Integration and Open Access System Based on Semantic Technologies:
A Use Case Applied to University Research Facet

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ABSTRACT

The aim of this work is the development of an information system that, by integrating data from different sources and applying semantic technologies, makes it possible to publish and share with society the scientific production generated in the university environment, promoting its dissemination and thus contributing to the knowledge society, among others. In practice, this is the implementation of a CRIS (current research information system). This CRIS presents advanced features. On one hand it applies semantic technologies, providing a query service through a SPARQL Point, besides the reuse of shared data by exporting them in different formats. In this sense, it is also based on a European ontology or semantic standard such as CERIF, which facilitates its portability. On the other hand, CRIS also presents an alternative to the lack of a single data system by allowing data from different sources to be integrated and managed.

KEYWORDS:

CRIS (Current Research Information System), RIM (Research Information Management), CERIF (Current European Research Information Format), SPARQL Point, Ontology, Open Data, Information integration

INTRODUCTION

The University is entrusted with two main tasks, teaching and research. In fact, the fundamental nucleus of its staff is defined as TRS or Teaching and Research Staff.

As non-profit organizations, universities play a key role in society. Specifically, and in relation to their research facet, the field to which this paper refers, they have almost the duty to be accountable to society by sharing with it the results of their research and scientific production. Its aim is to contribute to social and scientific progress and, in short, to the knowledge society. Within the university, university libraries should be considered as fundamental agents involved in the protection and dissemination of the research carried out in the institution. In fact, this work has been developed in the academic environment by a multidisciplinary team made up of staff from the library and technological fields within the University.

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