

Chapter 7

The Role of Online Technology in Quality Course Design

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ABSTRACT

Online technology has been playing an increasingly important role in course design and delivery in higher education globally. The integration of various technologies, including instructional technology like course management system (CMS), social media platforms, and AI-empowered tools significantly increase the availability of education online. By using technology to enhance course design, instructors can create more effective and engaging learning environments that meet the diverse needs of their students. This can lead to increased student satisfaction, motivation, and academic success, ultimately resulting in higher enrollment and retention rates. This chapter discusses three important aspects that directly impact the quality of course design, which are 1) effective use of CMS assessment tools for data-driven course design, 2) leveraging social media platforms to create sense of community and sense of self-belonging learning environment, and 3) strategic integration of AI technology to enhance the quality of course design and delivery.

INTRODUCTION

In today's rapidly changing educational landscape, where students are increasingly diverse in terms of their backgrounds, needs, and learning styles in addition to the fast advancement of online technology, course design has become more important than ever. With the proliferation of online and hybrid learning environments, instructors must be able to design courses that are accessible, flexible, and engaging

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for all students. “Investing in course design that prioritizes student engagement and learning can benefit both instructors and students” (Richardson, et al, 2019, p. 37). The quality of course design directly affect student learning. “Well-designed online courses provide structure, clear expectations, and engagement strategies that positively impact student performance and retention” (Visser & Zander-Cotugno, 2020, p. 14). When instructors leverage instructional technology effectively in course design, it will help student improve their marketable skills and capabilities. Well-designed courses can promote critical thinking, collaboration, and student-centered learning (Freeman, et al 2019). An engaging learning environment emphasizing on strong sense of community and sense of self-belonging can promote motivation, reduce student anxiety and stress. “A sense of community is an important factor in promoting online student satisfaction and academic success, and instructors should be intentional about fostering a sense of community in their online courses.” (Stone & Vasquez, 2021, p. 67).

As technology continues to evolve at an exponential speed, it will play an increasingly vital role in course design and delivery in higher education. The effective use of technology can help instructors develop instructional content with rich resources, enhance communication and collaboration, as well as create a more flexible and personalized learning experience that meets the needs of diverse learners. In this data-driven world, the authentic data are the only valid source for quality improvement. The most effective way to find out the quality of course design is through the data collection and analysis from the assessment activities in the process of education. Online technology can provide opportunities for more efficient and effective assessment, such as the use of learning analytics and data-driven insights can help instructors to identify student needs and adjust their course design accordingly.

This chapter explores the key components for quality course design through effective use of online technology to enhance the overall quality of course design and delivery in three aspects. The first aspect is regarding the use CMS assessment tools for data-driven course design. CMS system has been used extensively in online instructional delivery. The assessment tools inside the CMS system can greatly improve the efficiency of assessment activities and help instructors collect data on student learning outcomes so that instructors can better understand student performance and make data-driven improvement in course design and delivery. With increasing use of social media tools among college students and diverse student background, it is important and necessary to create an inclusive learning environment to promote interaction and mutual understanding among students. The second aspect discussed in this chapter is leveraging social media platforms to create sense of community and sense of self-belonging learning environment. The recent debut (November 2022) of AI-empowered application, ChatGPT, has caused a big wave in education. “This new technology initiated an enormous disruption in education

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