

Chapter 4.41

Implementing Computer-Supported Learning in Corporations

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ABSTRACT

In this chapter, the use of computer-supported learning (CSL) in a corporate setting is defined as the delivery of learning modules or lessons containing knowledge and/or skills to employees via the Internet or a company's intranet. Thus, effective CSL may include multimedia, streaming video, e-mails, job aids, an electronic performance support system, electronic bulletin boards, or chat rooms. With CSL, learning is independent from time and location, and therefore, learners gain a greater degree of flexibility to acquire knowledge and skill needed. This chapter further reviews the many challenges facing the design, development, implementation, and evaluation of CSL. Possible solutions along with future trends and

critical research questions concerning CSL in the corporate world are also presented.

INTRODUCTION

Corporations considering computer-supported learning are faced with numerous options that can manage and deliver training customized for their specific needs. The major issues and recommendations discussed here include cost, content, and administration. Many different definitions and categorizations exist for the various forms of technology-based learning, including e-learning, Web-based learning (WBL), computer-based learning (CBL), or computer-supported learning

(CSL) (Chalmers & Lee, 2004; Lee, Chalmers, & Ely, 2005; Trombley & Lee, 2002). All of these terms are used to represent the use of a computer, a public computerized network such as the Internet, a private computer network, or a company's intranet, to deliver a learning module or lesson. Specifically, some researchers maintain that CSL or e-learning is primarily delivered via the Internet but includes conference calls, e-mail, teleconferencing, and additional video technology and can be synchronous or asynchronous (Fry, 2001). Others limit their definitions to learning modules solely delivered via the Internet or a private intranet (Fichter, 2002).

In this chapter, CSL, or e-learning, does not simply refer to a particular list of computer technologies, features, or functions. Limiting the definition of CSL or e-learning tends to lock the meaning and functionality of this learning method into a single technologic box. Rather, CSL refers to the delivery of a learning module or lesson via various kinds of technologies judged appropriate to successfully achieve individualized or group-based transfer of skills and knowledge. Thus, it may be delivered through a compact disk, the Internet, or an intranet; it may include technologies such as streaming video, e-mails, job aids, an electronic performance support system, electronic bulletin boards, chat rooms, or additional multimedia and can be asynchronous or synchronous. CSL is also commonly used in blended training solutions where electronic delivery is teamed with classroom face-to-face delivery.

BACKGROUND

Traditionally, the process of transferring knowledge and skills in either a corporate or an academic setting is similar: an employee or a student learns the content that is presented by an instructor or a trainer and is generalized for a relatively large group of employees or students. Such a process is mostly knowledge-based and instructor-cen-

tered, making the learner a knowledge receiver while the instructor is the content presenter. This process has boundaries of time, space, content, and orientation. In contrast, learning or training via CSL or e-learning is an entirely different paradigm and is not contained by the boundaries listed above. Through this paradigm, learning content is packaged in small, reusable modules that may be organized in any sequence chosen by the learner and is aligned with needs the learner defines. Learners gain more freedom and are always encouraged to actively seek and construct knowledge or solve problems (Chalmers & Lee, 2004; Lee, Chalmers, & Ely, 2005; Khan, 1997; Trombley & Lee, 2002).

Historically, the major appeal of using CSL in the corporate sector is the cost savings of time and travel (Macpherson, Homan, & Wilkinson, 2005; Nisar, 2004). The benefits can be enormous. Up to two thirds of the cost of training can be attributed to travel and lodging. For example, in 2001, IBM claimed to save 350 to 400 million dollars by delivering their Basic Blue course for new managers online. Consulting firm, Deloitte & Touche, reported a 40% budget reduction in their first year of using e-learning. General Motors claimed that through offering over 1,300 online courses, their training budget was reduced by approximately \$4 million. Circuit City reduced per employee training hours from 200 per year to 60. What these examples have in common is a large employee population dispersed across time and space. In each of these cases, the savings are entirely attributed to salary, travel, and lodging. The savings in travel and lodging alone are not the only reason to generate an electronic learning effort. Geisinger Health System now delivers, tracks, and reports mandatory training on over 8,500 employees in 38 counties in Pennsylvania. Jack Latshaw, Assistant Director of Technical Education, explained the reason for using e-learning in his company in an interview: "The bottom line is we're heavily regulated, and the ability to demonstrate compliance is where we

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