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#### **Chapter XX**

# Knowledge is PowerPoint: Slideware in E-Learning

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#### **Abstract**

Slideware such as PowerPoint might be the most common software used for e-learning, yet is remarkably understudied. We begin this chapter by summarizing and analyzing literature on slideware in e-learning. We also review the debate on the cognitive style of PowerPoint, partly in the context of educational technology research on whether media influence learning. Then, we discuss the limitations of slideware and suggest strategies to consider when designing e-learning with slideware. The strategies include: accounting for differences between designing for synchronous and asynchronous delivery; avoiding software "wizards"; using graphic design principles; and advocating simplicity. Finally, we discuss the economic implications of slideware in e-learning. If slideware is immensely common in e-learning, do universities and colleges need to invest in expensive course management systems (CMS)? We advocate that administrators research slideware use in their institutions to inform decisions about which CMS, if any, is needed.

#### Introduction

Everyone reading this article has likely made or seen presentations using Microsoft's PowerPoint or, perhaps, Apple's entry into the slideware market, Keynote. Given that slideware will continue to be an important part of the elearning landscape for the foreseeable future, instructors, instructional designers, and administrators need to think carefully about how to use it well.

E-learning involves a continuum of teaching, from Web-supplemented classes to fully online courses (OECD, 2005), a continuum we explore in more detail when discussing course management systems. We begin this article by reviewing literature on slideware in e-learning. This includes reviewing research on slideware use and the passionate debate on the cognitive style of PowerPoint. We analyze this debate in the context of educational technology research on media attributes and whether media influence learning. Based partly on this debate, we conclude that PowerPoint and other slideware have inherent limitations that must be taken into account when designing instruction. We then suggest instructional design considerations such as accounting for the difference between designing for synchronous and asynchronous delivery, avoiding software "wizards," using principles of graphic design, and simplicity. In the final section, we discuss the uneasy relationship between slideware and course management systems (CMS). If in many cases, e-learning is just slides posted onto a CMS, we question the need for a CMS to deliver this kind of content. We conclude by advocating that administrators initiate research on slideware use in their institutions to inform decisions about what type of CMS, if any, is needed.

#### Slideware in E-Learning

Slideware is ubiquitous. According to Microsoft, over 30 million PowerPoint presentations are made everyday (Flintoff, 2001). PowerPoint was developed by Bob Gaskins in Berkeley in 1984, based on the work of his Bell Northern Research colleague, Whitfield Diffie. It was first released in 1987, originally for Macintosh computers. Microsoft bought the software later that year and, once it was bundled into the MS Office Suite with the popular Word and Excel programs, PowerPoint became a juggernaut. According to conservative estimates, PowerPoint is installed on 250 million computers (Flintoff, 2001; Parker, 2001). In some countries, PowerPoint is the second most commonly taught and used software program for and by secretaries, after MS Word (Flintoff, 2001). Yet slideware is remarkably understudied in e-learning research.

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