Library services in a new perspective:
Reaching out…

LIBIS INTO INFO
Jo Rademakers
Director LIBIS
KU LEUVEN

KU LEUVEN

- Comprehensive University
  - Including the Bachelor's campus in Kortrijk
- 3 groups, 15 Faculties:
  - Science, Engineering and Technology
  - Humanities and Social sciences
  - Biomedical sciences
- 41.334 Students (16% international; 2012)
- 5199 Peer reviewed publications (2010)
- 98 Spin-offs (2011)
- 68 [QS World UR 2011]
- 67 [THES 2012])

LIBIS INTO INFO

Leuven Integrated (B)Library and Information System

- Part of K.U.Leuven responsible for central library automation
  Governed by a management board
- Since early 70's
- Service offer for external organisations (> 120)
- 19 highly qualified persons
  + experts of library, archives, museums and ICT
- Partnership with Ex Libris

KU LEUVEN LIBISnet de Bib Lias Heron Lirias Ebib

3

LIBIS INTO INFO

K.U.Leuven libraries

- 11 Libraries
- > 4 M items
- Large e-resource collection (go e-only)
- Several repositories (research, AVM…)
- Integrated with
  - Archives
  - Museums
- Great team of librarians (approx. 170)
  - new generation coming in
- Stagnating budgets (ahum…)

4

LIBIS INTO INFO

A Library network

- Different types of libraries:
  - Collections
  - Size
  - Personnel
  - Budget
  - Needs
  - Multilingual
- Collaboration !!!

LIBISnet

5

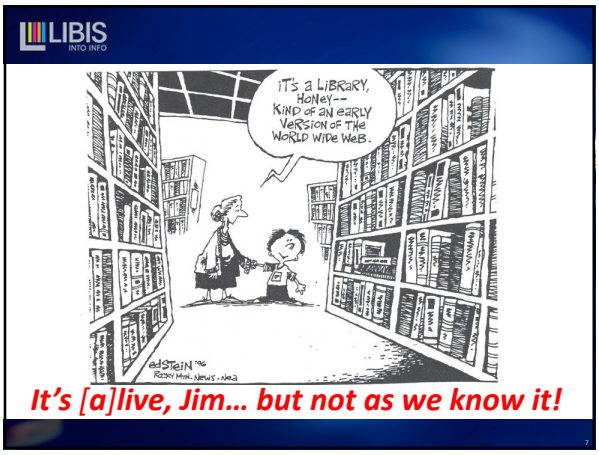
LIBIS INTO INFO

A service provider

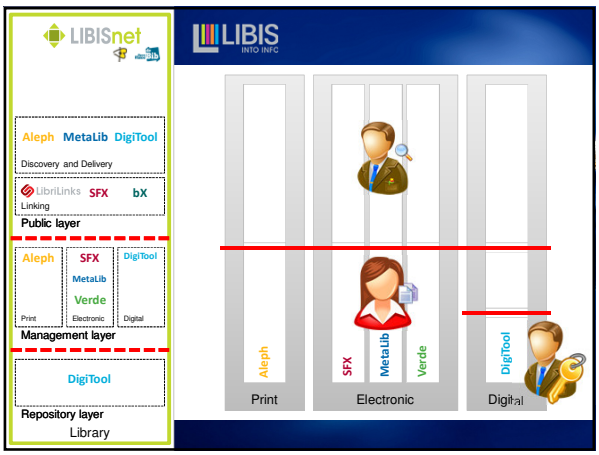
- Serving over 120 libraries
- Complete service offer
  - Service Level Agreements
  - Customised services / reports
  - Also public libraries
- Total Cost of Ownership (TCO)

PROVINCIE VLAAMS • BRABANT
de Bib

6


LIBIS
INTO INFO
IT'S A LIBRARY, HONEY-- KIND OF AN EARLY VERSION OF THE WORLD WIDE WEB.
It's [a]live, Jim… but not as we know it!

LIBISnet
LIBIS
INTO INFO
Aleph
SFX
MetaLib
Verde
DigiTool
Print
Electronic
Digital
Library


LIBISnet
LIBIS
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Aleph MetaLib DigiTool
Discovery and Delivery
LibriLinks SFX bX
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Public layer
Aleph SFX MetaLib Verde DigiTool
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Management layer
DigiTool
Repository layer
Library
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SFX
MetaLib
Verde
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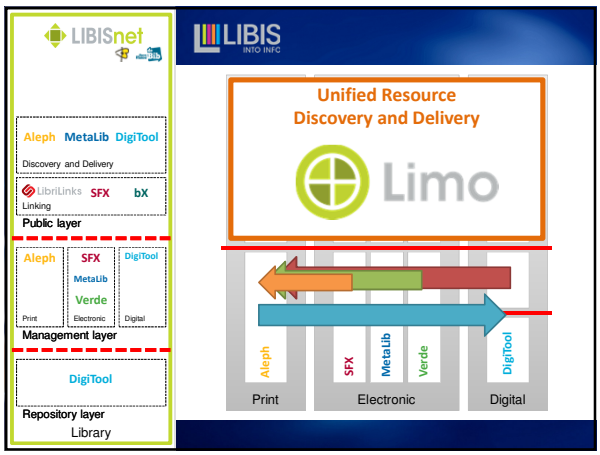
Print
Electronic
Digital


LIBISnet
LIBIS
INTO INFO
Aleph MetaLib DigiTool
Discovery and Delivery
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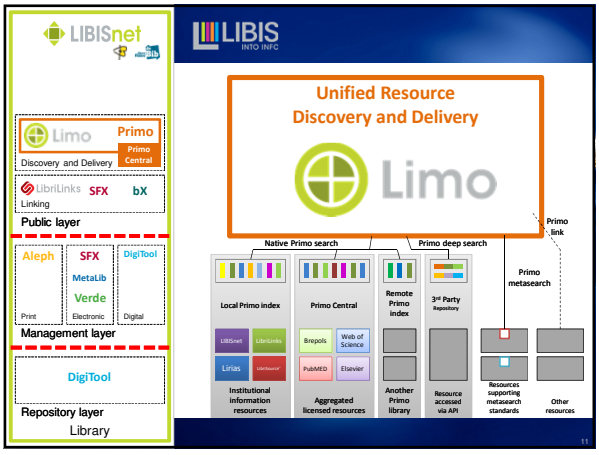
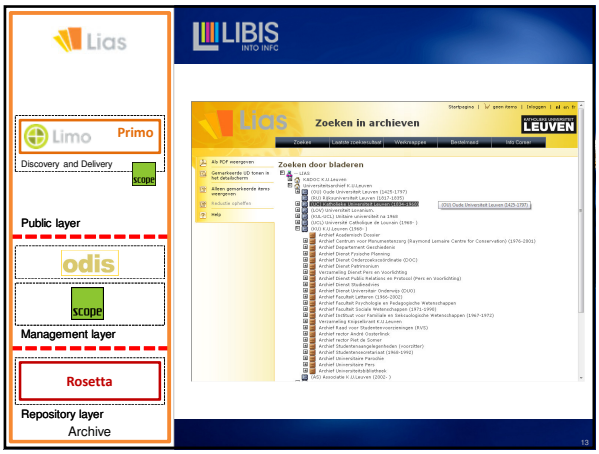
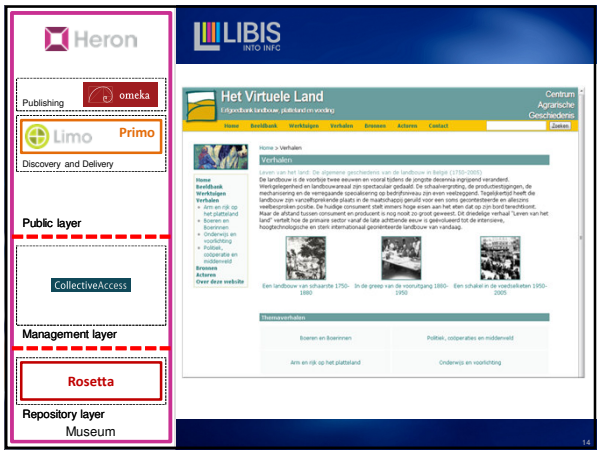
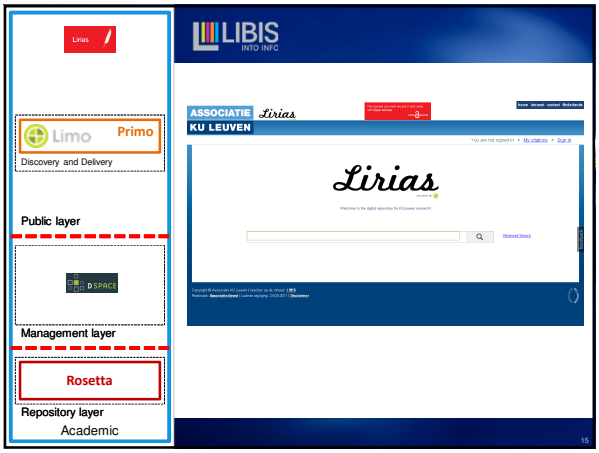
Public layer
Aleph SFX MetaLib Verde DigiTool
Print Electronic Digital
Management layer
DigiTool
Repository layer
Library
Unified Resource Discovery and Delivery
Limo
Aleph
SFX
MetaLib
Verde
DigiTool
Print
Electronic
Digital

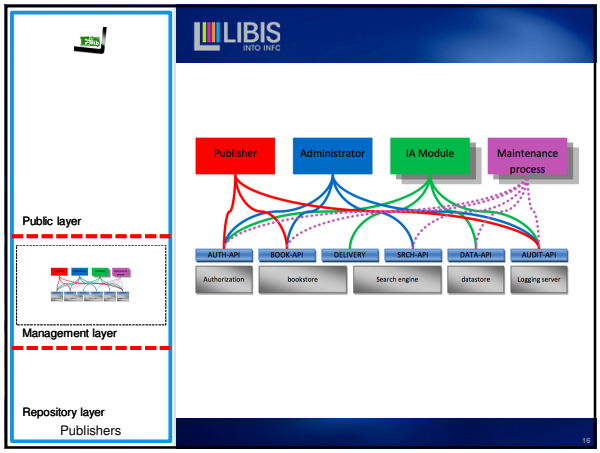

LIBISnet
LIBIS
INTO INFO
Limo Primo
Primo Central
Discovery and Delivery
LibriLinks SFX bX
Linking
Public layer
Aleph SFX MetaLib Verde DigiTool
Print Electronic Digital
Management layer
DigiTool
Repository layer
Library
Unified Resource Discovery and Delivery
Limo
Native Primo search
Primo deep search
Primo link
Primo metasearch
Local Primo index
Primo Central
Remote Primo index
3rd Party Repository
Institutional information resources
Aggregated licensed resources
Another Primo library
Resource accessed via API
Resources supporting metasearch standards
Other resources

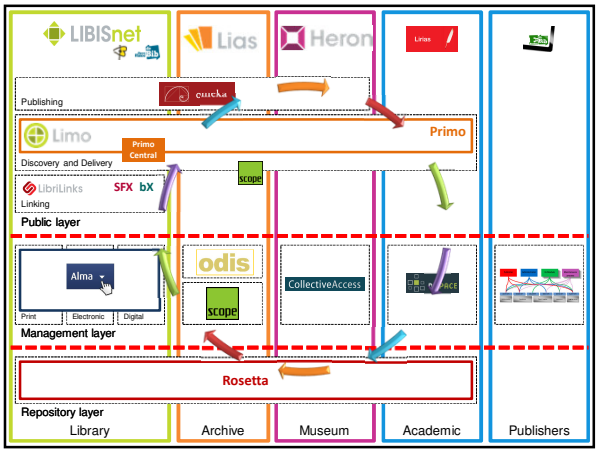
LIBISnet
LIBIS
INTO INFO
Limo Primo
Primo Central
Discovery and Delivery
LibriLinks SFX bX
Linking
Public layer
Alma
Print Electronic Digital
Management layer
DigiTool
Repository layer
Library
Unified Resource Discovery and Delivery
Limo
CONSOLIDATE the frameworks
OPTIMISE through collaboration
EXTEND the range of services
Print
Electronic
Digital











Lias

LIAS

- Leuven Integrated Archiving System
- The objective of the project is the creation and exploitation of a digital repository and archival management system
- The desired system provides a permanent and safe storage of digital objects. The **authenticity**, **integrity**, **unicity** of the digital objects and the structure of these objects are guaranteed in this environment.
- The system also provides a fully integrated instrument for describing (Archival Management System AMS). The digital, paper or hybrid objects are described following the international standards for description, storage and preservation. All objects can be described and displayed in their context.

LIAS

- Not only archives but also other institutions such as libraries, educational institutions, museums… need a digital depot. Requirements are very similar but not equal.
- So: the digital depot must be able to act as a stand alone system but also open to be integrated in other systems
- Create networks of expertise

Partners

- 2006: LIAS (Leuven Integrated Archiving System) = consortium
  - University Administration
  - ICTS (Computing center)
  - LIBIS
  - University Library
  - University Archives
  - KADOC (Documentation and Research Center for Religion, Culture and Society)

Digital preservation

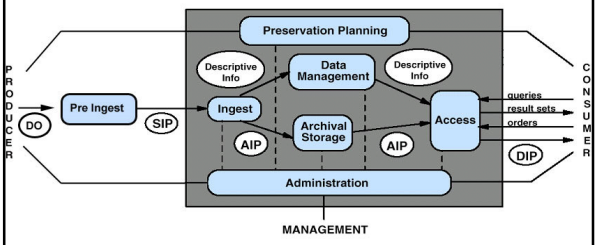
Digital preservation can be understood as the series of managed activities necessary to ensure continued access to digital materials for as long as necessary, involving the planning, resource allocation, and application of preservation methods and to ensure that digital information of continuing value remains accessible and usable.

It combines policies, strategies and actions to ensure access to reformatted and born digital content regardless of the challenges of media failure and technological change. The goal of digital preservation is the accurate rendering of authenticated content over time.

From Wikipedia, the free encyclopedia

Architecture

standaard OAIS
(Open Archival Information System)



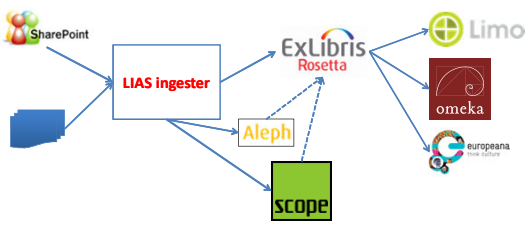
Rosetta

- State of the art system
- Long-term preservation
- Supported by a large company
- Active community

- *Customised interfaces*
- *Customised workflows*
- *Also DAM features*

- *Flexible API's…*
- *Consortium features*

Lias - workflows



Lias

Ingest

- Streamlined according to predefined ingest models
  - Number and type of manifestations per object (eg. posters > original as archive, thumbnail, jpg with watermark and jpeg2000 as view)
  - Determine access rights (eg. posters > original not accessible, thumbnail and jpg with watermark free; jpeg2000 through registration/log in)

Lias

Tools

- Lias Ingest Agreement
- Lias uploader
  - Replaces ftp
  - Generates and validates checksums
- Lias ingester
  - Based on ingest agreement
  - Automated ingest for Sharepoint

Lias

Ingest agreement

- Not technology but a *contract*
- Ingest is more than uploading objects, the ingest agreement contains:
  - Administrative information (e.g. contacts)
  - Technical information (e.g. file formats, quality…)
  - Metadata
  - Validation (of transfer and ingest)
  - Management information (e.g. access rights)
  - Structural information (e.g. complex or simple object)

Lias

Ingest Agreement

- Administrative data
  - Organisation
    - Contact
    - Metadata contactperson
  - Contactperson LIBIS
  - Contactperson content
  - …

Lias

Ingest Agreement

- Description
  - Type of objects
  - Ingestmodel
  - Name of collection
  - Formats
  - Structure of objects : simple, complex, METS
  - Permissions
  - Long-term preservation requirements
  - Metadata delivery: system, format, description
  - Integration with other systems
  - Number of objects
  - Number of files
  - SIP validation
  - Test Ingest

Input metadata		Output metadata	
namespace	element	namespace	element
MARC	041 $a $b $e 690025a, $a	dc	identifier
hardaycodeerd identifier	collectie	dc	identifier
MARC	245$a, $b en $h	dc	title
MARC	700$a, $b, $c, $d, $g, $4 710$a, $b, $c, $d, $4	dc	creator
MARC	690025a	dc	subject

Lias

Ingest Agreement

- Planning
  - Analysis
  - Test ingest
  - Production ingest
  - Recurring ingests
- Transfer of objects
  - Method
  - Recurrence

Lias

Ingest Agreement

- Validation
  - Viruscheck
  - Checksum
  - File format
  - Normalisation
- Ingest Validation
- *Financial*
  - Who is going to pay? Now and tomorrow!
- To do

Lias

Ingest workflow

- Preingest / ingest workflow for digital objects with metadata from other systems / tools
  - Metadata from Aleph
  - Metadata from scopeArchiv
  - Metadata from Sharepoint
  - Metadata from …
  - XML-metadata
  - ⇒ *Mapping based on naming conventions*
- Preingesttool for basic selection, sorting and description of digital objects via SharePoint

Lias

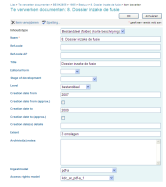
Archiefvormer

Archivaris

PREINGEST

1ste verwerking met Windows Explorer

2de verwerking met SharePoint



Lias

Lias ingester

- Automated ingest flow
- Highly configurable
- 6 modules (stages) each with a number of tasks
- 1 'run' with common configuration options, can have multiple 'configurations' with specific tasks and options
  - Modules:
    - Collector
      - DirCollector – grab files from disk location
      - SharePointCollector – grab files from SharePoint site
      - *FtpCollector – grab files from FTP server*
      - *HttpCollector – grab files from a Web server*
      - *ZipCollector – grab files from a compressed archive*

Lias

Lias ingester

- Preprocessor
  - FileMatcher - filter objects based on file name and/or path
  - MimeTypeFilter - filter objects based on MIME type
  - LocationChecker – check if object can be accessed/read/….
  - VirusScan – scan for viruses
  - FixityChecker – verify supplied checksum
  - IngestedChecker – check if object already ingested
  - MetsComposer – combine matching objects and hierarchy into a METS object
  - ComplexComposer – combine matching objects into a COMPLEX object
  - XmlComposer – combine matching objects and hierarchy into a XML object

Lias

Lias ingester

- Preingester
  - IngestSetup – sets up Ingest work area and configuration
  - ControlFields – adds control field information to each object
  - MetadataCollector – collect metadata info from Aleph / disk / Collective Access / …
  - CopyStream – adds original stream to the object
  - CreateManifestations – adds manifestations to each object according to the IngestModel
- Ingester
  - Launches the ingest procedure and checks the output and grabs the assigned PIDs of the ingested objects

Lias

Lias ingester

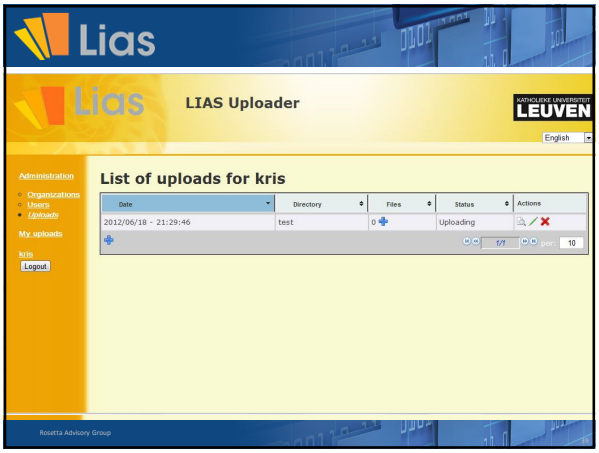
- Postingester
  - AssignAccessRights – add Access Right metadata to the ingested objects (AccessRightModel)
  - AssignMetaData – add descriptive metadata to the ingested objects
- Postprocessor
  - ObjectLinker – create links to the digital objects in other applications:
    - Scope
    - CollectiveAccess
    - …

Lias

Lias Uploader

- Web based customer front-end for bulk oploading of files including its directory structure
- Simple account management based on organization and users
- Automatic Fixity check: files are checksummed on the PC before uploading and checked on the server after upload.
- Flow control based on status: 'Uploading -> Uploaded -> Processing -> Ingested'
- Could be used to automatically start LIAS Ingester and report on progress / errors.

Lias



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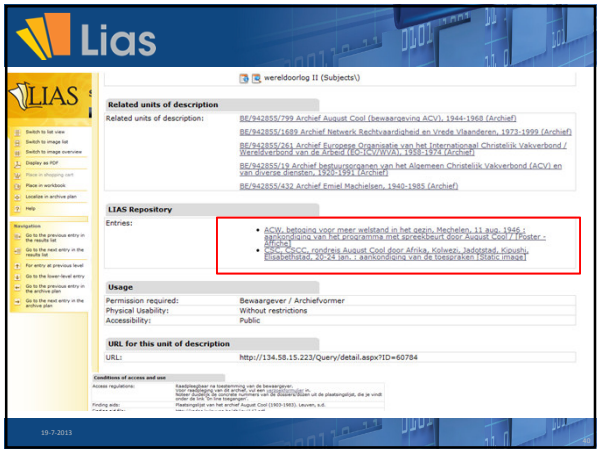

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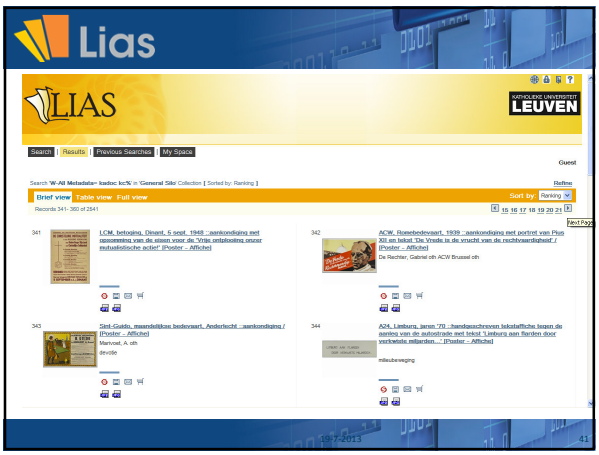

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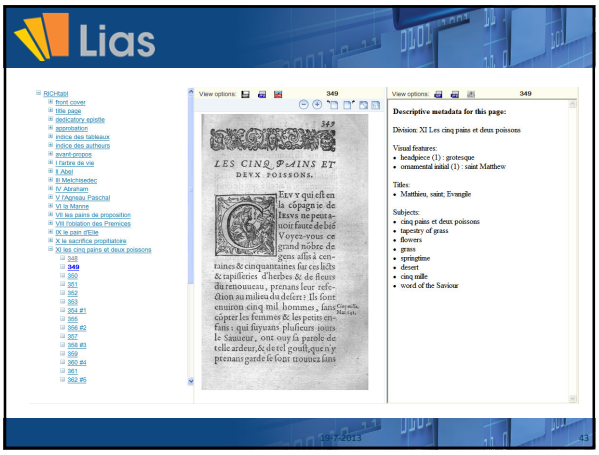
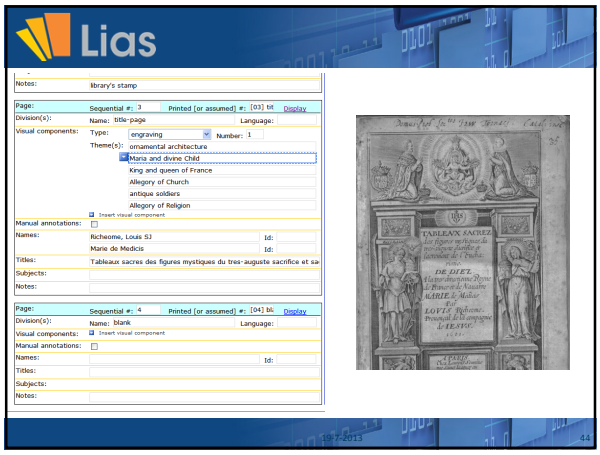

Lias
LES CINQ PAINS ET DEUX POISSONS.
Descriptive metadata for this page:
Division: XI Les cinq pains et deux poissons
Visual features:
• headpiece (1) : grotesque
• ornamental initial (1) : saint Matthew
Titles:
• Matthieu, saint; Evangile
Subjects:
• cinq pains et deux poissons
• tapestry of grass
• flowers
• grass
• springtime
• desert
• cinq mille
• word of the Saviour
19-7-2013
43


Lias
Notes:
library's stamp
Division(s):
Name: title-page
Language:
Visual components:
Type: engraving
Number: 1
Theme(s): ornamental architecture
Maria and divine Child
King and queen of France
Allegory of Church
antique soldiers
Allegory of Religion
Insert visual component
Manual annotations:
Names:
Richeome, Louis SJ
Marie de Medicis
Titles:
Tableaux sacres des figures mystiques du tres-auguste sacrifice et sa
Subjects:
Division(s):
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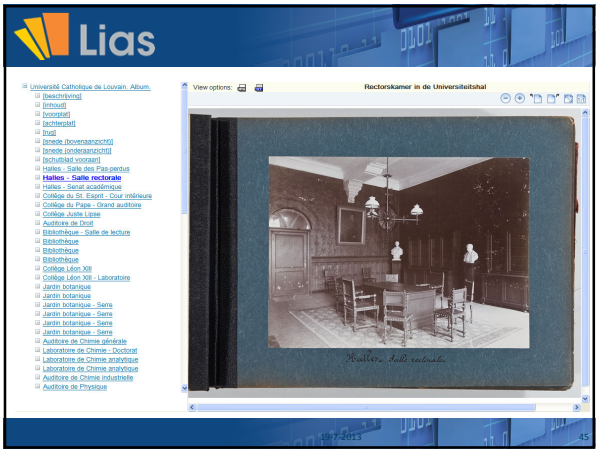
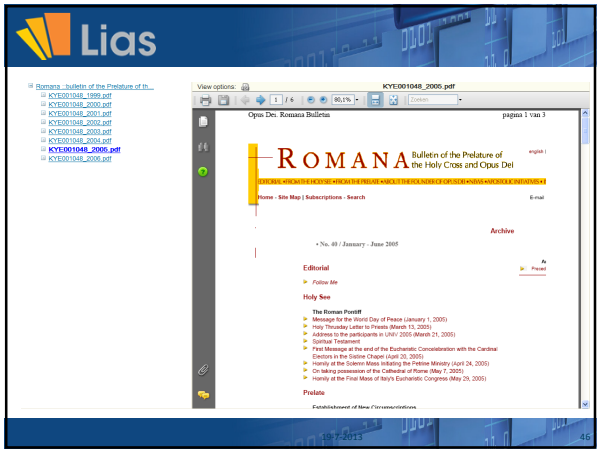
Manual annotations:
Names:
Titles:
Subjects:
Notes:
19-7-2013
44


Lias
Rectorskamer in de Universiteitshal
19-7-2013
45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ROMANA Bulletin of the Prelature of the Holy Cross and Opus Dei
Archive
Editorial
Holy See
Prelate
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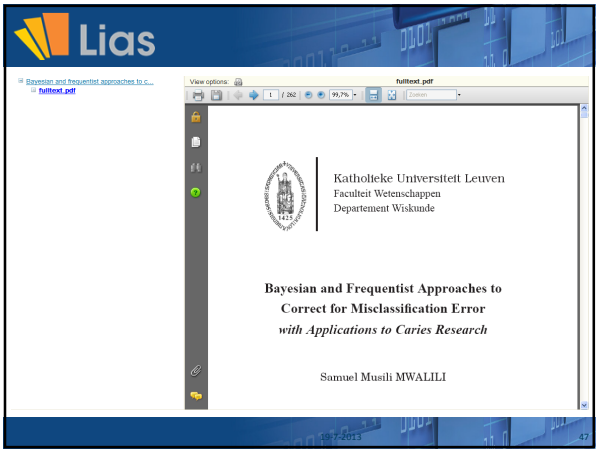
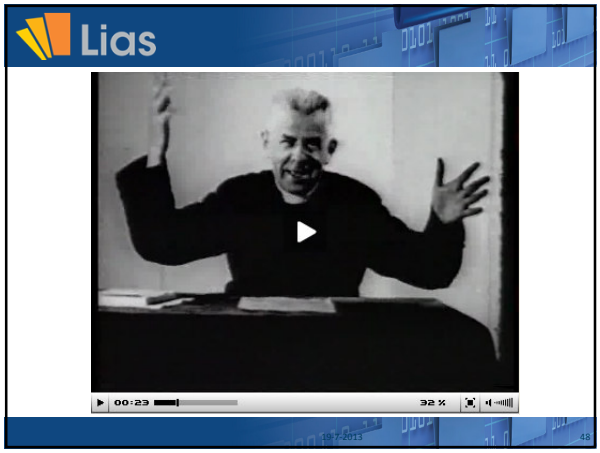

Lias
fulltext.pdf
Katholieke Universiteit Leuven
Faculteit Wetenschappen
Departement Wiskunde
Bayesian and Frequentist Approaches to Correct for Misclassification Error with Applications to Caries Research
Samuel Musili MWALILI
19-7-2013
47


Lias
00:23
32 %
19-7-2013
48

Lias

View options: Venantius Gyselinck, O.F.M., missionaris in China (1932-1952), Mortsel, 10, 17 en 23 oktober 1986 :

Pause on/off

Play the previous track
Play the next track

Increase the volume
Decrease the volume

Stop loading and playing

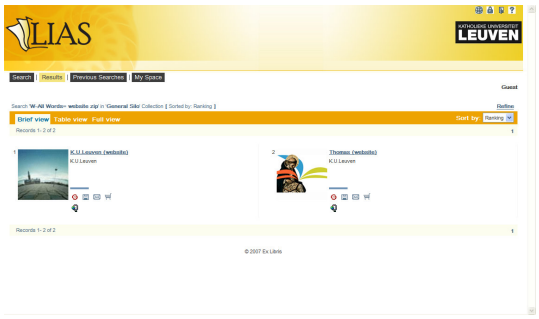
Item: 1
Title: track 2A
Type: mp3
Volume: 90%
State: 0 (0:ready/paused, 1:loading, 2:playing, 3:finished)

Time: 24 sec **Remaining:** 2322 sec
Load: 58%

track 2A
track 2B
track 3A
track 3B
track 4A
track 4B
track 5A
track 6A
track 6B
track 7A
track 7B
track 8A
track 8B

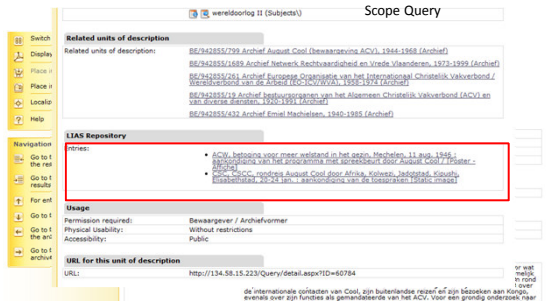
This is a reduced quality version of the audio file.
Click here to download the full quality version (requires login).

Lias



Lias

Scope Query



Lias

Access the data

- Limo (based on Primo)

Lias

Showing the data

- Based on Omeka
- Web CMS
- Cultural heritage
- Virtual reading room

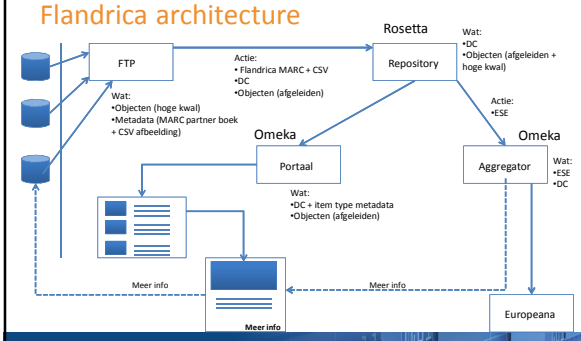
Lias

Flandrica

- Portal website + aggregator for heritage libraries
- 6 institutions
- Partners deliver content
  - Flandrica hosts max 5 images per object

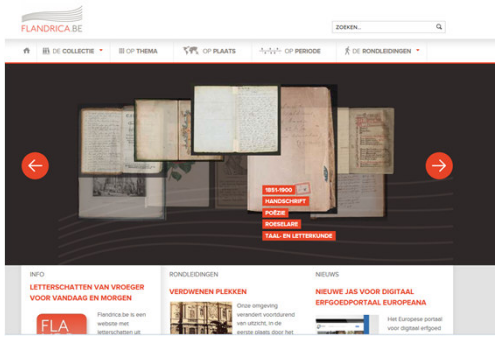
Lias

Flandrica architecture



19-7-2013

Lias



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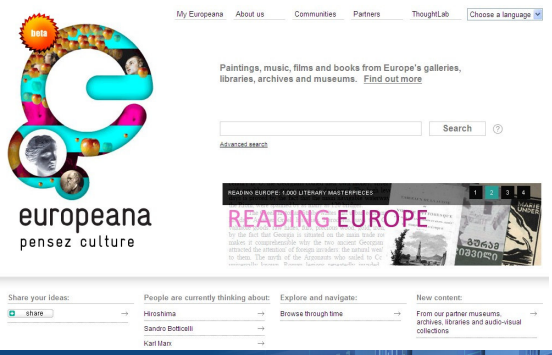


19-7-2013 57

Lias

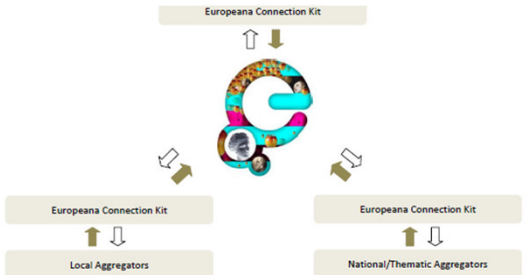
Europeana inside

- Best practice research project (ICT-PSP)
- Simplify delivery of data to Europeana:

  The EU-funded network that is working to transform the ability of European cultural heritage institutions (museums, archives and libraries) to participate in the Europeana platform
- Until april 2014
- 26 partners

Lias

Europeana inside



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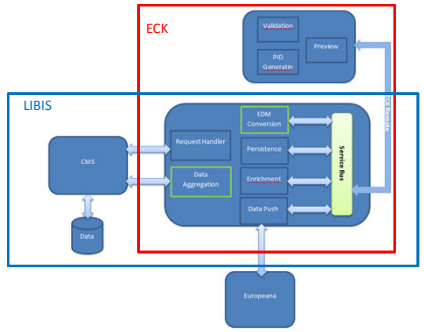
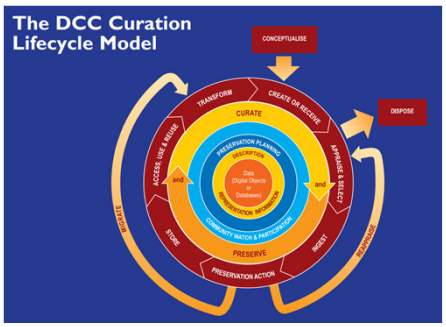


Long term preservation

- Keep digital objects accessible and readeable in the future
- More than just backup
  - Accessible
  - Readeable
  - Usable
- => need to transform objects, metadata and documentation
- => Rosetta

Preservation planning

- Risk analysis based on file formats (PRONOM)
- Preservation test :
  - Test of possible preservation actions
  - Analysis of the results (report)
- Preservation actions :
  - Execution & feedback
  - Registration of all executed actions
  - Possibility to re-use



Storage

- Different options
  - Mirrored NAS (RAID-5) (NetApp)
  - Single NAS (RAID-5)
  - TSM Backup
  - *Remote storage*
  - *Cloud services*

Functional Support

- Complete Management
- Migration services
  - Configuration
  - Training
- Manuals
- Incident management
- Helpdesk (24/7)
- Project management

>> Service Level Agreement

Central Infrastructure

- Redundant
- 99,8 % availability
- 24/7/365 monitoring
- Service slots
- Service packs

>> Service Level Agreement

Networking

- Working groups
  - Exchange best practices and experiences with colleagues
- Advisory Board
- LIBISnet User Group Meeting
- Igelu, Vlengel, Rosetta Advisory Board
  - Influence future developments through partnerships
- Regional, national and international projects, …
- Account management

The team

- 19 persons with a large expertise in library and archive (…) automation (> 250 years)
  - Business consultants
  - Analist-developers
  - Infrastructure architect
  - Project managers
  - Account managers
- Experts in specific domains and modules
  + experts from the libraries and ICT
- Like to hire some more…

Financial

- Licenses & software
  - Negotiate yourself vs have it done by experts
  - Own contract vs central contract
  - Configure, upgrade, update yourself vs have it done by a knowledgable centralized team
- Hardware
  - Buy and maintain infrastructure yourself vs contribute to central infrastructure
- Cataloguing
  - Catalogue all records yourself vs just add your information
- Staff
  - Have IT-staff and system managers vs contribute to a central staff

Pricing

- One-time fee
  - Including configuration, training, migration…
- Annual cost
  - Fixed cost based on the size of the project / organisation
    - Including licenses, maintenance, support, management…
  - Variable cost based on Tb
    - Packages of 100 GB

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