

## Chapter 2

# How Adults Learn Through Information Technologies

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### ABSTRACT

*To understand how learning is impacted by technology, an overview of learning processes, adult education, and educational technology is needed. Adults learn contextually and through shared knowledge construction. Technology plays an enormous role with respect to adult learning, particularly if multi-generations learn together. Educators need to provide ways for adult learners to physically and intellectually access technology. Several topics need to be addressed relative to technology-enhanced learning: workplace issues, Digital Divide, and cultural concerns. Technology impacts learning communities in several ways, particularly as interactive Web 2.0 tools are incorporated. Both educators and learners need to collaboratively use technology for personal and professional growth.*

### INTRODUCTION

With the near ubiquity of technology, adult education has been impacted. The nature of adult learning itself has morphed to some degree because of technology. Technological factors influence the conditions and processes of adult learning, so adult educators must deal with those changes effectively.

The world is changing faster than ever because of social and economic factors, which have

been significantly impacted by technology. The world seems smaller as technology has connected people globally; resultantly, economic entities are increasingly interdependent, and cultures may clash more often.

As individuals and entities try to manage change from the outside, they need to retool themselves. Adults can expect to change jobs and even careers several times in their lifetimes. Since their daily lives are also impacted by changing environments, adults will need to also adjust personal behaviors as well. Formal and informal education is needed now more than ever.

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Since 85 percent of twenty-first century jobs will involve technology, it makes sense to incorporate technology in adult instruction. The intrinsic properties of technology obviously impact learning with its potential combinations of text, image, sound, and movement. These elements enable learners with varying learning style preferences to engage meaningfully with different aspects of information. In addition, the hyperlink feature of the web, electronic resources, and tools enable users to control their learning as they choose whether to explore those links or to access information in a nonlinear fashion. Indeed, technology-infused instructional design fosters learner-centered experiences; instructional designers basically create the environment or structure for optimal learning.

## **BACKGROUND**

To understand how learning is impacted by technology, an overview of learning processes, adult education, and educational technology is needed.

### **How Adults Learn**

Adults develop cognitively and psychologically throughout their lives. The immediate issues of a thirty-year old, for instance, usually differ from the issues of a sixty-year old. This factor becomes critical in adult education where a cross-section of adults or professional group is participating. The two fathers in adult development are Erik Erikson and Daniel Levinson. Gail Sheehy has popularized the concept of adult development in her series of books on “passages.” Erikson ascertained a unique set of issues that a person needs to address at each point in life. Beyond adolescence, he identified three stages:

- Young adulthood deals with love: intimacy vs. isolation.
- Adulthood focuses on care: generativity vs. stagnation.

- Old age deals with wisdom: integrity vs. despair.

Psychologist Daniel Levinson (1978) studied men’s interaction between their inner life and external events, and identified their development as “seasons in a man’s life.” Building on Erikson’s stages, Levinson detailed three eras. Each stage includes seasons of upheaval and change as well as seasons of stability and synthesis.

- Early adult: 22-28 years old entering the adult world, 28-33 transitioning between old life structures and new life challenges, 33-40 settling down
- Middle adult: 40-45 mid-life transition, 45-50 entering middle adulthood, 50-55 transitioning as in early adulthood, 55-60 culmination and peaking of middle adulthood
- Late adult: 60-65 late adult transition, 65 onwards old age.

Gail Sheehy (1976) nicknamed the decades of development as follows: tryout twenties, turbulent thirties, flourishing forties, flaming fifties, serene sixties, sage seventies, uninhibited eighties, noble nineties. Sheehy also addressed the differences in women’s development, and how those differences impact heterosexual relationships. Probably the greatest transition occurs in menopausal years when women recreate themselves and men are coming to terms with themselves; their social roles seem to cross.

When one also considers the age of an individual within the context of an era, such as reaching adulthood in the 1940s as opposed to reaching it in the 1970s or the 21<sup>st</sup> century, then the picture becomes even more complex. Technology plays an enormous role with respect to adult learning, particularly if multi-generations learn together. Nor do these developmental issues take into consideration cultural differences. Each culture has its own rites of passages and adult roles, which may be determined by age, gender, and life situa-

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