Perceived Factors Influencing Instructors’ Use of E-Textbooks in Higher Education

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ABSTRACT

As a form of digital content, e-Textbooks make learning content portable, transferrable, and searchable. Such technology increases students’ engagement in learning and make learning highly interactive. However, the adoption of using e-Textbooks in higher education is far from its confirmation stage. This study examines the relationship between perceived attributes of using e-Textbooks by instructors and their actual use of e-Textbooks in higher education. A survey study has been conducted to measure how instructors from public universities in colleges of education perceive using e-Textbooks in higher education. The findings suggest that instructors, institutions, and e-Textbooks publishers should work collaboratively to enhance the use of e-Textbooks in higher education.

KEYWORDS

Diffusion of Innovations, Digital Content, Digital Learning, E-Textbooks, Perceived Attributes

INTRODUCTION

E-Textbooks provide a solution for instructors and learners to personalize content, accommodate students’ learning styles, and change instructors’ teaching methods digitally (Baek & Monaghan, 2013). By integrating multimedia within textual components and adding hyperlinks to text for accessing external resources, e-Textbooks make learning content highly innovative, flexible, and immediately accessible, and bring more learning opportunities in and outside traditional textbooks (Educause, 2006; Jensen & Scharff, 2014). Although a greater increase of e-Textbooks use among students has been noted (Denoyelles & Chen, 2014) and the interactive features of e-Textbooks have provided students with options (Parsons, 2014), these factors have not led toward aggressive adoption of e-Textbooks in higher education as originally anticipated. Instructors have not utilized or modeled the use of e-Textbooks in instruction with the same fervor (Bossaller & Kammer, 2014; Grajek, 2013) and college students have not necessarily adopted this format with eagerness (Denoyelles, Raible, & Seilhamer, 2015).

The reluctance to adopt e-textbooks is the focus for this research study. The study examines several attributes perceived by instructors concerning the use of e-Textbooks in higher education. A survey method is used to measure how instructors from public universities in the field of education regard the use of e-Textbooks for instructional purposes. This paper reports the findings and conclusions concerning how instructors perceived to be variables that might influence the adoption of e-Textbooks in higher education.

DOI: 10.4018/IJICTE.2017100107

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LITERATURE REVIEW

This study investigates the relationship between perceived attributes of e-Textbooks by instructors and their use of e-Textbooks in teaching. The literature explores factors that influence instructors’ decisions of adopting e-Textbooks in higher education. The two main sections of literature that includes the influence of digital content and the learning and adoption of e-Textbooks in education frame the environment in which this study takes place. Within this framework, Rogers’ (2003) perceived attributes and diffusion theory help guide the research design, data collection, and analysis of this study.

Digital Content

Digital content applies to digital learning as a way to change and enhance current education. In a digital learning environment, the creation, development, and selection of highly-qualified digital content to facilitate education and maximize the benefits of digital learning is vital (Levin, 2011). A universal definition of digital content does not exist. All content that is “electronic in nature that supports or acts as the curriculum and helps students learn,” and “delivering traditional content used in the classroom through a technology-based mechanism” (Center for Digital Education, 2013, p. 5) is included. This can be “as simple as an article scanned into a computer for one class,” and can be “as complex as all instructional materials being digital” (p. 5). No matter what format the digital content appears in the instructional process, digital content enables learners to access learning with personalized experiences that “aligns to different learning styles, educational goals and overall learning outcomes” (Levin, 2011, p. 5). Digital content is crucial to educators and learners in digital learning because they enhance both traditional schools and non-traditional schools by “providing blended or hybrid educational opportunities for students, as well as teachers” (Center for Digital Education, 2013, p. 14).

E-Textbooks as Digital Content

Digitalized textbooks and workbooks are one of the digital content categories. The concept of digitalized textbooks has been redefined as “not only books but also digital content and the computer software and equipment to run that digital content” (Levin, 2011, p. 32). E-Textbooks, also known as digital textbooks or electronic textbooks, have a variety of definitions and formats. They can be digitally reproduced printed books, either in PDF, text, or other Web-compatible formats (Lamothe, 2011). Most modern researchers prefer to define e-Textbook as an electronic form of a textbook with features that are similar to those of a traditional print textbook including pages that “turn” (Moody, 2010) and digital features that can assist readers such as word pronunciations, text highlighting, text-to-speech options, and hypermedia (Daniel & Woody, 2013).

Research has focused on different aspects of e-Textbooks when trying to define the medium. Lynch (2001) expands the definition of e-Textbooks to both hardware (the carrying devices) and software (components that perform functions). Armstrong, Edwards, and Lonsdale (2002) in their research define e-Textbooks more specifically to include electronic texts and hardware with a screen as the basic elements of e-Textbook. Rao’s (2003) definition includes any text in its digital format and encompasses the software and hardware, as well as content. Cavanaugh (2005) introduced the concept of media to further Rao’s definition of e-Textbooks and defined e-Textbook as any other computer technology that displays “books” in formats of text, image, or sound. His definition inherited the two basic components of previous definitions, hardware and software, and also pulled together the element of media, which led e-Textbooks to a “completely new understanding and use” (Kissinger, 2011, p. 22).

E-Textbooks in Education

Involving e-Textbooks in higher education has many advantages in delivering content digitally. Because content is digital, it permits students with access to digital content through multiple methods that
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