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Chapter VI

Education Mirrors Industry: On the Not-So Surprising Rise of Internet Distance Education

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Abstract

Internet distance education is analyzed as a natural consequence of fin de siècle industrial transformations. From this perspective, previous distance- and technologically-based educational innovations are discussed, not as having failed, but as not matching prevailing economic and social conditions. It is argued that in the evolution from a manufacturing economy, in which standard educational practices are based, to an information economy, in which greater autonomy, collaboration,

flexibility, and a project orientation to work are the norm, educational practices will either follow the lead of industrial organizations or risk irrelevance. Implications for adapting educational practices to new economic realities and developing new research streams are presented, especially in terms of matching instructional technology to educational outcomes, virtual collaboration, and media naturalness effects.

Introduction

Computer-mediated education grew from near nonexistence to near ubiquity in the final decade of the twentieth century. Although appearing to come from nowhere (or maybe from outer space) along with the Internet, this "revolution" in distance education happened gradually, following changes in industrial and organizational practices. The Internet did not cause changes in education, but rather enabled educators to meet new demands for instructional practices and outcomes and adapt to a rapidly changing economic and social environment that was beginning to outpace academia. The most salient changes that occurred in the last decade were in computer hardware, networks, and software. These tools are components of a much larger technology, however, that of formal education. Kipnis (1997, p. 208) defined technology as "the use of systematic procedures to produce intended effects." As a technology, formal education has had several intended effects, and it is the changes in these intended effects that have spurred transformations in the use of instructional components such as computers, books, classrooms, school buildings, curricula, and audiovisual aids.

In this chapter, we discuss computer-mediated education as a natural consequence of fin de siècle industrial transformations. As the needs of industry evolved, intended effects of education also changed to reflect a new economic reality. Today, just as 100 years ago, educational institutions and practices are modeled on prevailing industrial examples of work and organization. This is especially the case in the United States where an overriding intended effect of formal education is to prepare students to fill roles within the prevailing economic system. Against this backdrop, it is only those components of education that reflect and reinforce the prevailing industrial system that are incorporated into the technology known as formal education. Components of education such as teaching machines and distance learning existed throughout