### Chapter 11

# Adult Learning and CTE: A Shared History Influenced by Technology

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#### **ABSTRACT**

While the fields of adult learning and career and technical education began in isolated silos, as the fields emerged, their histories became entwined and technology had a profound influence on their growth and direction. This chapter will begin by exploring the beginnings of adult learning and CTE as two fields developing in parallel paths and serving two different audiences. However, as the fields developed, there is evidence of their entwinement in both the literature and programs within organizations. In addition, from the Gutenberg printing press to today's Web 2.0, technology has played an important part in the development and direction of both of these fields. This chapter will examine this history of silos and connections and continue to explore the role of technology in the future growth and meshing of these fields to generate even more effective and efficient learning.

#### 11.1 INTRODUCTION

The fields of adult learning and career and technical education (CTE) began in isolated silos. Adult learning traces its history to philosophical roots in ancient civilizations while career and technical education cites the importance of work as the motivation for its being. But as the fields emerged, their histories became entwined and

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technology has had a profound influence on their growth and direction.

This chapter will begin by exploring the emergence of adult learning and CTE as two fields developing in parallel paths and serving two different audiences. This represents a dichotomy of the thinkers and the doers or the philosophers and the pragmatists. These separate histories will be explored in detail in the following background section. However a few significant milestones

will be considered here. Vocational focused programs such as the Workers Education Movement in Great Britain, and apprenticeships and Agricultural Societies in the U.S. emerged in the post-Renaissance era. The Land Grant Act of 1862 established colleges for "research and study in the agricultural and mechanical arts" followed by the 20th century Vocational education act in the U.S.

Adult education was considered to emerge as an academic field with the establishment of the American Association of Adult Education in the early 20th century. However, there is evidence of their entwinement soon after that. Malcolm Knowles, credited with popularizing adult learning theory, titled a chapter in his autobiography as "Landmarks and Heroes in Adult Education". Yet it includes examples of vocational as well as adult learning landmarks and heroes. Donald Schon (1983) discusses reflection-in-action and reflection-on-action in his book "The Reflective Practitioner" whose title alone suggests a merging of the philosopher and pragmatist roles.

Technology has played an important part in the development and direction of both fields of adult learning and CTE. While the Gutenberg printing press is often credited as the beginning of the influence of technology on learning, all early advances in transportation and communication have had an influence on adult education and CTE. Any technology before and since Gutenberg that has facilitated the coming together of individuals and knowledge whether by transporting the individuals to a common place or by communicating the information to the individual has influenced adult learning and CTE. This chapter will continue this thread of meshing by exploring the role of today's Web 2.0 technology in today's learning and the future growth and meshing of these fields to generate even more effective and efficient learning. Mazarr (1999) notes that "the knowledge era is an interdisciplinary time" (p. 11) and that the "new sciences of complexity remind us that boundaries between problems and

disciplines are less important than the threads that connect them" (p. 12).

#### 11.2 BACKGROUND

To understand the development of each of the three components of this chapter, the history of adult learning, career and technical education and technology will each be explored individually. By approaching it this way, readers will have a clear understanding of how the fields of adult learning and career and technical education began in isolated silos, then emerged as inseparable fields and later became profoundly influenced by technology.

#### 11.2.1 History of Adult Learning

While the field of adult learning is often synonymous with the name Malcolm Knowles, adult learning as an academic field has its roots in the early 1900s with earlier foundational ideas. Knowles (1989) describes himself as being "part of a long and significant historical movement" (p. 72) and credits great teachers of ancient China, Rome and Greece with the role of adult educators. He suggests that because of their experience with adults, they "perceived learning to be a process of active inquiry, not passive reception of transmitted content" and therefore "invented techniques for engaging learners in active inquiry" (p. 61). He credits the Chinese and Hebrews with the "case method or critical incident" and the Greeks with the "Socratic dialogue" in which a dilemma was posed to the group who would pool their knowledge and experience to develop a solution. The Roman methodology involved forcing the students to state positions and to defend them.

Knowles (1989) notes a gap in the literature on adult education between the fall of Rome and the Renaissance but also indicates that during that period the "institutionalization of education for children" (p. 62) developed. Following the Renaissance, several adult education institutions 15 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

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