Chapter 7

Logistical Issues With OER Initiative in a K–12 Environment

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ABSTRACT

The arguments in favor of OER are many: ranging from cutting costs to a more equal distribution and access to knowledge globally. While there is a body of literature on the benefits and challenges to OER, what is often missing are cases of implementations that those who wish to adopt can emulate or learn from. In this chapter, we present a case study of a K-12 school district that is currently engaged in implementing open textbooks using mobile devices. We examined their process, and the logistical issues they have faced. Our findings reveal how a digital divide, student’s preferences for a textbooks and perceptions of student empowerment all play a logistical role in adoption of OER.

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INTRODUCTION

Textbooks have been extensively used in schools for decades. Enabled in large part by the printing press, which gave mass access to text materials, textbooks continue to be viewed as learning tools common to K-12 learning environments (Engelhardt, 1944; Hall-Quest, 1920; Heider, Laverick, & Bennett, 2009). In fact, it is hard to imagine a school anywhere in the world without a textbook; it seems the measure of an educated person is often attributed to the number of books she or he has read. Cronbach’s (1955) remarks that textbooks take a dominant central place in the present-day education scene hold as true today as they did more than half a century ago. Furthermore, “Only the teacher—and perhaps a chalkboard and writing materials—are found as universally as the textbook in classrooms” (Cronbach, 1955, p. 3). While textbooks are considered an integral part of instructional practices, they are often scrutinized for quality of content and cost (Chaudhary, 2009; Hanushek, 2002), an issue that education stakeholders seem to be tackling in varied ways.

Open educational resources (OER), such as open textbooks, are seen as a possible way of addressing the cost and quality of textbooks in educational contexts. With open textbooks, which are defined by the University of Minnesota as “textbooks that have been funded, published, and licensed to be freely used, adapted, and distributed,” schools can have access to high-quality textbooks for free or at significantly reduced cost. The University of Minnesota maintains the Open Textbook Library, which is supported by both the Center for Open Education and the Open Textbook Network. As such, the University of Minnesota is a leader in the field of OER and represents a model other institutions can emulate.

Unlike traditional textbooks, open textbooks can be distributed online at low or no cost and can also be made available in print forms, including hard bound copies. Using open textbooks in place of traditional textbooks saves college students significant money and can provide the same benefit to K-12 schools, which also face financial strain in terms of providing students with appropriate, up-to-date, and quality instructional materials. Additionally, institutions of higher education have found that outcomes such as completion, retention, and grades when using open versus tradition textbooks have been positively impacted in correlation with use of OER materials, and K-12 schools may also see similar impact (Lane, Hilton, Robinson, Wiley, 2015).

As such, the conversation about open vs traditional textbooks may mean we have arrived at the place once predicted by Nickolaus Engelhardt in 1944 where “Modern technological science will continue to make available machines and devices that will assuredly step-up the speed and volume of learning” (as cited by Heider et al., 2009, p. 106). The time for open textbooks may be now. Open textbooks can be more responsive and can keep up with the speed and volume of learning materials;
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