# Digital Preservation In Practice

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# We do not have a long-term digital preservation strategy



# We do not have a long-term digital preservation strategy

...and we're perfectly ok with that!



## This <u>does</u> mean....

## That we are agnostic about the 'final' solution

(We don't even necessarily think there is/has to be one...)

That we are happy to investigate, experiment and change what we are doing



## This doesn't mean...

We are doing nothing!



#### We have:

# Decided we want to be preserving digital stuff

We are:

Starting to take the first steps



### Long-term means *long*-term

- Digital preservation is about preserving access at a given point in time
- Right now we have no critical collections but, given time, we will



### Long-term means *long*-term

- We don't need:
  - a 'complete solution'; right now
- We do need:
  - to start thinking, getting clear about the problem, and talking about it
- We also need to start doing something so it doesn't become too late



#### **BORN-DIGITAL**

#### **DIGITISATION**





DIGITAL ARCHIVES





















INSTITUTIONAL REPOSITORY



#### What have we done?

- Collections audit (a spreadsheet)
- Risk assessment (DRAMBORA)
- •
- User requirements analysis (ongoing, for curators as well as end-users)



DMID Digital Collecti Sep-09						
Collection	Identifier	Format	Size (MB)	Media	Location	Accretion/Attrition
Exam papers		PDF	1126	Server/Tape Backup	https://library-2.lse.ac.uk	/protected-exam/
Research publications	LSERO	PDF Word/data		Server/Tape Backup Server/Tape Backup	http://eprints.lse.ac.uk http://eprints.lse.ac.uk	
e-Theses	LSETO?					
Data Resource Archive		text/PDF/SB	~5000?	Server	lib-6	stable (once it has be
Paddy Ashdown diaries	M3348	Word/html/er	1628	CD (4)	Archives	Expecting more Ash



#### Digital Collections

#### User Generated Risk Register DRAMBORA interactive

#### Risk Number 1

Risk Name:	Loss of trust or reputation
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Risk Description: One or more stakeholder communities have doubts about the

repository's ability to achieve its objectives.

Risk Areas: Personnel, Management & Admin Procedures

Operations & Service Delivery

Vulnerability(ies): \* An irrecoverable loss of digital objects provokes community

concerns about the repository's competence

Consequence(s): \* Credibility of the organisation as a location for deposit of digital

objects, and associated funding, reduced.

Relationship(s): No Relationships Established

Risk Owner(s): Senior Manager



#### **Tools: DRAMBORA**

- Risk assessment
- Why?
- Start the conversation
- Make the problems clear to all stakeholders (curators, technical specialists, senior managers)
- Not for detailed functional analysis
- http://repositoryaudit.eu/



## What are we doing?

- Creating a place to store our digital objects
  - 'repository core' for object storage (redundancy, backups) and identification
- Creating a way to ingest/accession objects
  - workflow for object characterisation, checksums, quarantine/virus check



#### **Tools: Archivematica**

- Workflow tool
- Why?
- For 'ingesting' digital objects
- Bundles tools for:
  - quarantine/virus check (filesystem, ClamAV)
  - checksum creation/verification (MD5)
  - format characterisation/validation (FITS which packages DROID, JHOVE, NZ Metadata Extractor ...)
- http://archivematica.org/

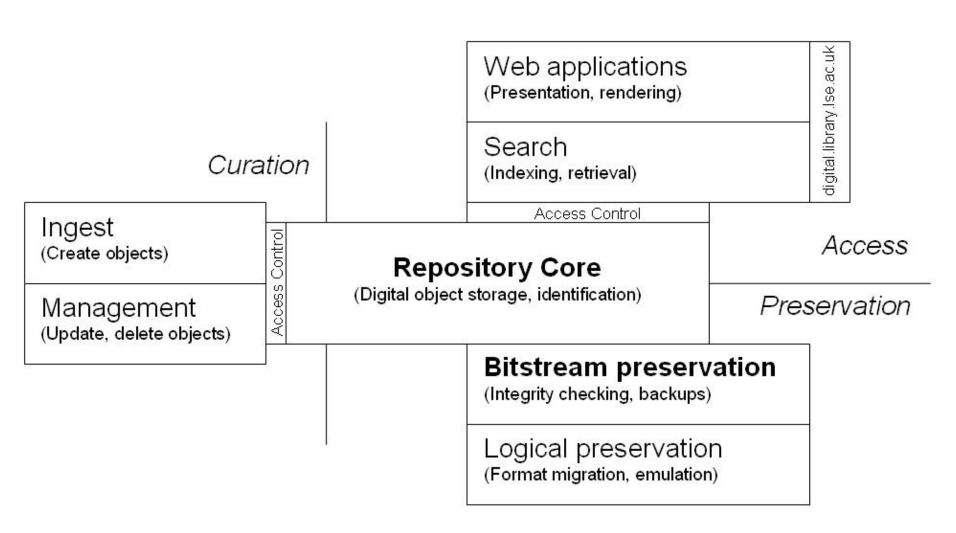


## What will we be doing?

- Building management interfaces
- Building access interfaces
- Developing a logical preservation approach
  - strategy and policies
- Building logical preservation functionality
  - implementing tools for migration or emulation



## **LSE Digital Library**



# LSE Digital Library: Design Principles

- Flexible—we can hold a range of different types of digital collection
- Extensible—we can adapt to changing collections and user requirements
- Modular—we can replace components without disrupting other functions



#### **Tools**

- DRAMBORA
  - used for high-level risk assessment as a tool for starting the conversation
- Archivematica
  - used to characterise our collections and to assist in producing a more detailed risk profile for further analysis
- Fedora/Hydra repository
  - will be used to store/manage all our digital collections
- Planets/Plato
  - will(?) be used to help us plan our long-term strategy



## **Guiding principles**

- Openness: standards, technologies
- Transparency: clear, documented decisions and processes
- Engagement: bringing everyone along with us (senior managers, depositors, colleagues across the library)



# The **problems**... ...you've heard about

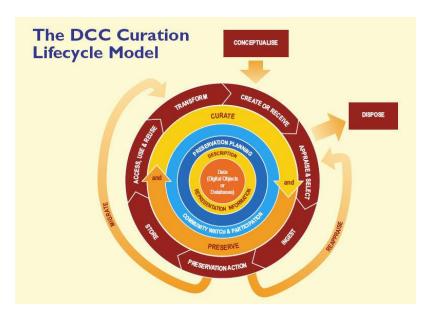
The **solutions**...

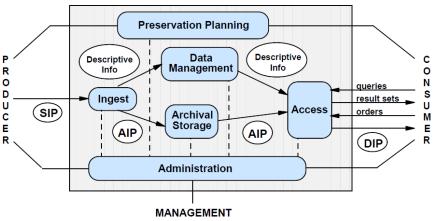
...are complex

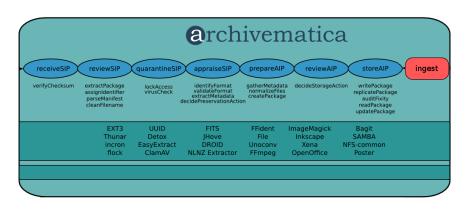
Digital Preservation is HARD!



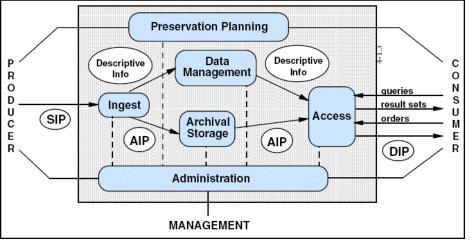
#### **Digital Preservation is HARD!**





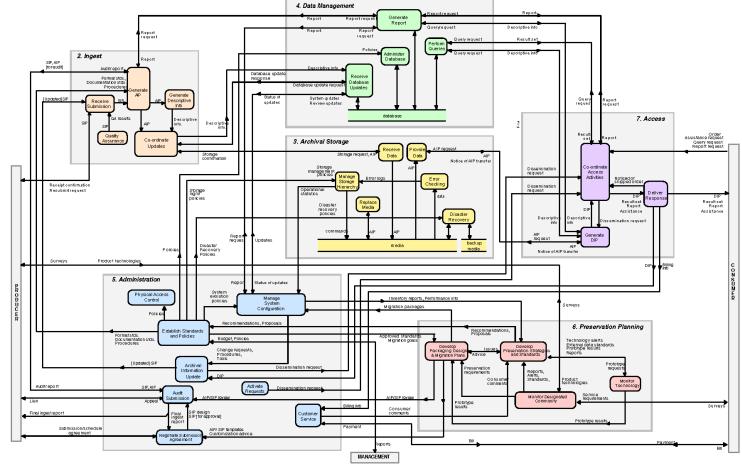






### **OAIS** can help

But
it
can
also
scare
people!



#### Digital Preservation is HARD!

Shorter summary of DP: know what you have and value, assess risk, take action to avoid risk, repeat.

Problem: people don't do it

Steve Hitchcock JISC KeepIt Project Manager

http://twitter.com/#!/jisckeepit/status/25530206525591552



## Small steps now...

- ...save big(ger) problems later
- Learn by doing you (should) always have originals
- Focus on:
  - "ingest" = capture, identify
  - "bit-preservation" = redundancy, backups
- Use this as the basis for more thorough risk assessment
- Use that as basis to make the case for investment
- Then think about the long-term (policy and tech)



#### That's it!

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