

Chapter 74

ICT Literacy Integration: Issues and Sample Efforts

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ABSTRACT

In order to be prepared for today's knowledge society, students need to be ICT literate. To ensure that all students become ICT literate requires systematic integration of ICT literacy into the curriculum at the general education level and within each academic discipline. Such integration requires faculty ICT literacy as it applies to their academic content area and instructional practice. Collaboration within academic domains, with expert partnerships of librarians and instructional designers, can boost ICT literacy and facilitate its effective integration for student learning. Therefore, such faculty competency also requires systematic coordination, training, support, and accountability. Efforts need to occur at the course, program, college, campus, and system level in order to ensure that all students learn, practice and apply ICT effectively and responsibly. The California State University Long Beach ICT Literacy Project exemplifies the process of developing a systematic and coordinated approach to ICT literacy into the curriculum.

INTRODUCTION

In order to be prepared for the workplace and lifelong self-development, today's students need to be able to access, evaluate, use, manage, and communicate information in many formats effectively and responsibly; they need to be information literate. In the digital environment, such literacy should expand to include information and communication technology (ICT).

While technology has become more prevalent, its effective use, particularly in academic and workplace settings, is vastly uneven. Formal instruction by knowledgeable instructors is required. However, those instructors themselves need to be ICT literate, and have the administrative infrastructure and support to implement such learning experiences.

The California State University (CSU) system's Chancellor's Office realized the need to address information literacy across the 23 campuses in a concerted and coordinated manner. This chapter outlines

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a faculty-in-residence approach. The coordinating faculty incorporates the CSU MERLOT repository infrastructure to build up an ICT literacy collection, and works with campus sites to integrated ICT literacy into their curricula. In the process, the coordinator works with other Chancellor programs to optimize system-wide incorporation of ICT literacy to enhance teaching and learning.

This chapter explores ICT literacy and related literacies, and discusses the issues involved in integrating ICT literacy into curriculum.

BACKGROUND

This era is sometimes labelled the Information Society or the Knowledge Society, reflecting how information drives economies and societal action. As early as the 1991 SCANS (Secretary's Commission on Achieving Necessary Skills) report, governmental agencies have noted the need for employees who can: locate, interpret and organize information; communicate information; create documents; solve problems; work with a variety of technology; and know how to acquire new knowledge. The vast expansion and application of information is largely due to technological advances. At the 2013 World Summit on the Information Society, governments and world leaders stated that sustainable development depends on education. To that end, ICT (information and communication technology) facilitates access to, interaction with, and generation of knowledge. Within that framework, the participants noted:

The rapid diffusion of mobile communication, establishment of Internet exchange points (IXPs), the increased availability of multilingual content and Internationalized Domain Names (IDNs), and the advent of new services and applications, including m-health, mobile transactions, e-Government, e-education, e-business and developmental services, which offer great potential for the development of the knowledge societies (p. 3).

People now have greater access to ideas globally, and have a wider repertoire of tools to use and generate information. Intellectual capital has replaced material capital, which means that today's learners must become competent in using and managing information and technology.

Definitions

Information literacy, as defined in 2015 by the Association of College and Research Libraries (ACRL), comprises "the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning" (p. 1). This definition emphasizes dynamism, flexibility, individual growth, and community learning.

Information literacy facilitates a major facet of higher education: providing students the means to become critical lifelong learners. Indeed, as students develop and practice these skills, their learning increases across academic domains. Testing a hypothesis can transfer to justifying a thesis statement, for instance. This same overall purpose, then, requires the collaboration of faculty, library and administration.

Digital literacy refers to the ability to use technology effectively and responsibly. While historic technology literacy applied to tools operation and programming for advanced users, by the 1990s technology literacy focuses on the use of applications to access and generate information. In the early 21st century,

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