

Higher Education, Employer and Employee Engagement through E-portfolios: the 'HE5P' Project.

1. The central proposition.

- 1.1 A key basis for the HE5P Project was the perception that e-portfolio technologies were of particular relevance to the employer engagement agenda. Underlying HE5P was the **proposition** that *'e-portfolio practice has the capacity to provide the 'glue' in the development of such provision, connecting key stakeholders (employer/ workplace mentor, employee/learner and academic/institutional support) and facilitating learning and assessment'*.
- 1.2 It was expected (from previous work on e-portfolio developments) that the relevance to the employer engagement agenda might be in two different respects: through increasing the **efficiency** of the processes involved (and thereby making it to easier to realise the business benefits to both the employer and the HEI); and through **enhancement** of the learner experience (thereby increasing the value of investment of both the employer and the employee/learner).
- 1.3 **Efficiency** gains would come in general terms from the better flow of information. Effective employer engagement practice entails a complex dove-tailing of needs and requirements from at least three different stakeholders – employer, employee and HEI. A key aim of the project was to give careful consideration to these complexities and design an appropriate information architecture to show how systems and human beings would need to use, re-use and exchange information.
- 1.4 **Enhancement** of the quality of the learner experience would need to recognise the challenge of developing effective learning practices within distributed learning environments (the workplace) which are personalised to the learner, (taking existing preferences, skills and experience into account) while appropriately reflecting organisational needs and requirements.

2. What the Project did.

- 2.1 The project took a broad and inclusive definition of 'e-portfolio technologies' (see 3.3 and 4.1 below). It then sought to categorise the kinds of services and functions which have been found to be valuable within the project partnership. In relation to the different services, different technologies (and sometimes specific tools) were suggested

according to the function they serve (best), bearing in mind that some tools have a restricted purpose and others try to combine a range of functions. Also, a tool developed with one particular purpose in mind sometimes delivers other services although perhaps not so conveniently as another tool might.

- 2.2 The Project itself encompassed four overlapping **aims**, to:
- 2.2.1 Collate and analyse existing practices in work based learning e-portfolio practice(s), specifically via a review of literature and existing practice (Richardson, 2009, at: <http://www.recordingachievement.org/employers-cpd/he5p.html>).
 - 2.2.2 Build capacity to develop and promote best practice in using e-portfolio technology to support employer and learner engagement in higher level learning, specifically via the development and support of a national partnership involving the following:
 - a. the Universities of Bedfordshire, Bradford, Cumbria, Hull, Leeds Metropolitan, Leicester, Liverpool, Northumbria; Plymouth; Portsmouth and Wolverhampton;
 - b. two professional bodies (Chartered Institute of Library and Information Professionals and the Institute of Physics) and one Lifelong Learning Network (the Greater Manchester Strategic Alliance).
 - 2.2.3 Disseminate key lessons and experiences which will inform/shape policy and transfer practice, via:
 - a. Publications (for example the AGR members' journal *Graduate Recruiter* and the Leeds Metropolitan journal *Assessment, Learning and Teaching* in a special issue on employer engagement (in press)).
 - b. Events, (for example via the CRA National Residential Seminar (10/09) and the JISC Joint Programme meeting (27/05/10) 'Employer responsive provision: designing, delivering and supporting flexible learning opportunities').
 - c. Briefing papers (currently under development) for employers, senior institutional managers and policy makers.
 - d. The Project website.
 - 2.2.4 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, via data collection and reporting and the provision of an Information Architecture Model (see page 13 below).

2.3 The Partnership Model.

The Project was based upon partnership working between participating Higher Education institutions and an employer. Such employer partners varied from local SMEs through to global concerns. Specifically, each University worked with at least one employer partner - and employees/learners they were supporting - on existing or new practice to establish the value of electronic portfolios in:

- 2.3.1 meeting the support needs of the employee/learner engaged – with employer support - in higher level study;
- 2.3.2 identifying learning/training needs for the learner, and those opportunities that exist or need to be developed in the e-portfolio context in order to satisfy such needs;
- 2.3.2 monitoring of progress towards outcomes that are required by the employee/learner, employer and HEI respectively;
- 2.3.3 identifying the extent to which e-portfolio systems and services can help to:
 - a. achieve a greater congruence of outcomes (as identified by employees/learners, employers and HEIs);
 - b. embed the provision of support for learners in meeting desired goals and outcomes;
 - c. support the transparency of goal setting through planning processes;
 - d. provide a structure for monitoring progress and progression through personal reflection and planning;
 - e. evidence the achievement of outcomes, including for assessment purposes.
- 2.3.5 In addition, during the life of the Project the partners held collaborative meetings, as follows:
 - a. 8th December 2008 Universities UK, Tavistock Room. Woburn House
 - b. 6th May 2009 London College of Fashion
 - c. 7th September 2009 Conference Centre, Aston University, Birmingham

2.4 Work led by the Central Team.

- 2.4.1 Beyond the sheer complexity of aligning the needs of different stakeholders, the HE5P project recognised some key challenges to the project's vision, in that – while work was under development - the institutional baseline was low, in two senses:
 - a. the significance of employer engagement within institutions often appeared limited and in some cases marginal to institutional concerns;
 - b. where e-portfolio practice had been developed within HE, it was often oriented towards the needs and interests of full-time campus based learners (for example, Ward and Richardson (2007¹) in a study of online PDP/portfolio provision for the LLN community noted that just five LLN partners reported using any online provision to support PDP processes).

Such challenges were confirmed within the initial literature and practice review (Richardson 2009²).
- 2.4.2 For these reasons it was decided that, alongside evidence of practice within the project partners, the HE5P project would need to develop a

¹ Personalised learning plans in Lifelong Learning Networks. At:

http://www.hefce.ac.uk/pubs/rereports/2007/rd11_07/

² At <http://www.recordingachievement.org/images/pdfs/he/he5pliterature.doc>

vision of potential future practices. Therefore a key output of the project has been a **suite of scenarios**, recognisable from current practice but envisioning an environment where the:

- a. information architecture (and hence the information flow) is more 'fit for purpose';
- b. HE staff have greater experience of and confidence in the tools they have available.

2.4.3 Such scenarios were written to illustrate a range of types of employer engagement and how it could be facilitated using a range of electronic tools which could collectively be referred to as 'e-portfolio technologies'³. While there is no generally agreed definition for the term 'e-portfolio', in this report it includes technologies which store digital artefacts created by the user (which might be documents or other media files, or might be entries into a developing record such as a blog) and allow a selection from them to be presented on-line; and which facilitate online communication between distributed users (including the facility for commenting on the artefacts).

2.4.4 Alongside this we considered the issue of the **pedagogical function** which the technology is required to support, and whether this is **appropriate to the stage and experience of the learner**. For example, sharing one's thoughts and questions about work-related incidents requires a degree of confidence and experience – still more the ability to reflect on and learn from such sharing. Learners who are themselves in managerial or professional positions may have much more of this confidence than an employee who is younger, from a relatively low-status job or has no prior HE experience. Such a learner may need considerable personal support (from tutor or work-based mentor) to appreciate the value of sharing (particularly when this involves negative experiences or potentially casting the sharer in a poor light). 'Learning from reflection' generally needs careful scaffolding to become both valuable and habitual.

3. 'On reflection': what the Project discovered.

3.1 Our experience in undertaking the Project highlights a range of **contextual issues** that funders and institutions may wish to take into account in planning future work, and these are identified in summary form here:

³ As the JISC publication *Effective Practice with e-Portfolios* (2008) points out, the term 'e-portfolio' 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' which may be referred to generically as 'e-portfolio-based learning'. 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'.

- 3.1.1 The importance of taking into account how different aspects of policy and practice can impact upon innovation (the speed of processes of institutional approval for new provision, for example).
- 3.1.2 The challenge of relating outcomes to policy issues in a changing economic and political landscape. One example here was how far the changing economic climate placed renewed emphasis upon the needs of the individual and their professional affiliation, i.e. to a professional body, given a context of increasing change in the labour market).
- 3.1.3 The diversity of the agenda. As previous work attests, the employer engagement agenda is a broad and diverse one, incorporating a range of relationships with employers and all levels of learner (from 'new to HE' to 'postgraduate returner'). Even focusing on learner needs for support, a simple formulation of what might be the appropriate use of technology is likely to be insufficient. Familiarity with different tools is only one issue, although we are still very far from being able to take for granted that any group from the range of stakeholders – academic staff, employers/work-based mentors and employees/learners – is fully comfortable and skilled in the use of technology.
- 3.2 Moving from contextual issues to focus on enabling technologies, language and focus (asking the 'right' question) are important. While the original question 'How do e-portfolios support employer engagement?' allowed the project to focus upon a subset of technologies and functionalities, a better focus for the future might be 'Using technology to support effective workforce development', emphasising the relevant functionality to support curriculum design and learner support alongside the delivery of content.
- 3.3 The experience of the project confirmed that in assessing the added efficiencies and enhancements of technologies, it was more useful to consider specific functionality/ies rather than complete systems. Using this approach, and building upon evidence from partners and scenario development (see 2.4.2. above), we present below our analysis of how the functionalities of the various software referred to as 'e-portfolio technology' might best support the workforce development agenda in higher education.

4. Towards effective and enhanced e-portfolio use in workforce development.

- 4.1 We refer to what a piece of technology allows one to do as its 'affordance': thus, the affordance of a technology tool is the range of activities it supports and/or allows. It is worth noting that tools are sometimes designed for a specific purpose but their use can be 'stretched' for other purposes (e.g. using Skype for a conference presentation).
- 4.2 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 considered separately.

4.2.1 **Linking and networking users**, (between distributed peers, tutors and workplace mentors). The pedagogical purposes enabled by technology which links and networks users are:

- a. **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).
- b. **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.

4.2.2. **Holding, organising and linking (allowing the organisation and linking of) digital items**. The pedagogical purposes enabled by technology which holds and allows the linking and organisation of digital items are:

- a. **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 is 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.
- b. **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.

4.2.3. **Presenting collections of artefacts to a range of audiences online**. The pedagogical purposes served by technology which enables the presentation online of collections of digital artefacts are:

- a. **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.
- b. **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.

Assuming a work-based learner and workplace mentor, the most important requirement for technology to service is **connection** between tutors, mentors and distributed peers. This might allow them simply to share experiences, but also allow for multi-way feedback on work produced. (A further possibility is collaborative work online, though we found little evidence of this.) Of secondary but increasing importance is the requirement to gather, store, select and present **diverse evidence** of learning and achievement, particularly evidence from the workplace.

5. Learning from the project approach/methodology

- 5.1 The HE5P project was unusual in the use it made of strong existing partnerships and ongoing activities, that is, work which was not initiated by or reliant upon project funding. The role of the eleven HEIs, two professional bodies and one lifelong learning network was primarily to share their experiences of developing employer engagement activities and also to collect and share evaluation data and reflect on common questions and issues. This model is invariably rich and messy in management and accountability terms; however it has at least four strengths:
 - a. It adds value in that the activities from which evidence and insights are drawn have been developed because of a perceived institutional need or driver rather than in response to project funding.
 - b. Project-related activities are likely to be sustainable in that they have been planned to continue in existence and develop further beyond the end of the project.
 - c. Since project funding is not needed to start up new initiatives, a wider range of partners can be involved, reflecting more of the diversity of provision within the sector and hopefully providing a broader evidence base.
 - d. It can provide a lower cost, multi-partner Project which may enable greater understanding of the diversity of provision within the sector.

6. Project outputs

- 6.1 A Final Website containing full partner reports, initial literature and practice review and links to key external documents, in addition to the materials listed below.

- 6.2 Project reports, of three types for different audiences: focused operational and reflective summaries, and integrative, the latter incorporating:
- a. Eight 'scenarios' based on current practice but envisioning future developments, designed to illustrate different learning experiences and institutional settings;
 - b. Information Architecture Model (IAM page 9 below), showing optimal information flows between systems and actors to achieve maximum administrative efficiency together with quality learning experiences (cross-referenced to the scenarios). The IAM demonstrates a linkage of a particular range of systems holding personal and educational information, and a range of processes using the information held in those systems, such that information flows effectively and can be accessed as needed by actors engaged in processes. The effectiveness of this flow of information will depend on the use of common standards by the systems involved.

The IAM shows in particular the role of an e-portfolio system within this linkage, in terms of the information it needs to draw on and the processes with which it is involved. The visual representation of the position and linkages of the e-portfolio system within this IAM should help to clarify both its role and purpose, and also the required technical specification in terms of information standards.

- 6.3 Short briefing papers for employers, for senior managers in HE and for policy makers.

Information Architecture Model



