

# Chapter 14

## Technology in Higher Education Administration 25 Years of Leveraging Changes to Content Delivery

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### ABSTRACT

*Content delivery in higher education has changed drastically over the past 25 years. The primary focus at the foundation of such change in content delivery results from the ubiquity of technology in all aspects of the society, from business to education. The changes have been made to facilitate student learning, improve user performance, while simultaneously reducing costs. This chapter focuses on the changes made to content delivery, placing emphasis on: relating the features of content delivery showing the most change; demonstrating the impact of technology on content delivery; assessing the role of institutional leaders facilitating change in content delivery; evaluating policies shaping the integration and impact of technology on content delivery; and outlining the issues, trends and controversies impacting content delivery. This chapter will conclude with solutions, recommendations and future research directions.*

### INTRODUCTION

In this chapter, an assessment will be made regarding how technology has changed content delivery in education over the last 25 years, specifically in higher education in the USA. This change in content delivery has led to multiple questions. What do the iPad, iPhone, iPod touch, e-Readers, Tablets, Nooks, personal computers, laptops, social media, smart boards, search engines (Google, Yahoo, Bing, etc.), learning management systems (LMS), content delivery systems (CDS) and virtual classrooms, all have in common? How have these devices and technologies impacted our lives? What role do they play in

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content delivery in the educational landscape? The commonality among all these devices and technologies is that they are all designed and developed in last 25 years. Research conducted for this chapter revealed that content delivery systems developed in the USA have had the greatest impact on education over the last 25 years (Parker, Lenhart, & Moore, 2011; Perdue University Online; 2015; Verma, 2015). These technologies and devices were developed to provide access anytime, anywhere, and anyhow to all users from pre-K to college and beyond (Morrison, 2012).

The availability and introduction of online education in the early 1990s resulted in an evolutionary change in content delivery. Traditionally, and from a global perspective, teaching and learning took place in a static brick and mortar environment or on a limited basis through correspondence courses (Meyer, 2011; University of Oxford, 2015). Over the last 25 years content delivery has evolved from the unidirectional “sage on stage” synchronous lecture method to the current dynamic asynchronous technology driven methods of delivery. Today, within and outside the USA there are virtual classrooms where students control most factors of their learning. With the genesis of the World Wide Web, coupled with a myriad of technologies not seen before, today’s content delivery systems have transformed the teaching and learning landscape (Darling-Hammond, Wei & Johnson, 2016). The use of Mobile devices, LMS, CDS, virtual classrooms and similar technologies has impacted how students learn and acquire knowledge and skills needed for survival in the 21<sup>st</sup> Century classroom (Bates, 2014; Getting Started, 2011). Jonassen, Peck and Wilson (1999) indicate that technology driven content delivery systems are basically designed for carefully planned learning environments with specific, measurable, achievable realistic and time sensitive objectives that simultaneously offer learners flexibility and personal engagement.

## **Chapter Objectives**

- Relate the features of content delivery showing the most change
- Demonstrate the impact of technology on content delivery
- Assess the role of institutional leaders who facilitate change in content delivery
- Evaluate policies shaping the integration and impact of technology on content delivery
- Outline the issues, trends and controversies impacting content delivery

## **Contextualization**

There are multiple perspectives from which to address technology in higher education. In this book chapter the information gathered will focus primarily on the United State of America. However, this information is not addressed in a vacuum. Examples are drawn from multiple countries in order to present a more balanced and global perspective. This approach provides evidence that technology has impacted higher education at the macro and micro level worldwide.

## **BACKGROUND AND LITERATURE REVIEW**

Twenty-five years ago college professors knew their students would attend traditional face-to-face class to be taught content. In addition to paper-based textbooks these college professors were the main conduits for content delivery. Today, many of these same college professors have a new perspective on content delivery (Morrison, 2012; Misner, 2014). In fact, many of them have been part of the shift in developing,

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