

Chapter 3

The Emergence of Cloud Portfolio in Higher Education

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ABSTRACT

Educating the digitally literate generation is a privilege and a challenge because this generation is exposed to enormous proliferation of affordable computers, Internet and digital education content. With the advancements in technology, there is a definite improvement in learning methods; similarly performance assessment, career preparation and credential documentation should also be driven by technology. An e-portfolio is a tool for teaching, learning and assessment. The purpose of the e-portfolio is to highlight the student's best work. Current e-portfolio systems pose problems of scalability and sustainability, as they provide limited user storage space in a centralized server. With the rapid use of multimedia, there is a drastic increase in storage load imposed by any user on the e-portfolio system. Cloud computing can provide e-portfolio service that can be delivered to a higher education community. An e-portfolio service provided by cloud computing (c-portfolio) can be accessed from a standalone system. The c-portfolio can also be accessed from local servers of an educational institute, or from a third-party service provider that is accessed via the Internet. Such cloud computing services allow users to share their c-portfolios with anyone, anywhere and at anytime. This chapter defines and categorizes c-portfolio, addresses issues and challenges faced by c-portfolio's implementation in higher education.

INTRODUCTION

Technology has experienced its own series of generations. Today's generation has grown up with technology. The Internet and smart phones have had a major impact on today's generation's culture and development. Students are more likely to use Google for research than the library. Education today is also becoming completely associated

with the information technology on the content delivery, communication and collaboration. The classroom is changing and students are demanding more technology services from their education system. It's important not only to keep pace with their evolving needs, but also to prepare them for the demands of the workplace tomorrow. With the advent of the digital age, the emergence of electronic portfolios (e-portfolios) appeared as a

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logical next step for portfolios. In fact, over half of US higher education institutions are using some form of e-portfolios (Green, 2008). Using e-portfolios is a change in the pedagogical approach to teaching; it morphs into a more student directed style of learning. Using cloud computing, the e-portfolio service can be designed in several ways.

DIGITALLY LITERATE GENERATION

To better understand what the digitally literate generation expects from technology in support of learning, we must first understand what digitally literate generation is. A generation that has grown up on the Internet, cell phones and computers is a digitally literate generation. They are multitasking, always-on communication, engaged with multimedia. To a great extent, their behavior is an enactment of the capabilities afforded by modern digital technologies. According to a Pew Study (Jones et al., 2002), one-fifth (20%) of today's college students in the USA began using computers between the ages of 5 and 8. By the time they were 16 to 18 years old, all of today's current college students had begun using computers and the Internet was a commonplace in the world in which they lived. Computers, the Internet, online resources, and instantaneous access are simply the way things are done. Digitally literate generation has never known life without the Internet. The learners of today are adept at using Web 2.0 tools. They already rely on communications technologies to access information and to carry out social and professional interactions (Kennedy, Judd, Churchward, Gray, & Krause, 2008).

E-PORTFOLIOS

A portfolio is a valuable record of a student's academic life. The record may include items such as assessments, evaluations, assignments and classroom projects. Portfolios have long been used in

education to represent a student's or teacher best work. The earlier portfolio was used by students in disciplines such as art and architecture as a means of collating evidence of achievements (Harun & Cetinkaya, 2007). But today, accordion folders are being replaced by "e-portfolios" - engaging the electronic medium to showcase the user's best work put together with software and services. Paulson et al. (1991) defines a portfolio as a meaningful collection of student work that highlights progress and/or mastery guided by standards and includes evidence of student self reflection. Buzzetto-More (2006) points that electronic portfolios provide an efficient way to document student progress and encourage the improvement and motivate involvement in learning. An e-portfolio can be defined as *a digitized collection of artifacts including demonstration, resources and accomplishments that represent an individual, group, community, and organization.*

Portfolios are critical for managing each student's academic progress, and they can also play an important role in managing the performance and progress of an entire education system. E-portfolios provide significant advantages over paper-based alternatives. One of the reasons is their accessibility. End users (learners, educators, parents and administrators) can access e-portfolios from computers, cell phones or other devices. E-portfolios can be accessed by teachers to issue assignments, and by students to access assignments. Buzzetto-More (2006) defines portfolios as an effective way of alternative assessment that encourages students and educators to examine skills that may not be otherwise accessed using traditional means such as higher order thinking, communications, and collaborative abilities.

EXISTING E- PORTFOLIO SYSTEM'S ISSUES AND CHALLENGES

E-portfolios are recognized throughout the academic community for their benefits, but many

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