

# Chapter 28

## Information Competency and E-Learning

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### ABSTRACT

*In the information society, learners need to locate and evaluate resources carefully as well as determine how to use relevant information to solve problems and make wise decisions. As more students learn in online environments, resources and support must be available to optimize their success. Information literacy offers a series of processes as a means to deal successfully with information. By melding information literacy and content matter in e-learning environments, instructional designers can create authentic experiences for students to hone their skills. Choosing effective electronic resources, collaboration with librarians, and addressing technical issues are key to successful e-learning for information literacy. Future trends in e-learning approaches are discussed.*

### INTRODUCTION

“Information is Power.” This phrase resonates loudly in the Information Age. Now in the Knowledge Age a more accurate truism would be “The use of information is power.” In a digital world where the amount of information doubles every two years, students need to locate and evaluate resources carefully as well as determine how to use relevant information to solve problems and make wise decisions. Authentic tasks within coursework offer opportunities for learners to

hone these skills. As more students learn in online environments, resources and support must be available to optimize their success.

### The Information Society

At the 2003 World Summit on the Information Society, governments and world leaders “made a strong commitment towards building a people-centered, inclusive and development-oriented Information Society for all, where everyone can access, utilize and share information and knowledge” (United Nations, 2006, p. 6). What constitutes an information society? Fundamentally, an

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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.

This information society impacts existing institutions and cultures. The speed and globalization of information leads to constant change, which can be hard to digest and manage. The majority of jobs now involve technology and other related new skills, so that the idea of a “terminal” degree or a static skill set is becoming an outdated paradigm (Handel, 2003). Rather, 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?

What then do today’s learners need to know and be able to do?

- Be information literate: access, evaluate, and use
- Be lifelong learners: pursue interests, read, and generate knowledge
- Be socially responsible: uphold democracy, be ethical, and cooperate.

## **Defining Information Literacy and Competency**

How do students become literate? One of the goals of education is to help individuals become functionally literate, which involves a continuum of skills that enables students to be able to *do* something: procedural knowledge. Students need to access, comprehend, and respond to information. However, other skills such as numeracy and visual acuity are also implicated because knowledge can be represented in so many forms. Increasingly, other countries combine information and

communication literacies under the heading ICT (Information and Communication Technology).

The Association of College and Research Libraries (ACRL) (2000) listed the following indicators of information competency:

- Determine the extent of information needed.
- Access the needed information effectively and efficiently.
- Evaluate information and its sources critically.
- Incorporate selected information into one’s knowledge base.
- Use information effectively to accomplish a specific purpose.
- Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally.

It should be noted that the standards for information competency do not equate exactly with the research process itself, which is usually described in a step-by-step cognitive approach. In that respect, using a problem-solving construct provides a grounded basis for using information:

1. What is the problem?
2. What are the underlying issues?
3. What are the facts?
4. What are the options?
5. What are the consequences?
6. What is the best outcome?
7. How good was the decision?

In any case, information competency transcends academic domains, aiming for students to successfully function autonomously in societal settings: as workers, as citizens, and as private individuals. Thus, to optimize this process, rather than limiting information competency to teaching one research model to students, educators should consider a more inclusive approach by describing

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