

THE ePORTFOLIO AS A TOOL FOR LIFELONG LEARNING: CONTEXTUALISING AUSTRALIAN PRACTICE

Lynn McAllister, Gillian Hallam & Wendy Harper
Queensland University of Technology

ABSTRACT

The report details a lifelong learning context for the Australian ePortfolio Project (AeP). EPortfolios are discussed in terms of supporting lifelong learning. Major themes and issues arising from the project are briefly discussed. The role of projects, such as the AeP, in informing national lifelong policy is suggested.

KEYWORDS

ePortfolios – higher education – reflective practice – lifelong learning

INTRODUCTION

The report provides a lifelong learning context to the Australian ePortfolio Project (AeP). EPortfolios are described and discussed as tools and possible enablers for lifelong learning. International and Australian ePortfolio initiatives and activities are briefly outlined to give further context to the AeP. The AeP is funded by the Carrick Institute, with Queensland University of Technology partnering with University of Melbourne, University of New England and University of Wollongong. The project aims to investigate the use of portfolios/e-portfolios in order to gain a better understanding of what is happening in schools, higher education, vocational education and training and employment, to inform future lifelong learning policy and practice in Australia. Major themes and issues arising from the research are briefly outlined. The report concludes with a suggestion that projects such as the AeP should positively inform current Australian government lifelong learning policy

BACKGROUND

Lifelong learning

The concept of lifelong learning has been with us for a very long time. Plato spoke about the lifelong nature of learning. In 1972, the term “lifelong” was linked directly to education and learning in the UNESCO Report of the International Commission on the development of education (Friesen & Anderson, 2004). Both UNESCO and the OECD consider lifelong learning to be essential for “economic prosperity and social stability” (Watson, 2003, p. 1). Learning throughout life is an “imperative for democracy” (Delors, 1996, p. 100). There is a growing awareness that in order to equip workers to remain employable in times of great technological, environmental and global change, it is essential that policy makers consider the role

of continuing education as a lifelong activity in formal education, in informal training and in workplace learning. DEST (2007) identifies lifelong learning as an essential “employability skill for the future” (p. 10). The European Commission for Education and Training (2006) states that lifelong learning will be the framework in which new approaches to education and training will be developed. Based on the connection to economic and social advantage, governments have responded through policy making which advocates the need for citizens to be actively and purposefully learning on a lifelong basis. Developing in parallel to the productivity driven agenda however have been more holistic notions of lifelong learning.

The “four pillars of education” are learning to know, learning to be, learning to do and learning to live together. These dimensions of learning were identified and described by UNESCO. This action by UNESCO indicates an awareness of the need to balance requirements for skills and knowledge development with the need to be able to identify and seek out learning opportunities over a lifetime (Delors, 1996, p. 85). By promoting these learning dimensions, UNESCO policy makers were stating the fundamental principle that education “must contribute to the all-round development of each individual” (p. 94). Smith (2000) has identified the “eclecticism of lifelong learning”, that is, the inclusion of every manifestation of learning opportunity; the incidental, informal, unintentional and unplanned (p. 681).

The variation within the foregoing suggests the complex nature of lifelong learning. The current report looks at the contribution which ePortfolios, as a way of thinking, as a strategy for teaching and learning and as a means of capturing personal reflection, may provide a tool for people to actively participate in their own lifelong learning.

ePortfolios defined

Sutherland and Powell (2007) define an ePortfolio as “a purposeful aggregation of digital

items – ideas, evidence, reflections, feedback etc, which ‘presents’ a selected audience with evidence of a person’s learning and/or ability”. Recently, Cotterill (2007) has defined ePortfolios to acknowledge the central activity of the portfolio approach, namely the process of reflection, self-awareness and forward planning. Portfolios have multiple purposes and are created from different perspectives according to individual need. The learning portfolio, the credential portfolio and the showcase portfolio types have been identified by Zeichner and Wrey (2001). Abrami and Barrett (2005), while also identifying three different types of portfolio, have a different basis for distinction. They note a process portfolio, showcase portfolio and assessment portfolio. Smith and Tillemma (2003) identify two dimensions which differentiate portfolio use. Portfolios may be (i) mandatory or voluntary and (ii) they may be for selection or for personal development purposes. These dimensions result in four distinct types of portfolio, dossier, training, reflective and personal development (p. 627). Barrett (2004) quotes a range of metaphors, “a mirror...a map...a toothbrush...a journey” which poetically illustrate the diverse range of portfolio types and the different purposes for engagement. The diversity in the nature of portfolio practice is also shaped according to the sector in which the activity takes place.

EPortfolios may also be defined as a way of thinking. Harper (pers. comm. 2007) emphasises the need to consider ePortfolios in terms of thinking and learning process rather than technology. Calderon & Hernandez (2006) noted that students became aware of ePortfolios as a way of thinking when they were reflecting on experiences and “creating a linkage between theory and practice” (p. 2). EPortfolio thinking derives from reflective practice. Central to the emphasis on process or way of thinking, is the reflective dimension of ePortfolio activity. According to Diamond (2006), “reflection is a central pillar” of ePortfolio activity. Candy (1995) noted that reflective practice and critical self-awareness are essential to “encourage lifelong learning skills and approaches”. Thus, active engagement in the ePortfolio approach to learning and teaching may be seen to progress lifelong learning activity through the reflective process.

ePORTFOLIOS AND LIFELONG LEARNING

International ePortfolio initiatives

In Europe, ePortfolio activity has been advancing rapidly over several years. It is outside the scope of the report to identify all international activity.

A few of the many international initiatives are detailed. In Europe, the development of e-learning technologies and strategies has led to the vision of an “ePortfolio for all by 2010”. The vision emerged as the Lisbon strategy at the Lisbon Conference 2003 which aimed to give Europe greater sustainability and economic benefit. The strategy gave lifelong learning the important role of “achieving the economic, employment and social goals for Europe” (Leney, 2004, p. 8). The development of ePortfolios as support to the concept of lifelong learning had been forefronted in Europe in 2001 by the establishment of the European Institute of E-Learning (EifEL). In 2003, EifEL instituted the Europortfolio Consortium. It is significant that the founding members of this consortium namely, EifEL, European Schoolnet, Centre for Technical Interoperability Standards and European IMS, a foundation established to “promote standards and specification-based eLearning in Europe” span both the educational and technical dimensions of ePortfolio use, thus indicating very early in the development of ePortfolios the intention to mainstream ePortfolio use across the European education sector and into the wider community. The notions of learning technologies, reflective practice and lifelong learning are central to EifEL’s activities. (EifEL, 2006).

In Wales, there has also been interest in promotion of personal portfolios as a tool for every citizen. Career Wales was developed as a “client-led web service which will enable everyone to hold an e-portfolio of achievements, qualifications, experiences” (Jones, 2004). The intention was to introduce students to ePortfolio use during the school years and engage them in portfolio practice as an ongoing workplace, professional development and lifelong learning activity. The aim has been achieved and is integral with the UK Progress Files described in the next section.

The UK is actively engaged in promoting and supporting the use of ePortfolios. Activity arose from within the education sector and was driven by government policy. The UK Progress Files provide every student with the means for making their learning explicit. Both dimensions of learning, informal and formal are supported. Students are encouraged to actively plan their own learning opportunities (Department for Children, Schools and Families, nd). The Centre for Recording Achievement (CRA) operates as an Associate Centre of the Higher Education Academy (HEA), with a specific focus on supporting higher education institutions and their communities with the implementation of

Progress Files, Personal Development Planning and ePortfolios (CRA, 2008). The CRA has a membership that encompasses major higher education institutions, smaller organisations and individual, providing a forum for dialogue about policy and practice in the area of ePortfolios. The organisation has close links to the Joint Information Steering Committee (JISC), the Quality Assurance Agency (QAA) and, of course, the HEA. The CRA is currently involved with the US ePortfolio initiative the Inter/National Coalition for Electronic Portfolio Research, which aims to promote student learning and achievement through ePortfolio approaches to learning and teaching. The Lifelong Learning in London For All project investigated the concept of trails as an organiser for lifelong learning. A portal was created using a range of web services including social networking tools as well as ePortfolios to support the independent lifelong learner. They noted the pervasive nature of social networking among young people (de Freitas, Harrison, Magoulas, Mee, Mohamed, Oliver, Papamarkos & Poulouvassilis, 2006).

The Inter/National Coalition for Electronic Portfolio Research is a United States (US) initiative. Their purpose is to “to study the impact of ePortfolios on student learning and educational outcomes”. Institutions can apply for a three year term of membership to the coalition. There is a blog/chat tool which facilitates ePortfolio communication thus promoting lifelong learning internationally. The initiative is significant because it brings together international collaborators on a three year rotation thus obtaining wide ranging expertise to inform ePortfolio development and practice (Inter/National Coalition For Electronic Portfolio Research, 2008). Use of ePortfolios in US universities is extensive and outside the scope of this report.

ePortfolios in Australia and New Zealand

ePortfolio activity in Australia arose within areas traditionally portfolio-based areas such as teacher and nursing education where evidence of standards attainment is required for registration. There have been ePortfolio initiatives arising in the careers and employment sections of higher education institutions, as a response to the call from Australian employers for job-ready graduates. Australian employers favour an ePortfolio approach as it gives a “more informed picture of the job candidate” than would a traditional resume (DEST, 2007, p. 42). In Australia, there is little evidence of institution wide ePortfolio systems but there is a great deal of evidence of “pockets” of ePortfolio activity

and widespread interest in ePortfolios, across the higher education sector. The recent investigation into ePortfolio use in the VET sector, commissioned by e-standards Expert Group (Leeson, 2008), found that most projects were “still evolving or in their infancy” (p. 3). The Australian ePortfolio Project is a current initiative investigating ePortfolio engagement in the Australian higher education sector.

The New Zealand Tertiary Education Commission’s eLearning Collaboration was contracted in 2006 to develop an ePortfolio application for the New Zealand tertiary sector. The project was a collaborative effort involving Massey University, Auckland University of Technology, The Open Polytechnic of New Zealand and Victoria University of Wellington. The resulting ePortfolio application, Mahara, is freely available and provides users with the tools to “demonstrate their life-long learning, skills and development over time to selected audiences”. “Mahara” means thinking or thought and conveys the purpose of the project, to create a “user-centred life-long learning and development application”. Mahara is an open source portfolio application incorporating social networking. It aims to provide users with tools to enable demonstration of “life-long learning, skills and development over time to selected audiences” (Mahara, 2006).

The Australian ePortfolio project

Lifelong learning policy in Australia is based on assumptions about skills needed in a knowledge based economy. There is an increasing need for “work-related external training” and for “self-funded, self motivated participation” in both formal and informal education. The current policy emphasis placed on an “individuals’ co-financing of their own learning” ... “contradicts its stress on lifelong learning as a remedy for social exclusion”. The government recognises the “widening gap between the participation rates of people with high skills and people with low skills” (Watson, 2003).

Leeson (2008) noted that Australia is “only just beginning” to engage in the area of systemic ePortfolio development (p. 1). The Australian ePortfolio Project (AeP) is currently undertaking an examination of ePortfolio policy and practice in Australia through the investigation of ePortfolio engagement in higher education in Australia. The project is funded by the Carrick Institute for Learning and Teaching in Higher Education and is led by Queensland University of Technology in collaboration with the University of Melbourne, University of Wollongong and University of New England.

The goals of the project are to develop a clearer picture of ePortfolio engagement in Australian higher education. The project aims to progress ePortfolio engagement in Australian higher education and to position Australia in the international ePortfolio scene.

METHODOLOGY

A range of methods has been used, by the research team, to investigate current ePortfolio engagement in Australia. A literature review and environmental scan of ePortfolio use in Australia and internationally has been undertaken. A preliminary audit survey of the 39 Australian universities was undertaken. The project was formally introduced to all Vice-chancellors. Participants for all activities were actively sought by all project partners. A series of focus groups was held in Sydney, Melbourne, Perth, Brisbane, Adelaide, Armidale and Wollongong to engage with interested stakeholders across the sectors of VET, private consultancy, professional bodies, industry and the broader education sector. It was felt that focus groups provide a supported and dynamic environment in which people could discuss their current experience and understanding of ePortfolios. The focus groups were based on Krueger (1995) with 6-8 participants, 1 facilitator and 1 observer in each session. The research team decided that the topic of discussion, ePortfolio use, would be unlikely to elicit the type of sensitive material now considered inappropriate for focus group treatment (Farquhar, 1999).

The audit survey was piloted at Queensland University of Technology and by the project partners. The pilot identified a diverse range of stakeholders and led to the design of 3 different audit survey instruments to elicit responses from the learning and teaching; the human resources and the management sectors within institutions. Semi structured interviews were developed to engage key individuals and interested stakeholders unable to attend the focus groups. Student surveys were developed to gather user feedback on portfolio use. A student expectation survey was also undertaken with cohorts about to embark on ePortfolio activity. All surveys were offered online. The audit survey questions were deliberately open and exploratory. The other surveys comprised a range of open and closed questions to allow respondents to give full comment. In addition, the AeP ePortfolio Symposium was held in Brisbane on 6-8 February 2008. This was both an information gathering and sharing event. The event comprised a showcase of available ePortfolio software, international keynote speakers, student and expert panels and presentations. The

symposium was promoted through project partners and from the project website (Australian ePortfolio Project, 2007).

Grounded theory underpins the research methods used in the project. It is an inductive approach demanding that themes and concepts identified are grounded in the experience of the respondents/participants. The researchers did not approach the data collection with a priori hypotheses (Glaser & Strauss, 1967). This theory acknowledges the emergent nature of ePortfolio use in Australia and the need to identify a true picture of current engagement and to avoid any expectancy effect (Colman, 2006) resulting from prior engagement with the international ePortfolio environment and the scan of the international ePortfolio engagement.

DISCUSSION OF MAJOR THEMES AND ISSUES

It is outside the scope of this report to give a detailed discussion of the results. One or two key themes arising from the audit survey, the focus groups and the Symposium will be briefly discussed. For a detailed discussion of the data the full report of findings will be available from the project website from August 2008.

www.ePortfolioppractice.qut.edu.au

National audit survey

The nature and extent of ePortfolio activity in Australian higher is significant as it provides a benchmark or "snapshot" against which future activity may be gauged as well as providing a launch point for enabling strategies to be implemented. Of the 39 universities approached, 38 returned the audit survey. The non-respondent did, however, give the information that no ePortfolio activity was taking place in the institution. There were multiple responses from some institutions where activity was occurring in various locations for example faculty based initiatives. Responses were received from the Learning and teaching (L&T); Management (Mgt) or Human Resources (HR) survey perspective. The results show that institution wide ePortfolio systems are almost non-existent with only two universities having such a system. There is however a great deal of interest in ePortfolios and many respondents indicated they are "feeling the water" and "ready to go" when the right support eventuates. The L&T results show that most ePortfolio use is being carried out by undergraduate, coursework students in subject specific areas. Mgt and L&T data shows a diverse range of technology being utilized to support ePortfolio activity from purpose built applications, commercial software and social networking tools such as blogs and wikis. As

outlined in the previous sections, social networking tools are popular with students and it may be attractive to potential users to be able to use this type of application within an institutional approach to ePortfolios.

Focus groups

The major theme arising from the focus group discussion was the issue of interoperability. This may be due to the fact that focus group participants were from outside the higher education sector and were interested in possible transitions between their particular sectors and higher education. This issue is also common to the ePortfolio initiatives previously described in the report. Interoperability or flexibility affects the potential use of an ePortfolio tool across multiple institutions and systems, so the user effectively has access to their ePortfolio for life. Hartnell-Young, Smallwood, Kingston & Harley (2006), found that users need to be able to access distributed ePortfolio resources. Their lifelong learning activity suffers a setback when there are gaps such as may occur in transition situations, in and out of different institutions. They found it crucial to the lifelong learning process to be able to link between systems to join up lifelong learning episodes. Another important issue for lifelong learning was the issue of ePortfolio activity being mandated for assessment or available for voluntary use for personal planning and development. Yorke & Croot (2004), found that students considered ePortfolio activity a tiresome when it was mandated. One of the participants (an international student) suggested that the students themselves ought to direct ePortfolio activity within a unit or subject. Most people who discussed this point believed that ePortfolio practice must be encouraged for personal use even where it is also required for assessment.

Australian ePortfolio symposium

The symposium attracted over 200 enthusiastic delegates from interstate and overseas. Many of the delegates attended primarily for the ePortfolio Showcase event where ePortfolio software vendors displayed the technology currently available. Informal feedback was gathered during one of the project presentations. Keypad technology was used to gather audience responses. The results showed that delegates' experiences of ePortfolios aligned very closely with the audit findings. There were several themes of interest to lifelong learning. There was very strong support for learner-centred ePortfolios where student had total responsibility for the ePortfolio. It was also apparent that many of the delegates were seeking information on ePortfolios as pedagogy, a process and a way of

thinking rather than a technology. The student panel discussion provided valuable student perspectives on ePortfolio use adding further support to the need for flexibility, lifelong access and the functionality to allow students to work with their familiar social networking tools and incorporate the content into an institutional ePortfolio where necessary.

CONCLUSION

The report has provided a lifelong learning context for the Australian ePortfolio Project. The project is briefly discussed. Several major themes, arising from the data collection activities, which have potential relevance to lifelong learning for Australians have been identified. It has been suggested that ePortfolios may be able to support lifelong learning both in the formal higher education sectors and for informal learning opportunities. Projects such as the e-standards Expert Group investigation into ePortfolios in the VET sector and the Australian ePortfolio Project in conjunction with international events such as the International Lifelong Learning Conference may be valuable in progressing Australia's lifelong learning policy agenda to address the recognised gap between the participation rates of people with high skills and people with low skills by providing a means for all people to engage in ePortfolio activity, to document informal and formal learning for a diverse range of purposes.

REFERENCES

- Abrami, P., & Barrett, H. (2005). Directions for research and development on electronic portfolios. *Canadian Journal of Learning and Technology*, 31 (3).
- Australian ePortfolio Project (AeP) (2008). *Australian ePortfolio project*. Retrieved February 22, 2008, from <http://www.ePortfolioppractice.qut.edu.au>
- Barrett, H. (2004). Metaphors for portfolios: A series of quotes. Retrieved April 02, 2007, from <http://electronicportfolios.com/metaphors.html>
- Calderon, M. & Hernandez, F. (2006). Implementing an ePortfolio system through non-academic areas. Paper presented at Virtua Educa. Retrieved March 30, 2008 from <http://ihm.ccadet.unam.mx/virtualeduca2006/pdf/106-MMC.pdf>
- Candy, P. (1995). Developing lifelong learners through undergraduate education. Paper presented at the Teaching and Learning Forum. Retrieved December 12, 2007, from <http://lsn.curtin.edu.au/tlf/tlfi1995/candy.html>
- Centre for Recording Achievement (CRA) (2008). *About CRA*. Retrieved February 22,

- 2008, from
<http://www.recordingachievement.org/>
- Colman, A. (2006). *A dictionary of psychology*. Oxford: Oxford University Press
- Cotterill, S. (2007). *What is an ePortfolio?* Retrieved February 23, 2008 from
<http://www.epics.ac.uk/?pid=174>
- de Freitas, S., Harrison, I., Magoulas, G., Mee, A., Mohamed, F., Oliver, M., Papamarkos, G., & Poulouvassilis, A. (2006). The development of a system for supporting the lifelong learner. *British Journal of Educational Technology*, 37 (6), 867-880.
- Delors, J. (1996). *Learning: The treasure within*. Paris: United Nations Educational Scientific and Cultural Organization.
- Department for Children, Schools and Families (nd). *Progress file*. Retrieved February 2, 2008, from <http://www.dfes.gov.uk/progressfile/>
- Department of Education, Science and Training. (2007). Graduate employability skills. Retrieved December 12, 2007, from
<http://www.dest.gov.au/highered/bihecc>
- Diamond, S. (2006). *Diversity is essential*. Retrieved February 12, 2008, from
<http://ncepr.org/ncepr/drupal/blog/121>
- European Commission for Education and Training. (2006). *Lifelong learning: What is lifelong learning?* Retrieved February, 2008 from
http://ec.europa.eu/education/policies/lil/life/what_is_lil_en.html
- Friesen, N, & Anderson, T. (2004). Interaction for lifelong learning. *British Journal of Educational Technology*, 35 (6), 679-687.
- Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory : strategies for qualitative research*. New York : Aldine de Gruyter
- Hartnell-Young, E., Smallwood, A., Kingston, S., & Harley, P. (2006). Joining up the episodes of lifelong learning: A regional transition project. , *British Journal of Educational Technology*, 37 (6), 853-866.
- Inter/National Coalition For Electronic Portfolio Research, (2008) *Home page*. Retrieved April 3, 2008, from <http://ncepr.org/index.html>
- Jones, R. (2004). *Career Wales online: ePortfolio project*. Retrieved December 2007, from www.eife-l.org/publications/ePortfolio/proceedings/lon04/wales
- Mahara: Puts ePortfolio owners in control*. (nd). Retrieved February 22, 2008, from
<http://www.mahara.org/>
- Smith, K., & Tilemma, H. (2003). Clarifying different types of portfolio use. *Assessment and Evaluation in Higher Education*, 28 (6), 625-648.
- Sutherland, S., & Powell, A. (2007). *CETIS SIG mailing list discussions*. Retrieved January 28, 2008, from
<http://www.jiscmail.ac.uk/archives/cetis-portfolio.html>, July 9, 2007
- Watson, L. (2003). *Lifelong learning in Australia*. Canberra: Department of Education, Science and Training (DEST).
- Yorke, J., & Croot, D. (2004). *Personalised records of lifelong learning in the UK: What do our learners want?* Retrieved January 28, 2008, from
<http://www.ascilite.org.au/conferences/perth04/pdocs/pdf/yorke.pdf>.
- Zeichner, K., & Wray, S. (2001). The teaching portfolio in US teacher education programs: what we know and what we need to know. *Teaching and Teacher Education*, 17, 613-621.