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knowledge organization and representation

Academic Year: (2019 / 2020) **Review date: 16-05-2020**

Department assigned to the subject: Library and Information Sciences Department

Coordinating teacher: SAN SEGUNDO MANUEL, ROSA

Type: Compulsory ECTS Credits : 6.0

Year : 1 Semester : 2

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

There aren't prerequisites

OBJECTIVES

TEI students at the end of the course must know:

Structure knowledge through taxonomies

Know the main classification and indexing systems

Description with metadata

Linked Open Data and Linked Open, Resource Description Framework Standards: RDF and RDFs

Management of descriptive logics for the creation and reasoning of ontologies

To know the functions of the labels and collaborative actions. Relational and automatic semantic processing

Use and apply the techniques, standards and other instruments used in the representation of electronic information for recovery by subject matter.

Distinguish and evaluate the characteristics and uses of different content representation vocabularies (taxonomies, thesauri, ontologies and others) and choose the most appropriate for each type of information or electronic information services -

Know and select the appropriate international standards for the creation of vocabularies.

Develop controlled vocabularies: classification systems, alphabetical headings, functions, ensure consistency and updating and draft user manuals for use.

Manage specific software ontologies, taxonomies and other vocabularies.

Analyze, advise and train producers, users and customers of digital information services, in relation to the treatment and thematic recovery of their information.

Use computer tools for the implementation, development and exploitation of semantic-based information systems that allow the processing and retrieval of human knowledge.

DESCRIPTION OF CONTENTS: PROGRAMME

knowledge organization and representation

Topic 1. Organization of knowledge
    1.1. Concept of organization, taxonomies
    1.2. Data, information, knowledge, metadata

Topic 2. Internet classification systems: alphabetical, systematic
    2.1.Sistema of Classification
    2.2. Subject Headings and Thesauri

Topic 3. Representation of Knowledge: Descriptions.
    3.1.Semántica
    3.2.Metadatos
    3.3.Interoperability Linked Open: linked data
    3.4.Estandards of languages ¿¿and metadata: OWL, RDF
    3.5. Descriptive Logics: Ontologies.

Topic 4. Collective representation of knowledge
    4.1.Labelled Collaborative
    4.2. Folksonomies

Topic 5. Automatic representation and processing of knowledge
    5.1 Logic
    5.2 Automatic Processing

Unit 6. Knowledge Organization Systems, SKOS
    6.1 Types
    6.2. Relations

LEARNING ACTIVITIES AND METHODOLOGY

1. TEACHING METHODOLOGY

1. 1. THEORETICAL CLASSES. In them will be exposed subjects related to the subject. All of them will be accompanied by clear examples.

1.2. PRACTICAL CLASSES. Practical exercises will be done, corrected in the classroom and also through a global classroom

1.3. FORUM OF DISCUSSIONS. A global classroom discussion forum will be held for each of the six themes

ASSESSMENT SYSTEM

EVALUATION OF THE SUBJECT

Evaluation continues 40%:

Practical activities: The weekly practices should be carried out, individually, by all the students. Practices and participation in discussion forums. It will have an impact on the final grade of 30%

The theory questionnaires, 10%

Final evaluation 60%:

Final exam, 60%

To pass the subject will be necessary, to pass the final exam

% end-of-term-examination:	60
% of continuous assessment (assigments, laboratory, practicals…):	40

ADDITIONAL BIBLIOGRAPHY

 - Mathes, Adam   Folksonomies. Cooperative Classification and Communication Through Shared Metadata, http://www.adammathes.com/academic/computer-mediated-communication/folksonomies.html, 2004