Impact and visibility to the Scientia repository: technical implementations

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Introduction

Scientia is a DSpace-based institutional repository created in 2015 as an open access digital platform of scientific literature produced by researchers and professionals of the Catalan health system. One of the goals of Scientia is to maximize the visibility and impact of scientific and technical open access literature produced by institutions and centers of the public health system towards society.

The object of this work is to analyze the technical implementation of two new tools: 1) an API (application programming interface) that allows the automatic inclusion of descriptors in English and Spanish in the registers. 2) a statistical module to facilitate the quantification and impact of research on social networks.

Methods

API’s implementation for the automatic inclusion of descriptors

To increase the quality of document description, controlled terms MeSH (Medical Subject Headings) in English, and DeCS (Descriptores en Ciencias de la Salud) in Spanish have been incorporated into the description of records. This implementation has two parts:

1. Metadata structure to introduce

   | Name of descriptor used to determine which descriptor is clicked |
   |-------------------|-------------------|
   | Full path to descriptor: value saved to metadata 'dc.subject.decs' |
   | Internal ID of descriptor unique identifier to know which data information we must show in the help window |

2. Module support and help about MeSH and DeCS terms

Altmetrics’ implementation

The implementation on the Scientia DSpace platform was carried out integrating embedded badges from Altmetrics to our item’s page to show the relevancy of the document measured in the number of occurrences in social networks and blogs mainly. Altmetrics fetches basic altmetrics information on articles and datasets and to use that information.

Results

Automatic inclusion of descriptors

This API allows librarians to interrogate the system, and obtain the most actual version about these terms, eliminating also ambiguity in terms, wrong relationships or typographical errors.

For users, this integration allows to have descriptors in different languages.

Altmetrics tool

Incorporating Altmetrics facilitates the quantification and analysis of the impact of social media on scientific activity deposited in Scientia, always providing updated data and a more global concept of the impact of publications.

Conclusions

Open access and the digital revolution has transformed the way of accessing and disseminating scientific research. Controlled vocabularies in English, Spanish and Catalan facilitate the dissemination worldwide of documents deposited in the repository and registers can be recovered in more than one language. The paradigm of scientific communication has changed considerably, and for this reason repositories are increasingly looking to achieve excellence not only in content but also in dissemination.

References