AUTOMATED RECORDS MANAGEMENT SYSTEMS IN THE ESARBICA REGION

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Introduction

Significant advances have been made in recent years in the study of archives administration and records management. This research stream has seen archives and records management becoming an important theoretical issue receiving considerable attention from researchers within the fields of information management and systems. Many researchers in their contributions have found that archives and records which form a part of a wide range of information resources are as important to organizations as human and financial resources and that their management is important. Equally important is understanding the relationship between “memory” and “archive”, “event “ and the “record”, and “justice” and the “law”. These issues might appear superfluous but evidence from South Africa’s Commission for the Restitution of Land Rights gives credence to the archivist’s need to grapple with these issues.[1]

Computers have increasingly occasioned new dynamics in archives administration and records management. It is evident that the shift is from traditional record keeping systems to computerization and management of electronic records. With increased government activities there has been increased data, and computerization will ensure timely services and easy storage of information.

The advent of computers has brought new problems for the archivist in transference from manual systems to automated ones, as it is possible for information to be distorted. As Bearman would have asked, “do electronic records tell the truth?” Attempting to understand the myriad of questions takes us to automating archival information systems and managing electronic records; archival institutions, other organizations, public and private sectors. Automating archival information systems includes assimilating the arcades of memory and hallways of events; conversion of existing records and data. On the other hand, managing electronic records incorporates specifications, strategies and considerations for capturing, handling and accessing such records. Archival institutions were for a long time bastions of old records and have now become banks of information, reservoirs of data and shopfloors for information creators and consumers of information. Latter day archivists work with other professionals such as auditors, systems designers and IT specialists, risk analysts and other stakeholders in both the private and public sectors. For example, IT specialists design systems for the management of electronic records in collaboration with archivists.

Information in electronic format has increased dramatically and it will continue to grow as many office transactions that have been paper-based are now performed electronically. With the massive shift from paper to digital information a lot of emphasis has been placed on the management of electronic information. This involves automating services such as online databases and using websites as a

source of distribution of key documents such as policies, manuals and other publications.

Current developments in the ESARBICA region

The Eastern and Southern Africa Regional Branch of the International on Archives (ESARBICA) is a regional association bringing together the countries of Eastern and Southern Africa so as to cooperate and assist each other in professional matters and work as a team in carrying out the aims and objectives of the mother body, the International Council on Archives (ICA). Member countries among others include: Tanzania, Malawi, Kenya, Zambia, Botswana, Swaziland, Lesotho, Zimbabwe, Mozambique, South Africa, and Namibia. The regional branch has since its formation in 1969 been faced with many challenges most of which originated from the pre-independence period, such as the issue of neglected records. However, its concerns today have shifted to administration, social and environmental changes in modern technology and science.

Within the ESARBICA region, conferences and meetings have discussed a number of issues concerning the development of archival and records management services in the region. Country reports of ESARBICA show that there are problems that archivists are struggling to solve to fulfill their role. Also much of the literature on archival and records management developments in the region until recently tended to focus on: the history and origin of archival services; problems of training; collection and preservation of oral traditions; problems of conservation and preservation of archival material in the region; and budgetary provisions. Although archivists in the region have been concerned with automation, the main emphasis has been on adopting the new technology without any clear strategy on how the region would get there.

ESARBICA has until recently directed attention to paper documents and has implemented records management programmes. However, with networked computer systems now spread all over the world, ESARBICA has to face the challenge of not only automating but more importantly designing strategies to manage electronic records. The challenges brought by computers have come in two ways: firstly, how the archivists can use computers; and secondly, how they can manage records produced by these computers. Contributions to the *ESARBICA Journal* of 2001 (volume 20), whose main focus was on electronic records, revealed that the region is well aware of the need to manage electronic records but has only dealt with the issue theoretically and done little practically. The same Journal has revealed that most of the countries in the region have the technological infrastructures needed for the management of electronic records and that Internet linkages in the region are widespread. But even though the infrastructures are available they have not been used nor are they being used to support the design and implementation of electronic record keeping specifications.

Sadly, little progress has been made and some countries in the region are still lagging behind in the area of electronic records keeping systems and have not yet taken advantage of the opportunities offered by computers. Mutiti in her survey of the region found that the common computer application in archival institutions in the region is word processing, and that there is little if any digitization programmes in place, nor legal and administrative frameworks within which to operate electronic

records.[3] Most ESARBICA countries have not utilized the technology that they have (e.g. modernized telecommunication infrastructures and internet connectivity which could be used to mount awareness programmes). The main hindrance has been finding the appropriate expertise to develop appropriate responses to electronic records, while for others the problem has been accessing the technology itself.

Peeping into individual countries' efforts, one is astonished to find tremendous strides in South Africa, with the Umgeni Water project on electronic document and records management a leading example.[4] Briefly, the Umgeni Electronic Document Management Systems project was responsible for redesigning and decentralizing records systems; closely monitoring the generation of electronic records; and testing records management software. Also encouraging has been Namibia, with the National Archives publishing the Namibiana database using upgraded CDS/ISIS software which networked the archives and the library.[5] In spite of economic hardships, Kenya, Zambia and Zimbabwe have laboured to improve service delivery in electronic record keeping and management. Botswana on the other hand has just tendered for computerization of records management, archives, research and reference services. It will, however, be interesting to see how the implementation unfolds, bearing in mind the fact that the Botswana National Archives has to a large extent been overwhelmed by the challenges of implementing records management programmes for paper-based systems.

Evidence from the study by Mutiti attests to the efforts of a number of ESARBICA countries. Prominently South Africa has been involved in projects to establish standards and has come up with functional tools to develop and formalize electronic recordkeeping systems. Abbott, in his article on "The State of Electronic Records in South Africa", provides an overview of a project that has been undertaken to establish standards for electronic records management in government.[6] While he argues that South Africa has made progress in this area, he acknowledges that problems of outdated legislation, lack of skills, limited budgetary provisions and training still pose a challenge to the overall programme. The country has nevertheless produced a guide for the management of electronic records, and has established standards to address issues such as metadata, migration strategies and security. South Africa's functional tools are based on Electronic Document Management Systems and Electronic Records Management systems (originally an Australian Model), though the tools have not been fully formalized and implemented.

It would appear that for the countries in the region that have not utilized the technology the main hindrance has been lack of expertise. While for others the problem has been accessing the technology itself. Despite the efforts in the region, there is still more work needed in designing strategies on how best to automate and which areas to automate. ESARBICA as a region still needs to come up with strategies and practical tools to help design, support and implement record keeping systems.

Experiences of developed countries

Developed countries such as Australia and the United States of America (USA) have for a long time recognized the importance of information and developed programmes to ensure that records are managed throughout their life cycle, not only to ensure economy and efficiency but also to ensure that records of archival value

are preserved for future generations. More importantly, they have developed projects to address the challenges of managing electronic records. In the USA, for example, the Pittsburgh project which was first proposed in 1994 was a concerted effort to draw up specific methods and requirements for the management of electronic records. Functional requirements of the Pittsburgh project included compliance with best practices, accountable recordkeeping systems, capturing of complete records, their maintenance and usability.[7] According to these requirements, the organization has to follow codes and regulations, has to know what it has to do and do it in line with the set policies and procedures. This will ensure compliance with the highest quality of information management. It has to be responsible and ensure that the records captured are used in the normal course of business. The organization should have the capacity to ensure records are captured whenever there is a transaction, has to be identifiable, accurate, understandable and meaningful. The record has to be maintained and any changes made should be traceable. Finally, the record has to be exportable, available, renderable and evidential. With these guidelines, interpretations can be developed for specific organizational contexts. Specific methods include policy, design, implementation through training, and the use of manuals.

The Australian projects, for example, Designing and Implementing Record Keeping Systems (DIRKS - in New South Wales) and Victorian Electronic Records Strategy (VERS - in Public Record Office of Victoria), like the Pittsburgh one, emphasize best practices. Methodologies for these projects are compliant with Australian Standard AS 439-1996 (Records Management) and International Standard ISO 15489 (Records Management) which ensure quality. The standards emphasize records management responsibilities, strategies, control, storage, appraisal and disposal. The DIRKS project was charged with among other aspects designing and implementing recordkeeping systems, including tools for training and standards. Different agencies can then use the model to improve, design and implement recordkeeping systems for creating, controlling, retrieving and disposing of records. The legislation to cater for this has already been passed.

Interestingly, the New South Wales DIRKS was started in 1990. By then the key elements in its development included among others data keeping and the right to inspect records by the State Records Authority. This effort continued into 1998 with the passing of the State Archives Act, which emphasizes record keeping in the electronic environment and the need for the archives to give authority to control management of archival materials. The project highlights the need for archivists and records managers to work as partners with information technology specialists and other stakeholders who would be interested in the services offered.[8] The VERS project has developed a prototype system which would ensure long term electronic record formats, metadata schema to be used and costings of possible compliant system implementations.

The Australian recordkeeping metadata projects aim at developing a framework to support business, social and cultural needs for creation and management of electronic records in networked environments; making records accessible; and sustaining environments in which electronic records can continue to function over time as evidence for governance and accountability.[9] These have been tremendous efforts in electronic record keeping strategies aimed at drawing up policies and standards to codify and register a wide range of record keeping metadata needed to manage records from creation and ensure their accessibility.

The aforegoing project models focused on developing theoretical and methodological knowledge required for permanent preservation of authentic records created in electronic systems.

Ethical issues

Information Technologies (IT) and their application have opened many new opportunities for archivists to take advantage of. Efficient storage, access and use of information has largely been enhanced by IT. However, the IT revolution has occasioned a number of ethical and other issues. Implementation of information technology and increasing dependence on it by organizations and individuals has altered the way the archivists interact with data, resulting in issues such as privacy, ownership of intellectual content, accessibility and security.

Archivists have an ethical responsibility to the public to safeguard records and ensure that they are accessible and understandable. The changes occasioned by IT behoves archivists in the region to rethink some aspects of their professional values to ensure that they act in conformity with their professional ethics in carrying out their responsibilities. The code of ethics for archivists in general provides a foundation for ethical standards, professional conduct and helps in policing the profession. It also contributes to establishing public expectations.

Some of the ethical issues that arise and which pose challenges to archivists in the electronic age relate to: right of access to information, individual privacy and intellectual property rights, standardization, and relevant training. There are, however, other issues like: modernization of legislation and electronic records appraisal and disposal, which are not necessarily ethical but are of concern to the archivists.

The archivist is faced with the pressures of increased access to research materials. How can the archivist intellectually and physically protect the records from unlawful access without necessarily limiting such access? Is it ethical for some people to be allowed access while others are not? How then does the archivist ensure that the public gains equal access to the information? While the archivists would like to open up information to the general public, they may be forced to restrict access for security reasons. The use of authorized passwords could for example impose restrictions of access by the public and consequently interfere with their right and freedom to information. How could restrictions be justified in such cases? There is a need for a balance between researchers' right to access information and the public's right to know. Confirming digital information as genuine and authorized still poses privacy problems. In attempting to find answers, Barbara Reed, has used cases in which she highlights the problems associated with privacy. For example, she asserts that personal details are available all over the World Wide Web and can be patched together with ease by marketers, advertising companies and others capable of exploiting the software. Reed suggests the need for controlled personal registration, with protections of privacy and security mandated by law (use of an identity registration entity operating according to standards).[10]

As computers allow quick and easy access to large amounts of data from websites and databases, the archivist is also faced with the challenge of protecting records from abuse. The public's right to information and the individual's right to privacy put archivists in a dilemma of how they should protect the information and at

the same time provide unrestricted access. How does the archivist, for example, adhere to a Secrecy Act and at the same time open up the information to the public? The need for striking a balance between ethical conduct and technology adoption and use need to be addressed seriously.

In traditional archival practice, the archivist plays a mediating role**,** but with the information now available online and people accessing it directly whenever they want to and from wherever, who will play the mediating role, the technologists or archivists? In the event that the archivist does not play this role is it unethical? The issue of ownership is also crucial. With the information now available online, who owns and controls it? If it is owned by the public should they be informed about the changes? Is it unethical if they are not informed? Would the public be competent enough to use the technology to access information and if not are archivists then not restricting access to information?

Another ethical issue is raised by automation changing the form and structure of the record. Is this ethical? How do we balance between technology and professional ethics?

Standardization of the definitions and the modernization of legislation are also issues. There have been several debates on the definition of the record in the electronic environment.[11] Eric Ketelaar has argued that archival terminology needs attention.[12] Legal barriers (outdated legislation and lack of standards) have limited the view of electronic records as records and the justification of archival programmes to effectively participate in the management of electronic records. There is a need for modernization of the legislation to enable archival involvement in electronic records. Archival legislation in general has not kept pace with technological developments. At least in the ESARBICA region, countries like South Africa have individual programmes which help agencies deal with electronic records but within limited confines.

Finally, political interference in records and archives, cultural considerations, fiscal bottlenecks, societal expectations, bureaucratic nightmares and organizational shortfalls are dynamics that co-exist with ethical issues and portend challenges for ESARBICA. In Zimbabwe, Lesotho, Swaziland and Zambia, for example, executive and political decisions have compromised the independence of archives as information is highly censored. In Botswana, ethnicity and the role of chiefs has brought to the fore archival information and has raised the spectre of traditional modes in modern day decision-making. Countries with shrinking budgets have marginal appreciation for the upgrading of archives and information services.

The way forward

There is no doubt that ESARBICA and indeed Africa has a lot to worry about. As observed by the late Onyango, such problems have included high illiteracy rates, poverty, underdevelopment and internal conflicts.[13] While the problems have continued to hamper progress in many sectors of Africa's development, Onyango noted that the 1990s have been a decade for stocktaking in preparation for integration into the information world. Indeed, it follows from his observations that ESARBICA and the rest of the African continent has the potential to face the challenges including those brought by computers. This can be achieved by drawing up an agenda for action, which would among other things include extensive training

programmes for staff (particularly archivists and records managers so that they would be able to spearhead the planning and implementation process); restructuring of training programmes for controlling the lifecycle of records; re-orientation of needs in light of information technology; developing training materials to cater for the management of electronic records; initiating research projects to look at the relationship between paper and electronic records; conducive technological environments; proper storage equipment; and increased budgetary provisions.

It is also important for the region to work as “partners” in technology planning and management with stakeholders (those whose support is needed). There should be linkages and cooperation between archivists, records managers, legal staff, programme managers, clients and counterparts in IT for the development of record keeping systems. IT managers are needed mainly to help design systems to keep records. There is also a need for programmes and approaches appropriate for business needs and the cultures of the institutions and customers served.

For capturing electronic transactional evidence, ESARBICA needs metadata standards for recordkeeping; practical tools; standards for training; competency in the records profession and capacity to meet the challenges ahead.

Electronic records programmes have to be made core functions of the national archives for it to succeed. This should be clearly stated in the archival legislation so that the archives could have authority to manage electronic records throughout their life cycle and have their services accepted by those they work with. The archivist’s contributions in drafting legislation cannot be overemphasized. This will also ensure that the archives get the support in terms of human and financial resources.

The region could look and work with other communities, in particular those that have already developed and implemented projects. Emerging networked information system models and new IT development and re-development opportunities can be exploited. Examples of some of the models from Australia, University of British Columbia and University of Pittsburgh, which have been discussed by researchers in the fields of information systems and management, can be implemented in new contexts. More research is, however, still needed to ascertain the viability of such projects in the ESARBICA region, because success will depend on the environmental context within which the tools are applied. It is important that whatever is developed should be relevant to particular organizations within the region.

The region can also benefit from International Council on Archives (ICA) strategies.[14] Among its aims and objectives, the ICA facilitates research, information sharing, promoting exchange of experience and drafting standards and directives concerning creation and archival processing of electronic records.

Support from UNESCO may also help, as it has incorporated archives into its General Information Program (PGI). This has taken forms such as the despatch of experts to undertake consultancies, provision of training opportunities and supply of equipment. Cooperation with the International Federation of Library Associations (IFLA) will enable development in areas of technologies and standards for storage, retrieval and transmission of text images and oral information. IFLA is working towards the development and implementation of international standards for electronic records, that will facilitate use of the Internet and improve access to holdings of archives and libraries.

Endnotes

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