

The Electronic Portfolio: A Benefit to Quality Learning and Higher Education

Mohammed Ali R Alzahrani
University Technology Malaysia, Advanced Informatics School
Kuala Lumpur, KL53300, Malaysia

Nada Mansour F Aljuaid
University Technology Malaysia, Educational Technology
Kuala Lumpur, KL53300, Malaysia

Assoc. Prof. Dr. Suhaimi Bin Ibrahim
University Technology Malaysia, Advanced Informatics School
Kuala Lumpur, KL53300, Malaysia

Abstract

The electronic portfolio or 'e-Portfolio' has emerged amid the development of digital and online technology, allowing standard material portfolios to be replaced by more cost-effective and convenient digital files. In addition to the increased potential for transmission, storage, and expansion, the nature of the e-Portfolio left further potential for learning and education. This article describes the benefits of e-Portfolios, in terms of both personal use and integrations with modern educational systems.

Basic Applications of the Electronic Portfolio

Electronic portfolios, or e-Portfolios, have changed the way that individuals are able to store information, learn, approach education, and more. The e-Portfolio

has transformed the traditional portfolio into a collection of files and digital information, allowing people with interests ranging from art to engineering to make use of digital technology for increased storage, transfer potential, and other conveniences. According to Batson (2002), the primary attractions of e-Portfolios are the abilities for students to work through electronic and online mediums, the interconnectivity and communicative potential of the modern internet, and the ability to make use of many large online databases; the rise of these trends have made instruments such as e-Portfolios not only convenient and ideal, but a veritable necessity to evolve competitively and effectively in the modern era.

Numerous analysts and researchers have outlined the potentials and researched the impacts of e-Portfolios, all finding that they have immensely improved

organization and learning processes, at levels ranging from simple personal use through higher educational institutions. Moreover, despite the trend of modern technologies commonly costing the user increased amounts compared to previous technologies or methods, the e-Portfolio is actually more cost-effective in addition to its enhancements. The following table compares the costs of traditional portfolios to e-Portfolios.

Traditional Portfolio		Electronic Portfolio	
Material	Cost	Material	Cost
3" 3-ring binder	\$7.99	CD-ROM 30@\$17.98 Jewel case 10@\$4.99	\$110
Paper	\$3.99	Floppy disk 10@\$3.99	\$40
Sheet protectors—50	\$9.98	Zip disk—250 MB 2@\$14.98	\$749
Index dividers for laser printer—5 tab	\$3.99	Memory key—128 MB	\$49.99
Total Cost—Single	\$25.95	Total Cost—Multipack CD-ROM + Jewel case Floppy disk Zip disk	\$22.97 \$3.99 \$14.98

Figure 1: Comparisons between Costs of Traditional Versus e-Portfolios (Heath, 2005)

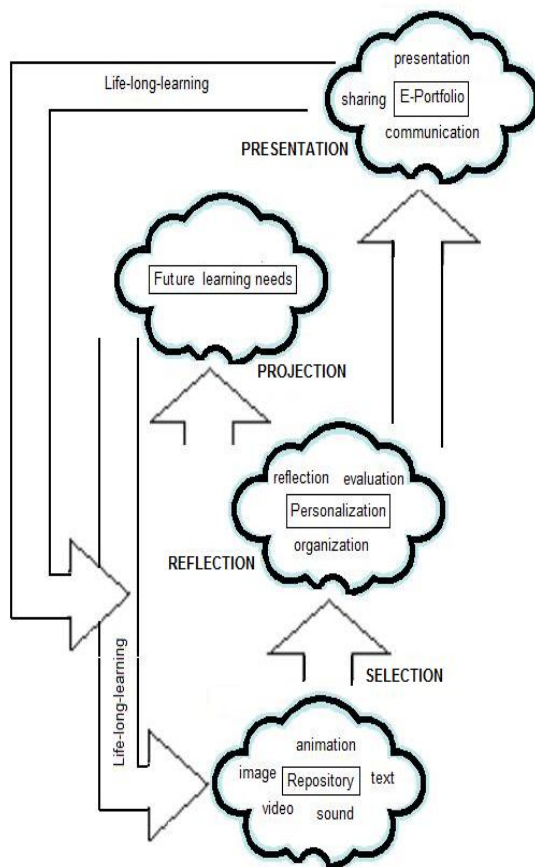
Clearly, there are even cost advantages to converting to e-Portfolios, while the sole higher cost in the comparison (memory key) is commonly known to have decreased where available. Moreover, the cost of technologies are also commonly known to have slightly decreased just within the years following Heath's (2005) creation of the table, and technologies such as DVD writing and free online storage allow for storage capacities grossly exceeding and practical need for portfolio size. Gomez (2004) asserted that the e-Portfolio is also much more flexible in its ability to allow educators to examine the achievements of students, especially in instances

where students are rarely personally interacting with educators, such as in online education programs or work placement; in this sense, Gomez (2004) further stated that the e-Portfolio provides "a means of showcasing learning achieved using multimedia evidence" (p. 10).

The following sections of this article describe more specific aspects of the proven and clear benefits of e-Portfolios, with emphasis on benefits to learning, potential in standard education, and potential in higher education.

Benefits to Quality Learning

The potential for learning in e-Portfolios is not immediately obvious to those unfamiliar with the subject, as a common practical use is to store and exchange created documents. Meanwhile, researchers have assessed the potential for e-Portfolios to be used as learning instruments, as there is potential for it within and outside of educational institutions. Karaoglan and Ertaul (2010) created a diagram which depicts the possibilities for e-Portfolios to be used within a range of learning and cognitive processes.



also want to see where they are in their college career regarding requirements. e-Portfolios can facilitate this” (2002, p. 3). Ramey and Hay (2003) outlined the ability for e-Portfolios to contribute to higher student achievement, revealing that students were able to improve performance and work efficiency through the visibility provided by e-Portfolios; moreover, these authors revealed that the processes involved in developing a portfolio facilitate creativity, relationships between the user and others, and deliberation. Yancey (2009) also analyzed the ability for e-Portfolios to facilitate academic development for U.S. students, confirming that it provides a means of evidence-based learning for students and faculty alike.

The potential for e-Portfolios to benefit higher education is not much different from the potential for benefits in standard education, although the differences in variables within educational programs may make different aspects of e-Portfolios significant on varying levels. Batson (2003) described how e-Portfolios can be applied in many areas of higher education, reporting “when students study for a test, they can review their own work and read the instructor's comments on their work. e-Portfolios will make this easier to do, especially over multiple semesters. If a student wants to transfer, the e-Portfolio data may ease the process of articulation with another college or university. After graduation, having their work still available to them in a university-supported environment will provide ongoing value and help sustain the relationship with their alma mater” (p. 3). Meanwhile, faculty members are able to provide primary or supplemental instructional data, which may more commonly be of greater value in higher education. Administrators in higher education may wish to integrate e-Portfolios into organizational structures to be able to develop a tracking system for candidate progress, measure group or individual progresses towards research objectives or other goals, to compare courses and programs of study, to integrate new instructional strategies within course or thesis work, or to generally aid in assessment; Batson (2002) has shown that all of this has been possible, while the rise of Web 2.0 and other technology only increases the potential net benefit. More recently, Karaoglan and

Ertaul (2010) confirmed that more modern integrations have led to enhanced development in technical skills, writing skills, and online development (including course projects and online applications such as web pages). Clearly, e-Portfolios have a place (and demand) in higher education.

Future Research and Development

Future research and development is dependent on, respectively, continuing integrations and evolving technology or methods. Goodson (2007) stated it is likely that educational institutions will continue to transition to e-Portfolios, while future teachers seeing the benefits of e-Portfolios across their education are likely to integrate them with their curricula. Reese and Levy (2009) recognized challenges in adopting e-Portfolios, but realized that these challenges would not slow implementation, and overcoming them would only be seen as necessary steps in progressive development. Hallam and Creagh (2010) observed developments and future possibilities, determining that national e-Portfolio models, locally driven models, Web 2.0 models, and ‘zero action’ (having an absence of policy or strategy) models are likely to be assumed beneficial or ideal. Considering these observations and the progress of technology, it is all but certain that integrations and enhancements will increase greatly, if not exponentially.

Closing Discussion

It is clear that e-Portfolios are a major improvement upon standard portfolios, and even at strictly fundamental levels, these advantages are in terms of cost, convenience, and flexibility. This flexibility expands into new areas of potential application, leading to a new realm of educational potential. Individual quality learning, standard education, and higher education can greatly benefit from implementing e-Portfolios, while overcoming any challenges to integration should be viewed as a worthwhile investment.

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