

Open Educational Resources: An Integrated Process of Continuous Resource Transformation

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Abstract

The session will describe a teaching and learning network whose purpose is to facilitate collaboration in the creation and adaptation of freely available open educational resources (OER). The session will discuss how the project, OER Commons, allows users to find materials more easily and also engages users through social networking activities. A project of the Institute for the Study of Knowledge Management in Education, OER Commons enables users to tag, review, share portfolios and participate in collaborative forums to provide users with a dynamic environment for searching, saving, and annotating while enabling them to actively modify and improve the resources. The underlying philosophy of this work is an understanding that OER is a process of continuous resource transformation—facilitated by social networking tools—that involves users at many levels of engagement. Thus, teachers, instructors, students, and others should be able to share their classroom experiences, teaching or learning strategies and other knowledge to provide a context for others to build upon. This means that new instructors, non-domain experts (such as parents), student learners, and seasoned practitioners have access to notes and recommendations for use, related resources, reviews and quality assessments. It is a model that allows users to add context to content, transforming educational resources from isolated materials into an integrated process of resource improvement and dynamic learning.

Keywords: OER, open educational resources, collaboration, user engagement, social networking, process, user-generated context

Introduction

It has been apparent for some time that engaging instructors and students in interactive discovery and problem solving can help students internalize learning more effectively than simply having instructors impart knowledge in a one-way flow of information. However, it is only now through advances in technology that participatory discovery and knowledge sharing among instructors, and between instructors and students, can truly impact the teaching process itself. For example, advances in information technology, open source, and collaborative virtual environments offer new ways to engage teachers and learners in interactive environments and networks.

OER Commons, which was developed in order to stimulate the development of a teaching and learning ecosystem that thrives on interaction, participation and knowledge sharing, aggregates open educational resources (OER) within a social networking

environment. OER are defined as teaching and learning materials (complete courses, homework assignments, lesson plans, labs, etc.) that are freely available for instructors and students to use, modify, adapt and localize to meet their needs. OER have been developed in large part to make access to education and knowledge more equitable. Although OER are now available on hundreds of web sites around the globe, these free resources have not, until now, been connected effectively for engagement around learning.

OER Commons aggregates existing OER and helps to open new resources within a network that allows teachers, students and self-learners to find materials more easily, but more importantly, to engage users around their development and improvement. OER Commons offers an easy way for instructors, students, and others to attach to each educational resource their classroom experiences, teaching or learning strategies, and other knowledge—providing important context for others to build upon. This means that new teachers, non-domain experts (such as parents or others), student learners, and seasoned practitioners have access to shared techniques, notes and recommendations for use, related resources, reviews and quality assessments of OER materials. By discussing these features and their importance, this session can serve to enlighten the discussion on expanding access to and increasing collaboration in the development of open educational resources.

OER Commons: Continuous Resource Transformation

OER Commons facilitates the use and continuous transformation of aggregated resources by providing a single point of access through which users can search, browse, evaluate, download, and discuss open educational resources. Furthermore, OER Commons expands opportunities for users to develop and submit high-quality content for others to use and localize, and broadens opportunities for users to exchange information about, create standards for, and otherwise define, improve and evaluate the quality of open educational resources available on the Internet. Through social networking features such as these, OER Commons aims to provide teachers and learners across the globe the opportunity to explore and learn through the sharing of open educational resources. Together with its users, OER Commons builds a collective knowledge base online about educational materials and their use from which all educators and learners may benefit. Highlights include:

- Access to teaching and learning content across collections and institutions: From its all-in-one-place model for content aggregation, instructors, students, self-learners, researchers, and administrators all have access to a free and constantly updated network of resources and practices. OER Commons offers an easy way to stay up-to-date on new education content and breakthroughs.
- Support for individualized teaching and learning: Through access to thousands of resources and to teaching and learning strategies from other users, educators can find new classroom content to use and adapt to suit individualized needs. Schools and faculty gain new freedom to find, use, and customize resources to meet the needs of their own students. Teachers and home-school families can build and improve their lessons from trusted sources and other like-minded peers.

- Peer collaboration among teachers and professors at all levels: Communities of practice within and across disciplines are supported by the OER Commons network through user contributions, which include: tags, ratings, reviews, and notes; shared portfolios of favorites and related resources; discussion postings on topical issues; blog comments; wiki project additions; site surveys and results; and user submissions of new resources and updates. All of these features build peer-to-peer links across the international OER landscape.

- Knowledge sharing improves teaching practices as well as resources: Instead of the all-too-often isolated instances for knowledge sharing among educators, precious classroom experience and teaching strategies can be attached to educational resources themselves through the OER Commons network. New teachers, non-domain experts, learners, and seasoned practitioners now have access to shared techniques, notes and recommendations for use, related resources, reviews and quality assessments—all from those who contribute to the OER Commons knowledge base.

- Open source and open content together offer a customized user experience: Built using open source technologies, OER Commons was created to be a versatile environment that can quickly integrate technological and community-inspired innovations. The latest in open source technologies, combined with open licensing frameworks such as Creative Commons, are bringing new kinds of accessibility to education materials and knowledge. For instance, choices about favorite content can be saved and re-used for future searches or shared with others. Tags, or a user-created vocabulary terms, make content in OER Commons easier to find. In this environment, contributions from users really make a difference, as they serve as a bottom up way to help other, future users search, use, and reuse content.

Conclusions

The participatory and creative nature of teaching and learning will require that OER dynamically evolve, and that continual improvement by practitioners is created, captured, tracked, translated, and folded back into the larger system to maintain a useful infrastructure. While traditional curriculum development approaches define quality through peer review by experts—a top-down approach, the OER Commons model is a combination of top-down and bottom-up approach, using content from trusted providers who have internal quality vetting in place, but allowing users to provide ratings, reviews, and tags. OER Commons has demonstrated that it is an effective pipeline for open content distribution and modification. It is a model that allows users to connect content to context, and transforms educational content from isolated materials to an integrated process of resource improvement. Thus, through an iterative process of involving content creators, practitioners, and learners, educational content is enhanced by adding new context, which may be in the form of entirely new derivative works and resources.