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Digital Preservation

Where to start

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This presentation is derived from Digital Preservation: Where to start guide
Developed by ISO TC46/SC11 WG07 – Records Management
– Digital Records Preservation

<http://isotc.iso.org/livelink/livelink?func=ll&objId=8800147&objAction=browse&viewType=1>



Agenda

- Why Digital preservation is so important
- The unique nature of digital records
- Challenges
- Steps to be implemented
- Developing the preservation plan
- Non-technical issues
- Summary



Why is it so important?

- Records contain information that is a valuable resource and an important business asset
- Many records are being generated or converted to electronic
- Records must be “Authoritative”:
 - Authenticity
 - Reliability
 - Integrity
 - Usability
- Electronic records may need to be kept for extended periods of time (if not permanent)



Unique nature of digital records

- A digital record is recorded information in a form that requires a computer to process it and that otherwise satisfies the definition of a record.
- The content of a digital record exists in an electronic format that cannot be interpreted without the use of software (a computer program) to render the content to the user. The elements that constitute the record include:
 - the data or content itself;
 - formatting and control characters that are generally not visible to the user; and
 - metadata about the record.
- There are multitudes of electronic record formats and systems
- These change frequently
- Records may need to be transferred between systems



Challenges

- Physical format obsolescence and degradation (Media)
 - Subject to damage and degradation
 - Rapid change in technologies
- File format obsolescence
 - Formats can only be read by specific programmes
 - Software upgraded frequently
 - Little to no backward compatibility guarantee
- Software programme obsolescence
 - Application systems
 - Operating systems
- Hardware obsolescence
 - Technology may not be available to read the media
 - Think Betamax, floppy disks, Video camera tapes, reel to reel backup tapes



Steps to be implemented

- Develop systematic routines to capture records into the preservation system
- Safe (appropriate) storage for all media types
- Identify and select a preservation option(s)
 - Converting into new formats/platforms (hardware and software)
 - Migration to new media
 - Emulation
- Keep logs of all records management and administrative actions taken
- Implement authenticity and reliability tests and routines
- Regular technology and industry scan for latest developments
- Implement and preserve metadata



Developing the preservation plan

- Consider:
 - preservation policies,
 - legal obligations
 - organisational constraints
 - technical constraints
 - user requirements
 - and preservation goals.
- Include:
 - Preservation context
 - Selected preservation strategy
 - The evaluation result of different preservation alternatives and the decision
 - Roles and responsibilities for the preservation plan (and to monitor it)
 - Triggers that initiate the execution of the plan
 - (Estimated) Cost of realising the preservation plan
 - cost for preparing the preservation plan
 - cost for executing the preservation plan



Developing the preservation plan

- Ensure that electronic records are:
 - Searchable and available for access in a timely manner;
 - Interpretable (usability, presentation, representation, view, encryption);
 - Retrievable, including the appropriate metadata;
 - Protected against loss of rights such as intellectual property, confidentiality and copyright;
 - Available for access for as long as required, by those authorised to access the record;
 - Monitored for quality of the access provision (availability, timeliness, delivery, use history).



Non-technical issues

- Staffing
- Management
- Funding
- Training
- Monitoring
- Testing and authenticity



Summary

- Don't treat it lightly
- Include appropriate stakeholders (not just IT)
- Only apply it to records with “long” retention requirements
- Start now – You've already lost some digital records



Thank you

Questions will be
handled as per
the programme

