

# Chapter 3

## Attitudes Toward Technology Predict Teacher Candidates' Use of E-Resources

Yukiko Inoue-Smith

 <https://orcid.org/0000-0002-9899-5020>

University of Guam, Guam

### ABSTRACT

*Facility and ease in using computer technology increase the value that students attach to online learning environments. The current study provides an analysis of teacher candidates' attitudes toward information technology as they predict receptivity to electronic resources (known as e-resources). This questionnaire-based study recruited a representative sample of teacher candidates (N = 101) at an American Pacific Island university as participants. Questions addressed the relationship between teacher candidates' levels of comfort with technology and the Internet, and their preferences for e-resources. Information literacy skills strongly predicted successful use of resource-based approaches to teacher education, which, in turn, predicted positive attitudes toward online learning environments. The results may guide teacher education programs, as they seek to optimize pre-service teachers' receptivity to course-appropriate resources. Working with future teachers affords an opportunity to promote their use of information technology, and their view of learning as a lifelong enterprise.*

### INTRODUCTION

Education is becoming more and more a global commodity, having a definite practical application, such as information technology as utilized on the Internet. In part because of technology and online (distance) education, the number of people practicing lifelong learning is growing. Online education is significantly expanding in availability and popularity in higher education (Lee & Choi, 2011). An important role for online education may be for lifelong learning (Bonvillian & Singer, 2013).

“Learning throughout life is a common sensical principle nobody will argue about. What is presently being contested and interrogated is lifelong learning as an educational principle that has to be contex-

DOI: 10.4018/978-1-7998-5598-9.ch003

tualized in the age of globalization in the 21st century” (Medel-Añonuevo, 2002, p. 14). Because of the increasingly rapid pace of information technology advancement, “Higher education institutions face a strategic imperative to broaden access to lifelong learning opportunities and to move from an elite to a mass system, ensuring that education and learning are available to a diverse student population” (Yang, Schneller, & Roche, 2015, p. 8). And it should be noted that most searches for relevant literature are now conducted online: it is essential to find sources on the Internet for research activities.

In educational settings, as computers have become smaller, more powerful, and more cost-effective, their use in the teaching and learning process has widely increased. In higher education, and especially in a teacher education undergraduate program, realizing the potential of electronic resources (commonly known as e-resources) requires a strong acceptance by both teachers and students. The notion that ease in using information technology promotes such acceptance among teacher candidates (also known as pre-service teachers) has considerable face validity. Certainly, it is a useful notion. It is true that today *information literacy* is a skill for life, along with good reading, writing, and mathematical skills.

## **LITERATURE REVIEW**

In a technologically advanced society, business processes require the acquisition of information literacy to maintain a high quality of productivity and efficiency. This means that people need to learn for enhancing their own qualifications and bringing their skills up to date for a new line of work. In reality, “Almost every facet of human life demands knowledge and skills of information and communication technology (ICT)... In this time and age, students cannot claim to be ignorant of the benefits of ICT competences and knowledge to their future prospects” (Osman & Alfred, 2014, p. 12). ICT does impact student learning when students are information literate (or digitally literate) and understand how to integrate ICT into their learning activities. “Digital literacy is a more recent concept than information literacy and can relate to multiple categories of library users in multiple types of libraries” (Cordell, 2013, p. 177).

### **Information Literacy and Education**

People more than ever need to enhance information literacy skills, because of the rapidity and constancy of changes in the society, and because of lifelong learning dealing with changes chiefly in their lifestyles and value systems. As previously discussed, the concept of lifelong learning refers to the activities that people perform throughout their lives to continuously improve—professionally and personally—their knowledge, skills, and competencies. The idea of lifelong learning began in the 18th century “to crystallize under the influence of numerous impulses of pedagogical sciences and humanities. In the 19th and 20th centuries, a growing group of educators, philosophers, writers, and sociologists emphasized in their works the need to continue learning after leaving the school walls” (Nuissl & Przybylska, 2016, p. 37).

“The late 20th century, a period of major social, economic, and political changes, was known as the beginning of the knowledge age—to distinguish it from the industrial age” (NZCER, 2015). In this regard, NZCER continues as follows:

*Knowledge age workers—citizens need to be able to locate, assess, and represent new information quickly. They need to be able to communicate this to others, and to be able to work productively in collabora-*

15 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/attitudes-toward-technology-predict-teacher-candidates-use-of-e-resources/270053](http://www.igi-global.com/chapter/attitudes-toward-technology-predict-teacher-candidates-use-of-e-resources/270053)

## Related Content

---

### Three Stages in the Social Construction of Virtual Learning Environments

Ken Stevens (2012). *Virtual Learning Environments: Concepts, Methodologies, Tools and Applications* (pp. 1518-1529).

[www.irma-international.org/chapter/three-stages-social-construction-virtual/63207](http://www.irma-international.org/chapter/three-stages-social-construction-virtual/63207)

### Designing Distance Learning Tasks to Help Maximize Vocabulary Development

John Paul Loucky (2012). *International Journal of Virtual and Personal Learning Environments* (pp. 35-58).

[www.irma-international.org/article/designing-distance-learning-tasks-help/67116](http://www.irma-international.org/article/designing-distance-learning-tasks-help/67116)

### How Can Education Use Artificial Intelligence?: A Brief History of AI, Its Usages, Its Successes, and Its Problems When Applied to Education.

Claudio Pacchiega (2021). *Handbook of Research on Teaching With Virtual Environments and AI* (pp. 558-590).

[www.irma-international.org/chapter/how-can-education-use-artificial-intelligence/273043](http://www.irma-international.org/chapter/how-can-education-use-artificial-intelligence/273043)

### Utilization of Intelligent Software Agent Features for Improving E-Learning Efforts: A Comprehensive Investigation

Mandana Farzaneh, Iman Raeesi Vanani and Babak Sohrabi (2012). *International Journal of Virtual and Personal Learning Environments* (pp. 55-68).

[www.irma-international.org/article/utilization-intelligent-software-agent-features/62245](http://www.irma-international.org/article/utilization-intelligent-software-agent-features/62245)

### Factors Affecting Development of Communities in 3D Immersive Learning Environments

Terry McClannon, Robert Sanders, Amy Cheney, Les Bolt and Krista Terry (2013). *International Journal of Virtual and Personal Learning Environments* (pp. 18-34).

[www.irma-international.org/article/factors-affecting-development-of-communities-in-3d-immersive-learning-environments/95161](http://www.irma-international.org/article/factors-affecting-development-of-communities-in-3d-immersive-learning-environments/95161)