Chapter 26
Affective Side of Technology Incorporation in the Workplace

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ABSTRACT

The need for critical use of technology is more important than ever in a digital world. This changing informational environment affects the workplace, and also emphasizes the need for lifelong education and learning organizations. Additionally, the intersection of technology and globalization has led to more intense and pluralistic interactions across societies. Affective factors that impact workplace learning in order to integrate technology are discussed: on the personal, social, and organizational level. Change theory, cultural issues, and emerging trends are also noted.

INTRODUCTION

The need for critical use of technology is more important than ever. In a digital world where the amount of information doubles every two years, adults need to evaluate resources carefully and determine how to use relevant information to solve problems and make wise decisions.

Furthermore, it is no longer principally an issue of getting information: it's getting the right information at the right time to do things right and to do the right things. Economic and social activities rely on information and communication technologies (ICT). Knowledge is ever-flowing, and social interactions seem web-like (Daniel, 2007). As the world seems to grow smaller, due to increased communication and population transience, the global scene reflects a more interactive mode relative to information. This changing informational environment affects the workplace, emphasizing the need for lifelong education to prepare today's workforce to deal with an uncertain tomorrow.

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Nevertheless, workers prefer the status quo, and do not want to stray from their comfort zone. Thus, when confronted with technology literacy that is foreign to their experience – or if workers have had negative encounter with technology – they are not likely to change their behavior. Neither are they likely to collaborate, thus exposing their limited knowledge and threatening their sense of control. In response to these realities, this chapter details how to address the affective side of technology acceptance and integration.

BACKGROUND

To understand the problem and contributing factors, an overview of technology in the workplace is needed: addressing both the need to learn about technology as well as work *with* technology.

Technology's Impact on the Workplace

Technology has existed for thousands of years, from the invention of the wheel onward. Technology under girded the Industrial Revolution. Today's technology is marked by its electronic, digital nature. New information and technology have vastly increased the speed, access, and interconnectedness of information worldwide. Simultaneously, information and communication have converged, such as telecommunications and broadcasting.. At this point in history, telecommunications and media constitute one-sixth of the U. S. economy, and 30 percent of all economic growth between 1996 and 2000 was attributed to enhanced productivity based on information technology (Wilhelm, 2004). As early as the 1991 SCANS (Secretary's Commission on Achieving Necessary Skills) Report, the need for employees to use technology was mentioned. Even job notices and applications require Internet connectivity and the ability of the individual to handle digital documents and applications. With the advent of web 2.0 (i.e., interactive Internet), the importance of social networks of consequence has grown. By using technology to share and advance knowledge, companies stay competitive (Nonaka & Takeuchi, 1995).

Globalization and post-industrialism has given rise to the Knowledge Society where intellectual capital has replaced material capital. "Knowledge is innovation, innovation is quality, and quality is knowledge management" (Gilbert, 2005, p. 4). Medicine exemplifies this change as patient diagnosis and treatment often depend on digital data capture and analysis. The Human Genome Project demonstrates how distributed knowledge can lead to significant discoveries. Collaborative technology plays a central role in many economic realities, drawing upon a broad constituency's ability to connect. As a result, the need for more technology specialists and engineers has gained crisis status in the United States. At this point, technology industries are resorting to the outsourcing of technology jobs to experts overseas and lobbying for immigration requirement waivers in order to recruit qualified employees.

Even beyond the technological industry, the message is clear. American employers expect their workers to use technology, to use information, and to communicate effectively. As technology advances, adults often need to "retool" themselves throughout their work lives. Particularly for adults who are largely digital immigrants, this new world of information, especially in electronic form, can be puzzling and overwhelming. Do they have enough background information to understand and use the *new* information? In short, adults who are bypassed by technology are likely to be marginalized in society as a whole; certainly their options will be constrained