E-Commerce: Teaching and Learning

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ABSTRACT

The emergence of e-commerce (EC) is changing business theory and practice. Educational institutions and companies are trying to educate and train students and employees in EC applications and technology. Because EC is evolving and changing so rapidly, organizations face numerous challenges, and there are opportunities in developing curricula for EC. Surprisingly, few good studies look closely into the development of curricula and teaching methods for EC processes, practices, and technologies. In this article, we discuss EC education with particular emphasis on potential opportunities and challenges faced in developing and implementing e-commerce curricula. The ideas and framework presented herein are based on relevant EC literature, the authors’ own experiences, curricula from universities with EC programs, and information gathered from colleagues who teach e-commerce and related courses. We highlight possible shortcomings in EC education and training and propose a framework for improving the effectiveness of an EC education.

Keywords: e-commerce; curricula, e-learning

E-COMMERCE AND E-LEARNING

Electronic commerce (e-commerce; EC) has rapidly evolved into a global phenomenon. The potential for EC is enormous. It was estimated that Internet sales will total $2.4 trillion in 2003. In the first quarter of 2003 alone, U.S. retail EC sales totaled $11.921 billion, up 4.6% from the same quarter in 2002 (U.S. Dept. of Commerce News, 2003). Approximately 75% of Americans aged 16–60 have access to the World Wide Web (WWW), either at home or at work. While the growth potential for EC in the United States is huge, the potential worldwide is nearly unimaginable, particularly in the business-to-business (B2B) sector. This rapid expansion of EC raises pedagogical questions about how best to meet the needs of students and employees who will
become knowledge workers in this arena.

E-commerce has been defined as the buying and selling of products, services, or information via computer networks, mainly the Internet. As the fastest-growing facet of the Internet and other information technologies, EC offers new functionality and ways of doing business. A main reason for the shift to EC is that e-markets have the potential to be more efficient in developing new information-based goods and services, and partnerships (Wen et al., 2001). Electronic commerce is a general term applied to the use of computers and telecommunications technologies, particularly on an inter-enterprise basis, to support trading of goods and services. EC employs information technology to link functions provided by participants in commerce. It uses technologies like electronic data interchange (EDI), electronic mail (E-mail), electronic fund transfer (EFT), and encryption (for security).

EC creates new market opportunities through electronic channels. These enable companies to expand their reach, lower transaction costs, reduce delivery times, improve customer services, and add convenience. Electronic sales, marketing, and distribution channels often grow at the expense of traditional channels (Damanpour, 2001). The Internet economy has divided the overall market space into three broad structures: portals, market makers, and product/service providers. A portal engages primarily in building a community of information sources and seekers of products and services. Companies such as AOL and Yahoo created portals that cater largely to the business-to-consumer (B2C) segment. Portals have become more common in B2B EC. Plastics.com, the Metal Products Portal (www.metalproductsexpo.co.za), and Ariba.com are just a few of the many portals serving B2B. There are even e-learning portals, such as BBC Learning (www.bbc.co.uk/learning) and Curriculum Online (www.curriculumonline.gov.uk).

The use of the Internet for business purposes in developed countries has become widespread over the past few years. In the United States, companies are using the Internet to link remote sites and business partners for collaborative design, manufacturing, distribution, and communications (Soh et al., 1997). Due to these changes and others in business, the face of education is starting to change. In the midst of globalization and the technological revolution, a paradigm shift in the way education is perceived and delivered is taking place. Businesses increasingly view employee education as a means of gaining competitive advantage rather than just a cost factor. Economic, social, and technological forces heightened the need for lifelong learning (Weggen, 2000). While the Internet has affected and transformed nearly all sectors of the economy, it has been relatively slow to penetrate the academic education market. Educational institutions cannot afford to stand idly by and watch as the skill requirements for the business community change with the evolution of EC, the virtual enterprise, and integrated supply chain management. Educational institutions must re-tool to play their proper supporting role by offering relevant education and training.

As businesses worldwide adopt EC systems in increasing numbers, academics are starting, slowly but surely, to incorporate EC into information systems (IS) curricula and into the broader business curricula. Alliances between Enterprise Resource Planning (ERP) vendors and universities have led to successful ERP education and training for students. Similar strategies could be adopted for education and training in many areas of EC. EC curricula require creative efforts to promote effective knowledge transfer. Because EC
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