INTRODUCTION

Nothing in the history of humankind has permeated every aspect of life and culture as deeply and as rapidly as have the computer technology and the global network of the Internet. Over the last 10 years there has been a vast infusion of technology into communications, business, politics, social interactions, the workplace, and personal lives. Jobs in all sectors of society are being redefined to accommodate the new importance of information technology in society (Long and Long, 1998). Technology has made possible new forms of communication: thousands of virtual communities exist where members can share thoughts and knowledge independent of culture, country, religion, ethnicity, and economic status. In the workplace it is possible to conduct business with partners and clients without a physical presence. Technology’s influence is both national and global.

As for the national influence, technology is changing the personal and professional lives of people, the operations of businesses, the communication techniques of society, the priorities of families, and the entertainment industry. Within the next few years, the population, institutions, and government will accept the extensive saturation of technology into every aspect of society as a national reality. With respect to the global influence, technology is also changing a geographically divided world into a global society and economy. A global society peopled with empowered citizens who can synchronously or asynchronously discuss issues and share knowledge can also collaborate on activities and interests and solve pressing problems.

Technology’s influence is also felt in the education system. Nationally, K-12 education and higher education institutions are undergoing dramatic changes, and the development of global education has created an opportunity for learners around the world to access needed resources and learning programs. The educational system now presents the possibility of learning-on-demand without limitation of time, place, resources, and physical facilities.

The purpose of this chapter is to discuss how technology has been a key factor in the development of the knowledge society, the emergence of two new generations of learners (the Internet-generation and adult learners), and the subsequent shifts in the role and
structures of institutions of higher education. The chapter illustrates how these factors are interrelated, and the ways in which the development of one is a force of change on the others, thereby facilitating the development of new educational identities at the national and international levels for institutions of higher education in the 21st century.

**CASE QUESTIONS**

- What are the expectations of the two new generations of learners (the Internet-Generation and adult learners) with regard to institutions of higher education?
- What new practices and educational structures are initiated by the emergence of the two new generations of learners?
- What are higher education institutions’ roles and responsibilities in the generation, distribution, and utilization of knowledge in a knowledge society?

**THE EMERGENCE OF A KNOWLEDGE SOCIETY**

There has been exponential growth in investments in the generation of knowledge. For many nations, this is seen as a means to ensure a higher status in the global economy and improvement in the social interests such as education, health, and entertainment. The emergent status of knowledge in the national and global economy and society necessitates that nations create infrastructures, cultures, and educational systems that will enable the transformation from an information to a knowledge society. A knowledge society is a society with the power of scientific, technical, and professional knowledge and with knowledge workers to help people, organizations, and society to successfully meet the challenges of the 21st century. Just as education played a valuable role in the transition from an industrial to a service and information society, it is hoped that educational institutions can also make needed contributions to transform our information society to a knowledge society.

In this new century, a society’s most important asset will be its ability to generate new knowledge from current knowledge, to share and distribute knowledge among organizations and communities, and to find innovative ways to utilize knowledge to improve the economy and society. Technology will continue to have even greater roles in the generation, distribution, and application of knowledge in the 21st century. Some countries have already taken major steps in the movement toward a knowledge society. In Finland, advancements in the communication technology infrastructure have made the cost of access and information transmission relatively low; now, attention is being paid to the content of that knowledge and its distribution. Canada is creating the Canadian Institute for a Knowledge Society, an organization committed to building a knowledge society. European countries as well are working as a unit, discussing and looking forward to the challenge of creating a knowledge community in Europe. In part, this is being done through conferences, such as “Quest for Competence—Toward a Knowledge Society,” which bring together teachers, students, and business people.

In the United States, the National Information Infrastructure (NII), proposed by the Clinton-Gore administration, created a major opportunity for the development of infrastructure to access the Internet potentially from every home, school, library, community, and workplace in the United States. The NII has the potential to support the knowledge-age model of learning and business. In addition to the contribution of NII and educational institutions, other changes are necessary to facilitate a successful transformation to a
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