal of obsolete or unneeded records. Rather than directing organizations toward designing records systems that meet records keeping requirements and conform to access, description, retrieval and preservation standards, archivists attempt to make records conform to standards after the fact.

What might archives look like as steering organizations? Drawing on the lessons from *Reinventing Government*, archivists might begin by defining desired outcomes, rather than focusing on outputs. An outcome-based definition for government archives might be that government creates and ensures continuing access to the evidence of its policies, decisions, activities, and transactions. A steering approach to achieving this outcome would increase monitoring and oversight by the archival agency while assigning responsibility to agencies for achieving adequately documented functions and programs. Strategies for steering rely on legal rules and sanctions, regulations, monitoring, and investigation. Examples of tactics archives might consider include:

- * Create legal rules and sanctions:
 - An archival agency could define an outcome oriented regulation: "documentable history" or "significant activities are evidenced." Annual archival filings with the legislature, consisting of definitions of accountable record systems, would be required for appropriations.

- The "statute of limitations" for some types of activities could be changed so that organizations would have incentives in liability or risk management to keep records of them for appropriate lengths of time.
 - New rules of evidence could require records creators to keep and locate records. New rules of evidence could place responsibility for being able to locate evidence on the party holding it, even if it has not been requested.
 - Declassification laws could be revised to make everything open after 30 years unless an exception is filed by the creating agency with specified criteria acceptable to court or special tribunal.
 - Loss of accountability for government information could be made a felony, or made grounds for dismissal of civil servants and political appointees and removal from office of elected officials. Civil remedies for loss of accountability could include punitive damages.
 - Archivists, working with certified accountants and auditors, could make breaches of documentation requirements a new category of liability for all private and public organizations, thus rewarding private sector entities that keep adequate records and applying sanctions against those that don't.
 - Archives and records management programs could publish compliance data and projections of future, unnecessarily incurred, records management costs as a sanction against agencies that lack plans or systems for managing their records.
- * Regulation/Deregulation:
- Recipients of Federal funding could be required to maintain adequate documentation, if this could be defined by outcomes.
 - Archivists could set standards for storage and access to records and legalize alternatives to depositing with the archives.
 - The number of agency employees allowed classified clearances could be dramatically reduced.
 - An operating license could be required for archivists, which would carry with it the authority to see any records. Archivists could be insulated somewhat from agency/employer pressures by having careers depend on a separate board (a board of archival examiners) or on achieving outcome measures.
 - Firms doing business with the government could be required to purchase documentation insurance with premiums based on adequacy of their existing records programs.
 - Government agencies and organizations using government subsidized networks could be required to post archival records in a network environment for automatic retirement by electronic archives.
 - Agencies could be required to obtain a permit to produce paper documents similar to permits required for point source air and water pollution.

- Archives could require record-creating bodies to file a records or archival impact statement in which they identify the resources necessary and consequences of record keeping associated with each new function.
 - Determine a maximum percentage (.5%?) of each agency's records that can be considered archival. Require each agency to determine the contents of its archives and publish an index to them. Require new legislation to redefine the limit.
- **Monitoring and Investigation:**
- Like FOIA, archival responsibilities could be the subject of an annual report by the agency and an annual report by an "archival inspectorate" equivalent to an independent audit authority.
 - A third party, such as management auditors, could be used to identify important record systems, accountability lapses, and impose standards for compliance.
 - Investigation could support quality control in a distributed archives system.
 - Standards could be enforced through procurement processes which require open systems and an implementable plan for continuing access to archival records.

EMPOWERING OTHERS RATHER THAN SERVING

Empowering communities to solve their own problems is another key element of "reinventing" government. Osborne and Gaebler contend that communities have more commitment to their members than service delivery systems have to their members. Often, communities understand their own problems better than service professionals, are more flexible than large service organizations in responding to problems, and may be more cost effective. Empowering others to solve problems often works because communities have a vested interest in the solution.

Applying this concept to reinventing archives opens the door for a dialogue between archivists and the communities they serve, including records creators, users, and professionals from related information disciplines. It would compel archivists to define their communities, acknowledge potential conflicts between the communities that archives serve, and provide leadership for conflict resolution. Archivists would provide tools, incentives, guidelines, and support to institutions holding archival records and involve users in problem solving and service delivery within a clearly articulated framework of principles and standards. In turn, institutions holding records and users of archival materials would make more day-to-day decisions, such as which records to retain or how to best provide user access. If archivists can engage their communities in solving archival problems, then they can rely more on their communities to achieve mutually desired ends.

Some of the tactics that archivists might pursue to put such an approach into action, include:

- Encouraging agencies and organizations to care for their own archives and empowering them through incentives and support to take on their own records. Encourage

development of different approaches to appraisal, access and preservation provided basic outcomes were defined in regulations.

- Private entities could be licensed as government archives and records management services, thus enabling government agencies to contract out, providing a potential source of income, and supporting standards.
- The private sector could be given rights in data about Federal functions, activities (Federal Register) and records (FOI Locator) in return for delivering the information to the government in a specified format.
- Civil servants could be rewarded with bounties for identifying records in their agencies that have archival value.
- Archives could provide vastly expanded technical assistance as a benefit to repositories that are willing to assume custodial and access responsibilities.
- Organizations could be encouraged to develop and test methods for electronic records administration and to release code in the public domain.
- To encourage ideas and competition, archivists could publish regular reports on experiments and finance data collection about outcomes through grants and contracts.
- License researchers to provide reference services.
- Have volunteers take over servicing information-based queries.
- Permit researchers, willing to undergo security clearance review, to access classified records, and provide declassification services in return for that access.
- Permit universities to provide appraisal and access services for government records when the records relate to the academic strengths or regional focus of a university.
- Give genealogical data to genealogical societies to administer.
- Give ecological data to environmental groups.
- Archives could monitor and report on citizens' problems in acquiring access to government records. Maintain hot line that distributes information about successful strategies.
- Bring the press to bear. Develop methods that use power and interest of the press in open governmental information, especially when important communities are mobilized.

ENTERPRISING ARCHIVES

Enterprising government for Osborne and Gaebler means reexamining the ways that revenues are generated, costs distributed, and investments are made to support government services. They endorse strategies that turn the profit motive to public use, raise money by charging fees for some services, and spend money to save money in the long run through investments that pay a return. Such an approach ultimately means identifying the true costs of delivering services. As Osborne and Gaebler point out, most governments have no idea how much it costs to deliver the services they offer. Neither do most archives. A critical challenge for "enterprising archives" would involve building a documentable case for the benefits to be gained through investments in archival information systems and in develop-

ment of business systems that meet record keeping requirements. Other enterprising strategies for archives might include:

- Charging records creators for costs of future archiving based on extent of records creation.
- Adding fees to certain record creating transaction for certain types of transactions and then use the revenue to care for records, as in New York State, Kentucky, Missouri and elsewhere.
- Publish images of large data sets that are interesting the to public. Provide copies for review and advertise widely.
- Permit FOIA documents to earn royalties if they are published. Develop a mechanism for FOIA offices to compete for earnings.
- Bring images and sounds in archives to the market. Use income to build the program to bring more to the market.
- Require R&D publications using government funding to deposit data sets with publishers, universities, or other distributors. Permit distributors to market data sets as they see fit, provided they also ensure preservation.
- At the time of creation, electronic records could be "sealed" in object oriented envelopes with attributes that keep a record of their use and modification and report to the system on their location and access restrictions.
- Agencies could be assessed as they classify records to pay for subsequent declassification.
- Agencies could be given authority to contract out archives and records management to each other or to the private sector.
- One level of government could contract with another (federal-state; state-county; county-city etc.) to administer its records.
- Archives could contract with libraries to provide reference service for records, with reimbursement set by level of use.
- Contractors could be provided with tax benefits for donating records in specified formats and with specified intellectual controls (previously required under regulation) to the archives of the granting agency.
- User fees could be placed on citizens using public records to support access and preservation.
- Commercial organizations could be given tax breaks for having archives.
- The size of the tax benefit for donating records could be tied to the restrictions placed on them. Make open records entitled to full benefit with others having lesser benefits based on how soon they will be open and the severity of other restrictions.
- Provide additional tax benefits to depositors of Presidential advisory documentation based on when (how soon) they donate it and what restrictions (the fewer the greater the tax benefit). Make it considerably greater than any tax benefit that could be obtained by other means.

- Private organizations willing to care for government records could be granted tax credits for servicing them.
- The government could underwrite loans to organizations willing to house and service government records.
- Services qualifying for repayment of student loans could include work in archives.
- Required overhead categories for grants could include payments for archival administration of grant-related records.
- Archives could franchise universities by giving them rights to hold and service government records for renewable periods of time.
- Design a new "copyright" which takes effect after records are released for a fixed period of years. Give these "copyrights" to those administering data with privacy, security, and archival values with the constraint that the copyright will not be protected from lawsuits if the copyright holder fails to administer the privacy, security and archival values in an acceptable way. This would make disaggregated statistical information currently controlled for privacy available much more readily, while protecting privacy.
- Franchise the opportunity to respond to user queries. Sell rights to freelance researchers.
- States could be provided with incentives to manage records of Federal programs. The Federal government could contract with all 50 states to provide the service for them, thereby reducing redundancy.
- The private funding concept behind Presidential libraries could be extended by joining with universities to provide Federal historical research centers.
- Government could sell data from archives in value-added services - GIS data, legislative reference data, demographic data, etc.
- Contracts for information recording media and devices could be surcharged to support life-cycle management of records.
- Public servants identifying cost savings and risk reduction in records systems design and operation could be made eligible for rewards or for a percentage of the savings.
- Archives could sell rights to "mine" holdings. Discoverers of material which can be re-appraised as non-archival receive a reward based on first ten years of cost savings.
- Archives could issue vouchers to agencies to be used for archiving records.
- Archives could sell records with intrinsic value. Use income to capture information content of additional records with intrinsic value and sell those.
- Archives could create market demand for information by investing in value-added activities and commercially marketing them.
- Tax deductions could be given for using licensed archival appraisers just as they are for accounting services. Tax deductions for donations to archives could be graduated based on the degree of access restriction imposed and tax rebates could be offered for donations satisfying specified description standards.

- Archives could subsidize pressure groups interested in access to records, enabling them to alert public opinion to the need for archival intervention.
- Underwrite loans or provide guarantees to businesses archiving records under franchises.

CUSTOMER-DRIVEN ARCHIVES

In critiquing government programs, Osborne and Gaebler emphasize the need to give the customers for government services a greater say in the types of services offered and the direction of government programs. Administrators of contemporary government programs need to confront the fact that customers for government services have rising expectations, increasingly demand more choice in the services available, and they cannot all be satisfied with a single, standard menu of services. One key strategy for rebuilding the credibility of government services and building support for government programs is developing more relevant and responsive services that are oriented to the needs of customers.

Reinventing Government describes a variety of methods that organizations can use to develop customer-driven programs, including use of focus groups, customer interviews, electronic mail, customer service training, ombudsmen, complaint tracking, and 800 numbers, which solicit input from the customers about their problems, needs and perceptions. While we agree that most of these methods could be applied to reinventing archives, the problems and issues confronting the archival community are more fundamental. Few archives have defined their customers beyond the traditional user communities. In response to growing variety in the types of records available in archives and the uses of archival records, archives had added more user communities without assessing the impact of new user communities on the services provided or the methods used. Only a few archival programs have made effective use of advisory committees and similar means to gain input from customers and increase awareness of the problems and challenges facing archives. Some of the strategies that archives might pursue toward a customer orientation include:

- Reward agencies based on the use of their records thereby encouraging them to advertise availability of records deposited in archives to relevant constituencies and to discover how best to describe them for use.
- Reward archivists based on use of records they appraise, document or service.
- Give grants to potential users of archives to define ways in which records could be important to their constituencies and to develop use of archives along these lines; increase the level of support based on results.
- Require publication of information about records disposal and holdings of records for a period of time to enable customers to identify alternatives.
- Auction records being disposed to customers with a private interest in them.

DECENTRALIZED ARCHIVES

Another relevant theme from *Reinventing Government* is the notion of decentralized government. Decentralized institutions are more flexible and more receptive to innovation and change. They can be more effective and more productive, and may generate a greater commitment from those who work in them. The concept of decentralized archives challenges many of the basic rationales used to support large centralized repositories with specialized centralized services. Such concepts as economies of scale, the convenience of a central repository, and the need to consolidate resources and expertise, are challenged in the electronic era when distributed processing and networking eliminate the need to consolidate holdings in a central location or visit a research room to gain access. This new potential presents archives with opportunities to reexamine centralization, not only from the perspective of centralized holdings, but also in the organization of programs and service delivery. Some of the strategies that archives could pursue to advance decentralization include:

- Provide grants to local governments for capital investments in archives in return for guarantees of local operating support.
- Authorize archives within agencies or departments if they satisfy criteria established for quality archival programs and report information on their holdings to a shared database.
- Increase the number of outlets for reference services to archival holdings by contracting with libraries, museums, professional associations or other information providers to service them.
- Trivialize the significance of the location of the record by providing equal access over networks to an electronic version of the record regardless of its storage location.

PUTTING IT ALL TOGETHER

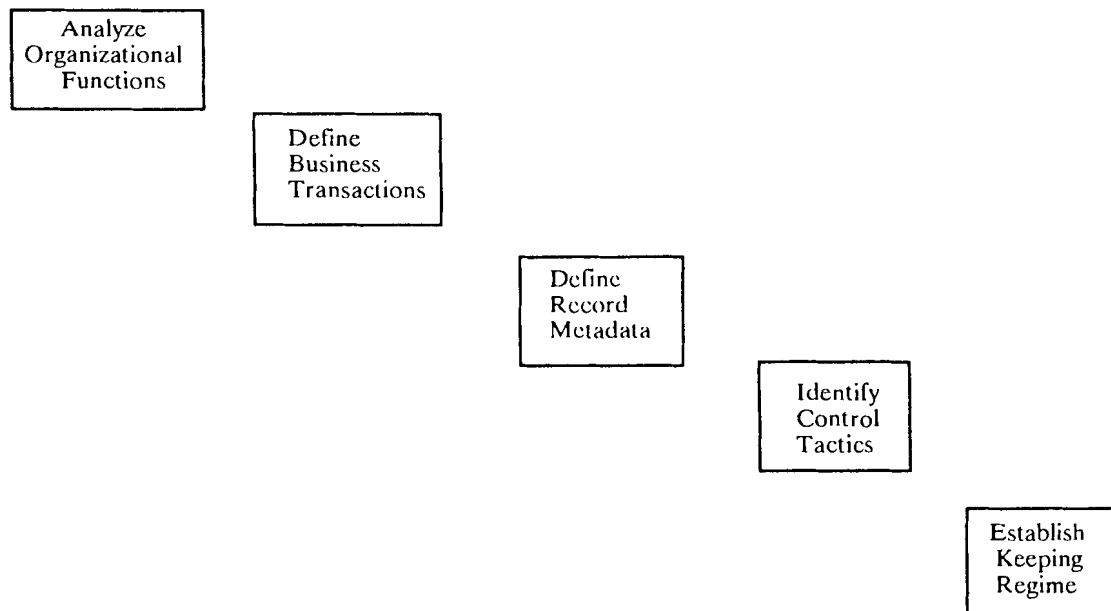
Reinventing Government presents a menu of optional ways to reconsider program structures and delivery mechanisms, only a few of which we discuss in this essay. When rethinking and reinventing archives, archivists can select from many approaches and pursue those best suited to their jurisdiction, mandates, organization culture, and customers. Undoubtedly, most programs will seek a balance between regulations and market forces, between entrepreneurial endeavors and enforcement of standards, and between customer-driven approaches and achievement of predefined outcomes.

While different programs will adopt different structures in the future just as they have in the past, electronic records management requirements will tend to influence archives to adopt some dramatically different structures than those under which they currently operate. In reformulating program strategies, it will be helpful to consider not simply how the function can be reorganized, but also how the function can be "reinvented", steering rather than rowing, empowering others rather than serving, becoming enterprising and customer-driven, and decentralizing. The fundamental premises of what constitutes archival work could well be transformed by this kind of reinvention of the archival functions.

Reinvented archives provide for much greater flexibility in methods and program options. At the same time, however, archivists need a model for practice that distinguishes archival work from other types of information management and delivery, and that can be used to define the outcomes the archives should achieve and the customers for archival activity.

The older model of archival activity, around which archival manuals and education are structured, was presented earlier. It uses terms such as survey, appraise, dispose, accession, describe, preserve and access to describe the work of archives and models the flow of information between sequential and chronological archival activities. A different model is suggested by the figure below.³ The object of the verbs in the traditional model is always records; all traditional archival activity focuses on records. The second model contains no verbs whose objects are records; all archival activity focuses on the business activity of organizations, the requirements they present for accountability, and the methods one might use to control information. The traditional model administers physical material while the second manages organizational behavior.

Figure 2



It is useful to carry the analysis of these divergent models further in order to understand their implications for electronic records management programs. If archivists shift their programmatic orientation in the way suggested by the second model, they will be acting in organizations before records are created, and defining record keeping regimes for employees to follow but not deciding about specific records. This approach is particularly

³ This model was first developed by David Bearman in a workshop with Australian archivists conducted at Monash University in May 1993. The contributions of all participants in that workshop are acknowledged.

well suited to electronic records, although it may have relevance for paper-based archives as well. The advantages to electronic archives programs is that the focus on documentation of significant types of organizational transactions permits the archivist to use information developed by others within the organization for different purposes while becoming the repository of knowledge about how the organization works. The focus on identifying metadata that is required to create records, before they are created, makes the archivist an ally of information systems managers, auditors, freedom of information act administrators, information security personnel, and program managers without placing the responsibility for documentation on the archivist. Archivists can serve as internal consultants, defining record keeping regimes and tactics, without being burdened by custody or by delivery of records requested through the information systems they maintain with agency provided metadata. In these and other ways, electronic records can be a vehicle for archives to move from rowing to steering, towards more enterprising and customer driven approaches to service delivery and towards empowering others to take action in a decentralized records management environment.