An Implementation of Technical Revision in DSpace Allowing Open Educational Resource Browser Access

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Abstract

This work shows how the DSpace software was changed to create the technical revision step in the workflow submission of the Open Educational Resources (OER) community in Lume – Digital Repository of UFRGS. The main goal of technical revision step is allow access the OER directly on browser. OER installation is not required.

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- ☐ Developing and Training Staff
- ☐ Building the Perfect Repository

Keywords

Open Education Resources, DSpace, Digital Repositories

Audience

Repository managers, developers, librarians.

Background

Due the technological improvement, also the resources to produce educational materials evolved. Currently it is possible create interactive materials which can be used in classroom or in distance

learning. Because of the importance of sharing this education materials, allowing its dissemination and reutilization, including its source code, it became necessary to include the Open Educational Resource (OER) community in Lume. Lume[1] is the Digital Repository of UFRGS and was implemented in 2008 using DSpace[2] - Institutional Repository System. Its purpose is to preserve, disseminate, and increase the use and visibility of documents produced by the University that are preserved due their scope and/or historical characteristics.

Presentation content

The main challenge to include the OER community in Lume was allow its access on browser already at DSpace revision step. In order to make it possible, the technical revision step was created. The resulting workflow is described bellow:

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Submission -> **Technical revision** -> **Final revision** -> **OER available**

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The goal of each revision step is:

    * **Technical revision**: the technical reviser inspects if all the items needed to OER publication were included in the submission, such as metadatas, installation instructions, source code of OER. He checks if the OER is self-contained, i.e. if the external links are in reference formats, to allow find the content of broken links. Finally, he installs the OER on a dedicated server and adds the link to on-line access of the installation in the item's metadatas. Initially, this dedicated server provide PHP and database support, according to a survey of the prerequisites to the OER installation. It was necessary modify the JAVA and XMLUI of theme to implement the technical revision step in DSpace.

    * **Final revision**: once the technical revision is concluded, the final reviser doesn't need to install the OER, it can be accessed on browser. This reviser is responsible for evaluate the consistency and pertinence of OER's content.

After the steps of review, when the OER is available in Lume, the link to its installation remains in the metadata, allowing the end user also preview the OER, without the need to install it.

This report can be interesting to all the people involved in the manager and maintenance of repositories, it shows how it is possible provide access to OER directly on browser.

We intend to show in the poster a visual presentation of the submission workflow, explain its steps and where the source code of DSpace was modified, as well as describe the hardware and software resources provided by dedicated server.

Conclusion

In order to make OERs quickly available and more easily accessed in Lume, the technical revision step was included in its submission workflow. At this step, the technical reviser verifies the OER's technical properties and includes a link to its installation on-line access. Thus, the other reviewers can access it without the need to install it, using only the browser, streamline the submission process. This implementation also offers an OER's preview to the end users, facilitating the access and evaluation to its utilization. In this way, we intend to make Open Educational Resources as accessible as possible.

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[1] Lume, Digital Repository of Federal University of Rio Grande do Sul, http://www.lume.ufrgs.br
[2] DSpace Institutional Digital Repository System, http://www.dspace.org