

An important aspect of lifelong learning is the learners' ability to assemble, demonstrate and reflect on the skills, knowledge and achievement they have built up during their unique learning journeys. One of the functions of electronic portfolios (e-portfolios) is to support this kind of activity.

JISC-funded projects have been investigating a number of issues around the use of e-portfolios and personal development planning (PDP) to support lifelong learning.

A particular focus has been the use of PDP to aid a student's transition from one institution or environment to another, such as school – college – university, and the automatic transfer of their personal data and reflections to support this. The projects are helping to surface a broad view of user requirements, both those of learners in various situations and those of the people who support them.

Policy context

Lifelong and personalised learning policy drivers propose that all learners should be able to (electronically) develop, record, repurpose and transfer a wide range of information about themselves as they progress through different levels and episodes of learning, training and employment.

JISC's work in this area

Learners create e-portfolios and use them for a variety of purposes (depending on the system they are using). These purposes include supporting:

Presentation

- Selected material for application for admission to study or job, induction, appraisal or assessment

Transition

- Supporting learners as they move between and across institutions and sectors

Learning

- Personal and reflective, to guide and develop learning over time (both formal and informal) in education, training and employment

These areas of e-portfolio usage are at different stages of maturity. JISC projects have been working in all of these areas. This paper provides an overview of this work to-date.

Presentation

A number of projects are investigating issues around application to university, including:

- Direct entry from local schools and colleges (27)
- Linking with 'taster' and preparatory mini courses (28)
- National UCAS entry system (6)

Other projects are investigating the use of e-portfolios for applying for jobs or work placements and for building CVs (20, 26).

Projects working in the area of presenting evidence for assessment and for formal qualifications are investigating the presentation of work for professional accreditation, and the use of portfolios in traditionally reflective/evidence-based disciplines such as education (21) and healthcare (22).

Projects are exploring the use of portfolios to showcase work in a range of disciplines, including creative industries (25) and teacher training (21).

Work has also started with the HE Academy Subject Centres, professional bodies and sector skills councils.

Transition

Projects exploring this area of supporting learners through transitions have worked on areas such as the use of an electronic PDP system to support students as they move from a high support environment (FE college) to a low support environment (HE institution) (4), and around supporting the development of key skills and study skills on transfer to higher education (23).

Learning

Many JISC projects have been working in this important area of supporting reflection and PDP through e-portfolios. This work includes:

- Reflection on previous educational experience when starting new courses (20)
- Reflection on skills with respect to career or educational aspirations (28)
- Supporting personal development planning (4, 5, 25)
- Sharing of reflections with mentors and peers for comment and discussion, including employers (3)
- Competency management (9, 12)
- Use with a wide range of learners in different situations (19, 20), including implementation of the IMS ACCLIP specification for screen display preferences to support visually impaired users (5)

Technical development

Tools

A number of e-learning tools and a web services toolkit have been developed, including a general open source e-portfolio tool (13), a skills profiling web service (12) and a visual mapping interface for an e-portfolio (11).

Interoperability and data transfer

Many projects have investigated issues around the transfer of student data between institutions to ease transition for students. One project (2) has developed a middleware solution to enable the transfer of learner data between otherwise incompatible systems, a solution that has been developed further through other projects in a range of contexts (25, 26, 28); others are using Enterprise web services to draw down learner data from a range of institutions into a learner portal (1, 29) or e-portfolio system (10).

Other projects have successfully piloted the transfer of standards compliant learner data, between HE and FE PDP/e-portfolio systems (5, 18), between schools and colleges (24) and between the national UCAS entry system and an institution (6). However, it has emerged that the technical standards require further rationalisation in order to provide a clear roadmap for delivery. The continued development of technical standards for the learner information held within an e-portfolio is being coordinated by JISC-CETIS through the Portfolio SIG.

Security

Investigation is underway for the provision of Shibboleth-based authentication for e-portfolio systems (21).

e-Framework and e-portfolio

The JISC e-Portfolio Reference Model project (30) has scoped the e-portfolio domain (with a focus on e-portfolios for transition) and has made a number of recommendations for working towards a 'thin' e-portfolio model, a lightweight service-oriented approach to e-portfolio; an approach enabled by the JISC e-Framework.

Guidance for institutions

A project (8) has been exploring the legal issues surrounding e-portfolios and lifelong learner records, and has produced a range of guidance on issues such as data protection and IPR.

Another (7) has produced guidance for institutions and specific staff groups (including teaching practitioners and institutional managers) aiming to help them make informed choices about e-portfolio systems.

e-Portfolio projects funded by JISC

Projects funded under the MLE's for Lifelong Learning programme

www.elearning.ac.uk/mle

1. NIIMLE (Northern Ireland Integrated Managed Learning Environment)

The NIIMLE project developed a range of services accessible via a portal for learners in the province, services designed to help them make transitions between stages of learning and of work. The portal provided students with access to their records of achievement as well as a pathways service to all courses in the region.

2. SHELL (Southwest Hosts Enhancing Lifelong Learning)

SHELL aimed to improve administration through single registration for partnership students at the University of Plymouth studying at partner FE colleges. Using the ioNode technical infrastructure, IMS LIP compliant learner data was transferred between college and university, triggering automatic access to the University's VLE.

3. PROSPERO (PROcesses for Support of PErsonal development Records Online)

PROSPERO developed a working, open source Personal Learning Environment (PLE) to support personalised learning by providing mechanisms for skill recording, learner-driven skills assessment and evidence-based competency profiling.

4. TransPortALL (Transfer of Portfolios Assisting Lifelong Learning)

Students on a 2+2 degree course in psychology used the University of Liverpool's online PDP tool (LUSID) to support them across the transition from college to university. Recommendations are available, which incorporate a set of principles for activities to support learners moving from a high support context to a low support context.

5. Developing Learning and Teaching Aspects of Progress File and the Personal Development Profile across FE and HE

This project developed an electronic Progress File for FE learners, and successfully piloted the transfer of UKLeaP compliant student data between the Loughborough College e-Progress File and the Loughborough University e-PDP system RAPID.

6. Specifying an e-portfolio: enhanced learning information for flexible admissions and transitions into HE

A technical framework was developed to enable the widespread use of enhanced learner information within more flexible HE admissions processes, demonstrating how the Schwartz recommendations for Fair Admissions could be implemented. Working with UCAS, the project provided the catalyst required for the complete UCAS system to be mapped to UKLeaP.

7. MLEs for Lifelong Learning Support Project

This project, led by the Centre for Recording Achievement (CRA), produced a report of e-portfolio developments in the UK and USA/Canada, a vertical review of e-portfolio software products,

and guidance for HE institutions aiming to help them make informed choices about e-portfolio systems.

8. Legal Study

This project produced early and effective legal research and guidance to JISC lifelong learner record (LLR) pilot projects, and those engaged in drafting proposed learner information standards and specifications.

Projects funded under the e-Learning Framework and Tools strand of the e-Learning Programme

www.jisc.ac.uk/whatwedo/programmes/elearning_framework.aspx

9. Web Services for Reflective Learning

This project investigated the creation, management and aggregation of learner records data including reflections, goals and competencies.

10. LIPID

LIPID successfully used the Sweet.net toolkit to export learner data (including name, address, current courses, module grades etc) from the University of Wolverhampton's student record system (SITS) into their e-portfolio system (PebblePad). Learners can include basic data – name, address, current courses, module grades etc into a CV builder provided by the system.

Projects funded under the Distributed e-Learning Strand of the e-Learning Programme

www.jisc.ac.uk/whatwedo/programmes/programme_edistributed.aspx

e-Learning Tools for Learners and Teachers

11. VMAP (Visual Mapping of Portfolios)

An e-portfolio tool that enables the learner to plan, construct and update an e-portfolio through the use of a visual mapping interface, on their own personal desktop.

The e-portfolio can be shared, published and disseminated through the use of a visual mapping interface.

12. SPWS (Skills Profiling Web Service)

The SPWS tool can be used to allow students and tutors to reflect on activities. The project has developed and populated a competency framework (expressed using IMS specifications), which provides a common set of competencies that can be used by a number of learning management systems.

13. Petal (Personal e-Portfolios for Teaching and Learning)

Petal produced a general e-portfolio tool for lifelong learning based on the Open Source Portfolio Initiative and the Certified Member of ALT scheme.

14. Horus

Horus supports placement-based learning. The tool provides a set of services for specifying how the learning process is structured, storing feedback about educational experiences, discovering relevant learning opportunities, monitoring and reflecting on learner's performance, and quality assuring the educational processes.

15. Interactive log book tool

The project builds on extensive work already carried out at Birmingham to develop a Personal Learning Environment. The deliverables of the project are desktop and mobile device clients together with a suite of plug-ins that integrate the Environment with local and networked applications and services.

16. SHELL-FISH

The SHELL-FISH tool provides learners with a facility to obtain feedback, a development plan and a record of progress related to that feedback. Teachers have a feedback management system which allows the accessing and updating of a learner's record of progress and previous feedback.

17. ePET (e-Portfolio Extensions Toolkit)

The project developed a RESTian interface to a formative/reflective e-portfolio system developed under the FDTL4 Programme. This was achieved by adapting the current e-Portfolio Generic Toolset to be used within a Web Services framework.

Distributed e-Learning Regional Pilots

www.jisc.ac.uk/whatwedo/programmes/programme_edistributed/pilotsdetail.aspx

18. EPICS (North-east regional collaboration around e-portfolio progression pathways with illustrative case studies)

This project is exploring PDP practice in the North-East, implementing e-portfolios in a number of institutional contexts, and trialling data transfer between e-portfolio systems. It is also investigating the legal and governance issues of a regional shared e-portfolio infrastructure.

19. FILE-PASS (Facilitating Independent Learning Using e-Portfolio & Associated Support Systems)

This project is investigating the use of an OSPI-based e-portfolio tool with links to information, advice and guidance resources to reach and support isolated or independent learners across Cumbria and Lancashire. The tool is being piloted with a wide range of learner cohorts.

20. myWORLD (Wider Opportunities for Reflective Learning & Development)

This project is building on and trialling the Petal e-portfolio tool with a wide range of learner cohorts, and within professional institutes.

21. ePISTLE (e-Portfolios Informing and Supporting Teaching Learning and Evaluation)

ePISTLE has implemented the use of e-portfolios (PebblePad and ePet) in two schools and three FE colleges in order to gain insight into: how to best integrate an e-portfolio into the curriculum; the issues with the use of e-portfolios for transition and progression; issues of storage and access; and the factors which affect use and non-use of e-portfolios.

e-Portfolios: an overview of JISC activities

October 2006

22. MANSLE (Manchester Self-directed Learning and e-Portfolios)

This project is implementing an e-portfolio system for use by three health foundation courses across the North-west. The system implements services offered by existing portfolio projects (Horus and ePet). The project has evaluated the issues around interoperability and integration of existing web services for repurposing in ways that are predicted by the e-Framework.

23. Kent PLPP (Personal Learning Portal Pilot)

Kent PLPP is piloting a personal learning portal across multiple institutions to provide non-traditional learners with access to HE resources, providing services at any Internet-enabled location. The services included are the Petal e-portfolio tool, induction and support services.

24. RIPPLL (Regional Interoperability Project on Progression for Lifelong Learning)

This project has established a national demonstration model of cross-sector collaboration in personal development planning technology (schools and employers, as well as HE and FE) to support widening participation. A limited set of personal data has been transferred between different systems in the Nottingham region using the UKLeaP standard.

25. PDP4Life (Personal Development Planning for Progression and Lifelong Learning)

The project has developed an extended specification for a learner record that merged formal and informal records of learning, and has piloted the transfer of such data using ioNodes. It also explored PDP practice in the South-West, with particular focus on the creative industries.

26. EELLS (East of England Lifelong Learning Support)

EELLS has developed a regional e-portfolio system using the ioNodes technology, and has investigated the requirement for services that could support learners on vocational and/or work-based pathways and their interaction with educational institutions, organisations and networks.

27. ELP (Enhancing Learner Progression)

This project is evaluating the application and potential of e-portfolios (Bodington and PebblePad) to support students through their lifelong learning journey, particularly at key

transfer points in that journey (moving from school/FE into university, moving between universities, and moving from HE into the workplace).

28. The Learning Matrix

The project has developed a learner portal based on the ioNodes technology through which a range of short HE 'taster courses' are being delivered to learners who may not view HE as a natural progression for them. The learners are being supported in considering the options available to them by tailored PDP activities, the outcomes of which are being recorded as part of a lifelong learner record in IMS LIP/UK LeaP format.

29. SUNIWE

SUNIWE is building on the work done by the NIIMLE (1) project, in particular the work on developing the use of uPortal and the Enterprise web services, for use with the Staffordshire University Regional Federation (SURF) and the Welsh eTraining Network (WETN).

Reference Model Project

30. eP4LL

www.jisc.ac.uk/whatwedo/programmes/elearning_framework/elfref_notts.aspx

This project is mapping aspects of the e-portfolio domain (with a focus on transition) to the e-Framework.

Projects funded by the Scottish Funding Council

http://www.jisc.ac.uk/whatwedo/programmes/elearning_sfc.aspx

31. ISLE (Individualised Support for Learning through e-Portfolios)

The ISLE project aims to develop and embed a shared concept of personal development planning (PDP) and e-portfolios to enable its FE and HE partners to meet the diverse and individual needs of learners in a radically more efficient & effective manner. It seeks to realise a seamless transition model that meets expectations for efficiency, quality, sustainability and transferability to different institutional contexts.

Further information and resources

For further detail on the policy context and what this means for institutions, see the JISC e-Portfolios Briefing Paper 2006
www.jisc.ac.uk/uploaded_documents/JISC-BP-ePortfolio-v1-final.pdf

For information on future work in the area of e-portfolios to support admission to HE, see the JISC September e-Learning call for proposals at:
www.jisc.ac.uk/fundingopportunities.aspx

For further information on the JISC e-Framework, see
www.e-framework.org

For information on the JISC-CETIS Portfolio SIG and their work on e-portfolio standards, see
www.cetis.ac.uk/members/portfolio

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