

Archivists and Computers

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Archivists and the Computer are uncommon companions in Australia, perhaps mainly due to the lack of attention that archivists have shown in respect to new technology. It is this lack of awareness of the role of technology within the archive that brings Australia's archivists into the 1980's with no fully computerized control systems in either a Federal or State institution. Some inroads have been made into creating systems that follow a logical order of progression, but this has been orientated to completely manual systems, without very much thought being given to current common business practice and without cost benefit analysis motives, as we have not needed to justify our existence to date. To illustrate my argument, a quick look at your local library, with its fiche index catalogue systems and or perhaps a total fiche catalogue with no catalogue cards, serves to show the reader how far behind we have fallen. Some libraries have direct data entry catalogues and the only paper information base is the books they hold.

Recently, the Federal Department of Productivity sponsored, in various states, seminars associated with Information Technology Week which illustrated the amount of reliance that both the public and private sectors have on computers in producing information, storing information and creating specific information patterns. How many institutions are currently aware that relatively bulky computer installations of the early 1960's can now be purchased as an inexpensive desk top mini-computer and that those can be operated with packaged programmes by relatively untrained personnel? Although this rapid development of technology has been accounted for in other countries, the example being the United States National Archives & Records System (NARS), it has not however penetrated the Australian scene.

Do archivists, who by their daily work function in continuing to develop non-logical progression control systems, realise that what they are constructing cannot possibly be efficient in the future? Why is this so? In recent times the emphasis of Governments both State and Federal (and the private sector to some extent) has been on the containing of overheads such as salaries and wages to within affordable levels. Archives institutions are in no way exempt from this trend and to some extent have suffered more due to the relative non-political nature of their

functions than have their opposite numbers in the cultural field, that is, libraries. The continued pressure on staff and the extremely tight budget and staffing situations mean that archive institutions can no longer plan in the future to operate manual systems of information distribution, collation and construction.

The archive must, if it is to survive as a growing workable and publicly used institution, recognise that computers are the essential tool of an archives operation. To extend my reasoning in respect to computers, let us look at the increasing complexity of today's record systems. No longer have you the ability to delay archival action or investigate action on the majority of records due to the nature of the technology upon which they are constructed. It is this very problem of technology, such as magnetic tape and computer data, but particularly the more modern forms of storage systems such as the soon to be outdated ceramic disc, and the new breed of technology exemplified by the magnetic ball memory, that requires speed and comprehensive information systems in an archives organisation. It is no use placing these types of records in a storage environment for future archival review by professional staff, as the technology can neither be guaranteed to reproduce the record (that is, if the technology to reproduce the records still exists) nor can the user requirement, particularly in the area of mass data accumulation, be expected to wait for a high access based technology.

The archivist is in the latter half of the 20th century and must appear to recognise this fact. At present, most archival technology continues the methods of Australia's transplanted nineteenth century bureaucracy. Even today, such incredible practices as the binding of correspondence in government still exist. With such a mix of record technology being created, is it not the responsibility and necessary function of the archivist to become more acquainted with the technology of records now being produced? Similarly, it should be the function of the archivist to understand computers and new video techniques, so that the question of the holdings of the future may be properly defined now, together with all the essential ingredients of that record, including a description of the relevant technology in the record creation process. Perhaps archivists, as our United States colleagues have experienced, must be able to understand complex computer installations including the scientific basis of records computer programming and be able to apply such techniques to their control systems.

As the cost of an archivist (whether registration, survey, description, analysis, reference, access or informational, education or extension) increases rapidly, some pressure correspondingly increases upon the archives to acquire technology to undertake tasks now manually assigned. It will be no longer possible in the future for an archive institution to process every record by examination by professional staff. Rather, the responsibility will be delegated to non-professional staff or

mechanical means will be used. It is this very problem of the reduction in the overall numbers of professional staff on a per capita basis with the records in storage that will lead to the pressure for computerisation of control systems. But this computerisation will not in itself solve the problem. It will however push the archive institution into the 20th century with a vengeance. This action will mean that archivists will have to assume more of the role of the Records Manager if they are to survive in their current form. For the archivist to demonstrate that he or she is little more than a source of experience in access to control systems, the control systems themselves must assume a more prominent role within the archive operation. At present, it could be said in general, that Australian institutions rely too heavily on the knowledge of archivists working in these institutions for guidance in researching information from the holdings. This, if associated with staff costs, means that if an archivist decides to change institutions, the very heavy investment in training and experience (in itself a non-productive role) thus changes to whatever institution the archivist goes to. Comparatively, libraries have no such problem on an equal scale due to the nature of their control systems.

Archivists must become more aware of the role the computer will play in their work functions. It is not simply good enough to dismiss the fact that computers will one day undertake some sort of reference publication production function, without due thought being given now to the acquisition of a data base to enable archivists to be in that position. Such a suitable ADP system is currently available off the shelf from companies such as IBM, and is quite well utilised by librarians. In addition, archives institutions in other places in the world have been utilizing computers to record holdings data, whether it be simple facilities analysis recording or a more complex logical progression system for producing user information. Now is the time for implementation of ADP systems into archives in Australia. If, for instance, administrators providing funds to archives institutions in Australia had accepted the legislative logic expounded by K. Penny, in 1955¹ then the situation faced by most institutions in Australia would not be as grave today as it is.

For the size of the holdings in institutions in Australia, the amount of user available material in the form of guides and inventories of series, inventories of agencies, group and accession listings is meagre. Very few comprehensive, *readily updatable*, systems exist.

Those that do, suffer from the usual manpower shortages and therefore detract from the real objective of the archives in the user field, that is, service ability. As the proportion of the holdings in comparison to the time taken to satisfy the users' demands increases, so does the proportion of time institutions have to allocate to the user servicing role of archivists and hence staff time is reduced in the registration, arrangement, and description functions that are the lifeblood of the user

services finding aids or systems. In real terms, institutions in this predicament are showing a prognosis of future crisis.

This article is designed primarily to stir the interest and enthusiasm of archivists toward computers. I hope that by its publication you question the role that your institution now undertakes without a computer. The short term loss of user service effectiveness in manning counters for a long term gain in overall archive efficiency is the equation that you must justify in your own mind. Let us put away the typewritten lists, handwritten notes and stencil guides. Let us pick up the visual display terminals and keyboards and accept new technology for its value in our field and move into the 20th century, for what we produce in the way of collections of the stuff of history will influence to a very large degree the minds of the 21st century. Is it not our professional responsibility to do this to the best of our ability? No one will hand the archivist computer systems on a plate and no one system will be adequate for the whole of the profession. The blood, sweat and tears for the archivist and the computer have just begun.

FOOTNOTES

1. K. Penny, "The Problem of Local Records" *Archives and Manuscripts*, Vol. 1, No. 1, 1955.