

E-Commerce Curriculum

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INTRODUCTION

This article begins by tracing the rapid development of e-commerce curricula in response to demand from employers and students, and the subsequent impact of the dot-com implosion on e-commerce degree programs. The main portion of the article then identifies the major approaches currently taken by universities with respect to e-commerce curricula and explores the three critical e-commerce curriculum issues facing universities. These issues concern (1) whether e-commerce is indeed a separate and distinct discipline, (2) appropriate e-commerce curriculum content, and (3) strategies that can facilitate implementation of an e-commerce program. In the next section of the article, five trends are identified that are critical to the immediate future of e-commerce curricula. Finally, conclusions are drawn concerning the long-term prospects for e-commerce degree programs.

BACKGROUND

In 1995, Vanderbilt University was the first in the world to establish a curriculum area with an emphasis in digital commerce (Vanderbilt University, 2003). By 1997, such schools as the University of Texas at Austin, Duke, Harvard, MIT, Stanford, the University of Michigan, and the University of Rochester were also active in the field (Lewis, 1997). By 1998, George Washington University was offering an electronic commerce class where students from a variety of disciplines bought and sold goods and services over the Internet while they designed and developed the supporting marketing and record-keeping infrastructure (Dhamija, Heller, & Hoffman, 1999). This type of integration of business principles with technology is a hallmark of many e-commerce curricula. In May 1999, Carnegie Mellon University began what is widely credited with being the first e-commerce master's degree in the United States, and over the next few years, e-commerce programs burst onto the academic scene. This rush was uncharacteristically rapid and inconsistent with the historical development of many schools' curricula. Joseph Alutto, business dean at Ohio State, indicated that "It

took 20 years to get business schools to focus on international business, and some schools still aren't dealing with entrepreneurship.... Yet, within a two- or three-year period, the rate of acceptance and integration of e-commerce into curriculum is much greater than anything we have seen before" (Fitzpatrick, 2000a). Several schools that were early adopters of e-commerce curricula, like Bentley College (Fedorowicz & Gogan, 2001) and DePaul University (Knight & Chan, 2002b), noted the importance of rapid curriculum development practices in responding to the swift emergence of the field.

Universities began offering e-commerce courses because of "the demands of technologically savvy students—and the businesses who want to hire them," according to Andrew B. Whinston of the University of Texas at Austin (Lewis, 1997). A secondary incentive for the development of e-commerce programs was the millions of dollars in funding offered by major corporations like IBM, Ford Motor Co., General Electric, Microsoft Corp, and iXL Enterprises (Dobbs, 1999). The appropriateness of simply responding to business and student demands has been questioned. Bailey and Dangerfield (2000) have maintained that business school curricula should not be driven by immediate customer demands, but rather should take a longer-range view, anticipating customers' expressed and latent needs. Bailey and Dangerfield attribute this approach to Slater and Narver's recommendation that organizations in general should be market-oriented, but not customer-led (Slater & Narver, 1998). Others, including Lightfoot (1999), have maintained that curricula should be driven primarily by educators with long-range perspectives, rather than by shorter-term demands of businesses or students.

With the widespread dot-com bankruptcies and drying up of venture capital funding that began in 2000, many universities began reexamining their e-commerce offerings. Georgia State University terminated its innovative global e-commerce master's program and incorporated e-business courses into other MBA programs (Georgia State University, 2003). DePaul University introduced more advanced technical courses on e-business enterprise architecture design (DePaul University, 2003). Bentley College added more user-centered Web develop-

ment methods and mobile commerce courses (Bentley College, 2003). As institutions kept pace with industry, curricula moved from an emphasis on entrepreneurial, dot-com implementations to the use of Internet technology in traditional organizations.

ALTERNATIVE CURRICULUM APPROACHES NOW IN USE

The broad range of e-commerce programs has been categorized into a manageable number of models by profiling the programs along three dimensions—career target (a generalist or specialist focus), curricular thrust (a business or technology emphasis), and integration (the extent to which business and technology topics are integrated at the course level) (Chan, 2001). Examples of this classification scheme are depicted in Table 1.

CRITICAL ISSUES OF E-COMMERCE CURRICULUM

Is E-Commerce a Separate Academic Discipline?

As early as 1997, an issue arose that still plagues academics, “Is e-commerce actually a new discipline with a new set of rules and a unique knowledge base?” (Lewis, 1997). Many have argued that e-commerce is a distinct academic field. Donna L. Hoffman of Vanderbilt noted, “The Internet is radically different from traditional markets, and we’re discovering that you need radically different approaches for teaching business.” (Mangan, 1999). On the other hand, James Ho of the University of Illinois at Chicago stated, “Business is business. Everyone is talking about e-this and e-that, but we didn’t say ‘t-business’ when the telephone came along or ‘f-business’ when the fax came along.” (Fitzpatrick, 2000b). The view that

Table 1. Sample classification of e-commerce curricula (Derived from Chan, 2001)

Institution	Career Target	Curricular Thrust	Integration
Bentley College (2003) MBA concentration in e-business	Specialists in accounting, IS, marketing, or finance	Business emphasis	Separate business and technology courses
Carnegie Mellon MS in e-commerce	Both generalists and specialists. Managers, planners, analysts, programmers	Equal emphasis upon business and technology	Separate business and technology courses. Integration of both in the practicum course
City University of Hong Kong (2004) MS in e-commerce	Both e-commerce managers and developers	Equal emphasis upon business and technology	Separate business and technology courses
DePaul University (2003) MS in e-commerce technology	Specialists in e-commerce development, project managers, and consultants	Somewhat greater emphasis upon technology	All e-commerce courses integrate business and technology
University of Westminster (UK) (2004) MS in e-commerce	Specialists in e-commerce development and technology managers	Stronger emphasis on technology	Primarily technology courses
Victoria University (2004) (Australia) Various bachelor of business degrees in e-commerce	E-commerce application developers in various industries	Technical skills, coupled with domain knowledge in a variety of fields	Separate business and technology courses

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