Electronic Records Management

Training Issues and Needs

TRAINING NEED NUMBER 1

Basic Knowledge of Automated Systems

- Particularly the Functions and Uses of Automation – Applications in Organizations
- Especially Transaction Processing Systems (TPS) and Database Management Systems (DBMS)
TRANSACTION PROCESSING SYSTEMS

- TPS are the basic business systems that serve the operational level of the organization. TPS is computerized system that performs and records the daily routine transactions necessary to conduct the business.
- Inputs=transaction data like financial information, human resource data
- Processing=sorting, listing, updating, merging
- Outputs=bills, paychecks, orders, detailed lists and reports

TRANSACTION PROCESSING SYSTEMS AND DBMS SOFTWARE

- Deficiencies as Recordkeeping Systems:
- Capturing All Business Transactions
- Preserving Inviolate Records Over Time
- Preserving Complete, Fully Documented Records (Creating a Complete Set of Record Metadata and Linking this Data to the Record)
TRAINING NEED NUMBER 2

- Understanding the Impact of Automation on Basic Archival Principles and Strategies

IMPACT OF TECHNOLOGY: QUESTIONS

- How are changes in technology altering the environment in which archivists/records managers work?
- How do these changes impact upon the archivist/records manager attempting to capture and preserve records?
CHANGING FORM OF DOCUMENTS

- Electronic Documents are not inert physical entities with an interdependent logical structure and physical relations.
- Database Views, Virtual Documents, Hypermedia Documents, Dynamic Documents.
- Records are more difficult to capture, access, and describe.

RAPID RATE OF TECHNOLOGICAL CHANGE

- Constant Hardware and Software changes make it difficult to keep records alive and useful over time.
IMPACT OF CHANGES IN TECHNOLOGY

- Changes in technology, along with changes in the business environment, have lead to a reexamination of basic archival theories, concepts, and techniques
- Questions being asked: Which of the traditional methodologies and procedures developed for paper records will still be effective in the world of electronic records? What works and what does not work?

AUTOMATED SYSTEMS QUESTIONS

- What is a Record in an automated environment?
- How we define Provenance and Original Order in an automated environment?
- What is a Record Keeping System in an automated environment?
- How do we keep records alive in an automated environment?
AUTOMATED SYSTEMS QUESTIONS

- What is the influence of digital technology on appraisal criteria? What are the appraisal criteria and methods for authentic electronic records?
- What is a Record Series in an automated environment? If it still a useful concept?
- Are records disposition schedules still a useful tool for managing electronic records? If so, will the implementation of the schedule have to be altered in any way?

AUTOMATED SYSTEMS CHALLENGES

- Identifying and Capturing Records
- Ensuring That a Complete Record is Captured - Linking Content and Metadata
- Appraising the value of records
- Ensuring that inviolate records are preserved for as long as necessary
AUTOMATED SYSTEMS
MEETING THE CHALLENGE

- TRAINING NEED NUMBER 3
- Critical Skill Set: Information System Analysis and Design Skills
- Being able to create conceptual models for representing records, documentation and system requirements

CONCEPTUAL OR LOGICAL MODELS

- What is conceptual or logical modeling?
- Why is this technique useful to archivists?
- Which types of models are most useful to archivists?
- How will conceptual models help archivists address the primary issues associated managing electronic records?
WHAT IS CONCEPTUAL OR LOGICAL MODELING?

- Conceptual models show what a system does or must do. They are implementation-independent models; that is, they depict the system independent of any technical implementation.

CONCEPTUAL MODELS

- Why use conceptual models?
- 1) Employing conceptual models is a more effective strategy for analyzing systems where physically reviewing records or browsing the system is not a realistic alternative
- 2) Modeling techniques are well documented and tested
<table>
<thead>
<tr>
<th>Which types of models are most useful to archivists?</th>
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<tr>
<td><strong>Content Analysis</strong></td>
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<td><strong>Data Models:</strong> The ultimate objective of the data modeling technique is to identify and describe the date elements required to fully document the process under review</td>
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<td><strong>Context Analysis</strong></td>
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<td><strong>Business Process Models:</strong> Structured pictures that illustrate the processes (Functions and Transactions), and inputs and outputs required to respond to business events</td>
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Which types of models are most useful to archivists?

- Evidence Analysis
- Metadata Models, e.g., Data Dictionary: A repository of information about the definition, structure, and usage of data that may include the name of each data element, its definition (size and type), where and how it is used, and its relationship to other data

Which types of models are most useful to archivists?

- Systems Analysis
- System Documentation, Such As Policy Manuals; Descriptions of Security and Authorization Procedures; Descriptions of Procedures for Migrating, Purging, Exporting, and Restoring Data
CONCEPTUAL MODELS

- How will conceptual models help archivists address the primary issues associated with managing electronic records – identify records, document records, appraise records, and preserve inviolate records?

Identify Records: What is the equivalent of a records survey?

- Answer:
- Creation of Business Process Models
- Conceptual Models of Functions and Transactions Lead One to the Records
How Will We Know When We Have a Complete, Authentic, and Reliable Record?

- **Answer:**
- **By Analyzing Metadata and Data Models**
- **Metadata Requirements Must Be Clearly Articulated**

How Will Records Be Appraised?

- **Answer:** By Employing Traditional Values, But Relying on Conceptual Models To Make Appraisal Decisions
- **Evidential Values:** Use Business Process and Metadata Models
- **Informational Values:** Use Data and Metadata Models
How will inviolate records be preserved?

- Answer: By capturing records as they are created and moving them along with any vital metadata to a Recordkeeping System, which is managed according to well defined requirements or criteria.

PRESERVATION OF USEABLE, DESCRIPTIVE ELECTRONIC RECORDS

- Any strategy must:
  - Define the object, the data or content matter that needs to be preserved
  - Define the necessary metadata that needs to be present for the digital object to be useful and evidential
  - Define the requirements of the system that will manage the digital objects
TRAINING NEED NUMBER 4

- Learning About the Principles, Concepts, Terminology and Strategies of Other Information Professionals
- WHY?
- To be able to form realistic and effective Partnerships with other Information Professionals

PARTNERSHIPS ISSUES

- Why is the team approach critical to the success of an electronic records management project?
- Who are the archivist’s/records manager’s “natural” allies?
WHY DO WE NEED PARTNERS?

- Archivists have always needed partners, but we have not consistently reached out to these allies.
- But with electronic information, partnerships are more essential because we have less CONTROL of the systems, and it is a more COMPLEX environment.

WHY PARTNERSHIPS ARE IMPORTANT

- More broad-based support required.
- A wider variety of skills required.
WHO ARE OUR “NATURAL” PARTNERS?

- To determine this: Review and define the mission of archives/records management in relation to the goals and objectives of other related data and information management professionals.

WHO ARE OUR “NATURAL” PARTNERS?

- 1st Step: Define ourselves: the archivists’ primary and unique contributions to managing resources.
- WHAT DO ARCHIVISTS CONTRIBUTE TO ANY PARTNERSHIP?
- Identification and appraisal of RECORDS generated in the context of business processes, and the creation of systems that capture, manage, and preserve these records.
WHO ARE OUR “NATURAL” PARTNERS?

- **WHAT DO ARCHIVISTS CONTRIBUTE?**
- This emphasis on RECORDS is a unique, though complimentary, contribution to the management of digital resources
- Other managers are interested in Data, Information, Knowledge, or Documents

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WHO ARE OUR “NATURAL” PARTNERS?

- 2nd Step: Learn about these potential allies:
  - Data and Information Management: Data managers and stewards, decision support personnel, systems analysts
  - Risk Assessment and Management: Internal Auditors, Risk Management
WHO ARE OUR “NATURAL” PARTNERS?

- Learning Objective: Become familiar with the goals and objectives and methodology of the INFORMATION RESOURCE MANAGEMENT (IRM) community, which is defined as: the totality of planned and directed activities within an organization that result in useable, accessible, timely, secure, integral, economical and accurate information for that organization

TRAINING NEED NUMBER 5

- Obtain Management Skills
- Goal: To translate this knowledge and these skill sets into a strategic plan
MANAGEMENT SKILLS

- Goal: Learn techniques and strategies for positioning the Archives within the broader context of Information Resource Management
- Goal: Learn how to align the Archives’ efforts with those of the parent institution

MANAGEMENT SKILLS

- Goal: Learn effective techniques to communicate archival needs, capabilities, and contributions
- Goal: Learn how to define mutually beneficial activities
- Goal: Learn how to negotiate “win/win” alliances
MANAGEMENT SKILLS

- Goal – Learn how to develop a strategic plan that translates a set of goals and objectives into a realistic and effective implementation project

ELECTRONIC RECORDS MANAGEMENT

- “This change [in appraising electronic records] is not a refinement or slight tinkering to accommodate new realities, but a reorientation in what archivists do—a new archival paradigm, as Charles Dollar noted in his concluding address...on the impact of information technology on archival theory and practice. We must get our archival heads out of the sands of practices devised for medieval charters and papal decrees. We must realize that clinging to old practices in light of the volume of new records is not a noble defense of principle or archival tradition, but an act of willful neglect.” Terry Cook
The UBC-MAS research project was undertaken to test the validity of traditional diplomatic and archival concepts in the brave new world of electronic records. The conceptual analysis of electronic records and the project’s findings confirm that the concepts continue to have resonance and, in fact, provide a powerful and internally consistent methodology for preserving the integrity of electronic records.” Luciana Duranti