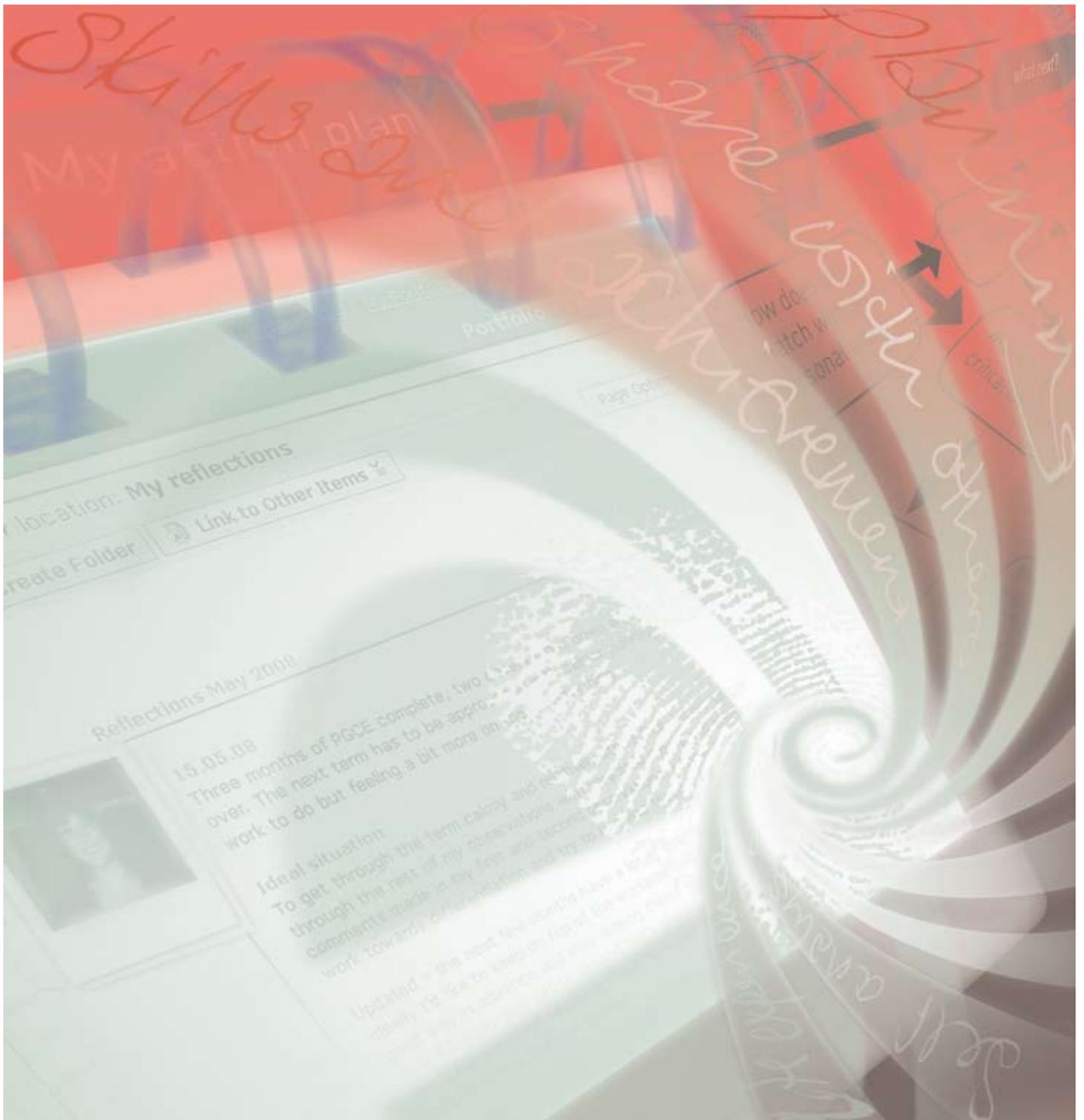


Effective Practice with e-Portfolios

Supporting 21st century learning



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Effective Practice with e-Portfolios

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'The picture has often been a complex one, with confusion over what an e-portfolio is. More recently, consensus is gathering, and clarity is being brought to the discussions, as our experience with using e-portfolio tools grows.'

JISC (2007) e-Portfolios: An overview of JISC activities



Introduction

e-Portfolios are not a new concept. In various guises, digital presentations of skills and competences, online records of achievement and action plans with opportunities for reflection have been in use in education for nearly a decade. Tools and systems built for these purposes are now numerous. So what is new about e-portfolios?

During the first decade of the 21st century, there has been increasing interest in the potential of e-learning tools and technologies to support more learner-centred and personalised forms of learning, prompted in part by national strategies for e-learning and initiatives in favour of lifelong and personalised learning. The Burgess report, the Leitch review of skills, QAA guidelines for HE Progress Files and the QCA blueprint for delivering e-assessment – and, more recently, the embedding of personal learning and thinking skills into the newly developed post-14 curriculum in England – have all prompted interest in the benefits that electronic portfolios may bring to personal development planning (PDP) and to 21st century models of learning, teaching and assessment.

Initiatives and national policies can drive forward an agenda for change, but the real test comes at the point of use. Emerging, often powerful evidence from practitioners and learners of the value of developing e-portfolios provides another strong rationale for reconsidering the role of e-portfolios in learning and teaching. Cutting-edge research and development projects funded by JISC and other agencies also indicate further potential that is not yet fully exploited – for example, in facilitating the transition between institutions and stages of education, and in supporting staff appraisal and applications for professional accreditation. But perhaps the most pressing reason for taking a closer look at e-portfolios

is the indication that use of these tools can promote more profound forms of learning.

Effective Practice with e-Portfolios uses the outcomes of recent significant projects and examples from current practice to explore how e-portfolios can add value to personalised and reflective models of learning. Drawing on the work of key national agencies and organisations and on excellent practice and recent initiatives by institutions and professional bodies, the guide illustrates a wide variety of e-portfolio use across further, higher and continuing education.

The audiences of *Effective Practice with e-Portfolios* will be those who use or support others' use of e-portfolios: learners, practitioners and managers in further and higher education; professional bodies; and those involved in initial teacher training and in the management and implementation of PDP.

How to use this publication

Effective Practice with e-Portfolios is organised into five perspectives, each highlighting different viewpoints. These sections can be read selectively according to the concerns and interests of the reader or progressively to build up a greater understanding of how activities associated with e-portfolio use can support deeper learning. The accompanying case studies highlight key points of effective practice for those new to e-portfolio-based learning.

The guide can provide only a brief insight into the potential of e-portfolios. A parallel online resource, the e-Portfolios infoKit¹ from JISC infoNet, provides a fuller account. Readers are advised where more in-depth information on the same topic is available in the infoKit.

¹ JISC infoNet, e-Portfolios, www.jiscinfonet.ac.uk/e-portfolios



Introducing e-portfolios

Various definitions exist of the term e-portfolio. This publication draws on an emerging consensus that the term encompasses both product and process:

An e-portfolio is the product, created by the learner, a collection of digital artefacts articulating experiences, achievements and learning.

Behind any product, or presentation, lie rich and complex processes of planning, synthesising, sharing, discussing, reflecting, giving, receiving and responding to feedback. These processes – referred to here as ‘e-portfolio-based learning’ – are the focus of increasing attention, since the process of learning can be as important as the end product.

A learner makes a ‘purposeful aggregation of digital items’ to present to an audience. Since there could be more than one reason for making a presentation, with a different audience in each case, multiple e-portfolios might be created from the same repository or set of repositories.

The essential links between e-portfolio presentations and the underlying processes are illustrated in Figure 1. This model moves forward our understanding of how e-portfolios support learning by highlighting the activities that are involved in developing e-portfolios. Tools to support these processes may be incorporated within a single e-portfolio system or selected independently by learners for particular tasks – as, for example, when social software is used to assemble, organise and present important experiences that have occurred outside formal education.

Whatever e-portfolio system or combination of tools is adopted, typical user requirements include an authoring environment; facilities for sharing and publishing; tools for action planning, discussion and feedback; space for storing digital artefacts; and opportunities to link to other systems where data of importance to the learner is located. For example, it may be possible – depending on the compatibility of institutional systems with the e-portfolio tool – for personal details stored about the individual by the institution to be accessed electronically and reproduced within e-portfolios.

The primary aim of an e-portfolio may be to collect evidence for summative assessment, to demonstrate achievement, record progress and set targets – as in records of achievement and individual learning plans (ILPs) – or to nurture a continuing process of personal development and reflective learning, more commonly experienced in higher and continuing education contexts, but now also occurring in further education and schools. These different approaches are not mutually exclusive, however, and may in fact represent different starting points on a journey towards embedding e-portfolio use fully into the curriculum.

Finally, Figure 1 introduces the concept of purpose. An e-portfolio, like its paper equivalent, is produced at key points in a learning journey – for example, when demonstrating the outcomes of learning, applying for a job or the next stage of learning or seeking registration with a professional body. e-Portfolios demonstrate what is important about individuals at particular points in time – their achievements, reflections on learning and, potentially, a rich and rounded picture of their abilities, aspirations and ambitions.

'An e-portfolio is 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.'

Sutherland, S. and Powell, A. (2007), Cetus SIG mailing list discussions [www.jiscmail.ac.uk/archives/cetus-portfolio.html] 9 July 2007

Understanding how e-portfolios work

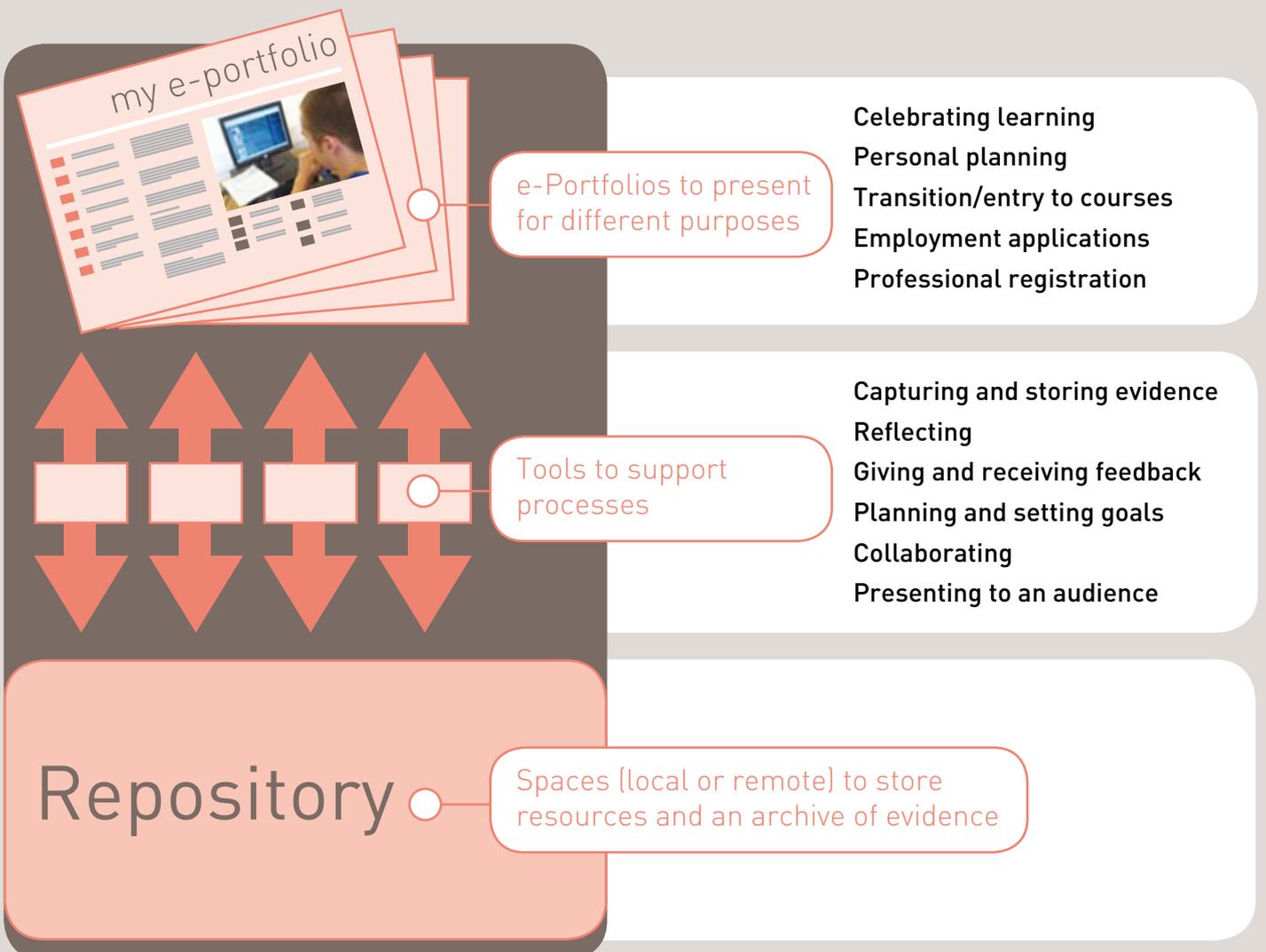


Figure 1 Adapted from Hartnell-Young et al. (2007) *Impact study of e-portfolios on learning*, Becta²

² Hartnell-Young, E. et al. (2007) *Impact study of e-portfolios on learning*, Becta, http://partners.becta.org.uk/upload-dir/downloads/page_documents/research/impact_study_eportfolios.doc



Why e-portfolios matter

A JISC overview paper: *e-Portfolios: An overview of JISC activities (2007)*³ identifies a range of purposes that e-portfolios might serve across a lifetime of learning:

- **Application** – providing evidence in support of an application for a job or for admission to further study
- **Transition** – providing a richer and more immediate picture of learners' achievements and needs as they progress to a new environment, and supporting them through the process of transition
- **Learning, teaching and assessment** – supporting the process of learning through reflection, discussion and formative assessment, and providing evidence for summative assessment
- **Personal development planning (PDP) and continuing professional development (CPD)** – supporting and evidencing the pursuit and achievement of personal or professional competences

The extent to which e-portfolio use has been established varies in each case. The use of e-portfolio systems and tools to support application and transition is emergent rather than embedded practice, and dependent on learners' access to personal online spaces which can be updated, like learning

'Feedback in an e-portfolio can be used to collaboratively develop a piece of work with other people. This makes the work a living and breathing entity. You can see it growing and know how it grew and why.'

Emma Purnell, Institute for Learning Enhancement,
University of Wolverhampton

passports, as they progress from one institution or stage of learning to another. The role of e-portfolios in PDP, however, is more firmly established.

At any one of these points, the ability to own and manage e-portfolio content could prove beneficial to learning. An e-portfolio system or combination of tools that supports reflection, collaborative activity and the preparation and presentation of evidence of achievement provides crucial opportunities for personal development. The accumulated store of reflections, experiences and achievements – which might include aspects of informal, unstructured learning as well as that resulting from formal education – may be called upon to present as evidence, but may also be retained as a personal document, an unfolding narrative of a unique learning journey. e-Portfolio content developed purely for personal reflection and not shared with others can still support formal and more public forms of learning.

The principle that learners should own the content of their e-portfolios, and the processes behind their development, is of increasing importance. e-Portfolio development is in fact viewed in some instances as the centre of student learning rather than as a peripheral activity or by-product of learning.

e-Portfolio-based learning

The case studies in this guide explore in more depth the circumstances in which e-portfolio development can:

- - improve understanding of the self and the curriculum
- - engage and motivate learners, both individually and as part of a community of practice
- - personalise learning
- - support models of learning appropriate to a digital age
- - promote reflective practice

³ JISC, *e-Portfolios: An overview of JISC activities*, www.jisc.ac.uk/publications/publications/eportfoliooverviewv2.aspx

‘The e-portfolio is the central and common point for the student learning experience... It is a reflection of the student as a person undergoing continuous personal development, not just a store of evidence.’

Geoff Rebbeck, e-Learning Coordinator, Thanet College

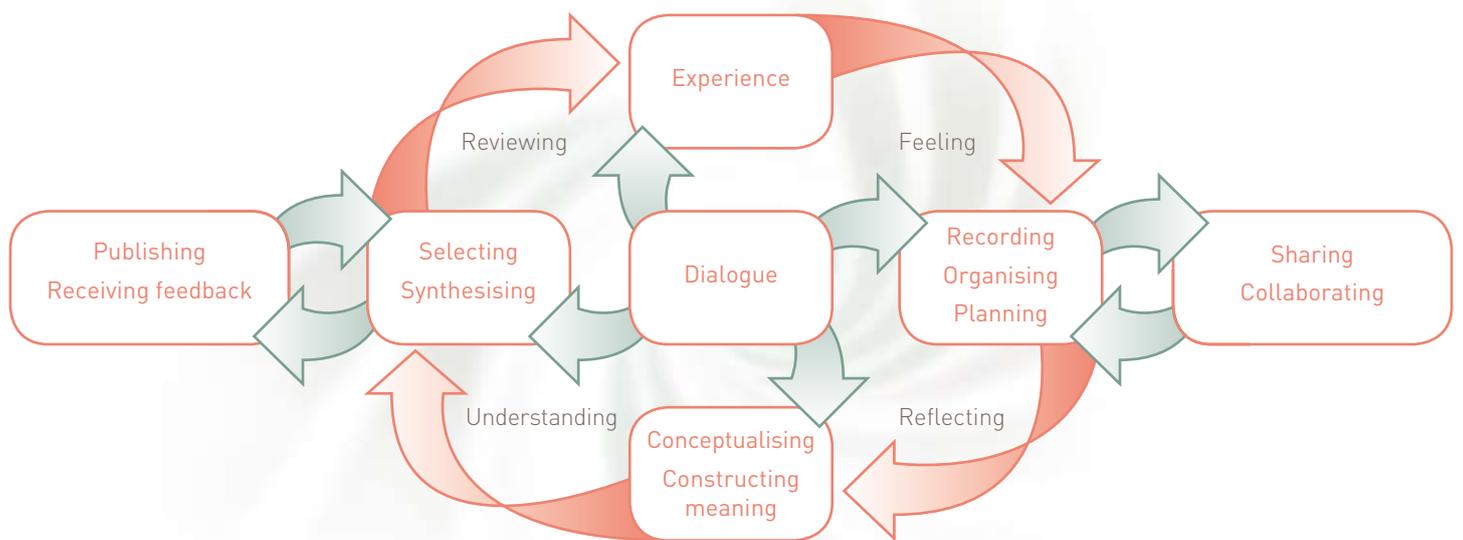


Figure 2 A model of e-portfolio-based learning, adapted from Kolb (1984)

While some technical, cultural and pedagogical issues are still to be resolved, the case studies indicate benefits for learning from e-portfolio use. Foremost among these is the ability to share developing ideas and receive prompt feedback, thus increasing learners' ability to understand concepts that were initially unfamiliar, even daunting. When effectively embedded into practice, the dialogic functions commonly found in e-portfolio systems may even support a learning community to enhance the performance both of individuals and teams.

As learners experience critical moments in their learning, they can express their responses, collect and organise information, and plan their next steps, potentially within one integrated digital environment. Figure 2, based on the Kolb experiential learning cycle, illustrates this process of continuous learning based around dialogue and collaborative activity with others. With hindsight, many learners identify

the sense of control that such e-portfolio building yields as instrumental to their eventual success.

Others gain self-knowledge through exploring aspects of their learning and their wider life experiences. Such narratives about the self are updated easily online, developing over time to provide a record of the learning journey that each learner is engaged in. In addition, e-portfolio use can generate many of the skills that learners need to effectively navigate their way through the complex demands of an information age. Through e-portfolio development, skills of collaboration and selection, even a sense of audience, can be acquired.

But perhaps the most important skills fostered by e-portfolio use are those of reflecting and forward planning in response to an experience or episode of learning. These are skills that have relevance across the sectors and in all subject disciplines.

Investigating e-portfolios: The learner's perspective



Recent JISC-funded or managed projects reveal much about what is required to make e-portfolios work for learners. High on learners' priorities are:

- flexible systems
- tutor engagement
- support from peers
- effective induction
- ready access to computers and IT support

Putting the technology in its place

e-Portfolios are about people, rather than technology.⁴ The tools have to be unobtrusive, supportive and flexible enough to accommodate the diverse needs and preferences of learners.

Learners may also benefit from being able to integrate their own choice of tools into an e-portfolio system – for example, social networking websites for discussion or mobile devices for capturing evidence occurring in the workplace⁵. Being able to customise is especially important when the purpose behind the e-portfolio activity is reflection and personal development. A guiding principle behind reflective e-portfolio development – learner control – should apply to the tools learners use as well as to the content.

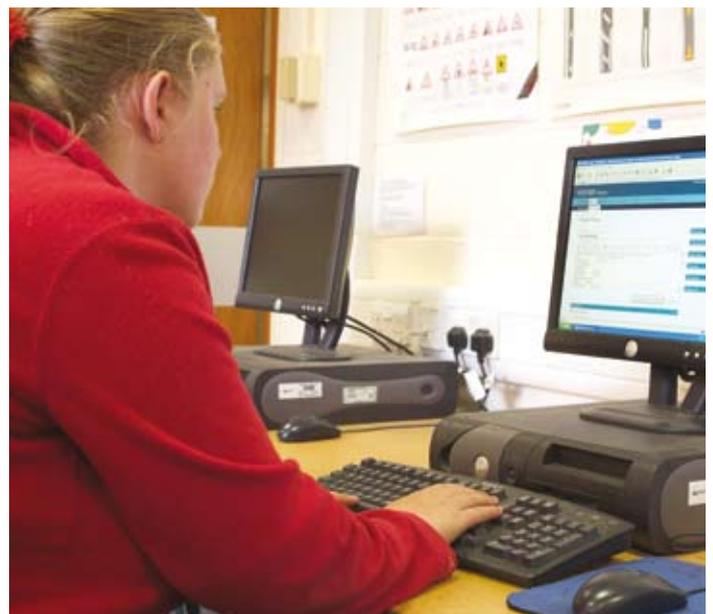
'What I liked best was the work was well presented and the finished product looked... well ... much better than a handwritten portfolio.'

Darren, Key Skills learner

Communication is key

Receiving feedback makes learners more willing to overcome difficulties and increases their capacity to reflect. Communication tools associated with e-portfolio systems, such as blogs, enable learners to acquire the support they need to continue through the highs and lows of their experiences. Timely feedback also initiates learners more effectively into ways of working associated with a new stage of education or a new professional role.

e-Portfolio practitioners report that the relationship between learners and practitioners can take on multiple dimensions – a more informal partnership can develop, for example, through collaborating in e-portfolio-based activities, which can add to, rather detract from, the formal interactions between learner and tutor.



⁴ For example, see JISC, FILE-PASS, www.jisc.ac.uk/whatwedo/programmes/programme_edistributed/filepass.aspx

⁵ JISC, Comparative study of e-portfolio implementation in work-based learning (ComPort), www.jisc.ac.uk/whatwedo/programmes/programme_elearning_capital/el_heinfe/comport.aspx

‘Now I look back and realise just how far I have come. The e-portfolio has been an integral part of that journey.’

Delia Cook, second year foundation degree and work-based learning student, ComPort project

Supporting e-portfolio learners

Not all learners find the concept of e-portfolios appealing, nor do they all have ready access to computers, so providing the option of paper-based portfolios increases learner choice.

Adult learners may have no previous experience of e-portfolios or even of working with IT. Their need for support in the early stages is particularly acute and, at first, progress may be slow. Learners’ initial difficulties with technology – and with reflective writing – may lead them to make more demands on tutors and IT support staff in the early stages. Flexible support options are critical to learners’ progress.

Learners are more likely to respond positively if e-portfolio use is introduced through carefully scaffolded tasks. Evidence also suggests that e-portfolio-based tasks may have more credibility for learners if they are assessed or carry credits, and that learners respond better to e-portfolio development and to blogging if introduced to these activities during induction.⁶

However, most learners gain confidence through developing e-portfolios, and many acquire a greater sense of self-worth.

⁶ JISC, *ISLE: Individualised Support for Learning Through e-Portfolios*, www.jisc.ac.uk/media/documents/programmes/elearningsfc/sfcbookletisle.pdf

“ Delia Cook second year foundation degree and work-based learning student, ComPort project

“ As a residential care officer for adults with learning difficulties, it has always been my dream to study for a degree. I come from a working-class background and never had the chance to go to university. Now I am studying part time at my local college, while continuing to work full time.

We had the choice of using an online or a paper-based portfolio to record our personal development planning (PDP). That was quite alarming to me at first. As I chose the e-portfolio route, it seemed even harder still – I had never even used a computer before, but I had to prove to myself that I could do it.

Now I look back and realise just how far I have come. The e-portfolio has been an integral part of that journey. There were times when I thought I would never get there, but with the extraordinary support I received from my tutor and the IT helpdesk, I have developed an e-portfolio which charts my progress. And the sense of achievement is huge!

Using the e-portfolio has even changed the way I think. Organisation has never been my strong point, but adding to my e-portfolio keeps me in touch with my learning. In my first year, I would put off doing work until the last moment, and then it would seem so much more difficult. Now I can blog my tutor if I need information. Looking out for the reply keeps my work at the forefront of my mind and is a good way of making progress in itself. I am also more confident in the workplace and now take a more active role in discussions about clients. I have learnt the value of asking questions and of sharing difficulties with others.

What has been the most important thing for me? It has been being able to ask for help when you need it – the kind of support that makes you feel that no question is too silly. ”

Insight: A learner’s view

Celebrating differences

e-Portfolio use can provide opportunities to personalise even the most prescribed curriculum – creating e-portfolios enables learners to make their mark on the process of learning, but their approaches and needs will vary considerably.

The ePistle (e-Portfolios Informing and Supporting Teaching, Learning and Evaluation) project⁷ suggests that learners' approaches to e-portfolios may be affected by factors such as age and stage of learning. As a result, some learners may only use e-portfolio systems as file repositories, while those preparing for employment may strive for the most professional presentations. Learners on placement, on the other hand, are likely to find the greatest benefit in recording the incremental steps in their learning and in sharing these with others. The ePistle recommendations include finding the best fit between e-portfolio systems and user groups, even tailoring the interface to meet particular needs.

Some disabled learners, however, may have difficulty interacting with e-portfolio systems. The primary requirements for a fully accessible e-portfolio system are robustness and simplicity and the ability to be 'tuned in' to the diverse needs of learners with disabilities. An example of work addressing the needs of visually impaired e-portfolio learners is the Loughborough College e-Progress File ACCLIP development, which enables the display to be personalised.⁸ JISC TechDis is also managing the development of the Specialist College e-Portfolio, which incorporates features such as self-voicing of content and navigation.⁹

Simple solutions can work equally well. Digital images, videos and podcasts uploaded to a personal space on the college network and recorded onto DVD or a USB drive for portability may be the most effective way for some disabled learners' skills to be evidenced.

Any tools used for e-portfolio-based learning should enable the font and colour of the background screen to be customised. Access to functionality should be possible via the keyboard as well as the mouse. However, a customisable interface not only makes the system more accessible for disabled learners, it also enables all learners to explore their identities through the development of unique personal content and design – the first step towards personalising their learning. Even if the system does not allow customisation, all learners, irrespective of their access needs, should be encouraged to explore different ways of understanding and recording the process of their learning, to better understand how they learn. Then through their e-portfolios, learners can demonstrate their learning preferences and share these with others in their organisation or workplace. Equally, this process will help learners identify gaps in their skills, which can inform their action planning.

Most studies indicate that learners become empowered through the reflective cycle associated with e-portfolio-based learning, but it should not be assumed that this will occur without guidance or design. The case studies in this section reveal the importance of partnership working between learners and practitioners in the achievement of effective e-portfolio-based learning.

⁷ JISC, ePistle, www.jisc.ac.uk/whatwedo/programmes/programme_edistributed/epistle.aspx

⁸ Henry, F. and Persse, S. (2005) Implementation of ACCLIP by the Loughborough College, CETIS-TechDis Accessibility SIG, <http://metadata.cetis.ac.uk/members/accessibility/meetings/2005/sig10/accliptml#outcomes>

⁹ JISC TechDis, The Specialist College e-Portfolio project, www.techdis.ac.uk/index.php?p=9_13

Changing learners' perceptions of assessment

Southern Regional College

Background

Since 2007, City & Guilds Key Skills learners at the Southern Regional College in Northern Ireland have been using e-portfolios to present evidence of their attainment in ICT.

The learners, aged 16–20, attend one day a week over a five- to six-week programme. In some cases, learners study remotely once initial assessment of their skills is completed.

Over 200 learners per annum take the ICT Key Skills course at levels 1 and 2 at the college. Once the course is completed, they return to the workplace, or continue with other programmes of study. The college's Managed Learning Environment (MLE) – iTCampus – is the backbone of the system, providing learners with 24/7 access to their e-portfolios.

Establishing effective practice

Course tutor Ursula Quinn realised how important it is to make e-portfolio building relevant to learners in the 16–20 age group, so devised tasks around the scenario of new drivers purchasing and insuring their first cars. The assignments meet the requirements of the ICT Key Skills specification, but are discussed and negotiated first with the class – a collaborative process that establishes learners' ownership of the portfolio-building process, even more necessary since this use of e-portfolios is part of a prescribed curriculum.

Effective file management forms the starting point, but once the basics are established, learners can progress at their own pace, enabling early completers to move on. As learners finish each task, it is saved to their personal space on the network. The tutor has access to the files to comment on, assess or sign off. As a result, assessment and verification are now less onerous, since the tutor and internal verifier can work incrementally at times and in places convenient to them. Learners, on the other hand, have become more focused on attainment, since the prompt and personalised feedback from their tutor enables them to understand more readily how to improve.

Reassessing e-portfolios

In an evaluation of the course, the Key Skills learners responded positively to the flexibility, efficiency and personalised quality of the e-portfolio route to assessment. 94% agreed or strongly agreed that an electronic portfolio was more likely to demonstrate their true capability than a paper portfolio. Learners are also more likely to reference their work of their own accord in reports and job applications, which is a clear indication of a greater sense of ownership of their learning. But the key benefit for most learners is the sense of being in control: *'There was no paper involved, so I couldn't get lost.'*

Key points for effective practice

- Assess learners' ability to work independently on e-portfolios through pre-course diagnostic tests
- Embed elements of choice even when e-portfolios are used for summative assessment

System or tool: iTCampus (in-house MLE)



Learning through reflection

School of Health, University of Wolverhampton

Background

Students at the University of Wolverhampton have been using the PebblePad e-portfolio system to support their learning on professional and vocational courses. All students and staff at the university have a PebblePad account – the system was initially developed at the university and now plays a primary role in the delivery of PDP in some courses. The School of Health, for example, replaced paper-based PDP with e-portfolios for all students on a pre-registration diploma course in nursing in 2008.

The midwifery team in the School of Health also views PebblePad as key to developing students' reflective skills while on clinical practice placements. Student midwives are required to provide four pieces of reflective writing for assessment, together with evidence of their attainment of Nursing and Midwifery Council professional competences. The system then enables students to submit their assignments through a learning gateway.

Establishing effective practice

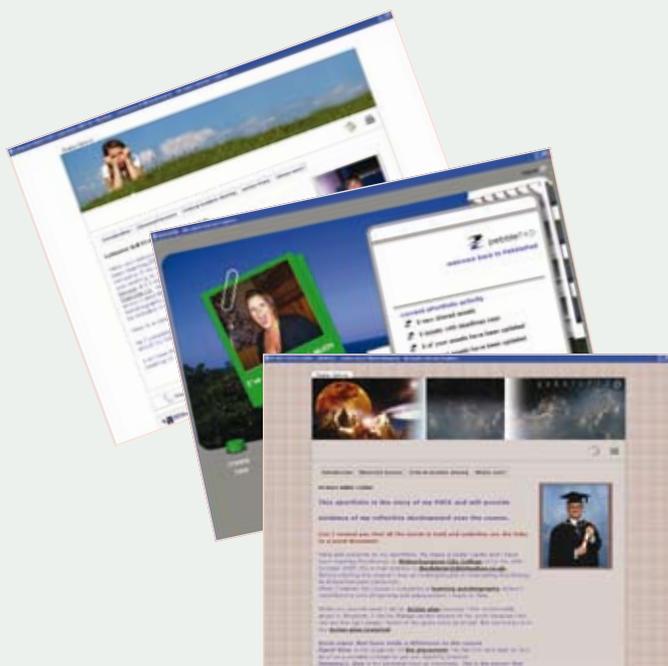
The pilot studies revealed that students are more likely to reflect and gain understanding as a result of using an e-portfolio tool. Linsey Duncan-Pitt, the Technology Supported Learning Coordinator in the School of Health, argues that students who exploit opportunities for personal reflection in their e-portfolios are more likely to develop the self-appraisal skills required of healthcare professionals.

Both midwifery and nursing students undertake a rolling programme of placements in a variety of contexts, mainly within the NHS. During the placements, they have much to reflect on and often require support and guidance from tutors and each other, as well as from their mentors in the workplace. Reflection on what they have learnt can be recorded as *learning assets* stored privately within an e-portfolio repository or shared with others – learners can choose who sees the outcomes of their reflections. Even when the assets are kept private, the skills acquired in the process of reflection contribute to students' writing about their clinical practice, on which they are assessed.

Tutors use the e-portfolio system to provide helpful formative feedback, but e-portfolios can also expose other emerging issues. At intervals on the midwifery course, e-portfolio evidence is the focal point of a three-way progress review involving the student, course tutor and workplace mentor. This joint discussion is facilitated by reflections in e-portfolios which can help to identify difficulties that could have an impact on student retention and achievement.

An established habit of reflection also provides a record of skills development over time – many students find it a boost to morale to look back and see how far they have come. For others, using the e-portfolio tool as the central point for their learning activities instils a sense of order and provides a way of managing the demands of their formal programme of learning.

Course leaders warn, however, against simplistic assumptions of 'digital natives' and 'digital immigrants' – students of any age group can lack experience and competence in ICT. IT support is provided via the university, but a culture of peer-to-peer support is strongly encouraged within the school.



‘Having a private space in which to record things as you go along is helpful. I have found that I understand things better by writing them down.’

Becci Salt, student midwife, University of Wolverhampton

Reassessing e-portfolios

In this example, e-portfolio-based learning is central to the development and assessment of professional skills. Students’ responses vary – each brings a different skills set to the course, and some experience more difficulty with reflection and with IT than others. For a significant number, however, developing e-portfolios offers an efficient way of demonstrating competences, and a supportive way of learning: *‘You don’t have to worry that you have used the right words or spelt something incorrectly – you can build up to a more formal statement later...’*

Some practitioners have elected to create their own e-portfolios to develop an understanding of the skills and support their learners will require. For student midwives and nurses, having access to this supportive community of practice is perhaps the key benefit derived from their use of an e-portfolio system. Reflecting and communicating with others extends their potential to learn and also provides a chance to debrief after stressful experiences: *‘The nature of our course means we are learning on our own, and it can be lonely out there.’*

Read more about learners’ perspectives on e-portfolios in the e-Portfolios infoKit:
www.jiscinfonet.ac.uk/infokits/e-portfolios/learner

Key points for effective practice

- Use scaffolded tasks to develop learners’ ability to articulate and present their learning
- Promote learners’ ownership of the purpose as well as the processes behind e-portfolios
- Establish a shared understanding of the value of e-portfolios between all involved: learners, tutors and workplace mentors

System or tool: PebblePad



Investigating e-portfolios: The practitioner's perspective



Practitioners supporting e-portfolio-based learning may find that adaptations are needed in terms of:

- learning, teaching and assessment practices
- training and support needs
- approaches to self-evaluation

Changing the dynamics of learning and teaching

Effective e-portfolio-based learning is unlikely to occur unless it forms part of a broader commitment to learner-centred, autonomous learning. Evidence suggests that a bolt-on approach to e-portfolio implementation fails to engage either practitioners or learners: *'It has to reflect the curriculum or there's no point, it's just an extra and if it is seen as an extra, it's not going to be used.'*¹⁰

Establishing respect for one another and for the leadership provided by the tutor is an essential ingredient in establishing an effective e-portfolio culture. Blogs in which both tutors and learners participate can be crucial to the development of this model of learning. Findings¹¹ indicate that use of blogs can also improve learners' ability to engage with the curriculum as a whole.



e-Portfolio practitioners report changes in the pace and rhythm of their work. Practitioners in the ComPort project trialling use of PDAs in work-based contexts have found that learners' initial difficulties with both technology and reflective learning increase the workload of tutors and IT support staff in the early stages of a course. Once autonomous learning is established, the support required from tutors diminishes, making more time for proactive interventions with individuals.

When e-portfolios form part of an assessment framework, there are advantages and disadvantages for practitioners. On the one hand, digital portfolios offer more efficient working practices, enabling marking and verification to take place incrementally. However, the diversity of evidence contained in portfolios can make them harder and more time consuming to assess.¹²

'An online group quickly develops a sense of collegiality, especially if the tutor is a participant, and when a climate of respect has been created, learners become able even to challenge each other and the tutor. They begin to see themselves and others differently.'

Julie Hughes, e-portfolio practitioner

¹⁰Hartnell-Young, E. et al. (2007) *Impact study of e-portfolios on learning*, Becta, http://partners.becta.org.uk/upload-dir/downloads/page_documents/research/impact_study_eportfolios.doc

¹¹Hughes, J. et al. (2006) *Pebble power!*, <http://escalate.ac.uk/2610>

¹²Strivens, J. (2006) *Efficient assessment of portfolios*, www.open.ac.uk/pbpl/resources/details/detail.php?itemId=460d156285141

'I have found that later I reap the benefit of the heavier workload at the start of the course. It's well worth it.'

Richard Hodgson, lecturer, Foundation Degree in Service Management, City of Sunderland College

Pedagogy first

Despite the drive and energy of individual enthusiasts, large-scale e-portfolio implementation can only be achieved with the support of the curriculum managers and practitioners involved in a course or module. Early adopters may run with new ideas, but will struggle to implement them effectively without support from their colleagues and senior staff. e-Portfolio systems and tools must form part of a strategic approach to learning and teaching – it is the pedagogy, not the tool, that comes first.

Evidence from the JISC Distributed e-Learning Regional Pilots also suggests that enthusiasm and willingness to learn are important attributes of e-portfolio practitioners. Exploring e-portfolio use alongside learners enables each to learn from the other, with some unexpected gains.¹³

¹³ JISC, e-Portfolios can really make a difference, www.jisc.ac.uk/whatwedo/programmes/programme_edistributed/regionalstories/epistle.aspx

“ Julie Hughes e-portfolio practitioner, University of Wolverhampton and National Teaching Fellow, ESCalate (Higher Education Academy Subject Centre for Education)

“ For me, the immediacy of feedback is one of the greatest advantages an e-portfolio has over paper equivalents. If it forms part of a clearly articulated pedagogic approach, engaged with by both learners and practitioners, the dialogic function that e-portfolios can offer can be a means of socialising new learners into the principles and practices of higher education.

Put another way, introducing e-portfolios in the first semester is an excellent way of getting new learners to write in a reflective way, as they will be expected to do on their courses. The process of listening to, and engaging with, one another's feedback is instrumental to effective learning, but also creates a supportive group ethos that can continue when taught sessions end.

An e-portfolio can provide a new dimension to learning in more ways than one. Learning is not a linear process, and the online environment of an e-portfolio provides opportunities to construct meaning in an active and

dynamic way, by linking to digital images, video or audio files, or by exploring the nature of an experience through metaphor. I feel it important in the 21st century that learners should be able to experience things in a different way – learning and teaching are no longer simply about “information-push”. Hyperlinked text enables readers to choose how they navigate through an e-portfolio, providing a reflective process for both creators and those that share in their work.

I know that using a new tool in teaching can affect a teacher's professional identity. I am asking practitioners to become learners again, and some find this difficult. However, tutors do need to participate. It is valuable for learners to see their tutors joining in discussions and sharing experiences. An e-portfolio provides a critical thinking space which can move users out of their comfort zone. They can be encouraged to take risks and so progress further. That also applies to tutors! 🍷

Insight: A practitioner's view

Benefits of blogging

Tosh and Wermuller (2004)¹⁴ were early in identifying the potential benefits of blogs used in connection with e-portfolios. Due partly to the ease and immediacy of posting comments to a blog, the medium lends itself particularly well to collaborative learning. The process can be both motivational (returning to the blog to see the outcomes of a posting engages learners of all age groups), but also evaluative (since postings can be aggregated in chronological order and displayed on one page to summarise contributions).

The combination of immediacy, informality, access to emotional support, and the opportunity to develop ideas in association with others, makes blogs a powerful aid to learning, provided that tutors participate alongside learners at least in the early stages. Course blogs may be able to develop a learning community, and extracts from blogs are often used as evidence of personal development planning (PDP) or continuing professional development (CPD). The ePET portfolio system includes a blog with additional features to support community building – for example, community publishing facilities. Integration of learners' blogs with course and CPD skills sets also enables these blogs to provide evidence of learning outcomes.¹⁵

The beneficial impact of blogging on the development of higher order thinking skills can be seen in a comment from a PGCE student at the University of Wolverhampton: *'We became reflective writers and practitioners without even knowing it!'* JISC infoNet's Tangible benefits of e-learning case study on the use of e-portfolios at Wolverhampton¹⁶ also indicates that being able to set up a blog space without



institutional intervention and having the right to select levels of privacy are much valued by learners. Access to, and competence in, ICT are prerequisites for the level of success recorded in the case study. Nonetheless, the investment made by practitioners in terms of time and energy spent in resolving initial difficulties appears to yield rewards.

Most crucially, blogging can provide an environment in which to explore the relationship between theoretical knowledge acquired in lectures and other life and learning experiences. It is through the power of such dialogues that learners gain a clearer vision, not only of the immediate demands of the curriculum, but even potentially of their future career paths. The curriculum can also be enriched by the outcomes of learners' enquiries and reflections, shared and developed via the communication tools associated with most e-portfolio systems.

¹⁴Tosh, D. and Wermuller, B. (2004) *ePortfolios and weblogs: One vision for eportfolio development*, eduspaces.net/bwerdmuller/files/61/178/ePortfolio_Weblog.pdf

¹⁵JISC, EPICS-2, www.jisc.ac.uk/whatwedo/programmes/programme_elearning_capital/el_xinstit2/epics2.aspx

¹⁶JISC infoNet, Tangible benefits of e-learning, www.jiscinfonet.ac.uk/case-studies/tangible/wolverhampton/technology

Implementing e-portfolio-based practice

University of Nottingham

Background

The introduction that learners receive is a key factor in the success of e-portfolio use, even more so when the course involves distance learning.

The introduction of reflective e-portfolios on the distance learning pathway of the Postgraduate Certificate in Teaching English for Academic Purposes (PGCTEAP) at the University of Nottingham highlights some important ingredients for effective implementation of e-portfolios. The project is funded by the Centre for Integrative Learning, a Centre for Excellence in Teaching and Learning (CETL), and uses the university's Virtual Learning Environment (VLE), WebCT, as the e-portfolio platform.

Establishing effective practice

Students have at least two years' experience as practising teachers of English, but working overseas, travel and teaching commitments, different cultural backgrounds, and even difficulties in gaining access to the university's VLE from abroad, indicate how designs for e-portfolio-based learning need to take into account the circumstances of participating student groups. In this example, the following elements were important:

- initial face-to-face contact between students and tutors
- appropriate online support materials
- effective design of tasks
- immediacy of communication
- provision of alternative routes where difficulties prevail

The course is designed around investigations closely linked to the curriculum, which are completed on a distance learning basis following a face-to-face induction module at the university.

The face-to-face element proved vital for developing personal contacts and initiating data collection so that the investigations could be sustained once the group dispersed.

The VLE carried the essential guidance documents students required – for example, information on how to compile an e-portfolio, and step-by-step procedures and deadlines for uploading content – and the e-portfolio tool enabled them to collaborate over the production of evidence and to reflect on their learning while working at a distance. However, the e-portfolio route was not compulsory – learner choice remains a guiding principle behind the design of the course.

Reassessing e-portfolios

Even though it was an optional and non-assessed component during the pilot phase, the e-portfolio option was taken up by all students during the first year of the distance learning pathway. Outcomes have been favourable: the degree of reflective learning achieved by the distance learners has encouraged the introduction of an e-portfolio option in the face-to-face pathway also offered on this course. There is also more confidence in exploring the use of alternative communication tools, such as Google™ Groups, to support students unable to gain access to WebCT while overseas.

For Martha Jones, Director of Studies for Teacher Training, the e-portfolio-based approach was initially a strategy to provide a more cohesive learning experience for distance learners. An unexpected outcome has been the favourable response of the students, who found the e-portfolio option a major contribution to their achievement on the course.

Key points for effective practice

- Hands-on sessions benefit learners new to e-portfolios
- e-Portfolio buddies provide valuable support to late enrollers
- e-Portfolio-based learning assignments should be central rather than peripheral to curricular objectives

System or tool: WebCT

Developing skills for learning, life and the workplace

Dumfries and Galloway College

Background

Dumfries and Galloway College is one of a consortium of institutions led by the University of Paisley that participated in the ISLE (Individualised Support for Learning through ePortfolios) project¹⁷ during 2005–2007. Managed by JISC, the ISLE project was funded by the Scottish Funding Council's e-Learning Transformation programme.

The ISLE project viewed PDP as pivotal to the learner experience. While PDP is primarily owned and managed by learners, ISLE proposed that it should also be 'a structured and supported experience' embedded into the existing tutorial and teaching programme. The initiative at Dumfries and Galloway focused in particular on the naturally occurring links between employability skills and PDP. An open source blogging tool and web-based personal publishing system – WordPress – available under a GNU General Public Licence¹⁸ was used to develop a bespoke e-portfolio system.

The pilot scheme initially focused on the development of employability skills amongst learners on construction and computing courses. The system is now poised to become adopted college wide, as a result of the success of the ISLE project.

Establishing effective practice

The implementation of e-portfolios at Dumfries and Galloway presented a learning curve for practitioners and some chose to chart and reflect on their progress by developing their own e-portfolios. Their experiences indicate that learners are best introduced to e-portfolio use during tutorial sessions and at the start of a year, rather than part way through. Use of e-portfolios then becomes an integral part of the curriculum, with course tutors devising opportunities, wherever appropriate, for learners to self-evaluate and reflect on their classroom and workshop activities.

Structure is also important in embedding PDP. With the WordPress e-portfolio system in place, the development team worked on a structure for learners to work within that included categories such as: about me, my personal details, my course, my goals, my interests and hobbies, my CV, my learning style and my qualifications. These were provided as templates for learners to complete and update when necessary.

¹⁷ ISLE: Individualised Support for Learning through ePortfolios, <http://isle.paisley.ac.uk/default.aspx>

¹⁸ GNU General Public License, www.gnu.org/copyleft/gpl.html



‘There are five pre-vocational courses and only two are currently taking part in the pilot. Learners on the other three courses are already asking, “Why can’t we do this?”’

Robert Brown, Core and Employability Skills tutor, Dumfries and Galloway College

The online nature of the WordPress tool has proved flexible and customisable. Practitioners have taken full advantage of this potential, encouraging learners to express their own individual identities through the look and feel of their e-portfolios. Presentations of employability skills in preparation for the workplace are customised, for example, by adding additional pages and categories, and by uploading images and video files to demonstrate particular achievements. These opportunities for creativity have enthused both learners and practitioners.

The eventual aim is for the WordPress system to become the one-stop shop for all learning-related and PDP activities. Essential learning resources such as timetables, lesson objectives and plans, and support and revision materials have been uploaded and developmental work undertaken to link to student administrative systems from the WordPress tool, so that learner data can be imported under course codes. Plans are also in hand to add learners’ individual learning plans (ILPs) to the system.

Practitioners undertake seven weeks of two-hour training sessions before cascading their skills on to others in their department and introducing e-portfolio use in their courses. A practitioner-support blog then provides ongoing opportunities for sharing resources and exchanging tips.

‘A major lesson we have found is that the support blogs and e-portfolios cannot be introduced during an academic year. If you do this, success is not as great as when you introduce them at induction’

Duncan Gillespie, e-Learning Coordinator

Reassessing e-portfolios

Practitioners involved in the initial ISLE project reported that the implementation of e-portfolios improved the motivation of their learners. An introductory course in construction recorded an increase in retention of 30% on the previous year, while retention in computing classes rose to 100%.

Although direct causative links cannot be established between using e-portfolio systems and improved performance – the successes outlined in this case study may be due to the enthusiasm of practitioners taking part in the pilot – favourable learner evaluations have nonetheless helped to win the interest of those who did not take part initially. Dumfries and Galloway College is finding that demand for the e-portfolio system now extends across a range of curriculum areas, and that more practitioners are engaging in e-learning in general.

Read more about practitioners’ perspectives on e-portfolios in the e-Portfolios infoKit:
www.jiscinfonet.ac.uk/infokits/e-portfolios/practitioner

Key points for effective practice

- Encourage the personalisation of e-portfolios to motivate and engage learners
- Promote innovative ways of demonstrating learners’ achievements through video files, podcasts and other multimedia content
- Embed all PDP-related activities into the e-portfolio system to avoid duplicating data collection

System or tool: WordPress (open source)

Investigating e-portfolios: An institutional perspective



e-Portfolios have clear links with learning, teaching and assessment of learning, but benefits also exist for institutions, especially when the vision for e-portfolios is part of a wider strategy to promote PDP or CPD, or to embed learner-centred pedagogies. As with any e-learning initiative, moving from small-scale pilots and funded projects to wider implementation involves careful management.

Some key factors include:

- **identifying what is appropriate and sustainable**
- **aligning curricular practice**
- **managing potential risk factors**
- **preparing for future developments**

Models of implementation

The most important question to ask about e-portfolios is not 'What system should we adopt?' but 'What do we want to achieve, and with whom?' Taking the learners as the starting point remains sound policy since the needs and requirements of target groups should be the driver behind an initiative.

If an e-portfolio initiative is centrally managed and linked to institution-wide provision, such as tutorial programmes, awareness is likely to be greater and take-up more rapid. However, the imposition of a compulsory initiative does not ensure the commitment of practitioners and learners. In contrast, implementation that is demand led can result in more effective and fruitful outcomes, although these may emerge in a piecemeal rather than a uniform way. Making the e-portfolio system applicable and relevant to different subject disciplines is another aspect of the challenge.

Establishing an e-portfolio culture

Centres for Excellence in Teaching and Learning (CETLs) or in-house staff development units arguably offer the most sustainable and effective routes to embedding change in culture and practice across an institution, since these foster rather than insist on innovation. Other steps to embedding an e-portfolio culture include appointing a senior manager champion, developing a peer mentor scheme to support practitioners new to e-portfolio-based learning, providing online support for new users, and emphasising the advantages of e-portfolios to practitioners and learners, focusing, for example, on the potential to develop learners' employability and reflective writing skills through e-portfolio use.

e-Portfolio adoption in learning and teaching is likely to increase if practitioners themselves use reflective e-portfolios for continuing professional development (CPD). Successful small-scale projects in areas where there is a clearly defined need also help to create momentum – early adopters can then become mentors to others. However, the single most powerful driver is the commitment of senior managers.

'Users are at the centre of their e-portfolios... and without tight integration with and concern for their uses and needs, e-portfolios will not be used.'

ePistle project final report (2007)

‘... e-portfolio tools enable students to make the all-important connections between the curriculum and the other things they do.’

Dr Angela Smallwood, Director of the Centre for International ePortfolio Development, University of Nottingham

The reduction of risks associated with legal issues or academic misconduct is essential in a successful e-portfolio implementation. The first line of defence has to be embedding digital literacy skills into the day-to-day practice both of learners and academic staff. Further guidance from JISC on the complex legal and intellectual property rights (IPR) issues affecting e-portfolio use is available in the e-Portfolios infoKit.¹⁹

¹⁹ JISC infoNet, e-Portfolios – Legal issues, www.jiscinfonet.ac.uk/infokits/e-portfolios/legal



“ Andrew Turner Principal Lecturer in Education Research and Development, Coventry University

“ At Coventry University, we have been using a freestanding e-portfolio system for three years and are now delivering, assessing and moderating some elements of personal development planning (PDP) across the university via this system. We have an established VLE, but that tends to be viewed as an institutional tool, and what is important about PDP is that it should be owned and managed by the individual learner. A separate e-portfolio system seemed the way forward, provided a single login could be provided for both tools.

There were a number of drivers behind the PDP initiative. The QAA launched its Progress File initiative in 2001, establishing the links between reflective learning, action planning and learner progression. That prompted us to view PDP as a key part of our strategy for improving learner achievement and completion. Some personal and academic tutors also saw value in implementing use of e-portfolios on their courses and a diverse range of subject disciplines is now doing so, including art and design, physiotherapy, transport and product design, and modern foreign languages.

At Coventry, we believe it is best to operate a light-touch model, giving departments scope to embed PDP incrementally into their course modules, although this is likely to be a gradual process which carries a higher risk of failure. A partially devolved system in which some elements are delivered centrally gives at least some guarantee of an outcome, especially if the PDP component carries credits. We have identified employability competences as a generic compulsory element for all courses, delivered and assessed centrally. This means that employability competences are a requirement that learners must meet before they can progress onto the next year of the course.

The impact of PDP on retention, achievement and employability is something we urgently need to know more about – it is easier to win the hearts and minds of academic staff if a PDP initiative is grounded in research. For learners, I believe it also needs to be an assessed part of their course. ”

Insight: A manager’s view

Preparing for the future

e-Portfolio-based learning is a developing area, in which the ability to transfer learner data between institutions is of increasing importance. Uses are still emerging that may yet have a wider impact on institutional practices – for example, the rolling out of the Unique Learner Number to learners in schools and colleges which commenced in 2006 will advance work on identity management and pave the way for the secure transfer of personal data.²⁰

Progression partnerships between feeder schools, colleges and universities have the potential to support a more diverse range of applicants in making the transition to higher education, with e-portfolios playing a key role in maintaining the continuity of their learning as well as facilitating access to essential learner information – for example, learning support needs – in a new context.

Collaboration between providers on a regional basis over the delivery of PDP has already been explored in a number of JISC projects. EPICS, a JISC-funded regional collaboration project in north east England,²¹ for example, found that issues



of pedagogy, organisational culture and governance are as important to resolve as technical ones, since the diversity of systems for PDP in use within one region can present a barrier to learner progression between institutions.

Pressures on higher education institutions to widen participation and improve retention will continue to focus attention on finding different and potentially more refined ways of assessing the suitability of applicants for degree and diploma courses. As well as providing richer evidence to support an application, the e-portfolio route may be able to facilitate dialogue between applicant and course tutor that in itself leads to more informed applications and greater success on the course. e-Portfolios could also enable learners to apply for more than one type of course at the same time – a process that is often unsuccessful when the only supporting evidence is a single personal statement.

Technology is also introducing far-reaching changes into learners' lifestyles. The social software revolution may yet provide the greatest challenge to institutionally managed e-portfolio systems and data management processes. In a Web 2.0 world, there is increasing recognition that reflection on experiences of importance to learners can occur and be located and shared with others in learning environments beyond the jurisdiction of an institution.

Many students now bring their own laptops to university and use software applications that are familiar to them. Increasingly, they prefer to find their own routes to recording and reflecting on their personal development, achievements and skills. Social software may be their preferred way of establishing networks to gain support, record significant moments of their lives and collaborate with others.

²⁰ Managing Information Across Partners (MIAP), Unique Learner Numbers, www.miap.gov.uk/lrs/uln

²¹ JISC, EPICS, www.jisc.ac.uk/whatwedo/programmes/programme_edistributed/epics.aspx

Facilitating application and transition

DELIA and PortisHEad projects

Background

Institutional course teams assessing the suitability of applicants for higher education would in some cases benefit from wider and richer information than is currently available through the UCAS Apply process. JISC projects, such as DELIA and PortisHEad, have been working with a web services approach to develop more responsive and flexible systems. Both projects report in 2008.

Establishing effective practice

The DELIA (Delivering Enhanced Learner Information for Admissions) project²² is examining how course entry profiles and structured personal statements can be linked to presentations of evidence in e-portfolios to enable learners to progress more successfully to higher education courses. (Course entry profiles are information and guidance made available by institution and course teams about the qualifications and characteristics likely to be demonstrated by successful applicants.)

Drawing on baseline information about e-admissions practice gathered by the parallel Admissions Domain Map project (ADoM), the DELIA project team aims to develop scenarios for future practice to demonstrate how higher education institutions might make the most effective use of data provided by applicants.

The PortisHEad (ePortfolios in successful HE admissions) project²³ is using a case study approach to explore the potential advantages and disadvantages of using e-portfolios for preparing for, making an application and receiving feedback. Working in conjunction with the University of Wolverhampton, some of the university's feeder colleges and UCAS, the project aims to investigate the value of e-portfolios at both ends of the admissions process – from pre-application guidance from tutors in schools and colleges to the transfer of data from e-portfolios into the UCAS Apply system.

Reassessing e-portfolios

The aim of these projects is to develop proof of concept. Early indications are that online course information and e-portfolio-backed applications have the potential to open up new perspectives on the admissions process.

Institutions as well as learners would clearly benefit if more detailed and personalised information were available to support an application. Admissions tutors would have more chance of making appropriate decisions, especially in the case of borderline submissions and non-traditional applicants. Unsuccessful applicants might also, in appropriate cases, receive feedback from admissions tutors via their e-portfolios to assist them in making subsequent and more effective applications.

Seamless transmission of data from e-portfolios into the UCAS Apply system has yet to be achieved, however, and personal tutors, learners and admissions tutors all need to be more fully prepared for guiding, selecting and evaluating the rich and diverse content likely to be found in e-portfolio-backed applications.

Key points for effective practice

- Use dialogue tools within e-portfolio systems to guide learners in developing effective applications
- Develop learners' skills in the appropriate selection and reuse of content in e-portfolio repositories

System or tool: PebblePad (PortisHEad)

²² JISC, DELIA, www.jisc.ac.uk/whatwedo/programmes/programme_elearning_capital/admissions/delia.aspx

²³ JISC, PortisHEad, www.jisc.ac.uk/whatwedo/programmes/programme_elearning_capital/admissions/portishead.aspx

Embedding e-portfolios into the curriculum

ePistle project

Background

The broadly based ePistle project²⁴ provides valuable insights into some of the key issues relating to the implementation of an e-portfolio initiative. Funded by JISC between 2005 and 2007, the project was led by the University of Wolverhampton and involved two schools and three further education colleges.

The aims of the project were to investigate four areas of crucial importance to the effective embedding of e-portfolios into mainstream educational provision:

- integration of e-portfolio use into the curriculum
- use of e-portfolios in transition and progression
- access to and storage of data
- factors affecting the use and non-use of e-portfolios by learners

Establishing effective practice

The main findings of the ePistle project – that e-portfolios need to be experienced as part of ‘a considered and planned curriculum’, and that success is dependent on the fit between the e-portfolio system, the curriculum and learners’ needs – are relevant whenever and wherever an e-portfolio initiative is implemented.

‘Like all good learning experiences the e-portfolio should be integral to what they do, not simply bolted on.’

ePistle implementation overview

The project set out to embed the use of an e-portfolio system as a part of the curriculum for selected small groups of learners in the partner colleges and schools, and then to establish how e-portfolios were used by learners, including what strategies and support were needed to sustain learners’ use. Lastly, the project aimed to identify whether e-portfolios could be used to facilitate progression and transition between institutions and/or the workplace.

The early stages of the project were hindered by technical issues relating to local network controls and Shibboleth, a set of identity authentication protocols used to securely transfer data between participating institutions. While the technical difficulties prevailed, e-portfolios were more likely to be perceived by both practitioners and learners as an unwanted technical burden or unnecessary extra work. However, once training for practitioners in the use of the software and appropriate pedagogic approaches took precedence, confidence increased markedly.

While the interoperability issues experienced in the early stages of the project no longer apply, it is evident that learners and practitioners lose confidence and motivation if the system is not a fully operational and natural part of curricular activities. Especially important to learners are the provision of a single login to all institutionally based tools and access to their e-portfolios from any network connection, from home and – where relevant – from the workplace.

The success of e-portfolios in supporting transition is also dependent on buy-in from users – winning learners’ confidence in the ability of the system to securely transfer personal data is as important as resolving any technical and interoperability issues. The project recommended that ‘a chain of user persuasion, acceptance and commitment’ be developed alongside the necessary technical standards, to support the acceptance of e-portfolios.

²⁴University of Wolverhampton, ePistle project outputs, <http://asp2.wlv.ac.uk/ePISTLE/outputs.html>

'The success of implementing e-portfolios into a curriculum depends upon the systems and process becoming part of an integrated experience.'

ePistle project guidelines on implementing e-portfolios into the curriculum

Reassessing e-portfolios

While recognising that the wide range of purposes and approaches behind e-portfolio use militates against 'standard issue' guidance, the project's lasting value is its illumination of the essential requirements for effective e-portfolio implementation.

Key points highlighted by the ePistle project include the need to equip and support practitioners developing new models of practice, to tailor the approach to the profile of target learner groups, to minimise technology management issues for learners and practitioners, and to keep abreast of new models of practice in e-portfolio-based learning as knowledge and expertise increase.

Also needed is a clear demonstration for learners of the value of e-portfolios in lifelong learning and in educational and career progression – the engagement of employers and higher education course admissions tutors is essential to generate demand further down the chain.

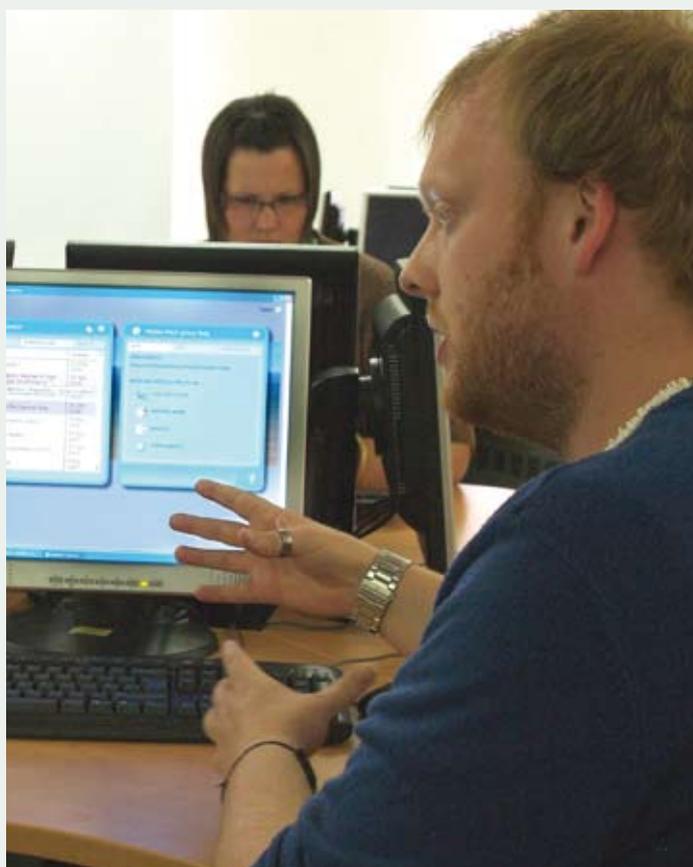
The overriding recommendation from the ePistle project, however, is to ensure that systems and processes become fully and seamlessly integrated into the curricular experience of learners. Use of e-portfolios should not place excessive demands on learners' time, but rather add value to their learning.

Read more about institutional perspectives on e-portfolios in the e-Portfolios infoKit:
www.jiscinfonet.ac.uk/infokits/e-portfolios/institutional

Key points for effective practice

- Ensure systems are fully embedded before use by learners and practitioners
- Develop learners' confidence in the secure transfer of data between institutions
- Establish an understanding of the value of engaging in lifelong learning
- Support practitioners in developing new models of practice

System or tool: PebblePad



Investigating e-portfolios: A lifelong learning perspective



Lifelong learning is a broad concept based on the belief that the acquisition of knowledge and skills extends far beyond formal education. It encompasses a wide range of learning scenarios, including continuing professional development (CPD), job seeking and career change, and formal and informal learning.

e-Portfolios are particularly important in lifelong learning, since, in the presentational sense, they provide evidence of learners' progress over time, and, in the developmental sense, they engage learners in ongoing self-evaluation through:

- **reflecting on personal strengths and weaknesses**
- **recognising gaps in existing knowledge and competences**
- **celebrating achievements**
- **evaluating how to move forward**
- **entering into dialogue with others**

'Recording and reflecting on practice and processes is not an end in itself – the impact of effective evaluative learning will ultimately enhance the experience of patients, colleagues and the profession itself.'

Sarah Fellows, CPD Adviser, Chartered Society of Physiotherapy

e-Portfolios and CPD

e-Portfolio development can make CPD a more natural process for professionals in a number of important ways: links can be made to a membership database so that personal information can be incorporated into a CV; e-portfolio evidence can be used in appraisal; and evidence of undertaking additional responsibilities could lead to accreditation in some circumstances. But the chief gain may lie in enhancing the professionalism of practitioners.

For these reasons, professional bodies are increasingly turning to customised e-portfolio systems to enable members to engage in CPD. For example, the Institute for Learning (IfL)²⁵ is introducing the optional use of e-portfolios to record the statutory 30 hours of CPD now required of the 300,000 practitioners in further education in England.

The Chartered Society of Physiotherapy (CSP) has also piloted an optional e-portfolio system for CPD. To practise within the UK, physiotherapists registered with the Health Professions Council undertake to keep a record of the reflective and professional learning that underpins their practice. The CSP accepts the importance of continuity for its members and has adapted some terminology to match that used in the existing paper-based materials – adopting a commercial e-portfolio system does not necessarily mean that it can be used 'off the shelf'.

e-Portfolios and appraisals

The Flourish project²⁶ at the University of Cumbria is exploring the potential of e-portfolios in staff appraisals. The e-portfolio route is voluntary and staff can choose whether to use the existing paper-based system.

²⁵The Institute for Learning, www.ifl.ac.uk/services/p_www_page?id=171&menu_jd=1340

²⁶JISC, Flourish, www.jisc.ac.uk/whatwedo/programmes/programme_users_and_innovation/flourish.aspx

‘The e-portfolio is central to so much. You cannot have lifelong learning or improved professionalism amongst staff without e-portfolios.’

Geoff Rebbeck, e-Learning Coordinator, Thanet College

The project team found that for the first small cohort of staff undergoing appraisal via e-portfolio, the transition from a familiar paper-based model to an electronic one led to a deeper analysis of the nature of appraisal itself – a valuable by-product of the use of e-portfolios.

Staff initially questioned the privacy and security of the process – the virtual nature of the appraisal documentation appeared less secure to some. In time the e-portfolio route to appraisal will, however, benefit practitioners by reducing the intensity of one-off annual reviews.



“ Dr Jean Kelly Professional Development Manager, The Institute for Learning

“ We chose to offer practitioners an electronic route to CPD because it offers some unique advantages: a personal and private space which is entirely under your control and which is easily accessed from home and from the workplace. Multimedia can be used creatively to record evidence and reflect on what has been learnt – for example, illustrating achievement through digital photos, videos or podcasts. You can also extract items for purposes such as job interviews as well as providing evidence of CPD.

But collaborative reflection on practice is what is important in my vision for CPD. That is why it is important to have a tool that is more than a digital filing cabinet. Although there are clear advantages in undertaking CPD online, it is the communication tools within the system that offer the greatest potential for profound learning. Others can offer constructive advice, but it is only by articulating your thoughts to someone that you really hear how far you have come and understand how to overcome outstanding issues.

Time for considered reflection in further education is at a premium. Face-to-face CPD events occur infrequently, and practitioners working in small organisations do not have the luxury of regular contact with other colleagues. To help all practitioners develop the reflective and self-evaluative skills that underpin effective CPD, we have to ensure no one is working alone. Online communication tools embedded in the system can add real value in these circumstances.

For me, dialogue with others is the best way to consolidate thinking. However, I do not think that use of an e-portfolio should be compulsory. As yet, not all practitioners have easy access to a computer, nor does everyone have the confidence to use ICT in this way. But it is still important for practitioners in the learning and skills sector to keep pace with their learners in using digital skills – it’s a new age that we are in, and we have to be at the cutting edge. ”

Insight: The view of a professional body

Systems, portability and sharable information

There is no one type of e-portfolio system. Since e-portfolios can serve different purposes and are intended for use in different scenarios, a variety of system types are possible, ranging from VLE-based tools to commercial systems and open source products. Bespoke solutions offering similar functionalities can also be developed to meet particular needs, sometimes by combining Web 2.0 tools, and some commercial systems allow customisation of the interface by organisations purchasing a licence. A further possibility is a portal-based e-portfolio system, which aggregates services of relevance to a particular purpose and learner profile.

The relationship between VLEs and e-portfolio systems is equally complex. Many institutions promote their VLEs as the preferred tool for learning, teaching and assessment, while others differentiate between the learner-centred role of an e-portfolio system and the formal role of an institutional VLE. Since some e-portfolio systems incorporate learning gateways through which learners can submit work for assessment, increasingly the boundaries between the two types of learning environments are becoming blurred.

Ward and Richardson²⁷ provide guidelines for institutions selecting e-portfolio systems or tools. These include a generic version and versions for different user groups – for example, managers, technical developers, practitioners, and students.

What is key is that the system selected meets its intended purpose. This is of increasing importance as the functions required of an e-portfolio system diversify, or when one

system is implemented across a wide range of subject disciplines. Perhaps it is not even desirable that a single system should incorporate all the functions needed to support the increasingly personalised nature of 21st century learning.

An issue for lifelong learning is the ability to access the personal data in e-portfolio-type systems for as long as the user wishes. Making learner-owned information transferable between institutions and stages of learning has been the subject of a number of JISC-funded projects such as RIPPLL (Regional Interoperability Project for Progression in Lifelong Learning)²⁸ and EPICS, and introduces the issue of common standards. Beetham (2005)²⁹ identifies some of the advantages of the development of a single standard for learner records as avoidance of multiple form filling, immediate access by learning support staff to records of learners' needs, and a single online integrated record of progress supporting learners studying with several providers.

From the learners' perspective, there may be concerns about the security of the information-transfer processes, but the DfES vision in 2005 for a personal online learning space which is accessible throughout a learning journey has become established as an important objective. Where the chosen tool or system cannot support lifelong access, alternatives include providing learners leaving a course with their e-portfolio content on a CD-ROM or on a USB drive, or developing a regionally supported e-portfolio service, as demonstrated by the East of England Lifelong Learning Support (EELLS) project.³⁰

²⁷ JISC CETIS, Portfolio requirements, http://wiki.cetis.ac.uk/Portfolio_requirements

²⁸ JISC, RIPPLL, www.jisc.ac.uk/publications/publications/rippllfinalreport.aspx

²⁹ Beetham, H. (2005) *E-portfolios in post-16 learning in the UK: Developments, issues and opportunities*, www.jisc.ac.uk/media/documents/themes/elearning/eportfoliooped.pdf

³⁰ JISC, EELLS, www.jisc.ac.uk/whatwedo/programmes/programme_edistributed/eells.aspx

Developing systems to support lifelong learning

EELLS project

Background

The East of England Lifelong Learning Support (EELLS) project set out to explore the viability of an e-portfolio service for lifelong learners that was independent of institutional systems. The project was managed by the University of Hertfordshire and Luton University and was funded by JISC under the Distributed e-Learning programme between 2005 and 2006.

Establishing effective practice

Learner profiles are many and varied – some learners complete a three-year course in one institution, but many others engage in shorter episodes of learning and move between courses and institutions over a period of time. The evidence these lifelong learners need for job or course applications may be located on several different institutional systems, making it hard for them to demonstrate their knowledge and skills for prospective employers or course admissions teams.

A portal approach enables learners to have access to a custom-built range of services that operate independently of institutional systems. The EELLS project used software developed by Phosphorix for the University of Plymouth's SHELL project to build a system with facilities for:

- uploading and storing documents, including images and film
- building and developing a CV
- creating an interactive showcase (presentational e-portfolio)
- personal development planning

Learners could also review a catalogue of courses offered in the region. The system enabled the transfer of learner data from participating institutions, but ownership and control of the content then passed to the user.

Reassessing e-portfolios

The EELLS project encompassed both technical and cultural issues. It first explored what learners needed in order to determine how to build the system. Different learner groups were sampled to reflect the potential client base – the service had to be accessible to a variety of learners, studying both within and outside institutional structures.

Feedback from learners was positive – having access to their personal data in a freestanding e-portfolio portal was clearly beneficial to them: *'... very useful to help organise and collate much diverse info that is never to hand and/or lost when needed'*. The EELLS e-Portfolio Service was adopted as a free regional service by MOVE, the Lifelong Learning Network for the East of England in 2006, having demonstrated a viable market for an independent portal service available throughout the lifetime of a learner.

Read more about the EELLS project in the e-Portfolios infoKit:

www.jiscinfonet.ac.uk/case-studies/e-portfolios/hertfordshire

Key points for effective practice

- Conduct research with user groups to determine the services and facilities they require
- Consider how to support lifelong learners who have limited or no access to computers in the home
- Build sustainability over the long term into the project plan
- Develop acceptable use policies for learners, with guidance on legal and ethical issues

Developer: Phosphorix

Taking ownership of CPD

Thanet College

Background

Thanet College has worked in tandem with the Institute for Learning (IfL), the professional body for further education practitioners in England, on the pilot implementation of an e-portfolio system for CPD. To offer secure long-term access to personal data recorded in e-portfolios, the institute has provided its members with the option of using a customised version of PebblePad, Reflect.

Thanet College provided all teaching staff with PebblePad accounts in September 2007 to gain experience in advance of the IfL pilot. The college's vision is to fully embed e-portfolio use into day-to-day practice, and the first step is to encourage practitioners to use e-portfolios for their statutory CPD, before extending the system to all staff during 2008, and ultimately to learners in 2011.

Establishing effective practice

e-Learning coordinator at Thanet College, Geoff Rebbeck, sets out a vision for e-portfolio-based CPD that will enable all practitioners to participate in reflective learning in line with IfL guidelines. He believes that CPD should be a creative activity over which practitioners have complete control: *'Each learning journey will be as unique as its author, so the system must be customisable and provide a high degree of flexibility.'*

Practitioners at Thanet are encouraged to view the process of reflecting on their practice as of equal importance to the completion of CPD activities. In their online personal spaces, they can privately explore aims, aspirations, concerns and difficulties, sharing these with others if they wish. The product of their CPD is not so much the e-portfolio presentation they might eventually make, as their improved skills and understanding of their role as practitioners.

For practitioners to engage fully with e-portfolio development, ownership of both the process and the purpose behind it is vital. Only then can what Rebbeck describes as 'the habit of honest reflection' develop, which will ultimately enhance classroom practice and the learner



experience. As a result, use of the e-portfolio system for CPD has been actively encouraged, but is not compulsory.

Practitioners are recommended to undertake at least three hours of training to help them understand the potential of recording reflective practice in e-portfolios and to take an active part in the online community set up to support the process on the Learning Curve, the college's version of Moodle. Learning what constitutes reflective practice is part of the training.

Reassessing e-portfolios

New ways of using e-portfolios as a tool for lifelong learning are already emerging. All practitioners in the college undergo annual appraisals, which involve lesson observations and dialogues between staff, line managers and, in some cases, mentors. This is an established process which is likely to generate reflection in itself, but e-portfolios may also bring about changes to the procedure – for example, by enabling an appraiser to instigate a portfolio-based discussion in advance of an appraisal. The interview can then focus more on addressing the appraisee's training and personal development needs.

'It's easy to record and share information with as many or as few people as you wish. It's a bit like an ongoing conversation.'

Paul Manning, chef, Thanet College

Other potential uses have included internal job applications and quality enhancement processes. Lesson observations, for example, may be enriched when the observer and the observed use their personal online spaces to develop their reflections on the session before sharing these with one another. In this way, the process of observation offers opportunities for mutual growth.

The Thanet vision for e-portfolios draws a clear distinction between the role of the VLE and that of an e-portfolio system: *'One is owned by the college, the content of the other by the student. One is for communication and teaching; the other is for wider reflection and development.'*

This approach to e-portfolios as a gathering point for items of learning occurring in a variety of ways, located in different places and built up over an unlimited period, has its roots in lifelong learning. The institutional policies surrounding e-portfolio use for professionals' CPD have to adapt to support the wide variety of approaches that professionals will take.

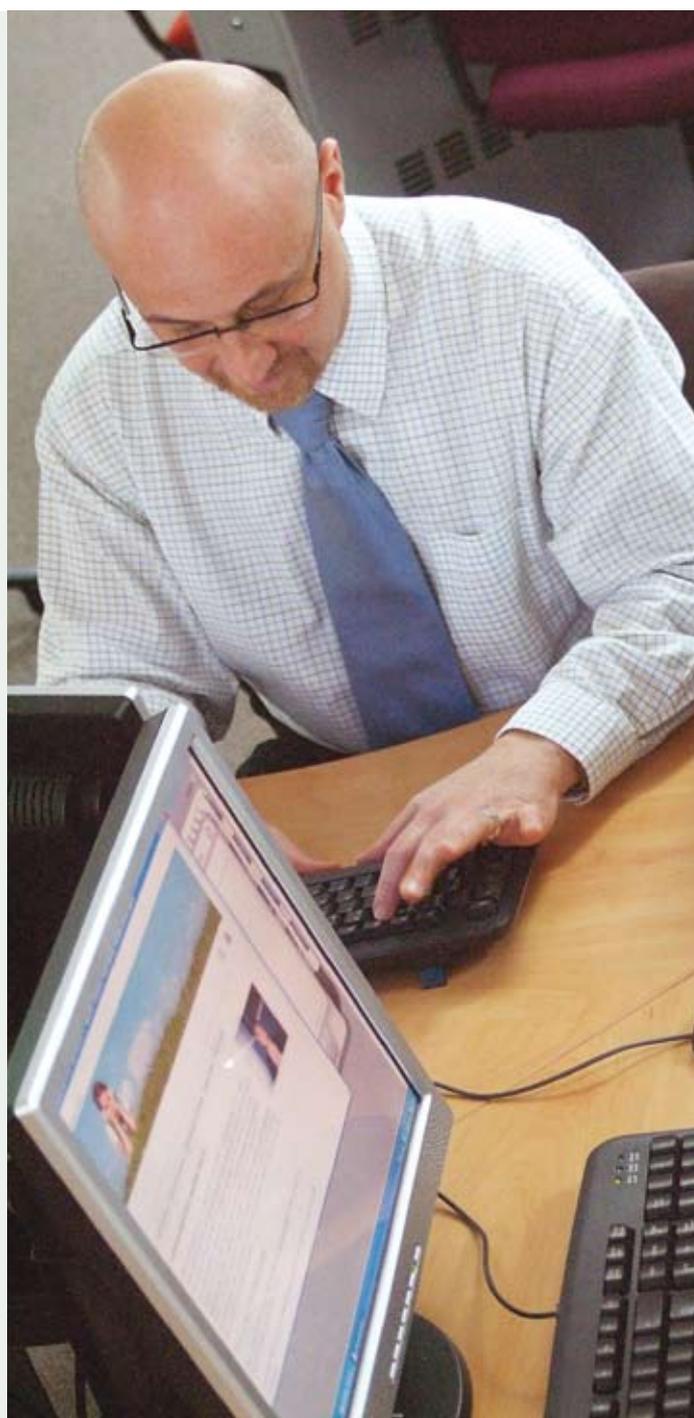
The VLE, on the other hand, is identified as the college's public forum, which focuses on institutionally based learning and generates a different kind of response from learners and practitioners.

Read more about professional bodies' perspectives on e-portfolios in the e-Portfolios infoKit: www.jiscinfonet.ac.uk/infokits/e-portfolios/professional

Key points for effective practice

- Support lifelong learners' need for flexibility and long-term access to their e-portfolios
- Build confidence in an e-portfolio route to CPD through embedding e-portfolios into quality enhancement and staff appraisal procedures
- Offer the option of paper-based portfolios, while demonstrating the benefits of a digital system

System or tool: PebblePad



Investigating e-Portfolios: The audience's perspective



However valuable the process of e-portfolio building is, items stored within an e-portfolio repository may at some point be aggregated into presentations for external audiences. Potential audiences include:

- employers
- personnel departments
- admissions tutors
- course tutors
- appraisal and quality enhancement teams

These examples point to the frequently occurring link between e-portfolios and some form of application, assessment or appraisal. At these crucial points in a learning journey, e-portfolio presentations can provide a richer and more accurate picture of the qualities and achievements of a person, increasing the likelihood of a successful match between applicants and jobs or courses. As yet, evidence of this occurring in practice is limited.

'If differentiation has a personal element, it gets at the spirit of the person, so you feel like you know the person through a personal account of themselves. I think that makes all the difference.'

Employer in the creative industry, PDP4XL2 project

Employers and e-portfolios

The engagement of some key audiences, in particular employers, is not yet guaranteed, and the issues affecting perceptions of e-portfolios outside education are still under-researched.

In a Higher Education Academy Subject Centre case study on the use of e-portfolios in law at the University of Westminster, students appreciated the convenience of their VLE-based e-portfolio tool, but engaging the support of the legal profession for the pilot was perceived as a challenge.³¹

The employer perspective on personal development planning (PDP) and e-portfolio presentations forms part of the JISC-funded PDP4XL2 project.³² This study also indicates variation in employers' attitudes to e-portfolio presentations of applicants' PDP records, some appreciating opportunities to see 'the spirit of the person', but others feeling daunted by the potential weight of evidence.³³

Learners and self-presentation

The selection of evidence for an e-portfolio presentation clearly needs to be pertinent, skilful and tailored to the needs of the audience. Sophisticated decisions have to be made about the approach taken and the persona adopted by applicants. An appropriate tone and approach are of particular importance in applications to professions such as medicine, which depend on the trust of their clients.

The ability to make appropriate selections is likely to be increasingly important for those making e-portfolio-backed applications to higher education. Applicants need an

³¹ The Higher Education Academy, Getting started with e-portfolios: case studies www.ukcle.ac.uk/resources/ict/westminster.html

³² JISC, PDP4XL2, www.jisc.ac.uk/pdp4xl2

³³ Hanson, J. and Uddin, A. (2007) *E-portfolios: employability or engagement?* www.bournemouth.ac.uk/asprojects/pdp4xl2/documents/SEECPresentation.ppt

‘When interviewing a college student for a possible apprenticeship, being able to look at the student’s work ahead of the interview certainly gives me a deeper insight into the student’s body of work.’

Employer in the construction industry

awareness of what admissions tutors will see as relevant – the existence of rich e-portfolio evidence may not benefit learners if they are unable to judge what is appropriate.

e-Portfolios provide the link between learners’ social and personal experiences, and their academic and work-related aspirations. Reflective e-portfolios are the ‘critical thinking space’ in which learners address what is important to them as individuals, including how they learn and what their chosen academic and career pathways demand of them. Drawing on this wealth of content to present themselves to employers, assessors, admissions tutors or appraisers is not necessarily an easy task, but one that can add clear value. However, potential audiences for e-portfolios also need to be ICT-enabled and willing to engage.



“ Margaret Weaver Head of Learning and Information Services, University of Cumbria

‘As a member of the awarding panel for the Teaching Fellowships at the University of Cumbria, I have seen first hand how e-portfolios work from an assessor’s or verifier’s point of view. e-Portfolios have been embedded into the Teaching Fellowship scrutiny at Cumbria as part of the JISC-funded Flourish project, which aims to support practitioners in the development and use of e-portfolios for purposes such as appraisal, academic qualifications, professional accreditation and personal development.

From my point of view, the e-portfolio route has some clear advantages. I find it especially helpful to have all the evidence in one place – this makes the process so much more coherent. With richer content, it is possible to obtain a more rounded picture of candidates’ strengths and weaknesses.

At the moment, however, it’s a new way of working – even a new way of thinking – for all of us. Not all candidates have had experience of presenting their work online and, as the electronic route was made the only option on the

2008 Fellowship awards, some candidates had to learn to format and manage their evidence electronically. Assessors have also had to make adjustments for variations in candidates’ approach.

Not every assessor finds it enjoyable to work on screen and it can be time consuming to open up and review all the evidence the candidate has supplied electronically. I scheduled in my time using the calendar in Microsoft® Outlook®. The assessment process then became a more formal and professional experience for me – I couldn’t fit in reviewing a portfolio while waiting for a meeting, for example. Personally, I am still working in print and electronic mode, though the balance is changing.

Over time, expertise in working in an online medium will become more widespread. In the meantime, the questions have to be, “How fast do we want people to change?” and “How best can we support candidates and assessors or interviewers in making those changes?”

Insight: An assessor’s view

Six steps to e-portfolio-based learning

‘I can jot something down quickly at the time in the e-portfolio and expand on it later.’

Physiotherapy practitioner

Step one

Define – e-Portfolios can mean different things in different contexts. Establish the purpose and objectives of your e-portfolio initiative. Define the issues it aims to address, the likely support needs of the learners and the nature of the learning environment before asking:

‘Which tools, systems or approaches should we adopt?’

Step two

Understand – e-Portfolio-based learning offers real potential for autonomous and personalised learning. However, a vision for e-portfolios as the hub of student learning will have an impact on pedagogic and other institutional practices. Ask:

‘What kind of learning outcomes do we require from the e-portfolio initiative and what implications will this have for our practitioners, administrative and technical staff?’

Step three

Prepare – e-Portfolios raise a number of fundamental issues around ownership of data and identity and access management. The embedding of any e-learning tool requires assessment of risks as well as benefits, plus investment in staff training and support. Accessibility, IPR, copyright and other potential legal issues also need to be raised. Ask:

‘Who will prepare the ground?’

‘I think it’s good because it shows employers what you’ve got to offer.’

FE learner

‘Being critical of myself scared me. But somehow, blogging with other people and hearing their thoughts, I started becoming reflective.’

PGCE student

'Others can offer constructive advice, but it is only by articulating your thoughts to someone that you really hear how far you have come...'

Dr Jean Kelly, Professional Development Manager, The Institute for Learning

'I could not see how it would benefit us or help us to gel as a community. However, to be perfectly blunt, I would have been well and truly lost without [it] whilst out on placement.'

Student nurse

Step four

Engage – e-Portfolio use is a far-reaching initiative that may involve practitioners, personal tutors, administrative, technical and learning support staff, and, potentially, workplace mentors outside the institution. Ask:

'What are the most effective strategies for engaging and sustaining the commitment of learners, and those involved in supporting learners' use of e-portfolios?'

Step five

Implement – Effective e-portfolio use does not occur on any scale without leadership from curriculum managers and practitioner teams. Ask:

'What are the lessons learnt from the pilots we have run? What are the factors, such as timing or involvement of e-portfolio champions, that might influence the outcomes?'

Step six

Review – Use a range of methodologies to explore the viewpoints both of learners and practitioners – guidance and reusable templates for learner evaluation of e-learning initiatives have been developed under the JISC Learner Experiences of e-Learning programme.³⁴ Ask:

'How will we evidence and evaluate the outcomes?'

'I have watched students who had very little confidence grow in self-belief through their pride in their e-portfolio.'

John Pallister, e-portfolio practitioner

'e-Portfolios are much more than e-Progress Files; they can in fact touch the whole of human life.'

Dr Angela Smallwood, University of Nottingham

³⁴Beetham, H. (2007) *Evaluating the learner experience: Some guidelines for e-learning projects*, www.jisc.ac.uk/learnereval

Further information

This publication has been produced in conjunction with an e-Portfolios infoKit and associated case studies produced by JISC infoNet
www.jiscinfonet.ac.uk/e-portfolios

JISC

For further information about JISC work on e-portfolios
www.jisc.ac.uk/eportfolio

For an overview paper on JISC activities and projects on e-portfolios
www.jisc.ac.uk/publications/publications/eportfoliooverviewv2.aspx

For the JISC Distributed e-Learning Regional Pilots programme
www.jisc.ac.uk/whatwedo/programmes/programme_edistributed.aspx

For information on the JISC e-Framework and a web services approach
www.e-framework.org

JISC services offering guidance on issues relating to e-portfolios

For information on e-portfolio interoperability and standards JISC CETIS
<http://jisc.cetis.ac.uk/domain/portfolio>

For guidance on strategic planning, implementation and management of information and learning technology JISC infoNet
www.jiscinfonet.ac.uk

For advice and guidance on plagiarism prevention and detection JISC iPas
www.jiscpas.ac.uk

For legal information relating to the use of information and communication technologies
JISC Legal www.jisclegal.ac.uk

For regional advice and support in implementing information and communication technologies
JISC Regional Support Centres www.jisc.ac.uk/rsc

For advice and guidance on accessibility, inclusion and technology
JISC TechDis www.techdis.ac.uk

Other organisations offering information relating to e-portfolios

Becta www.becta.org.uk

Centre for Recording Achievement (CRA)
www.recordingachievement.org

European Institute for E-Learning (EIFEL) www.eife-l.org

Inter/National Coalition for Electronic Portfolio Research
<http://ncepr.org>

QAA www.qaa.ac.uk

Scottish Funding Council: e-Learning Transformation Programme
www.sfc.ac.uk or www.jisc.ac.uk/whatwedo/programmes/elearning_sfc.aspx

SURF Foundation www.surf.nl/en/Pages/home.aspx

The Higher Education Academy www.heacademy.ac.uk

University of Nottingham: Centre for International ePortfolio Development
www.nottingham.ac.uk/e-portfolio

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Ward, R. and Richardson, H. (2005) *Getting what you want: Implementing personal development planning through e-portfolio* www.jisc.ac.uk/uploaded_documents/Guidance_final.doc

For details of national policy initiatives involving e-portfolios and personal development planning www.jisc.ac.uk/eportfolio

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