Empowering the access to public procurement opportunities by means of linking controlled vocabularies. A case study of Product Scheme Classifications in the European e-Procurement sector.

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Abstract

This article introduces a method to promote existing controlled vocabularies to the Linked Data initiative. A common data model and an enclosed conversion method for knowledge organization systems based on semantic web technologies and vocabularies such as SKOS are presented. This method is applied to well-known taxonomies and controlled vocabularies in the business sector, more specifically to Product Scheme Classifications created by governmental institutions such as the European Union or the United Nations. Once these product schemes are available in a common and shared data model, the needs of the European e-Procurement sector are outlined to finally demonstrate how Linked Data can address some of the challenges for publishing and retrieving information resources. As a consequence, two experiments are also provided in order to validate the gain, in terms of expressivity, and the goodness of this emerging approach to help expert users to make decisions

on the selection of descriptors for public procurement notices.

1. Introduction