Should Creating Agencies Keep Electronic Records Indefinitely?*

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The author argues that creating agencies should not keep electronic records indefinitely in their custody, and that archival instituitions fail in their mission if they do not have custody of electronic records. The case for this position is presented by way of analysing and rebutting the four key points in David Bearman's 1991 paper which described archives as an indefensible bastion. The author writes that only archival institutions can guarantee an uncorrupted and intelligible record of the past.

THIS PAPER IS A COMMENTARY ON the proposition that custody of electronic records in an archival institution or program is not needed. The ideas it presents have been formed in the course of the author's work with his colleague, Luciana Duranti, on a research project entitled 'The Preservation of the Integrity of Electronic Records'.[1]

At its baldest, the credo of the true believers of the post-custodialist vision asserts that archival institutions can achieve their mission without holding custody of electronic records. The strongest advocate of that vision, David Bearman, claims that 'the evidence indicates that acquisition of records and the maintenance of the archives as a repository gets in the way of achieving archival objectives and that this dysfunction will increase dramatically with the spread of electronic communications'.[2] Before taking drastic action to dismantle the custodial repository which Bearman claims has become 'an indefensible bastion and a liability', it might be worth examining this particular post-custodial proposition, for there are other less severe proposals in the literature, and asking whether there is any evidence or good reasons to adopt it.

In 1980, at the beginning of the personal computer revolution, Gerald Ham, who like Kurt Vonnegut's Ed Finnerty, liked to roam 'out on the edge' in search of the 'big, undreamed of thing', first articulated the archivist's own version of information anxiety. Beyond the promise of technology to store unprecedented quantities of information, he detected several concerns for archivists. How would they cope with the mass of information? 'No matter how compacted', he observed, 'this mass presents problems of control and access', and the threat of 'information overload'. He also raised concerns that 'technology has created records that are fluid (and) amendable, and (the medium on which they are stored is) reusable', and that in a 'decentralised computer environment' with everyone 'his own records manager', scheduling would become 'difficult if not impossible'. Finally, he wondered, 'how can the archivist be assured of the integrity of …records, given the ease with which they can be manipulated, amended, and altered?'.

Ham himself was not ready to abandon the custodial repository, but rather advocated a new stance in order to overcome archives' 'passive role in shaping the documentary record' by developing better acquisition programs at all levels, by utilising the benefits of technology, by addressing the electronic records question, by resolving conflicts between freedom of information and privacy concerns, on the one hand, and indefinite preservation and access on the other, and by making better use of limited, even diminishing resources.[3] A decade later, Bearman stepped forward to push Ham's arguments, he says, 'to their logical conclusions'.[4]

Bearman's 'case against custodial archives' rests on four insights. First, he sees archives and archivists as occupying a weak position in organisation because they are isolated by their custodial preoccupations from 'those responsible for vital records, disaster preparedness, and risk management as

well as (those) concerned with financial responsibility and management accountability'. He urges them to share concerns of other information management groups, especially sharing 'the concern for appropriate systems design and information sharing capabilities with data processing and information resource management functions'. He sees archivists' role in records retention as a 'means of estimating the risks involved in keeping or destroying information', and another role waiting for them as providers and monitors of technical standards, but in order to assume these roles 'they need to acquire a new ... status whose first requirement is that they cease being identified as custodians of records'.[5]

Second, and bluntly put, he believes that 'the custodial role archivists have defined for themselves is not professional'. They are not respected for being custodians. 'To gain respect as information professionals, archivists need', he says, 'to focus their knowledge on the selection of archival records, the design of information systems, including archival information systems, and analysis of information requirements of archival clients rather than on storing records', and on the role of information auditors 'enforcing information accountability'.[6]

Third, he presents economic arguments for non-custody of electronic records. There are no economies to be derived from space saving; 'the costs of acquiring custody ...[of] electronic records exceeds that of paper records many times'; and archives will have to assume 'the costs of migrating data across media and systems while replicating functionality, costs which would be automatically assumed by the programs creating the records as they move their own operational systems from implementation to implementation'. Bearman would have line managers, who can call on hordes of 'information creating workers', share the burden of 'responsibility for accountability of recordkeeping' which until now has been shouldered exclusively by archival managers with far fewer staff persons.[7]

Fourth, he asserts that 'cultural changes are rendering the physical locus of information increasingly irrelevant'. Because the technology facilitates remote access, 'if the archives have intellectual control over ... records ..., it doesn't matter much where records or users are'. Keeping records in the 'software dependent formats' in which they were initially created also supports users' desire to extract and manipulate the information in records. Finally, 'the information creation environment will also retain the protection and security required by the data which is difficult to provide in a transplanted setting'.[8]

Bearman concludes that archives have to adopt new tactics to strengthen their roles in regulating, auditing, training, and informing in records matters.

On the score of regulation, he concludes that 'exercising archival responsibility without acquiring custody ... requires new tactics but does not require changes in fundamental archival principles'. His new tactics rest on three pillars: legal 'accountability of offices rather than their occupants'; 'attention on those records deemed to be of "continuing value" to the organization for evidential, informational, legal, or fiscal reasons', and treating records management as one aspect of corporate management of information resources, including 'rules for archival management and provisions for auditing managerial performance'. From this, he says:

> It follows that archivists should assume the position of managers of corporate behaviour towards archival information resources, regulating the disposition of information just as auditors and personnel offices manage behaviour towards other corporate assets. If archivists don't assume this role they could be considered derelict or inept.

Auditing simply means that 'it is the responsibility of archives to verify that the means being employed to identify and protect the corporate documentary assets are working correctly and achieving their purposes'. Training means training agency personnel in an environment of distributed responsibility for management of electronic records, if not all records. Informing means meeting user needs, and measuring the success of it.[9]

Others have picked up some of Bearman's ideas, many of which are floating around in the discourse about information management in the electronic age. Most notably, the Australian Archives appears poised to adopt the notion of distributed custody, but others such as Terry Cook, Frank Upward and Sue McKemmish, Charles Dollar, Kenneth Thibodeau (sceptic), and Margaret Hedstrom (another sceptic) have considered post-custodial ideas. Some of these ideas are reviewed by Luciana Duranti in her article in this issue, so this will concentrate on examining Bearman's arguments.

Bearman is wrong on *every* score. Let us take his arguments one by one. First, his argument that archives currently occupy too weak a position in organisation because they are associated with the passive custodial role. Instead, he says, they should climb on the information resource bandwagon and set themselves up as watchdogs and risk managers of records held continuously by creating agencies. Of course, this argument proceeds from a false premise, that the principal reason to give the archives authority for custody is for reasons of custody. It is not. Bearman uses the national archives authorities of both the United States and Canada as examples to support his arguments, but the reason for establishing the first modern national archives, the Archives Nationales de France, and the reason for thereafter establishing

all the agencies given responsibility for the preservation of public records, at the least in democratic states, has been to ensure citizens would have access to records of their rights. In time, preservation of public records in archival repositories has become one of the chief means by which citizens can learn how they are governed. Freedom of information legislation simply extends and codifies the nature of citizens' rights to this knowledge. The reason for the transfer of records to the archival authority is to ensure that an agency devoted exclusively to the preservation of inactive records would guard those rights and that knowledge on behalf of the people. And that means protecting the integrity of the records through time by establishing their relationship with their creator and the various interrelations of the records themselves. The creating agency, which legitimately only has an interest in the value of its records for the conduct of its affairs, cannot assume the preservation function for all time, at least not so long as our democratic states adhere to the juridical regime they have clearly established over the last 200 years. Kenneth Thibodeau puts it perfectly correctly in a companion article to Bearman's when he says:

> ...records have to be preserved in an archival environment; that is, in an environment in which there are adequate controls to guarantee that the records will be preserved and that they will not be altered. Without such an environment, it might be possible to preserve all the information in the records, but lose all the records. Records can be easily lost when they don't even exist as physical objects, but as conceptual entities or transient views of large and complex databases... It would be shortsighted to suppose that we could serve the future by staying within the narrow scope within which organizations create and keep records. Even expanding from the direct instrumentality of records in the conduct of business to the management of risks is a very small step in comparison to facing up to the difficult, but worthwhile, task of preserving records for the future.[10]

In other words, preserving archives is not first and foremost and in principle about management of corporate information resources, however much the archival function supports corporate endeavour, as it undoubtedly does. Moreover, determining the disposition of records is not primarily a matter of risk management for the creating agency, but rather determining the memory of actions the society needs. The long struggle to establish the authority of archives to determine disposition of all public records has not been about custody but rather about preserving an authentic and adequate account of public actions in support of a vital democratic virtue.

Even Bearman admits that the problem is not that archives lack proper authority or, where they lack it, the ability to acquire it. Thanks to the likes of

the PROFS case in the United States, the Somalia affair in Canada (where records of Canadian soldiers peacekeeping action in that country have gone missing or been altered), and well known accountability concerns in Australia, legislators and the public are alert to the need to have reliable and authentic records to provide evidence of the conduct of public affairs, and are more than willing to entrust indefinite preservation of public records to archival institutions mandated and funded for the purpose and expected to act impartially on citizens' behalf. If either the authority or the resources are lacking to do the job, the consequence is not to throw up one's hands, abandon the archival roles, and leave the task to creating agencies regulated by a watchdog archives authority which is concerned with information accountability. As Margaret Hedstrom observes, 'previous efforts by archival and records programs to operate as regulatory bodies have met with only partial success—if we look at compliance with disposition requirements as only one example'.[11]

A principal and principled feature of the role of archives is vital. Archival authorities in democratic states are uniformly responsible for the disposition of the inactive records of public agencies. For those inactive records which are preserved indefinitely, the archives is responsible for making it clear to all users what the relationships among the various groupings of records of each agency are, how each came into being, and so on. Right now and for the foreseeable future, this responsibility entails establishing and revealing the connections between electronic and non-electronic records of agencies, sometimes even of the records generated in the course of administering the same matter or affair. Dividing custody of electronic and non-electronic records will make this essential task more difficult, even impossible, certainly not easier. As Thibodeau says:

> Archival retention seeks to preserve the connection between records and the organization which created them, recognizing that an essential part of the meaning of the records is conveyed by information about how the organization used those records, and how it organized them in order to support its uses. If this essential part of the meaning is lost or diminished, the records, as such, would be lost.[12]

In principle, then, there is no new role in wait for archivists in the electronic age, just the same old role with a few new twists, which, important and challenging as they are, do not call for wholesale or even piecemeal abandonment of custody. A large part of the problem is that very few organisations or agencies have contracted electronic recordkeeping systems, whose purpose is to institute sufficient measure of control over records creation, handling, and preservation to ensure that offices and officers have

records they can rely on for business purposes, and all other interests in the records of democratic governance are also served. Meanwhile, information systems which do not contain records have proliferated, and archives have even become involved in preserving the products of those systems, but archives are not in the business of extending the life of data aggregations. To the extent that organisations and agencies need archivists to help design and implement recordkeeping systems to ensure first that reliable records in both electronic and non-electronic form are created and then that authentic records are preserved indefinitely, there is a new opportunity for the profession, but it is not data or information management at its heart.

Given the foregoing, it is relatively easy to dispense with Bearman's accusation that 'the role archivists have defined for themselves is not professional'. The knowledge and skill involved in advising agencies on the establishment and implementation of recordkeeping systems and then properly identifying, appraising, acquiring, arranging, describing, and referencing the whole of the records of every public agency indefinitely preserved in order to protect their integrity is beyond the ken of any other information profession, and it is simply a snare and delusion to suppose archivists have anything to do with design of information systems for agencies, analysis of the information requirements of agency personnel, or enforcement of so-called information accountability, whatever that may be. Of course, it is quite proper for archivists to assist agencies to develop recordkeeping systems with which they can create reliable records and from which authentic records can issue to the archives, but the archives interest is not a current information management interest but rather a concern to preserve an adequate and authentic memory of affairs for both primary and secondary users.

The most seductive of Bearman's arguments is the economic one. Of course, if one proceeds from the wrong premises in the first place, that is, from the supposition that the whole matter is a struggle for resources, that the resources of agencies outweigh that of archives many times over, and that archivists have responsibility to account for recordkeeping, whatever that means, rather than to protect the products of them, it is easy to suppose that archives might neatly avoid the undeniable expense of preserving electronic records and somehow still achieve their mandate. Even granting Bearman his premises, the further supposition is that the greater resources of line managers can do double duty by serving operational and archival needs. As Bearman himself admits, permanent preservation of electronic records, including migration of records to avoid obsolescence, is a costly business, but, if more resources are needed to do the job, and they are, how does it help to give archival

responsibilities to creating agencies and their line managers? Why not to the archives? The only way each agency could successfully assume archival responsibilities would be to create all the conditions for archival preservation, including hiring professional archival expertise, purchasing special equipment, maintaining special storage space and devices (custody is not disappearing after all), and so on.

The reason the economic argument for abandoning custody is so seductive is that it contains a kind of slight of hand. The supposition is that electronic records are best preserved either in operating systems, where they can be accessed in all their glorious functionality down to the finest grains of information they contain, or, at least, the whole task is easier for the creating agency with its greater grasp of technology and resources than it is for the poor archives. In the first case, Thibodeau asks, 'would it be more difficult [and less expensive] to migrate from one technological base to another in an archival environment, which is concerned only with preserving what is there, or in an operating environment, where old data has to be preserved with all the overhead of an active system, including addition, deletion, and updating of records and data elements; access controls; audit trails; response time and throughput requirements; programming changes; etc.?'. Even the usually sensible Thibodeau has tripped up here. One of the chief purposes of a recordkeeping system as opposed to an information system is to stabilise records and prevent alteration of them, through the controls inherent in the system. In any event, perhaps it is permissible to wonder whether harried line managers might, after fifty or a hundred or two hundred years, tire of assuming this burdensome task which, year by year, would become increasingly remote from the needs of business of the day.[13]

Indeed, it is highly questionable whether there is any economic sense at all in Bearman's solution. There is no denying the cost and no denying that many archives do not currently possess the wherewithal to preserve electronic records, but the post-custodial cure would be worse than the disease. Supposedly weak institutions would become weaker still, and, no doubt, as thoroughly detested as all auditors are. As it stands now, at least agencies and line managers are relieved of a responsibility they do not want, are not equipped to assume, and should not in principle be given anyway. Moreover, they are usually grateful to pass the responsibility where it belongs. It is just as easy to suppose, then, that Bearman's proposition would not aggrandise the archives position, financially or otherwise, but diminish it.

The fourth argument, that in an era of remote access intellectual control negates the need for archival custody and that keeping records in their original

'software dependent formats' supports users' need to extract and manipulate the information in records, entirely misses the point that whatever information anyone may draw from records, the questions are, can the record be trusted and is it what is purports to be. Unless a user can answer those questions satisfactorily, he or she cannot begin to evaluate any information that might be drawn for the record. Archivists attend to the guarantees of trustworthiness and authenticity of records before they turn to questions of access to the information they contain.

Bearman also makes much of archives' role as agents of accountability. 'Accountability', he says, 'depends on being able to demonstrate managed access to information which is important for reasons of ongoing need or future evidence, from the time of its creation'. In several other ways, he suggests that some kind of information accountability is at issue. And he also refers to making offices rather than occupants accountable because this leads to public accountability of agencies for how they carry out their functions. All in all, he is speaking of several different aspects of a complicated topic.

As Jane Parkinson makes clear, it is necessary to distinguish the concept of accountability from the systems which guarantee it.[14] Accountability is the obligation of a delegate to render account or answer for the discharge of duties or conduct. It must be distinguished from being subject to a specific law and/or being liable for compensation for bad judgement or intentional wrongdoing. In the context of the question of custody of records, it will be useful to distinguish the various kinds of accountability served by records.

The first stage occurs in the current records environment. Officers of an organisation or agency use records to render an account of how they have fulfilled their obligations, that they have done the tasks to which they have been assigned. Of course, there is a chain of delegation proceeding from the legislature throughout all the agencies established to conduct public business. Thus, in one sense, the organisational sense, records are used by officers to render account for their actions. When records pass from the custody of the creating agency to the archives, officers are discharged from the duty to keep records to render account, and the needs of organisational accountability have been served.

In another sense, records account to the public for the discharge of the duties of its agent, the agencies, offices, and officers of government. It is this public accountability which is the aim of freedom of information legislation.

Public accountability is also served by all the ways in which political leaders render account for their policies and actions in legislatures.

Then, in a third sense, there is what might be called historical accountability, the need of a society to know of its traditions, accomplishments, and failures, that they be pondered and considered for their present meaning, each age accounting for itself to its successors, if you like.

The first of these senses of accountability is served by the records when they are active, and perhaps semiactive. The second sense, now under freedom of information legislation, is served by records when they are active, semiactive, and inactive. And the third sense, mostly by inactive records. Archival institutions are remote from the operation of organisational accountability, but they are vital organs of accountability in the other two senses. Because the needs of internal organisational accountability lapse for almost all purposes when records become inactive, and when the affairs to which they relate are complete, some disinterested party is needed to facilitate the continuing needs of public accountability and historical accountability. This role archives fulfil by ensuring the authenticity of records, the agencies themselves for their own business and accountability needs having responsibility for the reliability of their records. Accountability for the management and use of information resources, which is a part of organisation accountability, is no concern of archives. At least, no governments have seen fit to give responsibility for these matters to archives. In fact, if the needs of accountability can be used at all in the argument about custody, they bolster leaving custody with archival institutions which can continue to represent all the parties with an interest in public and historical accountability in a disinterested fashion as guardians of the integrity of records.

In sum, then, there is very little evidence or logic to support the idea of archives without custody, just a faulty set of suppositions about the nature of the archival mission which seems to have been engendered by the desire to make archival institutions into information management institutions to support the current activities of agencies rather than serve the purposes for which they were established. Archives without custody would not be archives at all; they would simply disappear into the maw of bureaucratic leviathan and with them the guarantees they offer the world of an uncorrupted and intelligible record of the past.

A final word. The notion of leaving electronic records with their creator has largely arisen in these recent years because there are very few properly

constructed and controlled electronic recordkeeping systems. Our research defines 'recordkeeping system' as:

> the body of written and unwritten rules that control a creator's records. It comprises the whole of the relationships established among the records, procedures, and technology, as embodied in instruments such as the integrated classification scheme and retention schedule, registration procedures, and communication standards.

Without an adequate recordkeeping system to connect all records both electronic and not, with computers being used for all kinds of other purposes connected and not connected with recordkeeping, and with almost no consideration of the requirements of indefinite preservation of inactive records having taken place, it is not surprising that archivists have wondered whether they could ever preserve electronic records. Much of the solution lies in instituting the proper controls *and* in clearly defining the records roles and responsibilities of creators and archival institutions or programs. In this sense, there is a new role for archivists, as electronic recordkeeping systems experts and as experts in the indefinite preservation of those same records. But this does not mean dissolving the very important distinction between records creators and archives. To the extent that Bearman sees these needs and urges us to fill them, he is right, but only, it seems, to that extent and no more.

Endnotes

1.   Three progress reports on the research have or will soon be published. They are: Luciana Duranti and Terry Eastwood, 'Protecting Electronic Evidence: A Progress Report on a Research Study and its Methodology,' *Archivi & Computer*, anno V: fasc. 3, 1995, pp. 213–50; Luciana Duranti, Heather MacNeil and William E. Underwood, 'Protecting Electronic Evidence: A Second Progress Report on a Research Study and its Methodology', *Archivi & Computer*, anno VI, fasc. 1, 1996, pp. 37–70; and Luciana Duranti and Heather MacNeil, 'Protecting Electronic Evidence; A Third Progress Report on a Research Study and its Methodology', *Archivi & Computer*, anno VI, fasc. 3, 1996, forthcoming.
2.   David Bearman, 'An Indefensible Bastion: Archives as a Repository in the Electronic Age', *Archives and Museum Informatics Technical Report*, no.13, 1991, p. 14.
3.   F. Gerald Ham, 'Archival Strategies for the Post-Custodial Era', *American Archivist*, no. 44, Summer 1981, pp. 207–222.
4.   David Bearman, 'Indefensible Bastion', p. 14.
5.   ibid., p. 17.
6.   ibid., pp. 17–18.
7.   ibid., pp. 18–19.
8.   ibid., pp. 19–20.
9.   ibid., pp. 20–22.

10.   Kenneth Thibodeau, 'To Be or Not to Be: Archives for Electronic Records', *Archives and Museum Informatics Technical Report*, no.13, pp. 12–13.
11.   Margaret Hedstrom, 'Archives: To be or not to be: A Commentary', ibid., p. 29.
12.   Thibodeau, op. cit., p. 2.
13.   In this regard, it is worth noting that our research project defines active, semiactive, and inactive records in precise terms. Active records are 'records which are needed by the records' creator for the purposes of carrying out the actions for which they were created'. Semiactive records 'are records which are no longer needed for the purpose of carrying out the actions for which they were created, but which are needed by the records' creator for reference'. Inactive records are 'records which are no longer needed for ongoing agency business'. These definitions are also relevant to the discussion of accountability later in this article.
14.   Jane Parkinson, 'Accountability in Archival Science', (Master of Archival Studies Thesis, University of British Columbia, 1993), p. 143.