Chapter 3.3
Ubiquitous Computing Technologies in Education

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ABSTRACT

The prosperous development of wireless communication and sensor technologies has attracted the attention of researchers from both computer and education fields. Various investigations have been made for applying the new technologies to education purposes, such that more active and adaptive learning activities can be conducted in the real world. Nowadays, ubiquitous learning (u-learning) has become a popular trend of education all over the world, and hence it is worth reviewing the potential issues concerning the use of u-computing technologies in education, which could be helpful to the researchers who are interested in the investigation of mobile and ubiquitous learning.

UBIQUITOUS LEARNING: THE NEW AGE FOR EDUCATION

In recent years, digitalization around the globe has been proceeding toward wireless communication and sensor technologies, which are able to detect the contexts of our daily lives, and provide personal supports accordingly. Such technology has been called ubiquitous computing (u-computing). The innovation and advance of those new technologies have led to a new research issue in education; that is, to develop an innovative learning environment so that the students can learn in any place at any time. Moreover, with the help of context-aware (sensor) technology, the learning system is able to detect the student learning behaviors in the real world, and hence more active and adaptive learning activities can be conducted. Such a learning scenario is called context-aware ubiquitous learning (context-aware u-learning), which has
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