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STRATEGIES FOR MANAGING ELECTRONIC RECORDS IN ODL

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ABSTRACT

Open and Distance Learning today encounter a much wider range of records, paper based and electronic, than they with ten years ago given the nature of their students. ODL institutions are creating e-records through the use of office automation tools such as word processing, spreadsheets, email and database management software, all running on personal computers. This study attempted to give the strategies of e-records management in an ODL set up given its numbers of students. The case study approach utilising in-depth interviews was used to gain insight into e-records management. The participants of the study were academics and registry staff of two ODL institutions. The findings of the study were that paper and electronic records management must be closely co-ordinated. The study proposes that the professionals need to manage e-records throughout their life cycle, following a continuum of care.

KEY WORDS: record ,electronic records, Open Distance Learning, strategies, Database Management, Records Life Cycle, Continuum of Care.

1. INTRODUCTION

Interest in records and information management (RIM) continues to increase among university & college leadership due to new compliance regulations and statutes. The growing number of corporate scandals and deficient records management practices have raised general awareness of and created a critical interest in records compliance, retention period requirements, litigation preparedness, data security & privacy, and many other records and information management issues. Records management is often seen as an unnecessary or low priority administrative task that can be performed at the lowest levels within an organization.

However, this perception is changing as these publicized events have demonstrated that records management is in fact the responsibility of all individuals within an organization. The general principles of records and information management apply to records in any media, form and format. However, the complex attributes of electronic records (also called digital records) present specific issues that records stored in paper and microfilm do not typically share. For example, it is more difficult to ensure that the content, context and structure of electronic records is preserved and protected. Several concepts are critical when addressing Electronic Records Management. A simple way to think about it

is to imagine all information existing within a lifecycle.

2. RECORDS MANAGEMENT (RM)

ISO standard 15489: 2001 defines **Records management** as the practice of maintaining the records of an organization from the time they are created up to their eventual disposal. This may include classifying, storing, securing, and destruction (or in some cases, archival preservation) of records. Records management is primarily concerned with the evidence of an organization's activities, and is usually applied according to the value of the records rather than their physical format.

3. WHAT IS ELECTRONIC RECORDS MANAGEMENT?

The entire process by which an organization creates, classifies, controls, and authorizes access to electronic records is known as Electronic Records Management.

4. RECORDKEEPING SYSTEMS DEFINED

Recordkeeping systems are those systems that capture, manage and provide access to records over time. Records are often accessed just for their informational content, in which case they function the same as any other document or information source. Records are kept, however, to provide evidence of functions, activities and transactions. Recordkeeping systems maintain linkages to the activities they document and preserve the content, structure and context of the records. Recordkeeping systems should be able to identify all records, active and inactive, and the version of the computer software that supports access. They should be able to identify records stored off-line and off-site and on all media.

5. ELECTRONIC RECORDS MANAGEMENT(ERM) IN ODL

ODL institutions create and use information every day. Taking care of that information is an effort requiring shared responsibility by each member of every specific department. Just figuring out where to start and what needs to be done can be a time-consuming task. Some institutions have done a lot of work in this area, while others have just gotten started, and still others have done little or nothing.

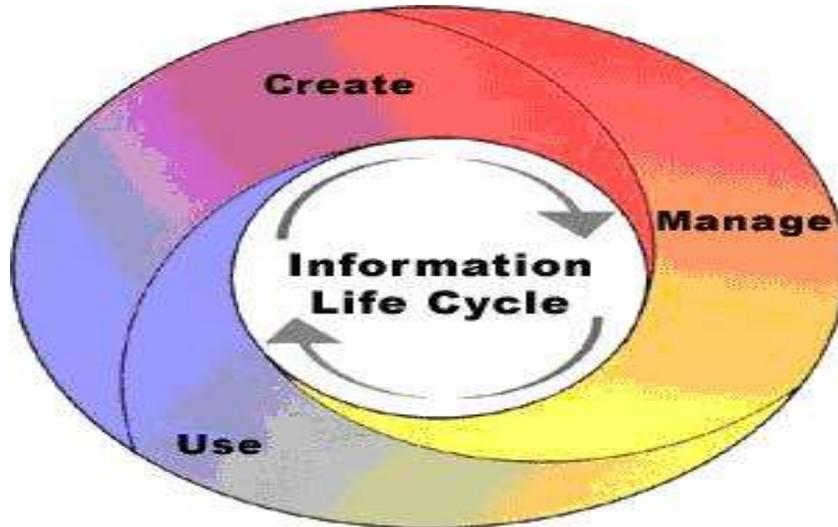
6. WHY NEED ERM IN ODL INSTITUTIONS

It is vital that ODL institutions understand that information and records are assets of the organization, not the individual and as such need to be managed actively and properly. The incorporation of Electronic Records Management Systems (ERMS) and practices provide structure, consistency, security, and control over these records.

Electronic records management approaches are neither new nor unique. For decades, we have had centralized control of human resources (HR) and capital (Finance). Records management is the centralized control of the information assets of organizations. Establishment and enforcement of enterprise-wide records management explains the requirements, responsibilities, and accountability in managing an organization's information assets.

There is the absolute requirement for a central function of RM professionals and staff to carry out the many critical activities and responsibilities needed by the institution. RM is often expected to conduct legal research on the many statutes and regulations impacting records practices. RM professionals must team with legal staff and IT to ensure that information and records are properly managed and readily available in the event of litigation.

Information Life Cycle Graphic



Within the information lifecycle, information may take different forms over time. Records are one type of information. Electronic records are those records that have been created or stored using electronic systems. Records may be grouped into classes according to a variety of factors. Common factors include, but are not limited to, record type, sensitivity, confidentiality, and desired longevity. Based on those classifications, records can then be scheduled according to their required or desired retention periods, and their recommended method of disposition. In addition, certain classes of records may only be appropriate for access by certain members of the institution.

7. PRACTICING ELECTRONIC RECORDS MANAGEMENT IN AN ODL INSTITUTIONS

A Records Manager is someone who is responsible for records management in an organization. The practice of records management may involve:

- Planning the information needs of an organization
- Identifying information requiring capture
- Creating, approving, and enforcing policies and practices regarding records, including their organization and disposal
- Developing a records storage plan, which includes the short and long-term housing of physical records and digital information
- Identifying, classifying, and storing records
- Coordinating access to records internally and outside of the organization, balancing

the requirements of business confidentiality, data privacy, and public access.

- Executing a retention policy on the disposal of records which are no longer required for operational reasons; according to organizational policies, statutory requirements, and other regulations this may involve either their destruction or permanent preservation in an archive.

Records management principles and automated records management systems aid in the capture, classification, and ongoing management of records throughout their lifecycle. Such a system may be paper based (such as index cards as used in a library), or may be a computer system, such as an electronic records management application.

ISO 15489:2001 states that records management includes:

- setting policies and standards;
- establishing and promulgating procedures and guidelines;
- providing a range of services relating to the management and use of records;
- designing, implementing and administering specialized systems for managing records; and
- integrating records management into business systems and processes.

8. CURRENT ISSUES IN ELECTRONIC RECORDS MANAGEMENT

As of 2005, records management has increased interest among corporations due to new

compliance regulations and statutes. While government, legal, and healthcare entities have a strong historical records management discipline, general record-keeping of corporate records has been poorly standardized and implemented. In addition, scandals, and more recently records-related mishaps have renewed interest in corporate records compliance, retention period requirements, litigation preparedness, and related issues. Statutes such as the Zimbabwe National Archives Act have created new concerns among corporate that result in more standardization of records management practices within an organization. Most of the 1990s has seen discussions between records managers and IT managers, and the emphasis has expanded to include the legal aspects, as it is now focused on compliance and risk.

Privacy, data protection, and identity theft have become issues of interest for records managers. The role of the records manager to aid in the protection of an organization's records has often grown to include attention to these concerns. The need to ensure that certain information about individuals is not retained has brought greater focus to records retention schedules and records destruction.

The most significant issue is implementing the required changes to individual and corporate culture to derive the benefits to internal and external stakeholders. Records management is often seen as an unnecessary or low priority administrative task that can be performed at the lowest levels within an organization. Publicised events have demonstrated that records management is in fact the responsibility of all individuals within an organization and the corporate entity.

An issue that has been very controversial among records managers has been the uncritical adoption of Electronic Document and Records Management Systems (EDRMS).

9. REASONS FOR MANAGING ELECTRONIC RECORDS

The following are some of the reasons of managing electronic records:

9.1 Ensuring Accountability

Public acceptance of the institution and the roles of its employees depends on trust and confidence. This trust is founded on all institutions being accountable for its actions. Access to full and accurate records is at the heart of the accountability process. Records are fundamental tools in the business of institutions and their absence can lead to inefficiencies or failure in operational procedures. The absence of records can open institutions' employees to accusations of fraud and impropriety,

and an inability to defend the institution in cases of legal action.

Inadequate records and recordkeeping can result in:

- failure to make records that adequately meet accountability and other organizational requirements;
- failure to capture records into recordkeeping systems so that they are subject to arbitrary destruction or cannot be found when required; and
- failure to identify and retrieve the authoritative version of a record when multiple versions exist.

Electronic records provides both new opportunities and new hurdles to ensuring accountability. As educational institutions, transactions are increasingly conducted through electronic media, universities have the potential to provide more open and efficient access to records than ever before.

9.2 Preserving Informational Assets

Institutional records represent valuable assets. The potential value of information technology will often go unrealized without proper electronic records management. The return on the investment in electronic records management will take various forms:

- Improved staff management, training and workflow due to better documentation of past activities.
- Decreased technological and human resource burden of staff developing their own record keeping systems because they do not trust or have easy access to the institution's record keeping systems.
- Increased ability to gain funding for new programs based on thorough documentation of past outcomes.
- Lower resource burden when migrating records to new technology, due to the appropriate capture and maintenance of metadata.
- Increased efficiency in meeting National Records Acts requests.

10. ADDRESSING BEST ELECTRONIC RECORDS MANAGEMENT IN ODL

It is in the best interest of ODL institutions to address electronic records management issues as soon as possible. Since effective management of electronic records depends so heavily on the information systems involved, however, universities will have the most options for managing their electronic records effectively if they identify

recordkeeping requirements when new systems are designed or when existing systems are upgraded.

10.1 Business Process Redesign

Business process analysis and reengineering are powerful tools that organizations are using to streamline their processes, eliminate redundant tasks and improve efficiency. Process analysis and redesign are excellent opportunities to also reconsider recordkeeping practices, since they often identify problems which could be alleviated through new workflow procedures and/or information systems. For example, process analysis may identify areas where electronic records are printed and filed unnecessarily because there were no provisions in the system to capture records electronically and transfer them to an electronic recordkeeping system. If recordkeeping requirements are identified during process analysis, effective procedures and automated routines can be built into the revised processes to handle records more effectively.

10.2 System Design and Procurement

Several aspects of recordkeeping should be considered during the system design and procurement process. If the system is expected to support electronic recordkeeping, then some customization of commonly available software may be needed. It may be necessary, for example, to establish special permissions which give different individuals authority to create, alter, and view records based on their authority and responsibility within a business or administrative process.

11. CREATING ELECTRONIC RECORDS

The creation of records is a fundamental aspect of the management of any business operation, in order to:

- produce evidence of individual and corporate performance,
- document decision making processes in accordance with the law,
- comply with statutes, regulations, instructions, guidelines and other rules that require ODL institutions to create records,
- preserve the corporate memory of the state enterprise and track business transactions over time,
- ensure that records of significant institutional policies and activities are kept for posterity, and
- provide a record of communications within and between institutions and stakeholders.

It is important that institutions determine how and why electronic records are being created. Electronic records management procedures are most

effective when carried out at the point of creation or very shortly thereafter.

12. IDENTIFYING ELECTRONIC RECORDS

In an electronic context, surveys of physical storage media (e.g. tape libraries or workstation hard drives) do not provide much useful information for determining which records exist or for deciding what to do with them. In order to enhance performance and convenience, most information systems make use of redundant data, through such practices as caching, mirroring, clustering, client-side processing, desktop information management, disaster recovery measures, and routine system backups. Electronic records management requires the identification of institution's functions, processes, transactions and activities to be documented. Once these have been identified, it will be possible to determine which data and associated metadata must be retained to serve as an official record.

13. MANAGING ELECTRONIC RECORDS

Stakeholders of ODL institutions need ready access to the right information at the right time to provide services and make informed decisions. An important part of that process is gathering information together to form the basis for decision making. Another part of the process is internal and external communication using various technologies. This communication process invariably involves conducting some form of business transaction (development of policy, delivery of benefit, ordering or paying for a product or service) which needs to be documented. The means by which institutions choose to conduct these business transactions invariably involve oral, written and/or electronic communication methods. In all cases, the objective is to conduct the business transaction satisfactorily and to maintain a record of what transpired for future reference.

When conducting transactions electronically, the first challenge is to maintain records in a way which will enable retrieval of all documents relevant to a transaction when they are needed. The second challenge is to ensure that the records are not retained for any longer than necessary, in order to avoid both overloading systems and to avoid indiscriminate dumping. Regardless of the technology, however, the objective remains the same: capture records so that they can be easily retrieved at a later date, understood, and interpreted as evidence of what transpired in an agency.

"Virtual" records exist independently of their physical format. By reducing records to their essential characteristics, we can allow for the

existence of records, regardless of the current technology. Systems must link the content of a record to its administrative or business context.

14. FULL AND ACCURATE RECORDS

Records should be full and accurate to the extent necessary to:

- facilitate action by current and future employees, at all levels;
- allow for proper scrutiny of the conduct of business by anyone authorized to undertake such scrutiny; and
- protect the financial, legal and other rights of the agency, its clients and anyone else affected by its actions and decisions.

15. ESSENTIAL CHARACTERISTICS OF RECORDS

Full and accurate records must possess the following three essential characteristics:

- **Content** -- that which conveys information (e.g. text, data, symbols, numerals, images, and sound).
- **Structure** - appearance and arrangement of the content (e.g. relationships between fields, entities, language, style, fonts, page and paragraph breaks, links and other editorial devices).
- **Context** - background information that enhances understanding of technical and business environments to which the records relate (e.g. metadata, application software, logical business models) and the origin (e.g. address, title, link to function or activity, agency, program or section).
- In order for records to serve as evidence, these three essential characteristics must be maintained. Whenever one of the characteristics is altered, the ability of records to accurately reflect the activities of an agency is diminished. This means that records must:
 - have information content that is an accurate reflection of what actually occurred at a particular time in the function, activity or transaction in question;
 - be able to be reconstructed electronically when required, so that each component is brought together as a whole and presented in an intelligible way; and

- have been officially incorporated into an institution's recordkeeping system.

One of the major differences between electronic records and those on traditional media is that electronic records are not human-readable, thus their physical appearance alone does not provide sufficient information to determine their origin, purpose, uses or other aspects of the context in which they were created and maintained. Maintaining content, structure and context of electronic records is, therefore, both more vital and difficult than with traditional records. Meeting these conditions requires high quality records management and a sustained commitment.

16. NEED FOR ELECTRONIC RECORDS MANAGEMENT POLICY IN ODL

Policy can serve as an effective guide to the management of electronic records by establishing common goals and principles for ODL institutions. In an environment where increasing numbers of records are created and maintained in computer-based systems, records management policies and information technology policies have to be reconciled to accomplish a common goal. The policy goals for records management and information technology management will be difficult to achieve without a mutual understanding of both the requirements and most appropriate methods for satisfying them.

16.1 ODL institution's Role

The ability to maintain electronic records and ensure their accessibility over time is highly contingent on how records are created, organized, and maintained in the agencies that create or manage them. As technology changes over time, universities are also best placed to ensure that records of enduring value are successfully transferred or migrated as systems evolve. In order to ensure that records are properly managed, universities must also cooperate with any other public or private entities with whom they share data for the provision of services.

16.2 Implementation of Records Management Policies

The institution's records officer has responsibility for overseeing the disposition of records, for protecting records with enduring value, and for ensuring that records are not destroyed without authorization of the National Archive's Board. In extending these responsibilities to include electronic records, it will be necessary for the records officer to participate in studies and analysis of university business processes and systems and to participate in the design, monitoring and refining of records storage and retrieval systems. The records officer will also have primary responsibility for

applying existing records retention and disposition schedules to electronic records and for submitting new schedules for electronic records that do not have an approved schedule to the State Records Board.

16.3 The National Archives' Role

Preservation of such records has been achieved through their physical transfer to the State Archives, preservation of electronic records will depend on closer cooperation with agencies. The Archives can help universities to:

- identify the electronic records in institution's custody that are of enduring value,
- identify and obtain authorization to dispose of the electronic records in universities custody that are not of enduring value,
- identify the metadata that needs to be captured and maintained with electronic records of enduring value if they are to remain identifiable and accessible over time, and
- determine the length of time electronic records should be maintained and made accessible in order to meet administrative or archival requirements.

17. METHODOLOGY

The study was explanatory in nature and it examined the understanding and

acceptability by stakeholders of the transformation of records from paper to electronic through ICT. Furthermore, the study aimed at examining whether this transformation is improving the quality of records management in an ODL set up. Since this study dealt with understanding of stakeholders and how their understanding is affecting the electronic records management system, (Levin and Riffel, 1997), the qualitative approach was observed appropriate. However, quantitative data from documents were used to expand the understanding and shading light on some of the research objectives.

Four ODL institutions were selected to participate in the study. The four were selected because of meagre resources (funds and time) which were available to the researcher. However, the researcher believed that findings from this mini-study could be indicative of the effects of restructuring in the records management systems.

In each institution, the research went with open mind, without specific number of participants to be selected. Therefore, purposeful sampling strategy was used in the identification of participants (Merriam, 1998). Participants were selected from academics and the academic registry staff as shown in Table 1 below.

Table 1: Participants in the Study

No.	Institution	Category of participants	No. Of Participants
1	ZOU	lecturers	10
		Academic registry staff	5
		Secretaries and clerks	4
2	ZDECO	lecturers	12
		Registry staff	4
		Secretaries and clerks	3
		Total	38

As it is in many qualitative studies, interviews were the major instrument used in this study (Berg, 1995; Silverman, 1993). Using the semi-structured interview, participants were asked to respond on questions about their feelings on the importance of electronic records management, how the transformation from paper to ICT is perceived and accepted and how it has affected their management of records. Data from the interviews were coded under the following categories:

- appreciation of ICT by stakeholders
- effects of ICT on ODL records

- Relationships of stakeholders

It is these categories of data that emanated from the research objectives and questions that underpinned the conceptual framework and therefore, guided the presentation and discussion of the findings.

18. DISCUSSION

The following is the presentation and discussion of the findings. As noted in the methodology section, presentation and discussion of the findings will be guided by the research objectives and questions which informed on the kind of data that was collected.

18.1 Appreciation of ICT by Stakeholders

The transformation was due to technological changes that institutions had to tune to ICT. ODL institutions have the task of putting strategies together on how to manage e-records. The reason given by two respondents as to why electronic records management had to be implemented was that they were directed to adopt the e-records management. "It is the responsibility of the institutions to see to it that e-records management be implemented to improve efficiency in retrieval of information", said one respondent. He continued: "I had problems in using the information technology but I have no option, but to adjust". This indicated that change is difficult.

Whether the e-records was really perceived as a means of improving efficiency, one of the respondents said, "I couldn't see how this could bring any difference. Records remained as they were and the difference was that they are captured electronically".

Records clerks had strong feelings on this move. They were opposed and they explained the transformation as another change that ICT have no bearing on management of records. One clerk had this to say:

...You know, in this country records management is regarded as a low ranking job that people decide for and tell you what to do even if what has to be done has no relationship with records management. We are never consulted in making policies. Look! The same clerks, same records on the same site and still you are telling us the management is different and records are scattered as they were.

Records clerks who participated in this study were not positive to these changes because they felt they should be consulted before any changes take place.

18.2 Effects of ICT on ODL Records

One of the major objectives of electronic records management was to reduce workload on all stakeholders who deal with records and to increase efficiency in the dissemination of information. In addition, it was anticipated that the introduction of e-records management would result into records personnel having lesser work on the management of institutional records and thus, more effectively. Participants from two institutions were asked to express their views on the claim that e-records are easier to manage than the paper records. All of them expressed to have noticed little

difference in terms of work load. One respondent said:

"Our records office used to have 25 records clerks. Now that there is the introduction of e-records the number has been reduced and people have been moved to other departments in anticipation that e-records management has lesser work than paper records management. E-records management is a big challenge especially with the risks that it carries. If there is enough delegation of responsibilities, change of technology is never a big deal".

Another respondent said that in terms of responsibilities, there is no difference. She continued to say there is an added responsibility of trying to synchronise the two methods. "It is still not easy to maintain mutual coexistence. Confusion arise from time to time and we, the records clerks have different orientation, we interpret things and events differently.

18.3 Relationships of stakeholders

A change, however small, has a tendency of destabilising the whole system. That is why people are sceptical to change. In social systems, change tends to bring about disequilibrium between subsystems and efforts should be made to reach equilibrium Alexander, 1977). In other words, planning for change need to consider how the change will affect the whole system and steps to take to ensure the systems stabilises at a higher level of development, i.e., development resulting from change. Introduction of change require those responsible with changes to be proactive to ensure smooth transition from the old state to the new state (ibid).

As indicated before, clerks were moved without their consent. The logic which was used is that it is the institution's regulations for an employee to be prepared to work in any department "as the employer wishes".

In the two ODL institutions that were involved in this study, complaints of change of records management systems were few. In other words, those who remained in the records offices were relatively more satisfied than those who were reallocated to other departments. Some respondents claimed that as a way of getting rid of 'bad' elements, nepotism, favouritism and discrimination was inherent in the reallocation of records clerks. In one institution, the relationship among clerks was too bad to the extent of differing the calling of staff meeting for the past months. "I wish I could be transferred to another department because here the atmosphere is tense", one head of department commented. In

such a situation, it is the learning process- at RM level that suffers the most.

19. CONCLUSIONS AND RECOMMENDATIONS

Before institutions jump into effecting electronic records management, they should be clear of the records management policy within their institutions. After that, as ODL institutions, should make an intensive analysis to ensure that whatever alternative they choose to implement will achieve the intended objectives without much negative effects or, if there are some negative effects, they are overshadowed by positive effects and they can be minimised. As said before, any change or movement in records management should be judged on its potential to improve the management of records in these huge institutions and how it improves the quality of RM practiced in ODL institutions. In other words, some kind of cost-effectiveness analysis is necessary before any change is introduced. It is necessary to introduce e-records management and maintain paper records management so that they coexist to compliment each other. If we are to achieve best results in the electronic management of records in ODL institutions, qualified records officers, managers and ICT specialist should work together.

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Bio-data



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