

Authoring Tools for an Academic Digital Library

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Introduction

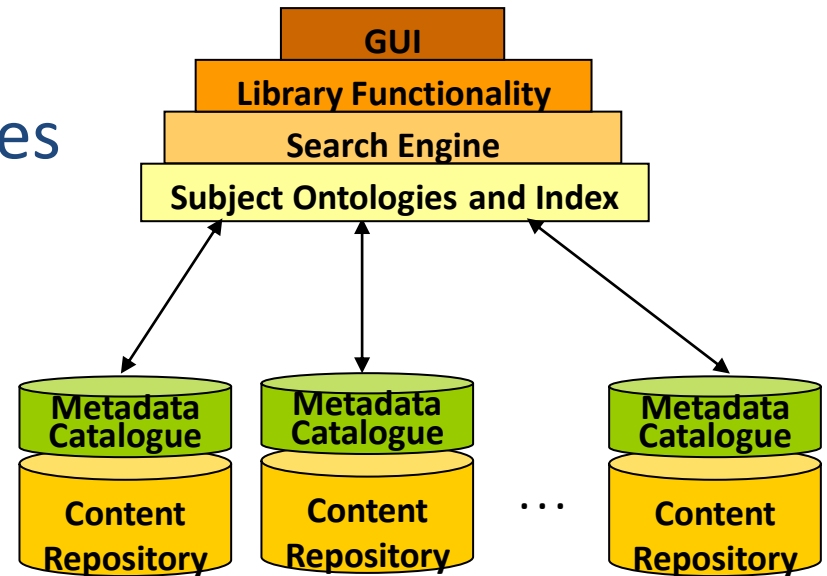
- **Digital library**
an online collection of information sources both managed by and made accessible to a community of users
- **Functions of academic digital libraries**
 - maintain and give access to academic information
 - provide effective knowledge management and discovery
 - encourage wide distribution of information at low costs
 - promote the needs and interests of a diverse community of users

Main Objectives

- To explore the architectural principles, user interfaces and search engines of the most popular academic digital libraries
- To study the various aspects of creation and integration of appropriate ontologies
- To define suitable metadata that supports the needs of a digital library
- To develop a proper framework that applies advanced information and Semantic Web technologies

Architecture of DigLib-CI

- Open access to various types of documents
- Metadata description
- Two subject ontologies based on the ACM curriculum
 - Computer Science
 - Information Systems



Resource Description

- 14 types of documents
- Attribute-based description in XML format
- A set of common attributes:
type, title, author(s), human and/or programming language(s),
digital format, location, date of creation, subject(s), semantic
annotation
- Consists of 2 equivalent parts in Bulgarian and
English

XML document description

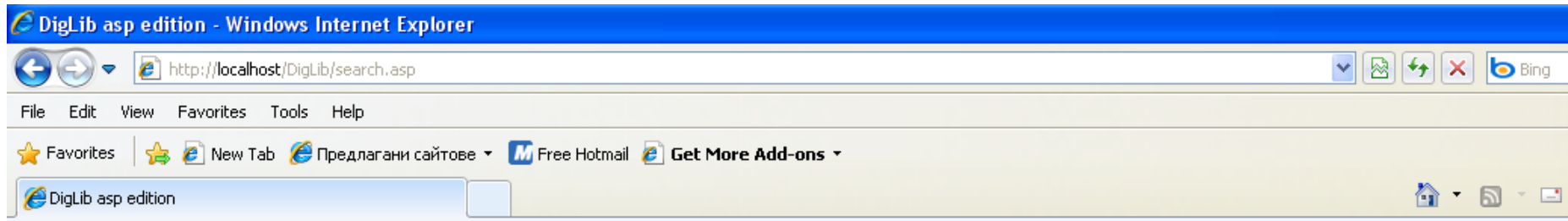
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- <authors>
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  <author>P. Pavlov</author>
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    <isbn>978-88-6134-326-6</isbn>
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    <proceedings_year>2009</proceedings_year>
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User Interface

- 4 types of users
 - Students
 - Lecturers and researchers
 - Library administrators
 - Guests

- Core functionality:
 - Search for documents
 - Create, edit and view document descriptions
 - Visualize ontology

Search and Retrieval of Documents



НАЧАЛО

ТЪРСЕНЕ НА ДОКУМЕНТ

ВИЗУАЛИЗИРАНЕ НА ОНТОЛОГИЯ

ПРЕГЛЕЖДАНЕ ОПИСАНИЕ

ДОБАВЯНЕ НА ОПИСАНИЕ

РЕДАКТИРАНЕ НА ОПИСАНИЕ

ИЗТРИВАНЕ НА ОПИСАНИЕ

намери

Търсене:

- пълно търсене
- чрез онтология
- по ключови думи
- по автор

Език:

- Български
- Английски

Тип документ:

всички

Подреждане на
резултата по:

- Заглавие
- Автор
- Категория
- Дата на добавяне

Create and Edit Document Descriptions

ТЪРСЕНЕ НА ДОКУМЕНТ

ВИЗУАЛИЗИРАНЕ НА ОНТОЛОГИЯ

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ДОБАВЯНЕ НА ОПИСАНИЕ

РЕДАКТИРАНЕ НА ОПИСАНИЕ

ИЗТРИВАНЕ НА ОПИСАНИЕ

статия

Български

Заглавие:

Предмети:
[Добави предмет](#)

Онтологии:
[Добави онтология](#)

Автори:
 X
[Добави автор](#)

Име на файла:

Формат:

Сборник с трудове X

Заглавие:

ISBN:

Издавателство:

Година:

Страници:

Редактори:
 X
[Добави редактор](#)

[Добави периодично издание](#)

Понятия:
[Добави понятие](#)

Ключови думи:
 X
 X

English

Title:

Subjects:
[Add subject](#)

Ontologies:
[Add ontology](#)

Authors:
 X
[Add author](#)

File name:

Format:

Proceedings X

Title:

ISBN:

Publisher:

Year:

Pages:

Editors:
 X
[Add editor](#)

[Add periodical](#)

Ontology references:
[Add ontology reference](#)

Keywords:
 X

Conclusion

- Goals achieved:
 - A functional model of an academic digital library was proposed
 - A prototype of DigLib-CI was developed
- The suggested solution offers semantics-oriented access to library resources
- The key to success - adequate catalog metadata and design of proper UI

Thank you for your attention

