

THE ARCHIVAL MANAGEMENT OF PERSONAL RECORDS IN ELECTRONIC FORM: SOME SUGGESTIONS

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The archival management of electronic personal records is notably absent from the increasing literature on electronic recordkeeping. This is a reflection of the fact that the professional impetus to develop strategies to manage electronic records has come from the government or organisational archives sector rather than from archivists working within the historic manuscripts tradition. Either by design or omission personal records have rarely entered the conceptual framework being explored by influential writers on electronic recordkeeping matters. This article outlines and analyses the issues surrounding the keeping of electronic personal records, suggests some strategies that personal records practitioners could consider adopting, and challenges both theorists and practitioners to open up this aspect of the electronic recordkeeping debate.

Introduction

In the burgeoning literature on the archival management of electronic records one category of material, personal records, has been largely overlooked. To some extent this is understandable given that electronic recordkeeping has to date had a much larger impact in the government and organisational archives sectors. This article is a first attempt at redressing this imbalance in the literature. I will demonstrate why it is necessary for archivists who manage collections of personal papers to come to grips with an issue that they can only continue to ignore at the possible peril of both themselves and the records. I will then briefly canvass the strategies for the management of electronic records that have been proposed (and in some cases implemented) in the broader literature and assess these strategies in the light of the particular problems presented by electronic personal records. I will conclude by suggesting, in general terms, strategies which could present a workable way ahead. These strategies will, I believe, facilitate the maximum possible preservation, given limited resources, of the electronic personal records of significant individuals in forms that both maintain the archival integrity of the records and permit secure and efficient access to and use of those records.

The Personal Records Environment

Most readers of this journal would be aware that the field of personal recordkeeping has not been quarantined from the spread of electronic recordkeeping practices. The personal computer is exactly what it says it is — personal! It has been designed to be ideally suited to the home environment. Its marketing success in this area has been sensational. The plethora of personal recordkeeping software packages, covering everything from domestic budgeting through electronic mail managers to electronic notebooks and diaries, is indicative of the revolution that is taking place behind the closed doors of suburbia. No longer are home-based personal computers merely the province of word processing packages and computer games. The emergence of personal database management systems in tandem with increasingly accessible electronic communications facilities means that it is now possible to devise a comprehensive and fully integrated electronic personal recordkeeping system.

Nor is this personal recordkeeping revolution confined to suburbia. The world of academia has been similarly transformed, most notably with the advent of the AARNET/Internet mother of all electronic networks. Crusty and not-so-crusty academics are learning such concepts as remote database searching, electronic mail, electronic foldering, electronic file transfer (ftp), gophers, hypertext, electronic bulletin boards and list servers, electronic refereeing of journal articles and even electronic journals. Moreover, the networking phenomenon

is spreading beyond the confines of academia. Before long it will have penetrated into most walks of life, especially those professions where specialist practitioners are likely to be either self-employed or in small partnerships and thus in a position to benefit from regular electronic contact with remote colleagues both interstate and international.

This transformation of personal recordkeeping practices is yet to be reflected in the acquisitions and management practices of those archival institutions which collect personal records. In many ways this is not surprising. Given that most repositories of personal records acquire their records either towards the end of the creator's life or after her/his death and given that the electronic personal recordkeeping phenomenon is a relatively recent one, it may be years before such repositories are asked to make room for large quantities of electronic records. This, coupled with the largely humanist/computer illiterate background of most manuscript/personal papers curators (I count myself in this category) has meant that the issue has been effectively ignored. If this situation is allowed to continue curators will find that not only will they be completely unprepared for the inevitable, if delayed, influx of electronic records but also that large chunks of these records will be totally unuseable and, hence, lost to posterity.

To date, when repositories of personal papers have been offered records in electronic form, they have usually followed the strategy of transferring the records into a format that archivists are used to dealing with, namely paper. In most cases this has been a sound and quite justifiable policy. Archival bond paper is a far more stable storage medium than any electronic medium so far developed. Usually the electronic records acquired have been part of a larger, paper-based group of records and it has seemed easier for both custodian and user to have all the records in the one format. In most cases the electronic records so converted were simple text files where conversion entailed little, if any, loss of evidential value, contextual meaning or useability.

Authors' Works in Progress

The category of electronically-stored information with which, to date, curators of Australian manuscript and personal records archives have had most experience, is that of authors' works in progress drafted on word processors. Indeed, such has been the interest in this area that the Australian Council of Libraries and Information Services (ACLIS) Taskforce on the Preservation of Electronic Information has felt compelled to formulate and promote guidelines for dealing with this category of records.¹ The concern here is to capture and preserve evidence of the author's creative processes at work. Because of the ease with which drafts can be altered electronically there is the likelihood that this vital evidence may simply never be preserved. The solution promoted by ACLIS is to encourage authors to keep hardcopies of

progressive drafts of manuscripts for deposit in libraries and collecting archives. According to ACLIS, the current immaturity of conversion programs and open systems means that it is neither practical nor cost-effective for collecting institutions to accept drafts in electronic form.

These recommendations have been criticised by Roger Jones of the Social Science Data Archives, Australian National University, who argues that collecting institutions have to grasp the nettle and commence the preservation of records in electronic form.² Jones points out that many groups of electronic records lose their functionality once they are transferred to another format. Jones' criticisms appear to be directed at the general thrust of the ACLIS position paper rather than the specific recommendations concerning authors' works in progress, for while his comments are undoubtedly true, the problem he highlights is rarely one that affects authors' works in progress. As far as I am aware the only disadvantages in converting this material to hardcopy are: the time and effort involved in the conversion itself; the physical problems of processing and storing numerous bulky drafts; that it might make the data inaccessible to networked researchers in remote locations; and that it might force those researchers interested in subjecting the drafts to the scrutiny of an automated textual analysis package to reconvert the data. When these disadvantages are compared with the difficulties involved in not converting to hardcopy (such as: the problems of dealing with a multitude of incompatible software and hardware; the costs of preservation of unstable media; and the effort and expense of providing reading room facilities to access the records) it is not surprising that ACLIS made the recommendations that it did. If the work of conversion can be devolved to the records' creators, so much the better, providing the printouts are properly identified and dated.

This leads me to another factor that ACLIS has rightly taken into consideration, that is the need to influence the habits of the record creators themselves. To this end ACLIS has produced and widely distributed a leaflet which encourages authors to make hardcopy printouts of their drafts at strategic stages of the creative process. In addition, ACLIS has placed advertisements in such publications as *The Australian Author* conveying the same message.³ Roger Jones agrees that authors and scholars do indeed need to be encouraged to retain copies of successive drafts, but argues that the emphasis on paper copies is more likely to discourage than encourage the process.⁴ Jones offers no evidence for this assertion. On the contrary, my experience working with the papers of authors lodged with the National Library of Australia's Manuscript Collection indicates that the ACLIS message has been received positively by most creative writers. Creative writers, most of whom live in fairly straightened financial circumstances, are acutely aware of the financial benefits that

can be gained (either through direct sale or through taxation deductions) from lodging their literary drafts and papers with collecting institutions. They are also aware that hand corrected computer printouts are likely to be valued more highly than a diskette with a series of clean drafts stored in different documents. Not only are annotated printouts more attractive for the purposes of exhibition and display, they also preserve aspects of the creative process that are difficult to capture in electronic form. In any case, there is a growing body of evidence that suggests that the printout more often than not is an integral part of the process of writing long pieces, and that most authors produce these printouts regardless of the wishes of archivists, librarians or researchers and notwithstanding any potential for financial gain that they may offer.⁵ This being the case, it is entirely appropriate for collecting institutions to seek to collect hardcopies of authors' drafts. Of course, resources permitting, collecting institutions can always choose to acquire and preserve drafts in both electronic form and hardcopy.

Regardless of how many drafts are saved in either electronic or hardcopy format, the very act of composing a written work on computer means that at least some of the evidence of the creative process will be lost. When a writer composes on paper all of the false starts and alterations are automatically captured and thus can be preserved, providing the writer wishes to do so. Such is not the case when word processors are used.⁶ The saving of successive drafts is a reasonable compromise given these difficulties, but there is surely a limit to how much solid evidence about the creative process that a researcher can deduce by simply comparing one draft with the next. I suspect that it would be possible for computer systems designers to invent a program that would permit the capturing of every single keystroke for replay by interested parties at a later date. Unfortunately, even if such a program were to be affordable, I doubt whether authors could be convinced to make use of it. Most would probably recoil from such an intrusion into the innermost workings of their thought processes. While this suggestion may repay some investigation, it is more likely that we shall have to accept that, as with previous examples of technological change (e.g. the printing press, the typewriter, the telephone and the fax machine), there are unavoidable gains and losses for the historical record.⁷

Other Categories of Electronic Personal Records

As a category of electronic personal records, authors' works in progress has been explored and discussed by curators because their institutions are especially active, indeed competitive, in collecting in this field. Moreover, this collecting activity often targets records creators at a much younger age than the more usual retired/deceased donors and

vendors. Other categories of electronic personal records have received little or no attention because, under the current scheme of things, most would not be expected to be offered to or solicited by collecting institutions for some years yet. The current donors of personal records are most commonly of an older generation who are far less likely to have kept their records in electronic form. While there is some awareness of the electronic records time bomb that is ticking away in the pre-custodial personal records environment, the approach has been to ignore it in the hope that by the time the suspect device is offered for transfer someone will have discovered an easier way of defusing it than is currently available. This approach may be tantamount to the reckless endangerment of both the records themselves and to the very future of those institutions which collect personal records. These records, some of the forms of which I outlined above, are of far greater complexity than the simple text files of authors' works in progress. Their successful management will require more imaginative strategies than merely ensuring the printing of successive drafts.

If continued inaction is untenable, what can archivists in the personal records field do to deal with the issue? Are the strategies being suggested in the broader archival literature likely to be of any help given the particular circumstances faced by managers of collections of personal records?

Clearly some of these strategies cannot be applied in the personal records field. David Bearman, for example, argues that archives should not acquire electronic records at all because they cannot cope with their sheer volume and complexity. Instead Bearman suggests a non-custodial approach where the creating agencies ensure the long term preservation of the records in their original operating environment with archivists providing assistance with appraisal and documentation and archives serving as 'information entrepôts' directing researchers to appropriate data sources.⁸ Notwithstanding the merits or otherwise of Bearman's argument, it is not a solution that can be applied to personal records. Governments and organisations may exist for indefinite periods of time or have cooperative successor organisations. Private individuals have an unfortunate habit of dying and leaving relatives who refuse to have any truck with the ongoing custody of the deceased's records and who, in any case, probably could not be entrusted with the responsibility.

More recently Bearman has proposed the abandonment of the fonds as the overriding concept in dealing with electronic records, suggesting instead that archivists accept recordkeeping systems as the fundamental locus of provenance. He argues that this is necessary in order for archivists to be able to use the self-documenting features of electronic records systems to produce archival documentation and description because limited resources make it impossible for archivists

to create this documentation and description themselves.⁹ Bearman's advice on using self-documenting features should certainly be followed in cases where such features exist. In the case of personal records, however, it should not be necessary to abandon the concept of the fonds in order to do this. In this area it is perhaps fortunate that not only are personal recordkeeping systems usually self-contained entities with definable and identifiable boundaries, they also lack the problems of hierarchical structures and multiple provenance that so bedevil organisational and government records. In other words, in the field of personal records there is a direct correlation between the fonds and the individual's recordkeeping system or systems. Despite pretenders to the throne, the fonds continues to reign supreme in the personal records field.

Pre-Custodial Intervention

If Bearman's strategies are of limited relevance in the personal records field, there are other strategies which have been proposed that are potentially more useful. Numerous commentators have stressed the necessity for archivists to become more active in the pre-custodial phase of the life cycle of electronic records.¹⁰ To this end government and organisational archivists are starting to work more closely than ever with records managers to develop standards for both record formats and recordkeeping systems in the agencies they serve.¹¹ These steps have been taken in order to avoid the growth of anarchic, unmanageable, undocumented and incomplete bodies of electronic records.

For archivists who collect personal records the notion of active involvement in the pre-custodial records creation phase of the records' life cycle is a novel one. Usually, archivists view the design of the personal recordkeeping system, in addition to the existence or otherwise of support documentation, as something that is predetermined by the records creator and, therefore, beyond their influence. In the absence of documentation some questions may be asked at the time of transfer or shortly after, just as questions may be asked about apparent gaps in the records themselves. More often, however, personal records archivists are left to deduce or infer the details of the creator's recordkeeping system from internal evidence. In comparison with standard archival practice this is an unsatisfactory state of affairs to say the least. Nevertheless it is one that personal records archivists have learnt to live with out of apparent necessity. Personal records archivists usually only come into contact with their donors towards the end of the donor's life, if at all. Negotiations to secure the transfer of records can often be extremely sensitive and protracted. It can take years, or even decades, to secure the agreement of a donor or their heirs. Acquisition usually occurs, at the earliest,

when donors have reached a point in life when active records creation has effectively ceased and they have the time to ponder on their own mortality and their place in history.

The advent of electronic recordkeeping systems means that personal records archivists can no longer accept this situation. For exactly the same reasons that other archivists are becoming more active in the pre-custodial phase, so must personal records archivists. This requires a shift from the policy of targeting potential donors towards the end of their active working life to a strategy of approaching them at the earliest possible time after it becomes clear from their achievements and activities that their records are worthy of preservation. Having secured an in-principle agreement for the eventual transfer of the person's records to the archives, the archivist will then need to build a lasting partnership with the donor whereby assistance is lent with the design of a recordkeeping system that satisfies predetermined standards and with the production of adequate support documentation. This partnership would probably also involve the periodic transfer of non-current records appraised (ideally before their creation) as being worthy of permanent preservation.

I do not underestimate the difficulties involved in this new strategy. For every three potential donors approached, there may only be one who is bothered to accept the invitation. Of those, half may balk at the thought of the ongoing interference of a nosy archivist in their busy routines. But even if only one in six approaches proves to be successful, it will still be one more collection of personal records that is captured for posterity than would be the case if active pre-custodial intervention is not adopted. With a patient and professional approach a much higher success rate may be achieved. Indeed, the practice of dealing with donors during their period of active records creation is not entirely foreign to personal records archivists. The intense competition for the acquisition of records of creative writers has made the practice the norm rather than the exception for this category of material.

Inevitably, there will be difficulties and complications involved in maintaining ongoing relationships with the more idiosyncratic or eccentric records creators. Moreover, pre-custodial intervention may introduce a self-conscious element to the processes of record creation and preservation that may have unfortunate implications from an evidential viewpoint. Nevertheless, for all the potential problems and difficulties of this strategy, I can see no other alternative if personal records archivists are not to be made redundant antiquarians by the relentless march of technology.

Custody and Beyond

So much for the pre-custodial phase. What about the custodial phase of the record life cycle? Having accepted that personal records archivists

have no choice but to take custody of electronic personal records, what form should this custody take? Because of the functional, interactive and non-linear character of many electronic records, they often cannot be converted into hardcopy format without loss of meaning, context and useability. For electronic records to retain their archival integrity most need to be preserved in electronic form. The simple text files of authors' works in progress are merely the exception that helps prove the rule. In Margaret Hedstrom's words there is a:

... need to retain all of the functionality of an active records system. There are tremendous advantages to retaining the descriptive, search, retrieval and manipulation functions of some automated systems.¹²

It appears that Roger Jones is right. Collecting archives have no choice but to grasp the nettle and come to terms with storing and making electronic records available for use. To simplify matters the approach adopted by other archival organisations, that of setting standards for record format (i.e. software) and storage medium (i.e. hardware),¹³ must also be adopted by collecting archives. To expect staff and users to be familiar with the multitude of formats and storage media is obviously unrealistic and inefficient. Ideally, these standards should be agreed upon by as many collecting archives as possible, although recent experience in trying to achieve agreement on archival descriptive standards does not make one hopeful that this can be easily achieved, much less the proposition put forward by Richard Cox that archivists should present a united front in order to influence the computer industry in the development of information technology standards.¹⁴

As we all know, the problems of incompatible software and hardware, in combination with the problems of their rapid obsolescence, make the acquisition and preservation of electronic records fiendishly difficult. I do not believe, however, that these are insurmountable problems. Records held in an incompatible software can always be converted to a standard format, providing that not too much time has elapsed. If these standard formats face obsolescence, a new standard format can be adopted and the records converted again. There is no necessity, nor is there any sense, in archives becoming technological museums of obsolete computer hardware and software. Moreover, I am optimistic that with the development of such protocols as Open Systems Interconnection (OSI) the problems of incompatibility and obsolescence will be reduced.¹⁵ In any case, if we get the pre-custodial phase of the record life cycle under control, as I have suggested above, the problems of conversion on transfer should be largely eliminated. Of course, preservation of records held on unstable storage media remains an expensive and labour intensive operation, but if society wishes to preserve the records it will simply have to foot the bill or develop more stable storage media. Again, I am more of an optimist than a pessimist on this matter.

My optimism is, however, tempered by a great deal of realism. Archival institutions are no strangers to narrowing resource bases and funding cutbacks. Personal records archivists will need to take into account the costs of acquiring and preserving records in electronic format when appraising records for acquisition and some hard decisions will need to be made on the basis of institutional collecting priorities. In some cases it may be demonstrably cheaper to convert some electronic records to hardcopy. As I have already stated, however, this can only be done where the conversion entails no loss of functionality in the records, for example an electronic foldering system for an individual's electronic mail messages. On the other hand, such conversions may turn out to be more expensive in the long run, given the high cost of providing physical storage space for paper-based records, not to mention the extra staff time involved in foldering, boxing, labelling, shelving and providing warehouse directories for those hardcopy records.

For the archiving of personal electronic records to succeed it is clear that personal records archivists themselves are going to have to become more technologically literate. In saying this, however, I am not suggesting that we need to become computer professionals.¹⁶ What we will need to do is develop closer working partnerships with the existing computer professionals in our organisations or, in the case of smaller archives, create new staff positions for computer professionals. Nevertheless, if we are going to communicate successfully with computer professionals, we are going to have to learn some of their language and concepts. Moreover, if we are to master the pre-custodial liaison process and assist donors in the development of properly documented standardised electronic recordkeeping systems, we will need to feel comfortable dealing with the technology at hand. A level of technical expertise will also be necessary in order to be able to verify records at the time of transfer.¹⁷ Clearly the professional education of archivists needs to be recast to incorporate a substantial component of computer studies. For those of us already in the profession, continuing education in the computer field is now essential.

The final point that needs to be made is that there is no point collecting and preserving electronic records unless they can be made available to researchers. This will naturally involve both the provision of terminals in reading rooms and the provision of training in the use of the standardised formats and systems for the researchers. Needless to say, documentation relevant to the particular recordkeeping system (or fonds) will also need to be made available to the researcher. In time it should be possible to provide networked access to the electronic holdings of collecting archives for the benefit of remote researchers. The question of ensuring the security of the data stored in electronic records will also need to be addressed as the risks of accidental or

deliberate corruption, deletion or alteration of data cannot be ignored. Again, archivists will need to draw upon the skills of computer professionals to deal with this issue, the provision of 'read only' access formats being one possible strategy.

Conclusion

The issue of electronic personal recordkeeping systems and the strategies I have proposed in this article for managing them will probably send some personal records archivists scurrying back to their nineteenth century records with fear and loathing in their hearts. Fair readers will, I hope, concede that the issue can no longer be avoided and that my proposals combine optimism, realism and common sense in roughly equal proportions. As the first to broach the issue in the Australian professional literature, I have necessarily taken a generalised approach to the topic. In the years to come I look forward to reading more detailed and specific explorations of the issue by theorists and practitioners better able to explore its technological dimensions.

ENDNOTES

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2. Roger Jones, 'Comment on: The Need for the Preservation of Australian created Electronic Information: A Position Paper', *Australian Academic and Research Libraries*, vol. 24, no. 1, March 1993, pp. 47-48.
3. See for example *The Australian Author*, vol. 21, no. 2, Winter 1989, p. 15.
4. Jones, op. cit., p. 48.
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