# Chapter 36
# Adult Education With Technology for Transformative Learning

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## ABSTRACT

*Adult learners often fear that employment will be difficult if they lack technological skills. Newspapers, magazines, and advertisements for positions often emphasize the importance of the use of technology in the workplace. Without adequate skills in the use of appropriate technologies, adult workers may face challenges in finding employment. Web technologies can provide powerful teaching and learning strategies, enhance learner engagement, provide a chance to acquire critical technological skills, and promote critical reflection. This chapter addresses technological applications in vocational and adult education advancement from different perspectives. Technology has the potential to support transformative learning. Technology, along with the vital role of adult educators, helps learners grow, change, and develop. Through the discussion of these, and related issues, a model titled, Learners' Seeking Transformation via Web 2.0 and Web 3.0 Technologies, emerged.*

## INTRODUCTION

How does transformative learning play a role in the field of vocational and adult education? This chapter seeks to shed some light on how adult learners seek to transform themselves through different epistemological positions in relation to the theory of transformative learning and even the model of andragogy, which was advanced by Knowles (1970, 1975) prior to the development of transformative learning theory. We do not seek to underestimate the power of technology; rather, we see technology as providing excellent teaching and learning tools in vocational and adult education (also called career and technical

education [vocational education] and lifelong learning [adult education]). Technology is simply a set of tools that can be manipulated by humans, including adult learners and instructors in vocational and adult education. As Olgren (2000) indicated, "technology invites a tools-first emphasis, but technology is only as good as our knowledge of how to use it to enhance learning" (p. 7).

## BACKGROUND

The question of whether or not technology can support learning and change for adult workers in vocational and adult education has been examined by both researchers and educators. There is no doubt that learners engage in learning through technology in order to seek change in Bloom's (1956) three domains—the cognitive, psychomotor, and affective domains. Educators and researchers strive to find out whether adult learners can attribute their learning to the use technology by asking the following questions:

- Do learners *think* differently after completing a class using technology?
- Do learners *act* differently after completing a class using technology?
- Do learners *feel* differently after completing a class using technology?

These three questions revolve around the three domains of educational objectives. Once these objectives are achieved by the learners, it may be possible to say that the learners are transformed since transformative learning is defined as a shift deep in perspective resulting in a frame of reference that is more open, permeable, discriminating, and better justified (Mezirow, 2012). The potential for transformative learning exists with the proper use of technology (Koehler, Mishra & Yahya, 2007); however, the question remains as to who or what contributes to transformation—instructors, Web 2.0 and 3.0 technologies, the learners themselves, or a combination of all three. We now examine these three facets of the teaching and learning process with educational technology.

### Course Instructors

Technology integrated higher education is often characterized by syllabus-based projects, engaging learning activities, and teaching tools that are designed to create collaborative learning environments and relevant experience for students. In addition, technology assisted education is often accomplished through problem-based learning models that differ from lecture-based classes and usually involve self-directed learning and collaboration. Learners are supposed to teach themselves what they need to know to solve a problem. Consequently, course instructors are expected to be facilitators or resource persons while students are expected to be more self-directed during the learning process.

Course instructors in an online environment usually have the highest degree in their discipline. Then, based on their knowledge base and instructional experience, they are hired by universities or colleges to teach adult learners with the use of technology. Their success depends at least in part on the body of knowledge they possess. In Western cultures, an instructor's teaching is constantly evaluated by students. If instructors keep receiving low ratings from students, they may be asked to participate in instructional development related to teaching and learning or further training in their subject area, but this is always voluntary. In some cases, unqualified instructors' employment may be terminated. Those who remain in the academy based on consistently good teaching evaluations are considered knowledgeable in the field

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