Enhancing Content Visibility in Institutional Repositories: Overview of Factors that Affect Digital Resources Discoverability

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Institutional Repositories (IR)

IRs provide long-term sustainable storage, preservation and open access, and serve as tangible indicators of an institution’s efforts toward research and scholarship, thus increasing its visibility, prestige and value. In addition, IRs reform scholarly communication by stimulating innovation in a disaggregated publishing structure (Crow, 2002).

In light of the continually evolving information environment and user needs, digital curators need to promote IR use, maintain consistency and participate in the creation of and adherence to national/international standards and institutional-specific policies. Adoption of Open Access Repository has been growing worldwide (see Figure-1). Open standards enhance interoperability between different IR software platforms (see Figure-2) and online search engines to index metadata elements consistently and offer effective search capabilities.

Introduction

New digital technologies increased the productivity of scholars. The purpose of an Institutional repository (IR) is to manage their scholarly work in ways that facilitate interdisciplinary collaboration, and accelerate the pace of discovery and innovation. Academic institutions have increasingly recognized that IRs are a vital part of the scholarly dissemination infrastructure. The goal of an IR is essentially to collect, preserve, and make persistently accessible a variety of scholarly materials. This poster explores digital curation activities that enhance the visibility of IR in an ever-changing digital landscape.

Ways to Increase Content Visibility in IRs

In order to maximize visibility of digital resources, it is critical to have metadata that complies with standards, both in its completeness and its adherence to metadata creation standards. Regardless of the repository software, metadata consistency plays a key role in describing and managing digital objects. Although there are a number of contributing factors that affect digital resources visibility in IRs, it is the rich metadata that is consistently encoded that makes the digital items more discoverable.

References


Metasearching

Metasearching is the process of metadata being searched. IR systems need to be able to support interoperability in order to provide access via multiple search engines. Metasearching enables connections to multiple resources. In cases when the IR does not supply a standards-compliant database server there are two alternative access methods that can be used illustrated in Figure 3; a proprietary gateway or HTML parsing (Dorman, 2008).

In addition to these factors the visibility of digital items in an IR depends on consistency in local practices, the quality and richness of the descriptive metadata that content providers and digital curators provide.

Summary

Figures:

Figure 1: Growth of the OpenDOAR Database (like IRs, Institutional Repositories) 2003-2012

Figure 2: Three possible search flows of open metasearching

Figure 3: Three possible search flows of open metasearching

Online Search Engines

Search engines are the most popular way users search for information; they account for 88 percent of users’ search time when they are looking for information (Bifet and Castilho, 2005). Web crawlers harvest metadata and other information about online objects and send that information back to the search engine. Algorithms analyze the harvested data and decide whether or not to add the metadata to the search engine’s index. Google and Yahoo treat XML-based metadata with language-based tags (like DCXML) and without language-based tags (such as MARCXML) in the same way, and that all metadata elements of the MARCXML and DCXML standards are compatible with the Google and Yahoo indexing software (Taheri and Hariri, 2012).