E-Dvara:
Building and Maintaining a Digital Platform for Artistic Collections

Paolo Coppola, Alessia Degano, S.R.C. Prasad and Roberto Ranon
University of Udine
coppola@uniud.it, degano@dimi.uniud.it, prasad@dimi.uniud.it, ranon@dimi.uniud.it

2nd ANNUAL CONFERENCE
ICT for EU-India Cross-Cultural Dissemination
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Valencia, Spain

ICT for Cultural dissemination

- digital libraries have a fundamental role for (cross) cultural dissemination through ICT technologies
- dissemination of cultural heritage through digital libraries
  - digitize + make effectively available
  - … a massive amount of different kinds of contents

Example

'This sculpture represents Lord Ardhanarishwara. It dates 8th C.A.D. and it is located in Alampur (A.P.).'

PICTURE

Title: *Ardhanarishwara*

Period: 8th c.a.d.

Location: *Alampur*

```
<title>ardhanarishwara</title>
<period>8th c.a.d.</period>
<location>Alampur</location>
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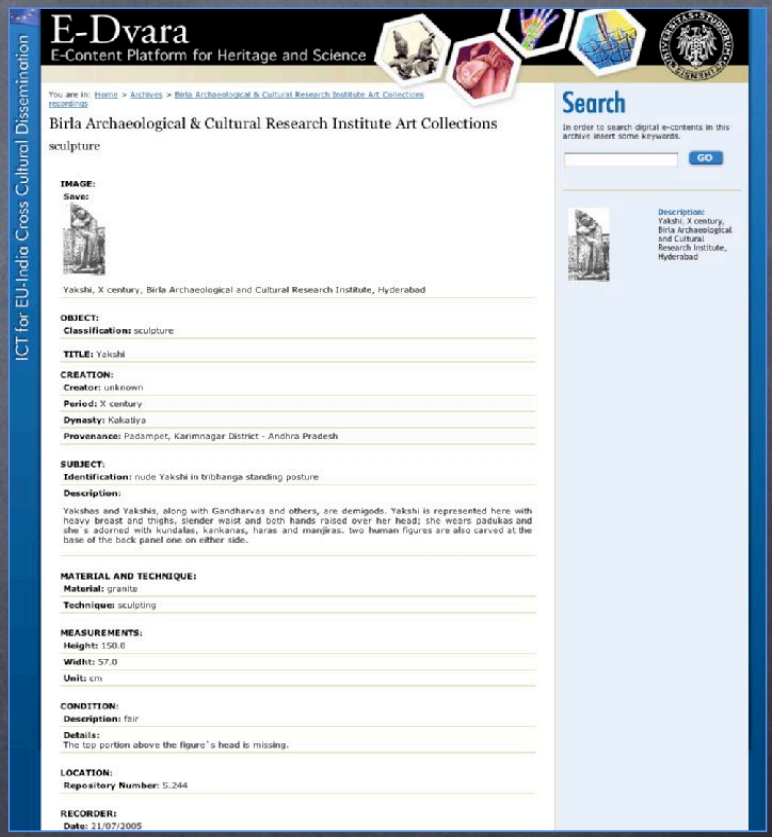


Designing a digital archive
The traditional approach

- Problem analysis
- Designing the data structure
- Designing a specific solution:
  - Specific data set
  - Specific data base architecture
  - Specific procedures and interfaces for the data entry
  - Specific interfaces for the utilization of the contents

Pros & cons of the traditional approach

- Interfaces for the entry and utilization of contents are personalized to tasks and kinds of contents
- Difficult application of the solution to archives of materials of different nature
- Difficult integration and pooling with other archives with different metadata sets

The E-Dvara approach

- An online digital archive able to:
  - store various types of materials relating to different types of cultural heritages
  - allow an different usages (browsing, searching, visiting a virtual museum,..) of contents
  - ensure compatibility and allow integration and pooling with other archives

A web-oriented platform for cultural dissemination

- Quick: in a couple of clicks it is possible to define digital contents
- For a large class of materials (texts, photos, videos...)
- Easy to use: no need of technicians
- Extensible and customizable
- Open to international standards

Functional requirements

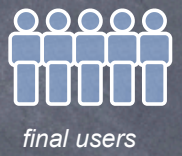
- Acquisition & Storage

  - Flexibility and personalization of the storing process
  - simplicity and effectiveness of
    - Procedure of the definition of the metadata structure
    - Procedure of data entry
  - Personalization of interfaces of data entry and contents utilization
  - Open to standards and possibility of integration with other archives

- Search

  - Search effectiveness: (personalized search forms)
  - A single platform allows transversal types of searching across different archives

- Utilization



  - Web Portals, Virtual museum, hands on museum,...
  - Increase the knowledge and cultural awareness particularly of the youngsters
  - Effective utilization of contents by final user

Technological choices

- Storage:
  - XML schema or DTD to define data structures
  - XML for data storage
- Search:
  - XML and XSLT to produce automatically the search forms
- Utilization:
  - XML and XSLT
    - Web interfaces
    - Flash interfaces
    - 3D interfaces

Why XML & XSLT?

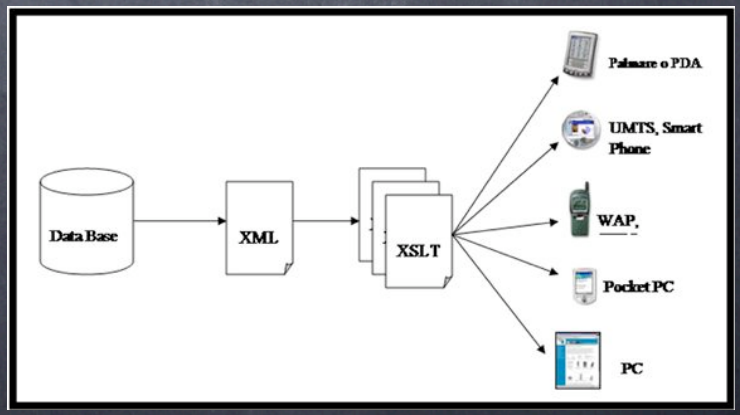
- XML:
  - Define data structure
  - Represent data
- XSLT:
  - generate personalized interfaces to acquire, display and utilize data

XML

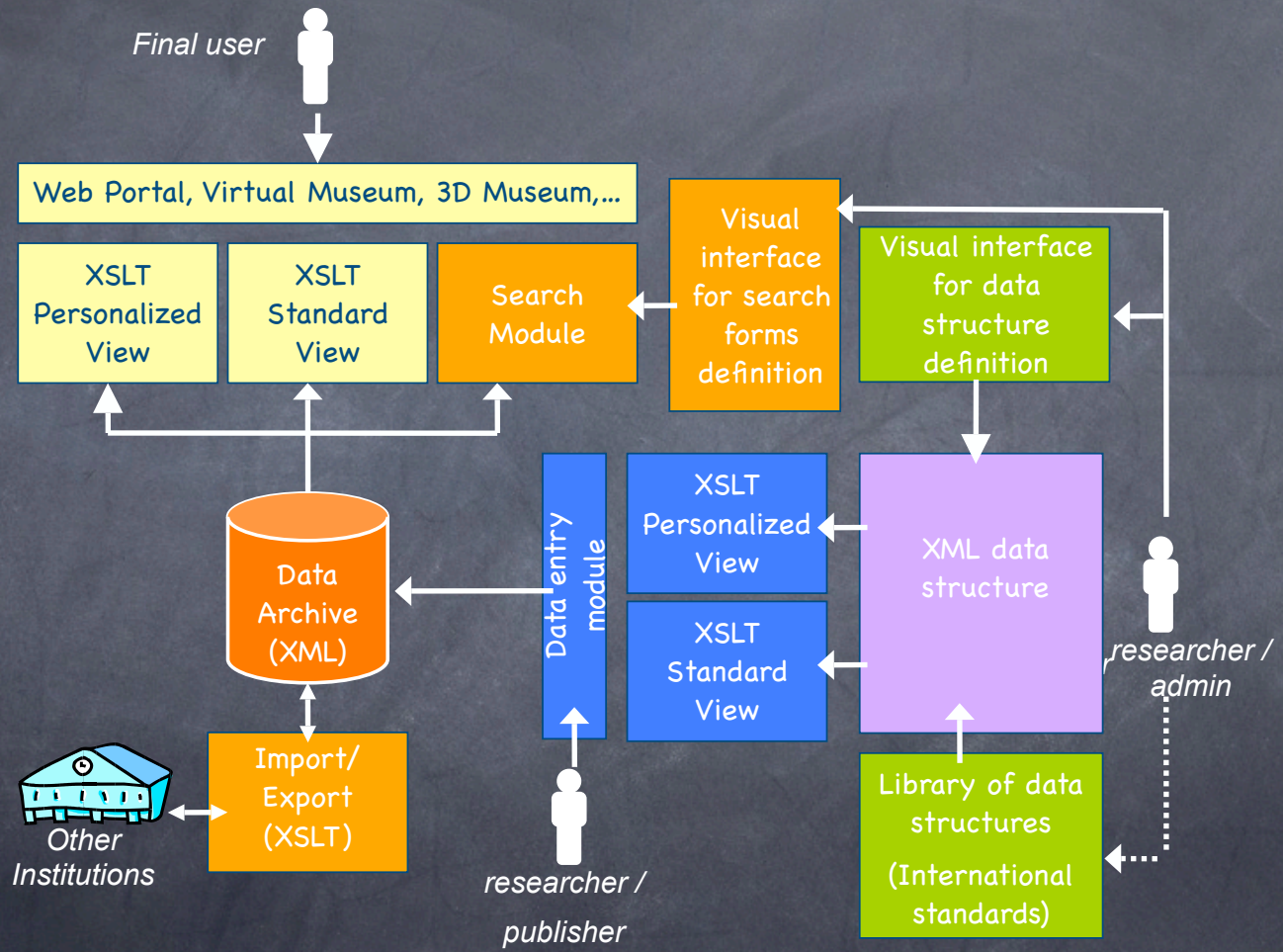
- XML (eXtensible Markup Language) is a powerful and largely used tool for data description.
- Easy data interchange between Institution Archives without complex conversion procedures
- Operating systems independence, high data portability
- Availability of open source software and tools to develop xml-driven applications
- International Standard are defined using DTD or XML Schemas

XSLT

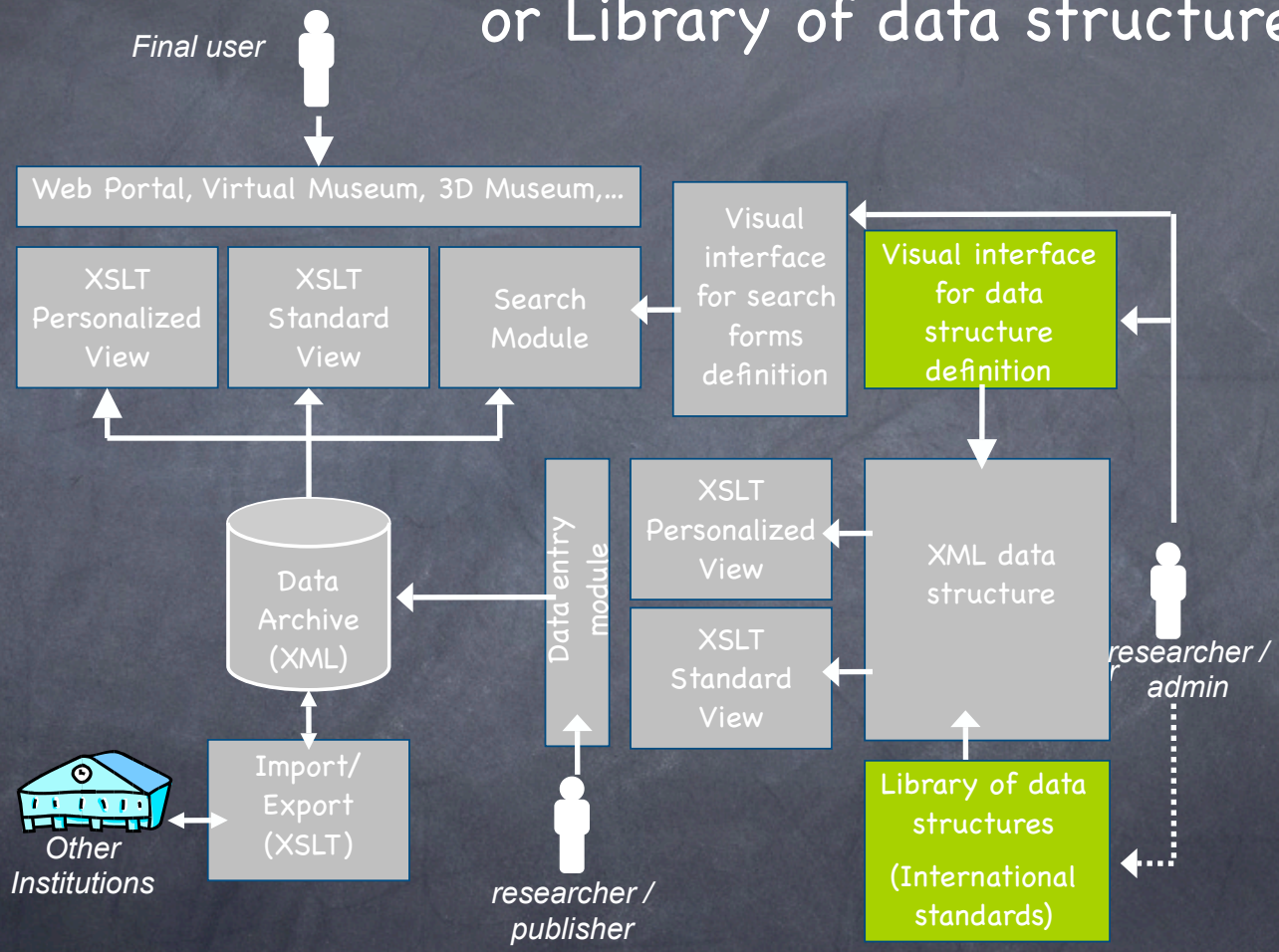
- XSLT is a powerful transformation language
- Using XSLT is possible:
  - to transform XML to obtain xHTML, WML, Pdf, etc...
    - e.g., to view XML data in different ways using different devices
  - to obtain different and personalized interfaces to access to the data or add other contents to the archive



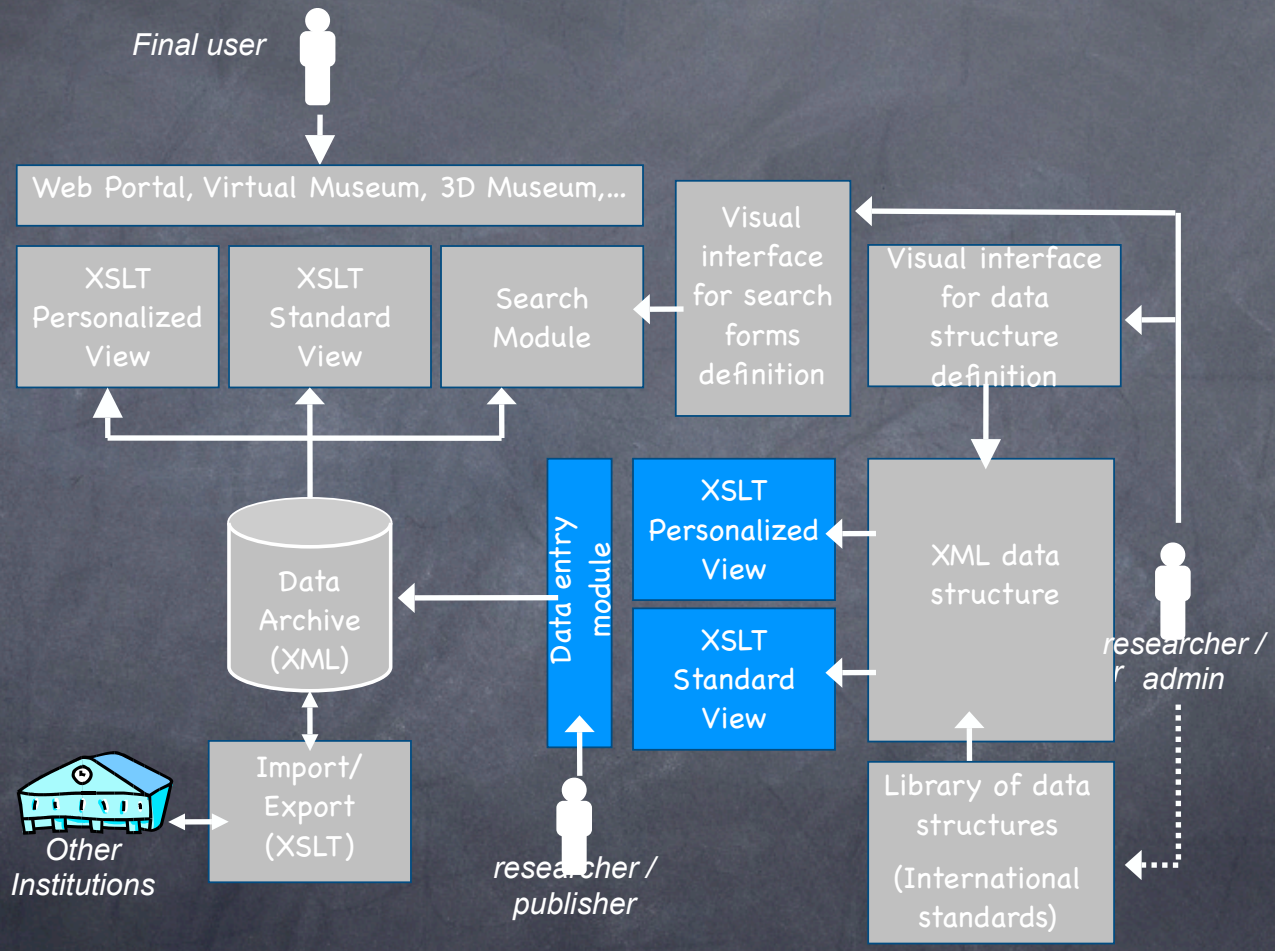
Platform Architecture



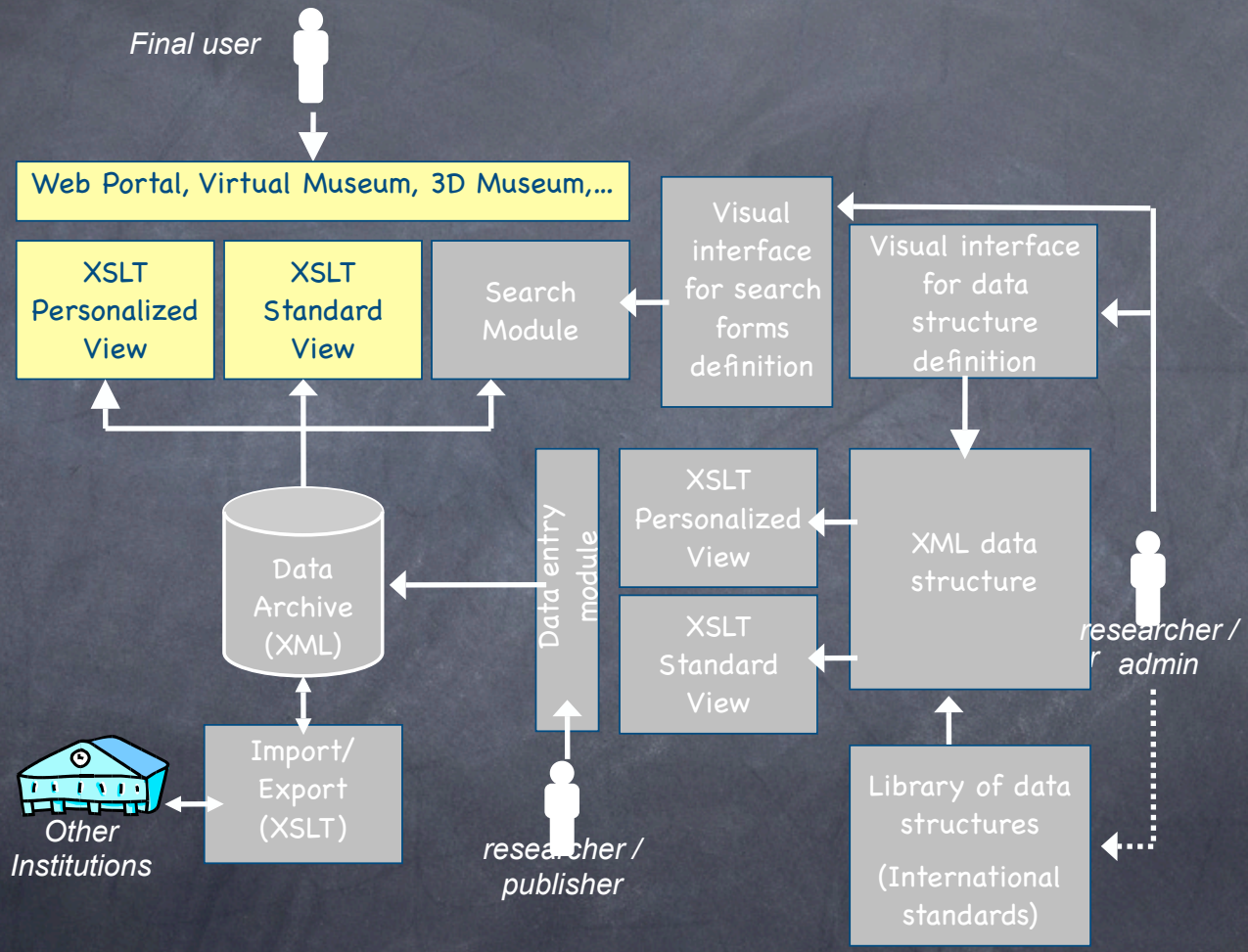
Visual Interface for data structure definition or Library of data structures



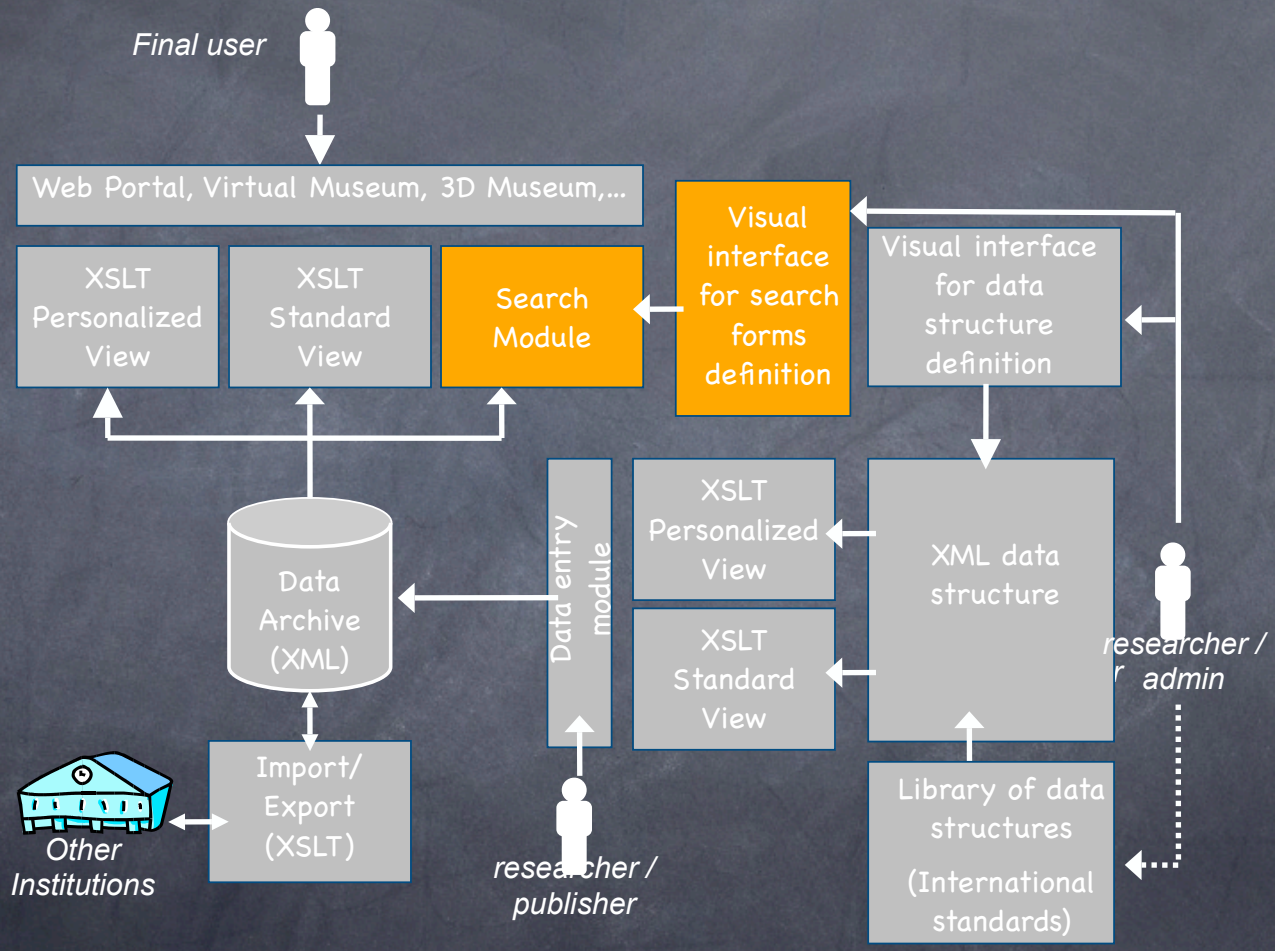
Module for data entry



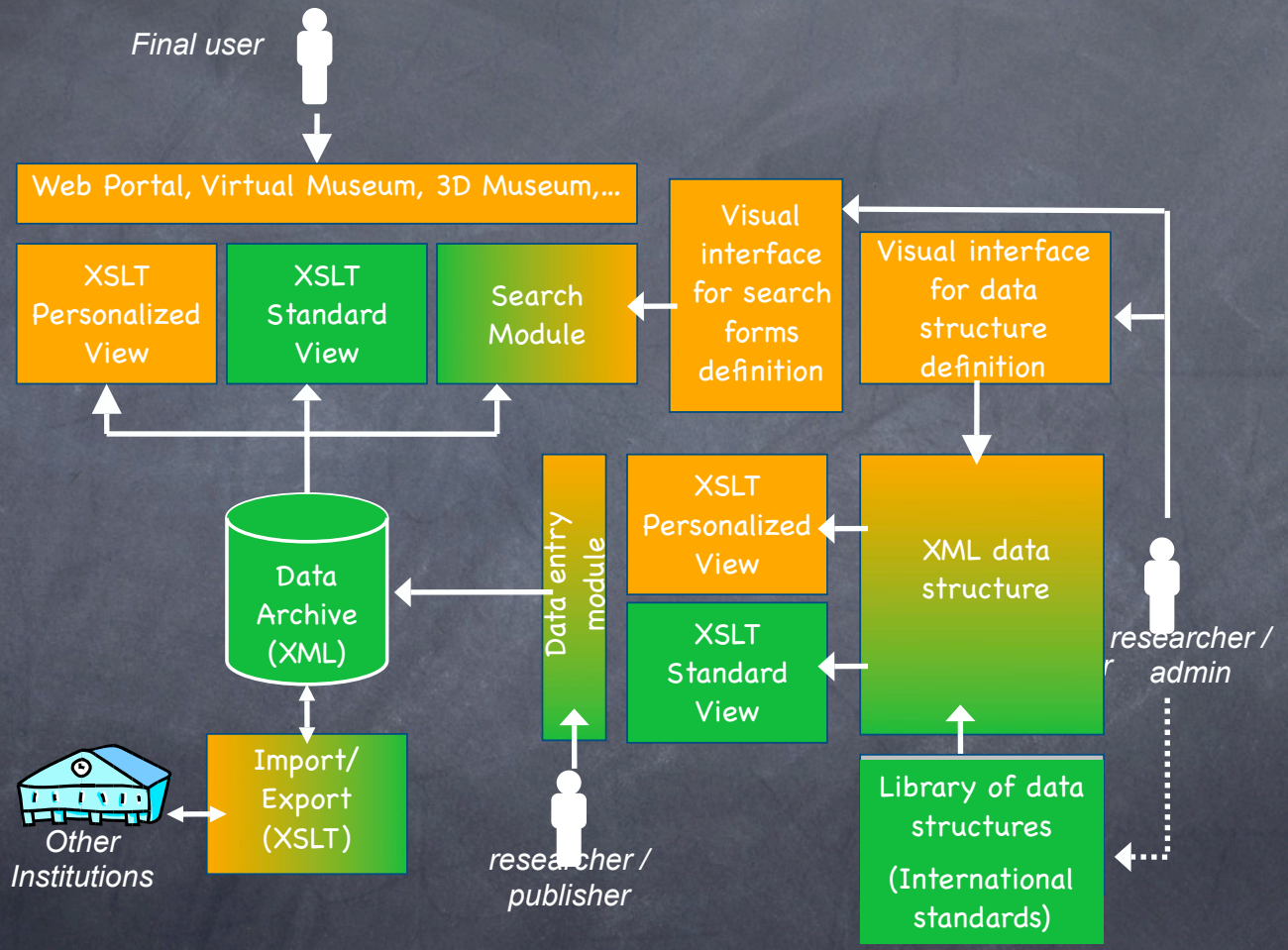
Standard and personalized view

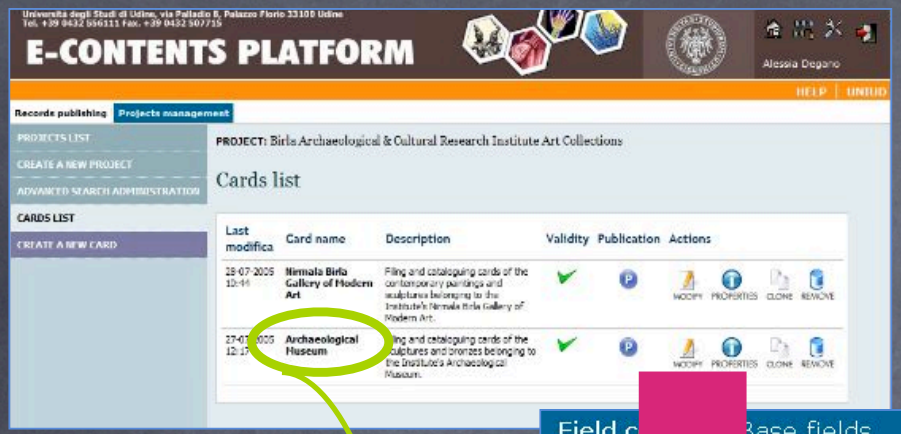


Search Module

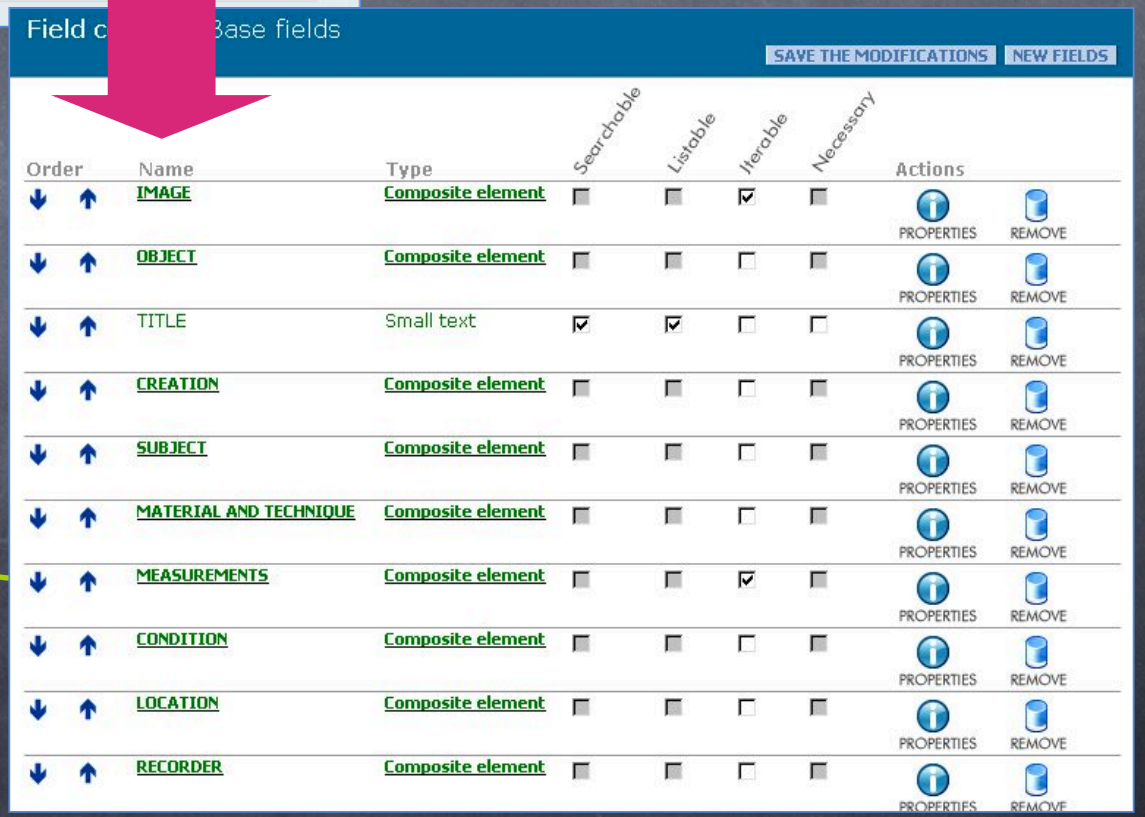


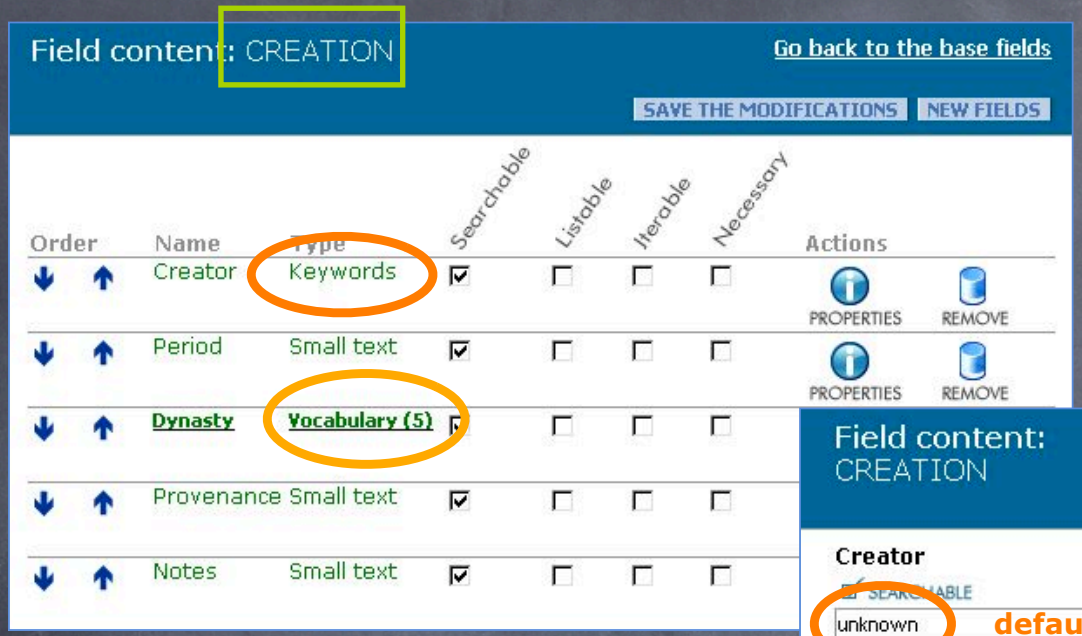
Standard and Personalized use of the Platform



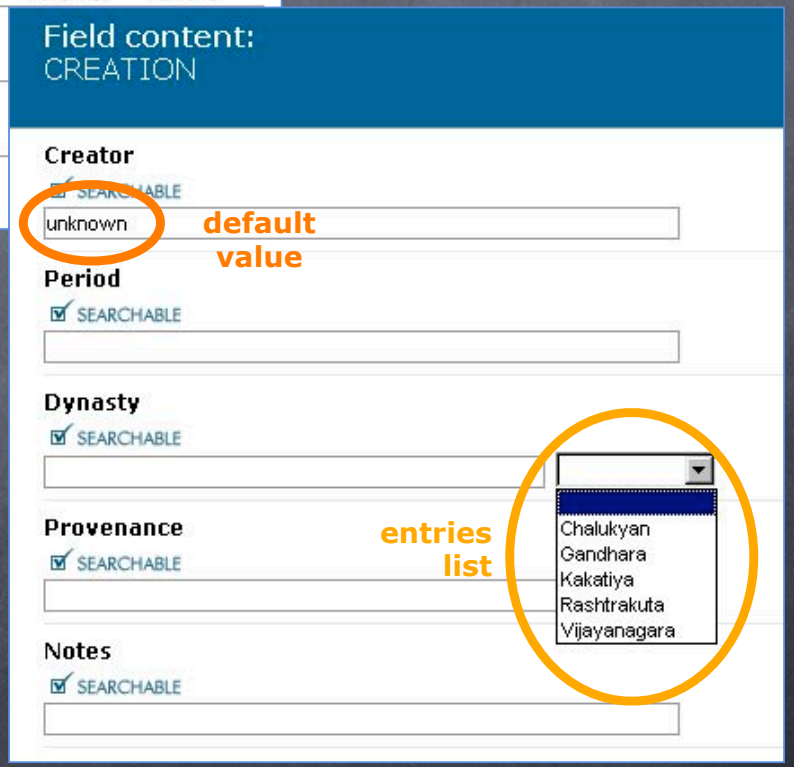


manager interface

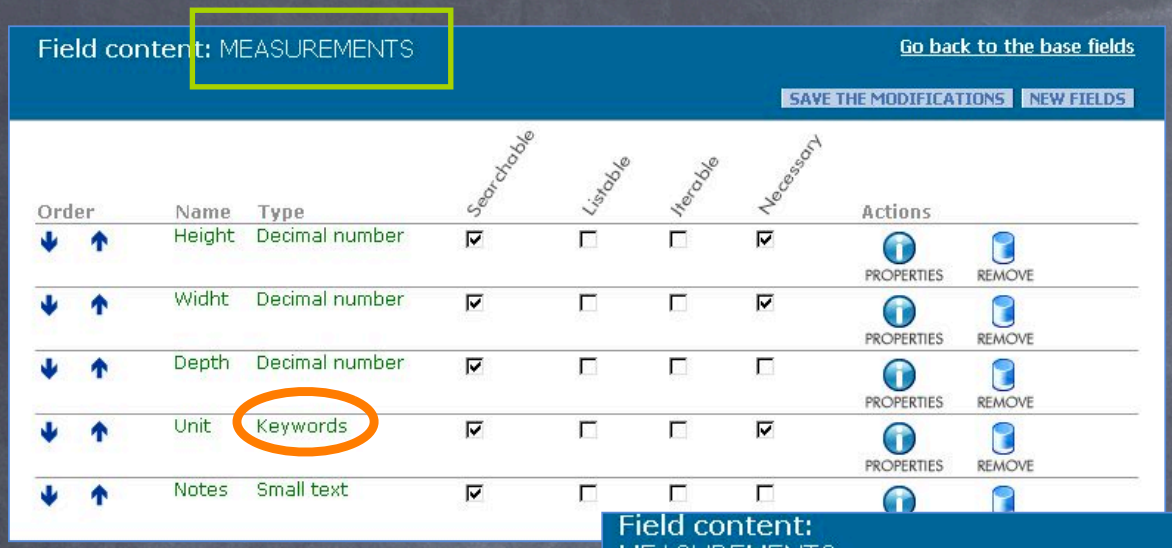




manager interface

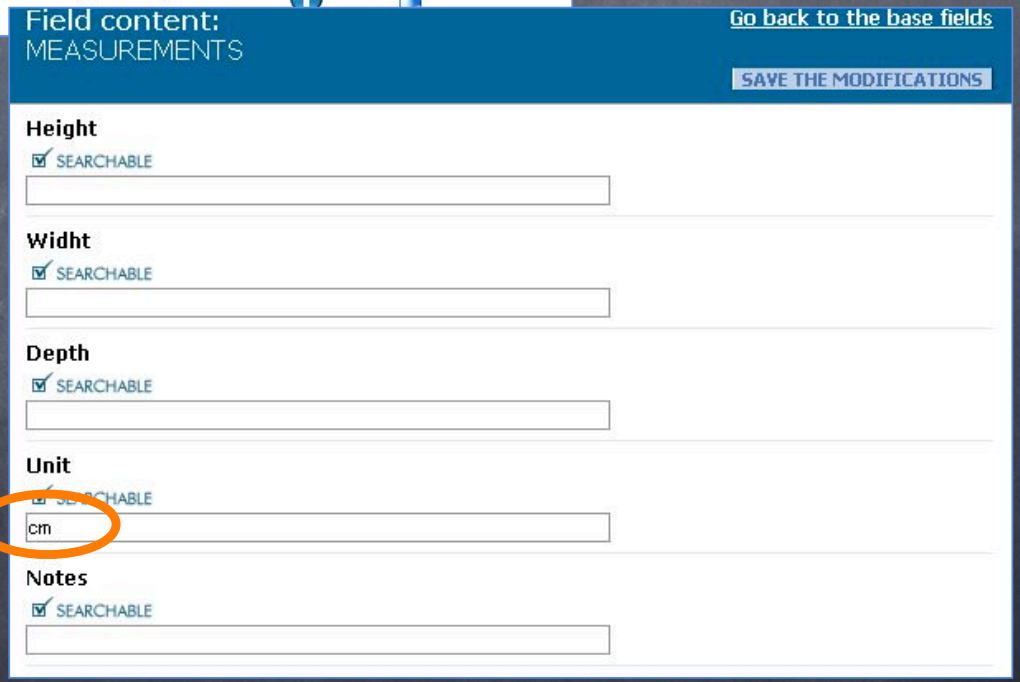


publisher interface

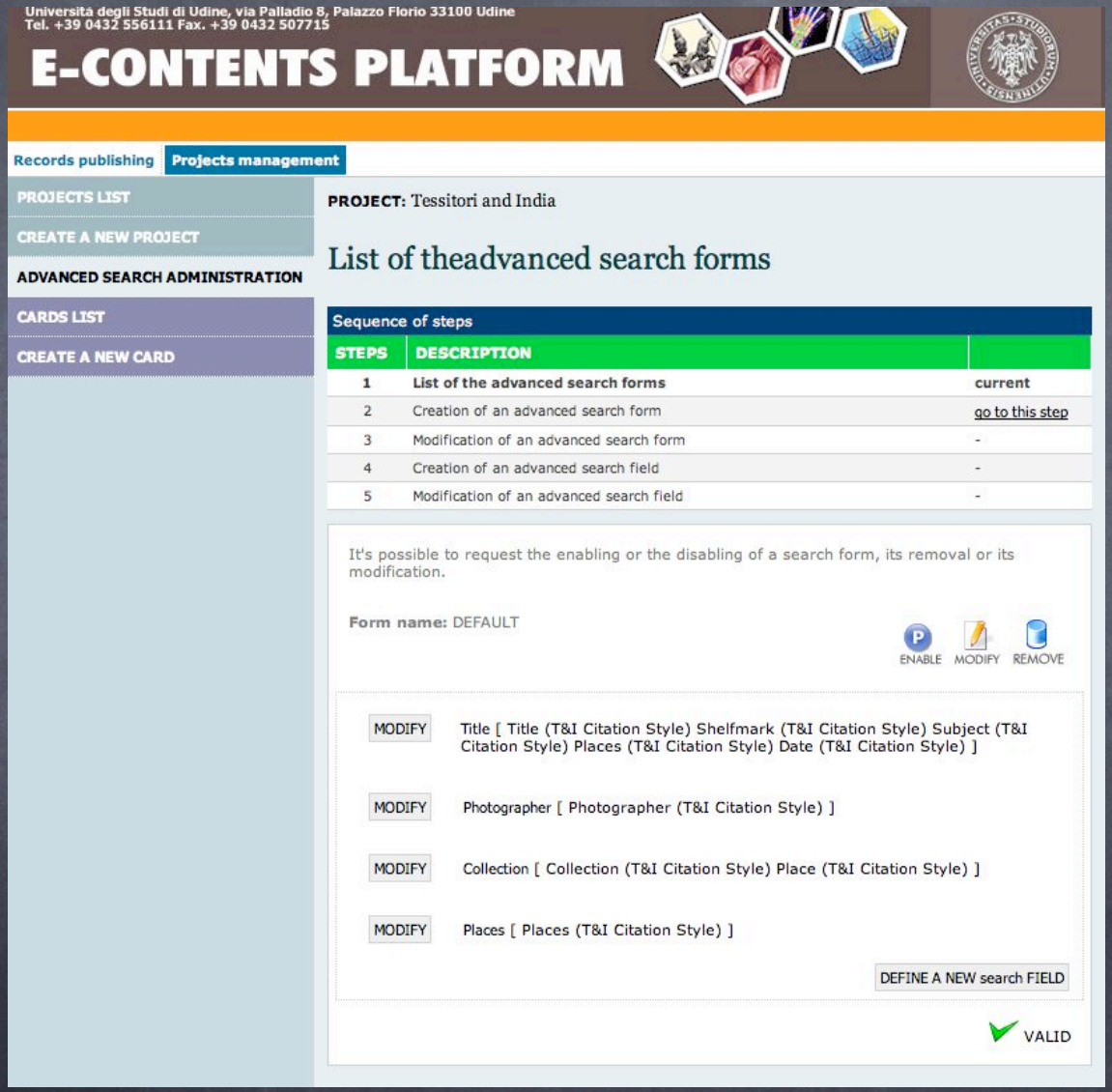


manager
interface

publisher
interface



default value


Università degli Studi di Udine, via Palladio 8, Palazzo Florio 33100 Udine
Tel. +39 0432 556111 Fax. +39 0432 507715
E-CONTENTS PLATFORM
Records publishing
Projects management
PROJECTS LIST
CREATE A NEW PROJECT
ADVANCED SEARCH ADMINISTRATION
CARDS LIST
CREATE A NEW CARD
PROJECT: Tessitori and India
List of theadvanced search forms
Sequence of steps
STEPS
DESCRIPTION
1 List of the advanced search forms current
2 Creation of an advanced search form go to this step
3 Modification of an advanced search form -
4 Creation of an advanced search field -
5 Modification of an advanced search field -
It's possible to request the enabling or the disabling of a search form, its removal or its modification.
Form name: DEFAULT
ENABLE
MODIFY
REMOVE
MODIFY Title [Title (T&I Citation Style) Shelfmark (T&I Citation Style) Subject (T&I Citation Style) Places (T&I Citation Style) Date (T&I Citation Style)]
MODIFY Photographer [Photographer (T&I Citation Style)]
MODIFY Collection [Collection (T&I Citation Style) Place (T&I Citation Style)]
MODIFY Places [Places (T&I Citation Style)]
DEFINE A NEW search FIELD
VALID

Final user interface

ICT for EU-India Cross Cultural Dissemination

E-Dvara

E-Content Platform for Heritage and Science

You are in: Home

What is an E-Contents Platform?

We analyze how to address portability of existing cultural dissemination assets such as Science and Heritage museums on a digital platform. In particular, we address the problem of e-contents for Science and Heritage popularization, i.e. of making accesible on the net the kind of experiences which can raise the awareness of the youngsters and the laymen in these areas. Special emphasis goes also in the direction of experimenting with existing solutions for enhancing digitally the fruition of cultural artifacts.

This platform is an archive of cultural and scientific contents in digital format. In particular it includes some samples from the Archeological Museum Hyderabad, Modern collection and more.

Access to archives

- L'archivio dell'indianista Luigi Pio Tessitori (1887-1919)
  L'archivio comprende il materiale fotografico e i documenti inediti dell'indianista Luigi Pio Tessitori conservati oggi a Reana del Rojale nella residenza del nipote dr. Guido Peano.
- Indian Contribution to the Formation of Modern Science - A Digital Library
  The project consists of a database with an annotated bibliography and a digital archive with transcriptions and images of relevant manuscripts from European and Indian libraries.
- Tessitori and India
  The main part of the project consists of materials from the archives of the Italian indologist Luigi Pio Tessitori (1887-1919) conserved at the "Vincenzo Joppi" Civic Library in Udine and at the residence of the Tessitori's nephew, Dr. Guido Peano, at Reana del Rojale.
- Birla Archaeological & Cultural Research

Virtual museum

Birla Archeological Museum

It is possible to access to the collections of the Birla Archaeological Museum and find several information about each item.

AVAILABLE SOON

Kurnool Museum

It is online the "Kurnool Museum" where you can find virtual experiments in several fields, including mechanics, optics, mathematics, etc.

AVAILABLE SOON

News

2 September 2005
Pune - Workshop on "IT for Industry, Education and Research" promoted by the University of Udine in collaboration with the Centre for Development of Advanced Computing (CDAC)

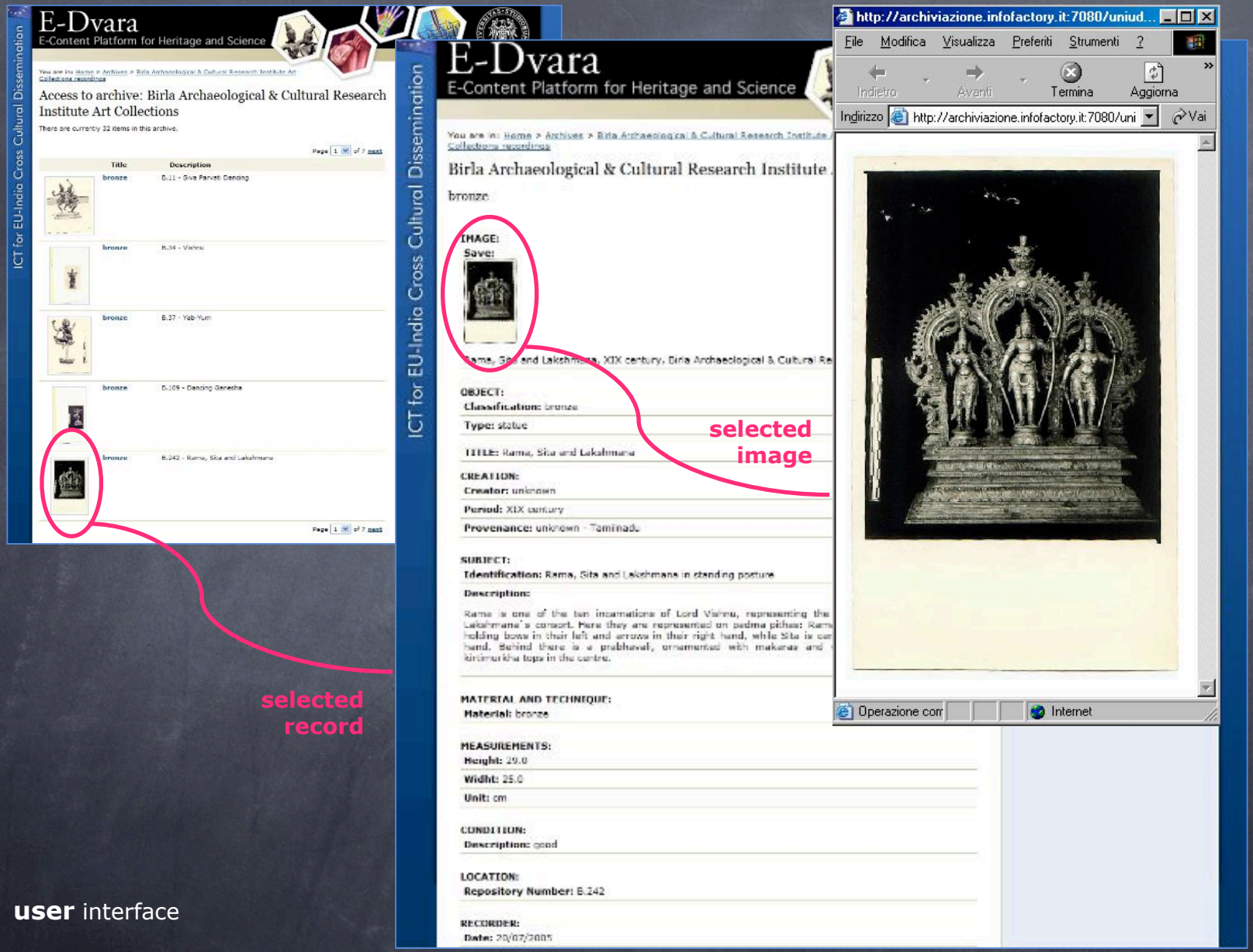
29-30 August 2005
Hyderabad - Workshop on "IT for Preservation of Cultural Heritage" promoted by the University of Udine in collaboration with the B.M. Birla Science Centre

1 July 2005
A new 3D virtual museum including the collections of the Birla Modern Art Gallery is under construction.

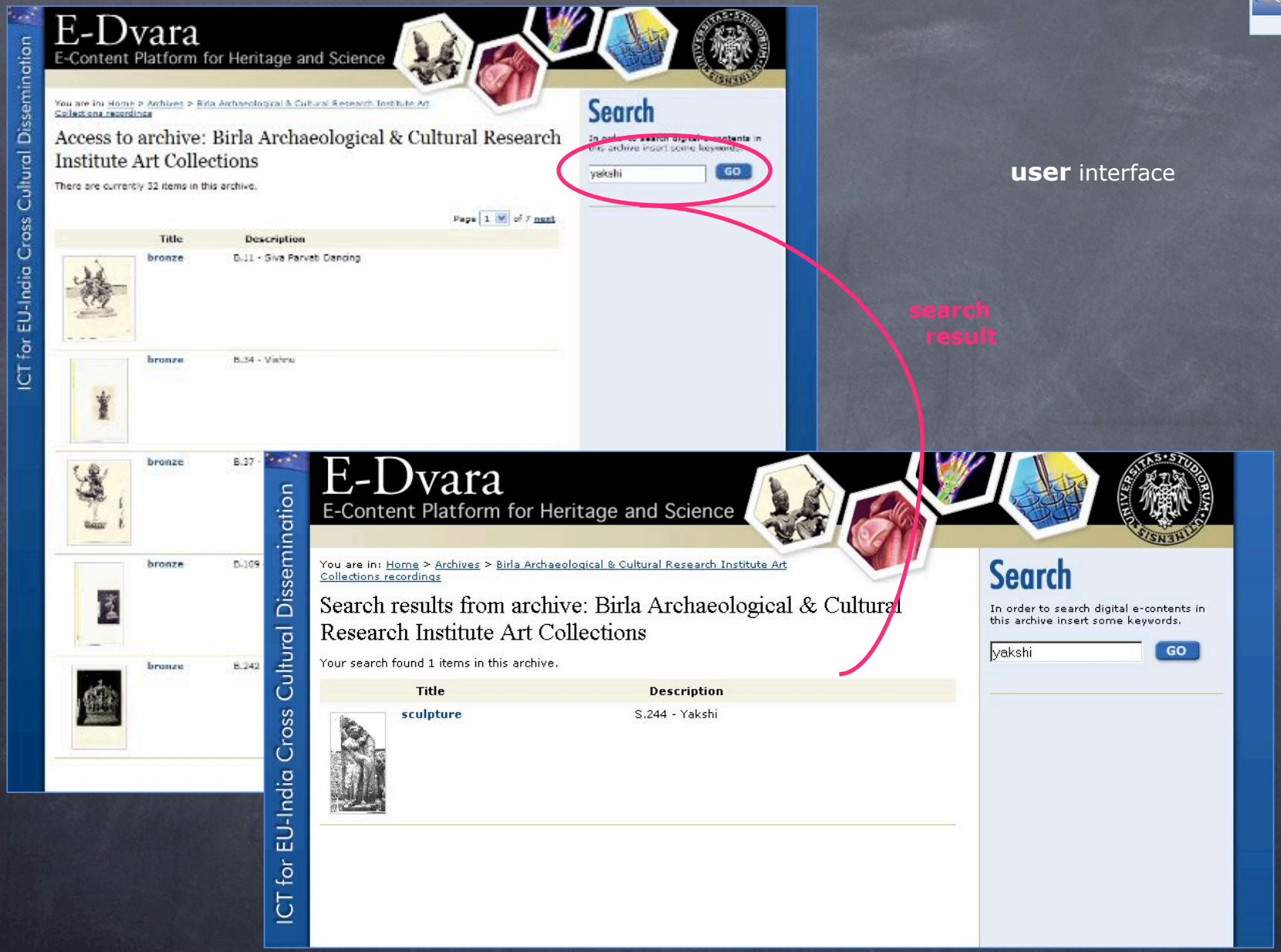
Link

- University of Udine
- LIDA University of Udine
- ICT for EU-India Cross Cultural Dissemination

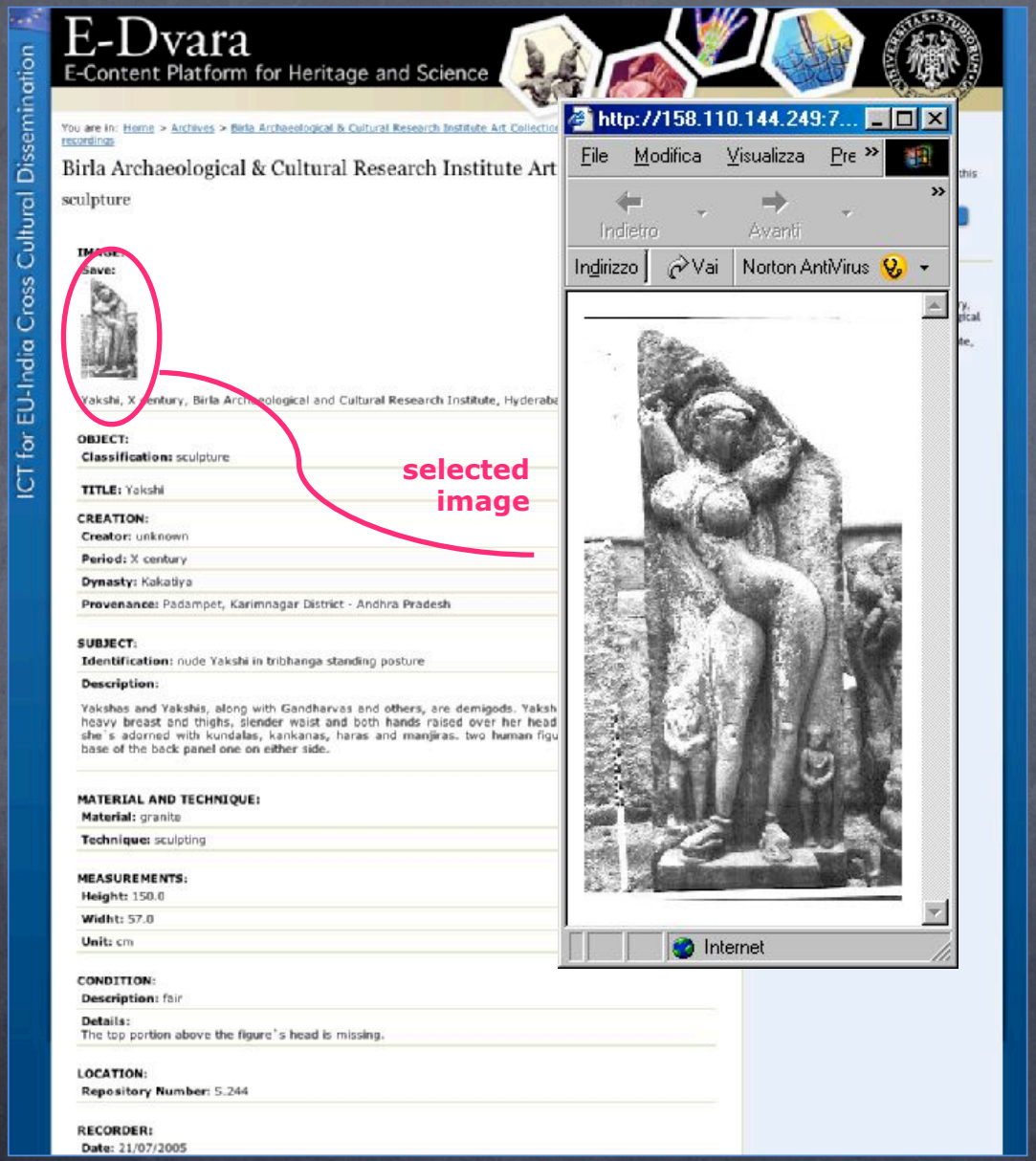
EU-India Economic Cross Cultural Programme



user interface



user interface



user interface

LIDA Digital Archive

http://archiviazione.infofactory.it/lida

Final user interface

Archivio digitale dei progetti LIDA

LIDA LABORATORIO INFORMATICO PER LA DOCUMENTAZIONE STORICO ARTISTICA
UNIVERSITÀ DEGLI STUDI DI UDINE

Sei in: Home > Archivi > Collezioni veneziane nell'età di Pietro Edwards documenti

Accedi agli archivi: Collezioni veneziane nell'età di Pietro Edwards

Ci sono attualmente 311 documenti in questo archivio.

Pag. 1 di 63 successiva

	Titolo	Descrizione
	Donà	Lazzerini
	Donà	Lazzerini
	Donà	Lazzerini
	Donà	Ricci
	Donà	Franco

Search

In order to search digital e-contents in this archive insert some keywords.

GO

Collezioni veneziane

keyword

Artista

Titolo

Soggetto

Proprietario

Pisani

Data del documento

Stimatore

Materiale

Numero di inventario

GO

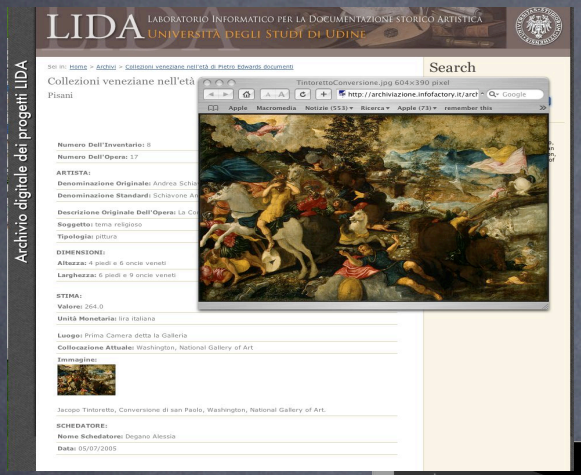
Conclusions

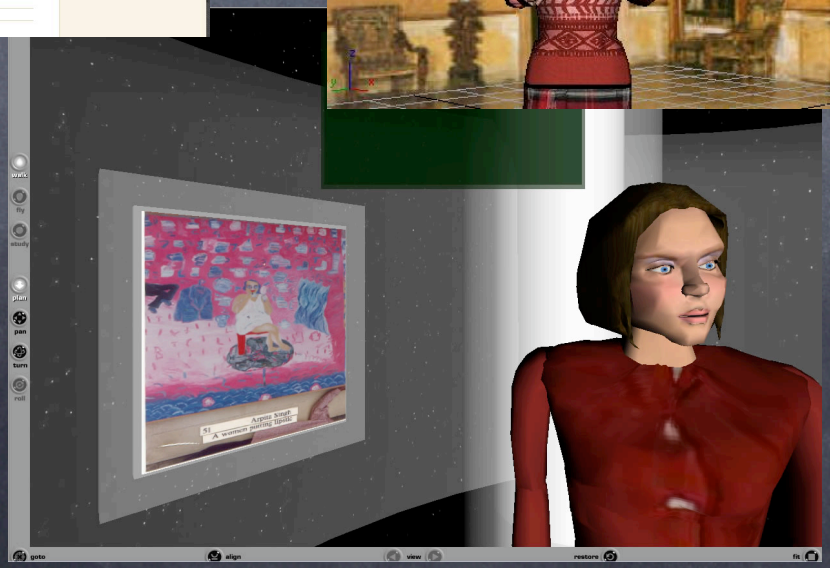
- The generalized approach allows to deal with the problem of storing materials of different nature
- The platform can be used in a personalized way according to the user needs
- Open to international standards of data definition

Current & Future Work

- Contribution of visitors
  - Save comments and info provided by users about items exposed in the digital library
  - Other visitors can read comments and write other opinions or provide other info
  - Rating presentation and contents
- Hands on museums
  - Physics, Computer science
  - virtual experiments (attachment of flash file)
- 3D & VR presentation of content

3D Virtual Museums





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