Open Educational Resources: Inquiring into Author Reuse Behaviors

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Abstract. For teachers and learners, the proliferation of open educational resources (OER) in combination with advances in information technologies has meant centralized access to materials and the possibility of creating, using, and reusing OER globally, collaboratively, and across multiple disciplines. Through an examination of a community of author users of the OER portal Connexions, this article explores OER reuse behaviors and factors contributing to and hindering those behaviors. As such, the article sheds light on how OER can be sustained and continuously improved, with an emphasis on the reuse of dynamic, relevant, and high quality materials over time.

Keywords: open educational resources, OER, reuse, Connexions, log file analysis.

1 Introduction

Open educational resources (OER) have gained increased attention for their potential to obviate demographic, economic, and geographic educational boundaries—in short, for their ability to serve as an equitable and accessible alternative to the rising costs and increased commercialization and privatization of education (Ishii & Lutterbeck, 2001). Pushed along by early initiatives such as the Massachusetts Institute of Technology's open courseware collection and by advocacy for other institutions and organizations to follow suit, the Internet now is home to numerous repositories and aggregators, all offering freely available open educational resources. For educators and students, the proliferation of OER has meant centralized access to materials that meet unique teaching and learning needs, and the possibility of collaborating with peers to create, use and reuse OER globally and across multiple disciplines.

But the question remains as to how much and in what ways the promise and potential of OER is being realized. As evidenced by the open source software movement, the sustainability of open, peer-driven models is contingent upon continuous user contribution, collaboration, open exchange, and ongoing modification of content (Benkler, 2005). However, recent research into the use of OER has indicated that while educators and learners are accessing OER materials (Massachusetts Institute of Technology, 2006; Harley et al., 2005; Hylén, 2006), the sharing of one's own OER

and the reuse or modification of those materials less expansive (Collis & Strijker, 2003; Harley et al., 2006; Petrides et al., 2008). Few of these studies, however, have empirically addressed author use and reuse, and therefore, our understanding of the extent to which it occurs and the incentives and factors supporting it are limited.

In an effort to build on existing studies and address issues of OER reuse, this paper examines how and to what extent OER are adapted, augmented, and "remixed" by a community of OER users. Specifically, through an examination of those who have created open education materials within the repository called Connexions (www.cnx.org), this study explores the extent and nature of reuse practices, or those practices that involve remixing or adaptation of OER for new and/or local purposes. In doing so, the study seeks to shed light on how OER collections and repositories can create a user-driven infrastructure that supports the continuous addition and modification of content and which in turn can help in the effort to create ongoing advancements in the creation of materials that are freely available.

2   Literature

Open educational resources (OER) are defined as web-based materials that are free and open for use and reuse in teaching, learning and research (UNESCO, 2006). Examples of OER include course materials such as syllabi, lecture notes, and educational games; primary and secondary research materials such as historical documents and reports; and pedagogical tools for creating lesson plans, worksheets and exercises. With roots in the open source software movement, where users continuously review, critique and develop openly available source code, OER serves to facilitate—through accessible technology and alternative licensing—a community of users who collaborate, discuss, critique, use, reuse and improve educational content. Thus, for educators and students, OER translates into centralized access to materials to supplement their local teaching and learning needs, as well as the possibility of sharing materials, collaborating to improve upon existing materials, and creating new OER globally and across disciplines (Petrides & Jimes, 2006).

Recent research into OER use and reuse has provided evidence that some of this promise and potential is in fact being realized. In a survey of 452 college instructors, Petrides et al. (2008)[1] found that 92 percent had searched for course-related materials on the Internet. Reasons cited by the participants included their desire to integrate new materials into their courses, to improve their teaching methods and knowledge, and to connect with colleagues who have similar teaching interests. Likewise, MIT's recent evaluation report of its OpenCourseWare (OCW) collection revealed that educators are accessing OER to support their course planning and preparation and to enhance their personal knowledge (Massachusetts Institute of Technology, 2006). Ninety-six percent of these educators indicated that MIT's OCW collection has improved or will help to improve their courses.

Additional research has indicated that while educators are accessing and using OER materials, the reuse of others' is less expansive (Collis & Strijker, 2003; Harley et al.,

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[1] This study is titled "An Instructor Perspective on Online Teaching and Learning in Developmental Education," and is pending review.