

 OPAALS	OPAALS PROJECT Contract n° IST-034824
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WP9: Communication and dissemination

D9.18 - OKS tags input

 Information Society Technologies	Project funded by the European Community under the "Information Society Technology" Programme
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Contract Number: IST-034824

Project Acronym: OPAALS

Deliverable N°: D9.18

Due date: February 2010

Delivery Date: May 2010

Short Description: User input to an initial tagging system for an OKS

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Partners contributed:

Made available to: IPTI, TUT, UniS

Versioning

Version	Date	Name, organization
1.0	01/02/2010	Neil Rathbone, LSE
1.1	08/03/10	Neil Rathbone, LSE
1.2	25/05/2010	Neil Rathbone, LSE

Quality check

Internal Reviewers: Ossi Nykänen, TUT; Anne English, LSE

Dependences:

Achievements*	A simple system of initial tags has been proposed that may be incorporated into an OKS
Work Packages	<p>This work has been informed by M10.10 'OKS Data Model, version 1.01'</p> <p>http://wiki.opaals.eu/moin/M10.10_OKSDataModel/OKS-DM_spec_v1_01?highlight=%28M10.10%29</p> <p>It also draws on the work done to establish a DE Glossary.</p> <p>It will act as input to the development and operation of the OPAALS OKS.</p>
Partners	IPTI, TUT, UniS
Domains	N/A
Targets	Partners involved in OKS development
Publications*	N/A
PhD Students*	N/A
Outstanding features*	N/A
Disciplinary domains of authors*	Neil Rathbone, LSE, communication and dissemination support for OKS.

The information marked with an asterisk () is provided in order to address Recommendation n. 4 from the Year 2 review report*



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Introduction

The objective of this deliverable is to provide, from the OPAALS experience of various phases of constructing an OKS, a user perspective on a tagging system that could be a useful basis for any OKS. The purpose of such a system is to provide formal metadata that can be used to search, extract, arrange, and visualise content in an appropriate way, but which is simple and intuitive to the user.

The proposed method is to add meta tags to content within the OKS – ideally via some simple tag selection process, and wherever possible, to do this automatically. The use of tags will enable the correct content to be selected for wider publication, and for it to be published at the appropriate time and in the appropriate place and format.

It is important to have a system that is:

- 1) Accessible/readable by computer programs
- 2) Accurate and sufficient in capturing the context where the data was produced
- 3) Systematically follows some de facto standard

The proposed reference standard is the Dublin Core Metadata Initiative (DCMI) (<http://dublincore.org>). However, it is our view that the full set of attributes demands too much of the user, and is more fine-grained than is necessary. We have thus followed the principles and where possible the terms of the DCMI, while at the same time simplifying or adapting for our envisaged use.

There are several technical methods by which a tagging system could be implemented. The greatest challenge is to devise a method that is easily understandable and usable by content providers, and to set up the inputting of content so that users cannot ignore the need to enrich it with formal metadata.

The following is the input of WP9 to the proposed tagging system, in terms of a typology of content that will have the quality of simplicity for content publishers, but at the same time provide a richness and relevance for selection and user presentation. This is not intended as a technical or research document, but as an end-user perspective.

This is a simple initial structure to commence tagging an OKS while the volume of data is small. It can be developed as usage progresses and users can see where the needs lie in terms of knowledge from the information actually in the OKS.

What follows is a proposal for specific tags in order to provide a structural specification for the system. The specification is by nature extensible as additional terms could be added to each metadata type. Except in the case of the content element tag, the tags are intended to apply to 'units' of content as accepted by an OKS. So, for example, a document, or a page element of content would be tagged upon submission to the OKS.

Proposed tags

Access identifier

A compulsory tag to clearly identify if this content can be visible outside the registered user of an OKS or not

Tag name	Tag Content
AccessRights	Public
	Restricted

Subject type identifier

This applies to the whole of the content 'unit' in order to place it in the right location or context within the web site.

Tag name	Tag Content
SubjectType	Announcement
	News
	Event
	Report
	Article

Content element identifier

This tag can be inserted in-line with specific parts of the content in order to act like display tags. This enables not only formatting, but also selection by this tag. For example one instance of the content may comprise a list of headings alone, while another may comprise heading and summary with a link to the full content.

Tag name	Tag Content
ContentElement	Title
	Abstract
	Content
	Contact

Dates and ownership

These are designed to enable archiving, sorting, and 'embargoing' of content. The content can be entered on the system at any time, but the dates tags determine when it is displayed and when it is automatically retired so that, for example, past events are not promoted as 'news'. Date created can be an automatic system parameter, beyond the user's control, while attributes such as expiry date can be defaulted if the user does not specify a date.

Tag name	Tag Content
DateCreated	[date in defined format]
DatePublish	[date in defined format]
DateExpire	[date in defined format]
DateEvent	[date in defined format]
RightsHolder	[OKS User Name]

Themes and relationships

At a first simple level of thematic classification we should use a one-dimensional list of subjects that relate to Digital Ecosystems. Similar to the 'metadata' tag in HTML, this 'Primary Themes' could ideally come from industry standard classifications, but we would favour either a sub-set of these, or a specific Digital Ecosystems list in view of the unusual combination of technology, economics, social science, and other aspects that form a collection of disciplines that inter-relate uniquely around Digital Ecosystems. Such a system might even be derived from the work already commenced on a DE glossary.

At the second, more innovative level of classification the 'Relationship' tag builds on the concept of an OKS data model outlined in M10.10. We have used the simplest 'triple' model of subject-predicate-object as described in the DCMI RDF model. As the subject in this circumstance is always the object being tagged, it can be automatically provided as a URI at system level, leaving the user to simply identify the URI of the 'external' object and to choose from a series of system predicates the one which applies. In this simple, bounded structure, the range of predicates is the key semantic variable and is extensible. Each 'triple' describes only one relationship, thus complex multiple relationships would be described by making several such statements about the object. In future it may be possible to interlink triples into a richer semantic language, but this is too ambitious as a starting position without substantial tagged data available.

Tag name	Tag Content
Subject	[Multiple words with a separator character]
Relationship	[subject(auto generated)-predicate-object] (from DCMI)

Conclusion

Within a few simple and relatively quick processes it is possible, using a combination of automatically generated metadata and user input, to enrich OKS content in order to provide the structuring necessary for functions such as searching, display, and visualisation. This deliverable sets out a proposed structure from a user perspective, taking into account the current state-of-the-art in metadata standards, and the specific needs and capabilities of an OKS user.