Chapter 100
Informatization and Digital Citizenship

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ABSTRACT

This chapter examines the bases for informatization and describes the conditions for meaningful and responsible participation in the informatized society, both in the workplace and in the civic world in general. Where eighty percent of U.S. labor is concentrated in the service sector, and technology permeates workplace functions, society is becoming informatized: driven by information. Information and digital literacy are required worker skills. Additionally, workers need to use information and technology ethically. Governments and workplaces need to set the conditions for knowledgeable, responsible, and participatory citizens and workers so that institutions and society as a whole can improve. Because informatization intersects with globalization, responsible cross-cultural interaction also needs to be addressed.

INTRODUCTION

The world is changing faster than ever because of social and economic factors, which have been significantly impacted by technology. 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. Economic and social activities rely on information and communication technologies. Increasingly, society has become informatized; that is, information has become a major driving force of society.

Therefore, the need for critical use of information is more important than ever. In a digital world where the amount of information doubles every two years, individuals need to evaluate resources carefully and determine how to use relevant information to solve problems and make wise decisions. It is no longer principally an issue of getting information: it is getting the right information at the right time to do things right and to do the right things.

This changing informational environment emphasizes the need for lifelong education to prepare today's workforce to deal with an uncertain tomorrow. Moreover, since 85 percent of twenty-first century jobs

will involve technology, it makes sense to incorporate technology throughout training. Nonetheless, 22 percent of Americans lack digital literacy skills (FCC, 2010).

However, teaching about information and technology is not enough. It is imperative to teach adults how to be responsible and ethical users of them. They need to be digital citizens. This chapter examines the bases of informatization, and describes the conditions for meaningful and responsible participation in the Informatized society, both in the workplace and in the civic world in general.

BACKGROUND

Intellectual capital has replaced material capital in today's economy. Where eighty percent of U.S. labor is concentrated in the service sector, and technology permeates workplace functions, information and digital literacy are required worker skills. Additionally, they need to use information and technology ethically.

Informatization

According to Wang (1994), informatization is "a process of change that features (a) the use of information and IT (information technologies) to such an extent that they become the dominant forces in commanding economic, political, social and cultural development; and (b) unprecedented growth in the speed, quantity, and popularity of information production and distribution" (p. 5). The term was coined in 1980 in France to describe the impact of computers and other technology in society.

At the 2003 world summit on the Information Society, governments and world leaders "made a strong commitment towards building a people-centred, inclusive, and development-oriented Information Society for all, where everyone can access, utilise and share information and knowledge" (United Nations, 2006, p. 6). What constitutes an information society? Fundamentally, an information society is one in which information replaces material goods as the chief driver of socio-economics. Human intellectual capital has higher currency than material capital, or at least intellect is needed to optimize the use of material resources.

Since information and material have always been needed, what distinguishes the recent notion of an information society? New information and technology have vastly increased the speed, access, and interlinking of information worldwide. Simultaneously, information and communication have converged, such as telecommunications and broadcasting, giving rise to informational industries. The cost of technology has dropped precipitously so that the majority of people can access it, thereby reinforcing mass media and other information entities. As a result, new forms of organization and social interaction have emerged. The World Bank Institute (2008) identified four pillars of a knowledge economy:

- Economic and institutional regime that offer incentives the effective use of knowledge and innovation.
- Education and skills that enable people to create and share knowledge
- Information and communication infrastructure.
- Innovation system that can leverage knowledge.

In terms of the workplace, "technology is changing the fundamentals of economic competition" (U.S. Department of State, 2009, p. 31). The Department's report then asserted, "U.S. worker productivity

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