How e-portfolio technologies can support the employer engagement agenda

Rob Ward and
Janet Strivens
Centre for Recording Achievement

Context

In 2007, the Centre for Recording Achievement (CRA), a national educational charity which exists to promote, develop and research personal and professional development practices, was asked by the Higher Education Funding Council for England (HEFCE) to carry out a research and development programme to explore and evaluate the value of e-portfolio technologies in supporting the 'Leitch agenda' (Leitch, 2006) – a closer and more extensive engagement of the higher education sector with those learners already within the workforce. The specific aims of the project that emerged, called the Higher Education, Employer and Employee Engagement through E-portfolios (HE5P) project, were as follows:

- to collate and analyse existing practices in work-based learning e-portfolio practice(s)
- to build capacity to develop and promote best practice in using e-portfolio technology to support employer and learner engagement in higher level learning
- to disseminate key lessons and experiences which will inform/ shape policy and transfer practice
- to provide an evidence base and national e-portfolio specification to contribute to policy and practice to ensure the effective implementation of the employer/ employee engagement agenda (Strivens and Ward, 2010).

Through its membership, CRA has an extensive network of contacts and the partnership put together for this project consisted of 12 universities (Bedfordshire, Bradford, Cumbria, Derby, Leeds Metropolitan, Leicester, Liverpool, Hull, Northumbria, Plymouth, Portsmouth and Wolverhampton), two professional bodies (the Institute of Physics and the Chartered Institute of Librarians and Information Professionals) and a lifelong learning network (Greater Manchester Strategic Alliance). The intention was not to initiate new work within these organisations: it was known that practice already existed and the intention of the HE5P project was to gather and analyse evidence from this practice and collate it into models and guidance for the sector.

Lessons from practice

It became apparent early in the project that much interesting practice was at a very early stage of development (Richardson, 2009). The evidence that could be gathered was indicative but what was also needed was a vision about how the practice could develop further. In view of this, a key project output became the production of scenarios, rooted in existing practice but anticipating a future where the appropriate technology was more firmly established and information flowed more effectively across institutional boundaries and indeed between inter-institutional systems. The scenarios take into account the wide diversity of learners encompassed by the idea of 'workforce development' (which has increasingly superseded 'employer engagement' in referring to this agenda). Some learners have no previous experience of higher education and may find the prospect of even a Foundation Degree programme daunting: at the other end of the spectrum we find graduates returning for further professional development. Similarly, institutions vary in their missions and existing experience, which means that their offering to employers may range from Foundation level programmes and modules to CPD (continuing professional development) and postgraduate programmes.

The project (and as far as possible the scenarios) also recognised the importance of understanding other key aspects of the context for this work, revealed through a suite of projects funded by HEFCE, the Higher Education Academy and the Joint Information Services Committee (JISC), sometimes in collaboration with the Quality Assurance Agency and Foundation Degree Forward (see e.g. Stubbs, 2010). These included the need for rapid validation of offerings tailored to employers' needs, often resulting in so-called 'shell' modules and programmes which could then include negotiated content; issues relating to the language gap between HE learning outcomes and employment-related skills and competencies frameworks; and the range of different stakeholders whose perspectives needed to be accommodated, including professional bodies and trades unions as well as the learner, the employer and the university. As this was in part a technological project, it also explored the 'readiness' of organisations' technological infrastructures to support these complex learning and business processes. In particular, an Information Architecture Model was developed to show how information systems, processes and agents could be related to facilitate effective provision.

E-portfolio technologies: moving from the 'What' to the 'How'

At its inception, the project team chose not to adopt a specific definition of e-portfolio technology. Most writers on e-portfolios acknowledge that attempts at definition are fraught with difficulty (see for example Stefani et al, 2007; Grant, 2009). The JISC Infokit on e-portfolios comments: "ideas of what an e-portfolio 'is' are complex and to an extent the definition and purpose will vary depending on the perspective from which a particular person is approaching the concept" (JISC infoNet). As the JISC publication *Effective Practice with e-Portfolios* (JISC, 2008) points out, the term is increasingly used to refer to both product and process. The product is a "purposeful aggregation of digital items" in some form of repository. Multiple e-portfolios might be created from the same repository or set of repositories for presentation to different audiences. Behind this lie "rich and complex processes of planning, synthesising, sharing, discussing, reflecting, giving, receiving and responding to feedback" (JISC, 2008, p.6) which may be referred to generically as 'e-portfolio-based learning'.

The project shared this focus on the purpose and pedagogy underlying the use of technology. However, in response to the specific question of how e-portfolio technologies could support this agenda, it was found valuable to carry out an analysis of the affordance of different technologies and tools in relation to specific pedagogical functions. The affordance of a technology tool is the range of activities it supports and/or allows. The pedagogical affordances are the learning, teaching and assessment purposes for which technology tools might be used. For e-portfolio technology, they fall into three areas, which are themselves interlinked but can be separated analytically (see Strivens and Ward, 2010):

1. **Linking and networking users:** the pedagogical purposes enabled by technology that links and networks users are:
   - **Communication** – between learners and tutors/work-based mentors, and between learners themselves. Communication between learner and tutor facilitates **feedback** and **formative assessment.** Feedback from the work-based mentor helps to make learning more authentic and grounded in the workplace. Where the work-based mentor and tutor are both involved in giving feedback there is potentially three-way communication, giving learners alternative perspectives on their learning. Communication between the learners themselves allows for **collaborative** or **peer learning**: learners have access to multiple experiences and multiple perspectives on those experiences, and also feedback from peers on the experiences and perceptions they share. This process is known to stimulate **reflection** on and **integration** of learning (see below).
   - **Collaboration** – on group tasks, which can help to simulate the team nature of the work environment and include problem-solving, design and production of a final artefact.

2. **Holding, organising and linking (allowing the organisation and linking of) digital items:** the pedagogical purposes enabled by technology that holds and allows the linking and organisation of digital items are:
    - **Reflection** – by learners on their own learning/experience. The act of creating an artefact facilitates the metacognitive process of reflective thinking. The creation may be in response to a question, instruction or rubric held within the same virtual space. Organising, selecting and linking different artefacts are a further stimulus to such thinking and to the **integration** of learning and experience across different contexts (including HE and the workplace). Collaborative or peer learning through sharing experiences also stimulates reflective thinking (see above); sharing the output of reflective thinking with peers facilitates higher levels of integration and **application** of learning.
    - **Recognition of achievement** – by the learner, of his or her own learning and achievement. Evidence from elsewhere suggests that this leads to enhanced confidence in themselves as learners, increasing the likelihood that they continue as learners.
3. **Presenting collections of artefacts to a range of audiences online:** the pedagogical purposes served by technology that enables the presentation online of collections of digital artefacts are:
    - **Assessment** – particularly summative assessment using **diverse evidence** to show the learning that has taken place and potentially its application in the workplace. This relevance, and the possibility of seeing the presentation at a distance, makes it more feasible and also more appropriate to involve employers in the final assessment process.
    - **Transition/progression** – by using such presentations, or new presentations built from a re-selection of the material, as rich CVs in applications to future employers or for promotion.

Depending partly on the level of learner and also on the tools currently available and familiar within an institution, all these functions were found and regarded as valuable among our project partners. The linkages between distributed learners, their tutors and their workplace mentors/supervisors were particularly important, particularly where the provision was entirely at a distance – and there were cases where learners never attended the academic institution at all during their programme. Tools that allowed tutors, workplace mentors and peers to access learners' work and make comments or give feedback were found to be extremely useful. The higher the level of learners, the more they valued interaction online with fellow learners to exchange experiences and deepen their own reflection.

Looking to the future

Assessment remains a problematic issue: many universities who are deeply engaged in this work are nevertheless reluctant to share the assessment function with employers – often claiming that employers are equally reluctant to be involved. However, when assessment involves diverse evidence gathered primarily or solely from the workplace, it makes more sense for the employer to be a partner in assessing the value of what has been learned. In these instances, it also makes sense for the evidence of learning to be presented by the learner in his or her own terms – and an e-portfolio tool supports such presentation and makes it available to a distributed audience. Assessment practices are always slower to change than teaching and learning practices but the project team predicts that online presentation of diverse evidence using e-portfolio tools to a distributed audience including employers will gain ground as the technologies become better embedded within the sector. Nevertheless, while the agenda is inevitably incomplete and the political and economic landscape changing, a range of resources has been generated which will enable institutions to approach this often challenging area with some confidence.

References

Grant, S. (2009) *Electronic Portfolios: personal information, personal development and personal values.* Oxford: Chandos.

JISC (2008) *Effective Practice with e-Portfolios.* Available at: **www.jisc.ac.uk/media/documents/publications/effectivepracticeeportfolios.pdf** [Accessed 21 November 2010].

JISC infoNet (n.d.) *What are e-Portfolios?* Available at: **http://www.jiscinfonet.ac.uk/infokits/e-portfolios** [Accessed 21 November 2010].

Leitch, S. (2006) *Prosperity for all in the global economy – world class skills*. Leitch Review of Skills final report. London: HMSO.

Richardson, H. (2009) *An evidence-informed account of how e-portfolio practice has demonstrated relevance to adult employment-based learners.* Available at: **www.recordingachievement.org/employers-cpd/he5p/project/reports.html.**

Stefani, L., Mason, R. & Pegler, C. (2007) *The educational potential of e-portfolios: supporting personal development and reflective learning.* Abingdon: Routledge.

Strivens, J. & Ward, R. (2010) *HE5P Final Project Report.* Available at: **www.recordingachievement.org/employers-cpd/he5p/project/reports.html.**

Stubbs, W. (2010) *Employer-responsive provision: QA approaches and considerations.* Available at: **www.qaa.ac.uk/events/PSRBforum10/PSRBJune2010.pdf.**

Website

Partner reports and scenarios can be found on the project website at: **http://www.recordingachievement.org/employers-cpd/he5p/project/evidence.html and http://www.recordingachievement.org/employers-cpd/he5p/project/scenarios.html**