

THE DISPOSAL OF ELECTRONIC RECORDS IN OFFICE AUTOMATION SYSTEMS OF THE AUSTRALIAN PUBLIC SERVICE

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The Australian Archives has been conducting a project to look at a number of aspects concerning the disposal of electronic records. One sub-project concerned the disposal of information in office automation systems. It began with a study of the system used in the Department of the Prime Minister and Cabinet and led to the issue of guidelines in booklet form on the disposal of information from that system. Those guidelines were then modified for service-wide distribution.

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The Australian Archives, like other archival institutions around Australia and overseas, has been aware for some years of the impact of computers on the way our corporate clients operate, and therefore on the kinds of records which they create in the process. We have been asking ourselves how electronic records—information in Commonwealth government agencies' computer systems—differ from conventional records. This will enable us to develop the means to manage that information in terms of our responsibility for the broad management of Commonwealth records and our role as the Commonwealth's archival authority.

In 1986, the Archives started the first of a number of major investigations into electronic records: the disposal of electronic records was the logical place to start. Briefly, the aim of the disposal project is to place the Archives in a position where we can routinely regulate and undertake the disposal of electronic records, as routinely as we currently do with conventional records.

The disposal project comprises a number of sub-projects, including the development of an appraisal methodology and procedure for electronic records (now completed), the review of our appraisal criteria to ensure that they adequately cover the possible different values to be found in electronic records, and the development of training and related materials for the staff of the Commonwealth agencies who will do operational work with electronic records. The study and guidelines described in this paper was another sub-project. The study was carried out with the assistance of the Department of the Prime Minister and Cabinet.

Concepts

I have already used the term 'electronic records' a number of times. Without attempting any comprehensive definition, for the purpose of this paper, let us think of electronic records as the information which goes into, is processed in, stored in, and retrieved from a computer system.

A record is defined in the *Archives Act 1983* as "... a document (including any written or printed material) or object (including a sound recording, coded storage device, magnetic tape or disc, microform, photograph, film, map, plan or model or a painting or other pictorial or graphic work) that is, or has been, kept by reason of any information or matter that it contains or can be obtained from it by reason of its connection with any event, person, circumstance or thing . . ."

This makes it clear that the kind of information mentioned above is covered by the Act and is to be treated the same as *records* for the purposes of the Act. At the same time, we have taken the view, supported by the Act, that for disposal purposes we are primarily concerned with the *information* associated with computer systems, whether that information is contained in what we would normally think of as a physical record (eg a magnetic tape or disk) or not. The term 'electronic records' emphasises our view of this information as records in the terms of the responsibilities imposed by the Act on the Archives and on Commonwealth agencies, while indicating the important differences between this information and conventional records.

A further concept needs to be explained before we move on to the study itself. The disposal provisions of the Act impose a blanket prohibition on the disposal of Commonwealth records. The two major exceptions to this prohibition are:

- (1) authorised disposal: the Archives issues disposal authorities, prepared in co-operation with Commonwealth agencies, which authorise disposal actions according to the values and costs of retention identified for the classes of records; and
- (2) normal administrative practice: this covers those disposal actions which are frequent and regular. No formal authorisation is required for such disposal action, however the Archives would consider disapproving any normal administrative practice which affected records of continuing value. Normal administrative practice includes such everyday disposal actions as the destruction of rough drafts and notes, and of information copies of circulars.

It is in the nature of the way computer systems work—with data being continually added, deleted, updated, processed and altered—that the concept of a normal administrative practice becomes crucial to the disposal of electronic records.

Origins of the Study

Early in 1987, the Department of the Prime Minister and Cabinet approached the Archives seeking advice as to whether the office automation facilities then being rapidly introduced into the Department posed any problems for them in meeting their obligations under the disposal provisions of the Archives Act.

The Department realised that the everyday operation of an office automation system would involve a great deal of disposal activity: word processing documents would be modified or deleted, electronic mail messages would be sent, read and deleted, and so on. This disposal activity would not be authorised by the Archives, but would take place as a range of normal administrative practices.

There were two potential problems, both stemming from the high level of user control over the disposal of information in an office automation system:

- (1) the possibility of the uncontrolled destruction of electronic records of continuing value: a normal administrative practice of which the Archives would disapprove; and
- (2) the excessive retention of electronic records: without regular deletion of information, the system would 'clog up' with response times becoming unacceptably slow.

In the Archives, we realised that any solution which we developed should be applicable to office automation facilities in any Commonwealth agency. We also expected to find close analogies to paper-based record systems. A study of the Department's facilities would therefore be a good task to undertake early in the overall disposal project on electronic records.

It was agreed between the Archives and the Department that we would

undertake a study of the use of their office automation facilities from the disposal point of view. This would give the Department early and informed advice. It would give the Archives the opportunity to study a system at first hand, and therefore the confidence that our advice was empirically based. At the broader level, it would give us an appreciation of the characteristics of computer technology for disposal purposes, and a possible methodology for further studies of systems.

The immediate concrete objective would be to develop a set of guidelines to help users of the office automation facilities to make responsible disposal decisions.

The office automation facilities

Typically, an office automation system has all or most of the following facilities:

- (1) *personal word processing* enables managers and action officers to create, store, edit, print and delete documents. In the Department, the same terminals and software were used by both general users and specialist keyboard staff.
- (2) *electronic mail* enables users to compose and send messages to other individual users, or to distribute to a number of users. On receipt of a message, a user can read, reply, forward, save, print or delete the message. In the Department, word processing or spreadsheet documents could be 'enclosed' and sent with messages, and incoming and outgoing messages could be indexed to facilitate retrieval.
- (3) *time management and other tools* include diaries, calendars, appointment makers and calculators.
- (4) *database and spreadsheet programs* can be made available to users without the need to supply separate microcomputers. At the time of the study, only a spreadsheet was available in the Department's system.

A number of other systems were run on the same hardware, covering file registry, correspondence tracking, personnel and finance applications, while a separate Cabinet Office network was linked for electronic mail purposes. At the time of the study in 1987, there were 170 users out of about 400 officers in the Department. The implementation of the system has involved an approach that saw work cells and stenographic staff as the first users to be provided with the terminals, in some cases shared. Attention was then turned to providing senior and middle managers with terminals on their desks.

Gathering the information

I noted above that the study focused on the use of the facilities from the disposal point of view. Essentially we wanted to know how and for what kinds of work the facilities were being used, and how users were

currently making everyday disposal decisions about information created or stored using the facilities. In other words, what normal administrative practices had developed?

The most effective way to gather this information was to interview users. Sixteen users were interviewed, having been selected to represent a reasonable cross-section of the users as a whole. The interviews were conducted informally. A set of questions was used as a basis for discussion and as a checklist of areas to cover, rather than as a rigid structure for each interview. Consequently, the information gathered was qualitative, rather than quantitative, in nature.

How the word processing facilities were used

The extent to which managers and action officers used the word processing facilities varied, and seemed to depend largely on the individual's level of interest and keyboard skills. Good software and the large number of terminals and letter-quality printers available encouraged personal word processing. Many action officers and middle-level managers prepared all their own correspondence, composing at the keyboard, as did some senior managers when working outside normal hours.

The word processing facilities were used almost entirely for *preparing* text-based information either to be printed or to be sent as electronic mail, rather than for *storing* text-based information. The main kinds of documents that were kept in electronic form for any significant length of time were proformas, standard minutes and drafts of larger documents which would require considerable modification. The word processor was also used a great deal for preparing notices and circulars which were to be sent to a large number of officers electronically.

How disposal decisions about word processing documents were made

Overwhelmingly, the people interviewed indicated that they created word processing documents in the expectation that they would either be printed by the creating officer, or sent via electronic mail and printed by the recipient. With most documents ending up in hard copy, the disposal problem largely becomes that of conventional paper records.

Officers deleted their own word processing documents when:

- modification of the document had been completed;
- the document had been printed, sent to another officer or had been distributed electronically;
- the creating officer had taken a hard copy for the relevant file or for reference; or
- action on the matter was completed.

The limited capacity of the hard disks where word processing data was stored imposed a need to delete documents regularly. None of the

officers interviewed indicated that this forced them to delete earlier than they would otherwise have wished.

How the electronic mail facilities were used

The extent to which electronic mail was used varied greatly, both between Divisions and between individuals. In the Corporate Services Division, the facilities were used extensively. The operational nature of the Division's work meant that individual officers frequently communicated by electronic mail about particular short-term tasks. With the large number of electronic mail users in the Division, it had already become an important element in the Division's corporate style. In addition, much of the information disseminated through the Department using electronic mail originated in this Division. In contrast, the policy Divisions had little use for electronic mail.

Geography also contributed to this distinction between the Divisions. A number of officers identified distance as an incentive for sending routine messages by electronic mail if a division was large and spread over a number of floors or wings.

Some officers had integrated electronic mail enthusiastically into their own management styles and used it to conduct a large proportion of their business. One senior manager sent up to 200 messages, instructions or requests to his managers per week. Because of the operational nature of the work, a large part of his business could be conducted this way. At the other end of the spectrum were people who received disseminated information on electronic mail but initiated no mail themselves.

In addition to officers' own enthusiasm for using the facilities, officers appeared to be heavily influenced in how much they used electronic mail by the use made of it by their superiors. A number of officers used the facilities to communicate in bulk on non-urgent matters, for example, to propose a meeting for a particular date or for routine regular reporting. This avoided the need for multiple telephone calls and written notes.

Some officers noted that the use of electronic mail for less than formal communication had the advantage of allowing either party to keep a record, in the short term at least, of exactly what passed between them. Keeping this record might simply involve leaving the message on the system for a while or taking a hard copy.

It was clear that much of the use of electronic mail involved dissemination of information via 'copies' of messages or word processing documents. The large number of 'copies' created, coupled with the failure of many officers to delete messages, was identified by Computer Systems staff as a significant cause of poor response times on the system.

How disposal decisions about electronic mail were made

Most commonly people said that they decided whether or not to delete an electronic mail message on the basis of whether:

- the matter was finished, and
- the information was needed for future reference.

Individuals identified further factors:

- (1) 'duplicates': messages sent to the same officer by more than one person;
- (2) 'copies': where the sender of another recipient was likely to keep the message for as long as necessary;
- (3) 'electronic conservation', messages with no value once read; and
- (4) conscious decisions to document long courses of action by keeping important messages, but deleting intermediate ones.

Computer Systems staff urged users to delete messages regularly and often, in order to keep data storage and capacity free. Many officers indicated that they did so, most commonly once a month.

Officers tended to print any messages that they needed for their own reference, and a number of officers used the hard copies in a manual reminder system. Only a few officers indicated that they often had a registry file in mind when sending a message by electronic mail.

Other facilities

Of the other facilities noted above, the only one operating at the time of the study was a spreadsheet program. In particular areas of the Department, because of the nature of the work, it was used extensively.

The most common disposal practice was to delete the spreadsheet data when the work based on it had been completed, although the spreadsheet structure would be kept for future use. The spreadsheets were seen very much as working tools, which would make very little sense by themselves or to anyone other than their creator. One officer noted, however, that the large numbers of manually produced tables, which were used before the spreadsheet facility became available, had normally been placed on file. Now only the final figure accompanying the brief appeared on file.

Findings of the study

It became clear that the relationship between the use of the office automation facilities and the registry files was crucial for disposal purposes. The evidence did not appear to suggest that officers were using the facilities to store material of continuing value to any significant extent. Moreover, there was no suggestion that the status of the registry as the Department's primary record-keeping system should be altered.

It was difficult to tell whether uncontrolled destruction of records of

continuing value was actually taking place. None of the officers interviewed, of course, said that they destroyed records of continuing value. Equally, no notorious cases came to light. While this seemed to indicate, at least, that officers were making sound decisions about the value of electronic records for their individual needs and for the short-term administrative needs for the Department, it shed no light on whether officers were recognising longer-term administrative or archival values in these records.

The excessive retention of electronic records produced a parallel with paper record-keeping systems: keeping too many records results in inefficiencies. A failure to delete word processing documents which were no longer needed was a problem which took care of itself. With the limited storage capacity of the hard disks, officers were forced to review their documents when that capacity was reached. The excessive retention of electronic mail messages was addressed in the guideline through advice about the consequences for the speed of the system and advice to review messages regularly.

Drafting the guidelines

Drafting the guidelines presented a number of challenges. They were:

- (1) The guidelines could not be seen as a substitute for appraisal but merely as an aid to making disposal decisions in the context of normal administrative practices. They had to provide useful advice to users of the facilities without giving the impression that the resulting decisions were actually authorised by the Archives.
- (2) The guidelines would have to be used by a wide range of officers throughout the Department, rather than by specialist records staff. The advice had to be soundly based but in non-technical terms.
- (3) The guidelines would have to be used by busy officers with many competing priorities. They would have to be short and easily digested if they were to be used at all.

We decided that the guidelines should emphasise printing any electronic records of potentially long-term or archival value, and placing them on a file. In a sense, the guidelines would serve their purpose if they ensured that such potentially valuable electronic records entered the Department's formal record-keeping system, where they could be appraised normally. Of course this approach limited the broader value of the guidelines to those Commonwealth agencies where a registry file system, or some similar record system, continued to operate. They could not be used in a totally automated office.

Issuing the guidelines as a booklet titled *When it's gone it's gone!!!*

We decided to issue the guidelines to the Department of the Prime Minister and Cabinet in the form of a booklet of twelve A5 size pages.

This first edition was titled *When it's gone it's gone!!! Keeping and disposing of information on the office automation system*. The Department of Administrative Services assisted with the physical production of the booklet which featured cartoons by a cartoonist on its staff. The cartoons added colour to the booklet and helped to catch the attention of officers. The records management staff of the Department of the Prime Minister and Cabinet distributed the booklet to all terminals in the Department.

Testing the effectiveness of the booklet

We were keen to find out the users' reaction to the booklet so that any suggestions could be incorporated in a second edition for general distribution throughout the public service. With the assistance of the records management staff, we distributed a questionnaire with each booklet. Also, we circulated the booklet to staff within the Archives for their comment.

The comments that we received were encouraging because they indicated to us that the guidelines themselves were appropriate and realistic. The most important of the comments concerned the target audience. Since the booklet was distributed to terminals, most of the readers were existing users. The suggestion came to us that the booklet should be targeted at officers who were either new to using such office systems or new to the Australian Public Service and so were not aware of the record keeping requirements. Therefore, the booklet would be more effective as part of an officer's training on the system or in an induction program. In turn, it would be more effective to have some kind of awareness campaign to remind experienced officers on a day to day basis of their responsibilities.

Issuing the guidelines for general distribution

In December 1988 we issued the guidelines for general distribution throughout the public service in a second edition of the booklet titled *When it's gone it's gone!!! Keeping and disposing of information from office automation systems and personal computers*. The text of that edition is at Appendix One. We also issued a complementary leaflet to the records managers of agencies which explains the purpose of the booklet and how it can be most effectively implemented.

Future developments

We will be taking up the suggestion about an awareness campaign. At this stage we are considering issuing a series of posters and stickers featuring the same cartoon character and colour scheme as in the booklet and slogans along the lines of "When it's gone it's gone!!!" and "If it's important, keep it!". We consider it important to establish a clear link between the posters, stickers and booklet. We would expect the posters to be hung in offices where terminals and personal computers are located

and the stickers to be placed on keyboards, consoles, printers, etc within sight of the officers using the equipment.

Conclusion

It will be clear to the reader that the results of the study were not startling. We could perhaps have guessed what many of the results would be and how we could take action most effectively. However, now we know how these facilities are used and what "normal administrative practices" have developed as they have been used. Consequently, we feel far more confident in the soundness of the guidelines than would have been possible had they been based on assumption and guesswork.

It might also appear that the guidelines themselves merely represent common sense and are unnecessary for that reason. However, we have taken the view that users of office automation facilities need guidance in making everyday disposal decisions, and our experience in testing the guidelines supports that view. If the guidelines contain a large element of common sense, we see that as a good reason to encourage them to be used.

The guidelines join a growing body of procedural material and advice which the Australian Archives has developed in recent years to help us and our clients to manage electronic records more effectively.

APPENDIX ONE

TEXT OF *WHEN IT'S GONE IT'S GONE!! KEEPING AND DISPOSING OF INFORMATION FROM OFFICE AUTOMATION SYSTEMS AND PERSONAL COMPUTERS* (SECOND EDITION).

The disposal of information in all formats is controlled by s. 24 of the Archives Act 1983. Most records disposal requires permission of the Archives (given only after careful evaluation). However, the Act permits the routine destruction of clearly ephemeral material without the Archives' approval.

An agency's records disposal program provides for the systematic evaluation of all records in the formal record-keeping system. However, office automation systems and personal computers pose special problems for effective record-keeping.

Unless users of the equipment make a conscious effort to think about the importance of the information they create or process, it may not become part of a department's formal record-keeping system where it can be evaluated in this way. Some electronic records, like some paper records, have long-term or permanent value and need to be kept beyond their immediate administrative use.

On the other hand, the unnecessary retention of electronic records which are no longer valuable or of any further use will lead to inefficiencies in the use of the systems and their storage capacities.

Consequently, the Australian Archives has prepared these guidelines to help users of office automation systems and personal computers make important preliminary decisions about which information is retained for formal evaluation in due course.

Keeping and disposing of information in office automation systems and personal computers:

- Information in electronic record systems is just as much a record as a paper file.
- The efficiency of electronic record systems depends on considered and prompt disposal action.
- Once information enters the established record-keeping system, formal evaluation procedures apply.
- However, each day you must make preliminary decisions about what information to keep, to modify or to destroy.

These guidelines cover the disposal of information from the word-processing, electronic mail and spread-sheet facilities included in most office automation systems and personal computers.

They do not cover the disposal of information in other systems such as larger computing systems or conventional format records (for example, correspondence files maintained by a registry). The disposal of information in these systems is regulated by General Disposal Authorities (previously known as General Disposal Schedules) or by agency specific disposal authorities issued by the Australian Archives.

WORD PROCESSING

Officers in agencies carry out word processing for two main purposes:

1. to prepare, modify and update documents which are then to be printed, ie for preparing a paper record such as a minute, submission or letter.
2. to prepare electronic documents to send to other officers.

Usually, only the final product of this process needs to be kept. There are circumstances, however, where the development of a document needs to be recorded:

- where the subject matter of the document has continuing value for administration, or longer term research uses.
- where significant, substantive modifications are made.
- where the modifications are requested by a senior officer, for example the Secretary of a department.

In such cases you should take care to keep successive versions of the document and to ensure that they are placed on the appropriate registry file.

Clearly, for your own purposes, you will need to keep on the system any document:

- which you may still need to modify.
- which can be used as the basis for preparing further word processing documents.

One of the main attractions of word processing is that you can prepare a draft and then modify it extensively. You can send the draft to other officers, either in hard copy or by electronic mail and then modify it using their suggestions.

Most commonly, you will be able to delete a document:

- after you have completed all modifications of the document.
- after action on the relevant matter is completed.
- after you have printed it as a final.
- after you have sent it as a final to another office.

ELECTRONIC MAIL

Officers use electronic mail for a wide variety of purposes, ranging from 'electronic conversations' to formal minutes and instructions; from communications

between individuals to the dissemination of information throughout an agency. The messages that officers send range from short notes to longer documents and spreadsheets.

For any message that you send or receive, however, you can either print and file it, keep it for your personal reference only or delete it. Specifically, you should:

1. Print any message which:
 - relates to substantive business of the agency.
 - is a formal communication between officers (for example a minute, report or submission)
 - has a continuing value.
 - has value for other people or the agency as a whole.

For example, if a purchasing officer uses the electronic mail to collect quotes, compare, and prepare a submission on an item needed by the agency, the messages relating to this activity will have all the above characteristics.

You should print messages of this sort and place them on the relevant registry file. Where possible, it is useful to identify a registry file when you send such a message and to note the file number as your reference on the message. This will indicate to the recipient that you are documenting the matter on file. This applies particularly when 'copies' are distributed to a number of officers.

2. Keep any message for your own reference if you may need to refer to it again.

You can keep this kind of message:

- on the system while you may need to refer to it. (You should regularly review these messages.)
 - by taking a hard copy. In this case, the message can be deleted from the system.
3. Delete any message which is:
 - a transitory message of minor importance, whose sole purpose was to provide you with information.
 - a 'copy' of the message distributed to a number of officers, to which you will not need to refer again.

SPREADSHEETS

Officers prepare spreadsheets as parts of reports and submissions, either by reproducing the spreadsheet or by extracting information from it.

A spreadsheet is essentially a working tool, a means to achieving an end. Commonly, it will have no further value once the work to which it contributed has been completed.

Clearly, for your own purposes, you will need to keep:

1. the spreadsheet structure, if it is likely to be useful again.
2. previous versions of a spreadsheet, if you want to be able to update or compare them.

In addition, as with word processing documents, you should consider the possible wider value of a spreadsheet, where the information has continuing value for administration, or longer term research uses.

GOOD HOUSEKEEPING

Good housekeeping by all users is the key to the efficient management of the information in office automation systems and personal computers. It both

contributes to the smooth running of the system and assures the retention of records which need to be kept.

You should get into the habit of regularly reviewing your incoming and outgoing messages and your word processing documents and spreadsheets. When you do this you should bear in mind:

1. your own needs.
2. the office's needs.
3. the possible long term or archival value of the electronic records.

FURTHER INFORMATION

For further advice on record-keeping or disposal procedures, please contact your agency's archives officer, records officer or Registry or your local Australian Archives Regional Office.

The Australian Archives has also produced a leaflet title *Advice for agency record officers on the booklet: When it's gone it's gone!!!* The leaflet provides records officers, archives officers and information managers in agencies with advice on the purpose, scope and use of this booklet.