

The impact of e-portfolios on learning

PHOTO REDACTED DUE TO THIRD PARTY RIGHTS OR OTHER LEGAL ISSUES

What is an e-portfolio?

An e-portfolio is a purposeful selection of evidence by the learner at a point in time, with a particular audience in mind.

It is part of a personal online space, where learners can store their work, record their achievements and access personal course timetables. This space can provide digital resources relevant to a learner's own study (personalised information) and links to other learners (for collaboration and feedback).

E-portfolios benefit learning most effectively when considered as part of a system, rather than as a discrete entity. The system should include online repositories, planning and communication tools, and opportunities for both students and teachers to draw out and present e-portfolios at particular times and for particular purposes.

Background and purpose of the report

This report presents the potential impact of e-portfolios on learning and teaching. It is based on case studies of eight projects that are in the early stages of e-portfolio use within the primary, secondary, further education (FE), higher education (HE) and adult and community learning (ACL) sectors. The report is primarily aimed at policy-makers.

Harnessing Technology: Transforming Learning and Children's Services, the e-strategy published by the DfES in 2005, sets a target of providing a 'personalised online learning space for every learner that can encompass a personal portfolio'; this should be available to every school by 2008 (DfES, 2005). In addition, the QCA's *Blueprint for E-assessment* proposes that, by 2009, all awarding bodies should be able to accept and assess e-portfolios (QCA, 2004). Expectations have therefore been raised for learners as e-portfolio creators, for their current institutions and for their potential audiences.

Contents

Foreword	3
What is an e-portfolio?	4
Key findings	5
Impact on learning outcomes	5
Impact on learning processes	5
Commencing and sustaining e-portfolio development	6
E-portfolios for learning	7
Recording and storing evidence	7
Organising and planning	8
Reflecting	9
Feedback and collaboration	9
Presenting and publishing	10
Attainment	11
Engagement and motivation	11
Retention	12
Self-esteem	12
Creativity	12
Personalisation	13
Lifelong learning and transitions	13
Efficiency	14
Using data	14
Conclusion	15
Research methods	15
Acknowledgements	15
Bibliography	16
Resources	16
Authors	16

Foreword

Becta welcomes this report into the impact of e-portfolios on learning and teaching. It provides new evidence of the impact that e-portfolios are currently having in a range of education sectors, as well as highlighting the potential benefits when the use of e-portfolio systems has matured. It will be of use to educational policy-makers as well as to institutions and local authorities that are considering – or are in the process of – implementing an e-portfolio system.

To maximise the uptake of e-portfolios and their impact on learning and skills development, Becta recommends that policy-makers:

- expand the definition of personal learning spaces provided in *Harnessing Technology* in order to provide guidance to education providers on how personal learning spaces, e-portfolios and electronic tools relate to each other
- consider implementing e-portfolio systems that facilitate learners' transitions between different phases of education and promote lifelong learning
- liaise with training bodies, partner agencies and commercial suppliers in order to ensure that training in the effective use of e-portfolios is given to those who will need to assist learners in the development of their e-portfolios, and those who might receive or assess e-portfolios

- work with partner agencies to develop assessment schemes that enable evidence of learning and skills to be presented in the form of an e-portfolio.

Becta will support the development and implementation of e-portfolios through the following actions:

- commissioning research on current product availability and facilities
- researching learner and practitioner needs with regard to e-portfolios
- supporting national studies, such as the e-Scape project, and working with researchers across the education system.

Becta has already commissioned research into e-portfolios, including a landscape study of e-portfolio products and phase 3 of the e-Scape project. Further work will be carried out with intermediaries and strategic partners including awarding bodies (such as JISC and the QCA).

What is an e-portfolio?

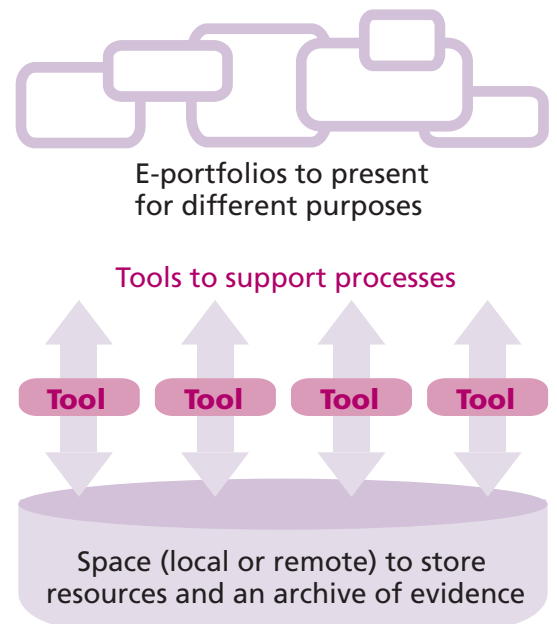
E-portfolio is a term that carries a wide range of meanings.

Government policy indicates that e-portfolios are part of a personal online space, where learners can store their work, record their achievements (a repository function) and access personal course timetables (an organising function). E-portfolios can provide digital resources relevant to their own study (personalised information) and links to other learners (for collaboration and feedback). The intention is to enable the development of 'electronic portfolios that learners can carry on using throughout life' (DfES, 2005).

Students, teachers and tutors in this study defined e-portfolios in many different ways. Some saw e-portfolios as containers for collections of evidence for a purpose and made connections with the former paper-based records of achievement. One teacher suggested an e-portfolio is 'any form of electronic folder that students will use to save anything pertaining to them as an individual: individual learning plan, homework, coursework, everything that relates to that student'. Several included out-of-school activities. Others, focusing on processes, saw the benefits for e-portfolios in supporting personal organisation, reflection and presentation to a range of audiences.

Previous work (Hartnell-Young, 2006) on developing an understanding of e-portfolios led the researchers to base this research on quite an expansive definition, incorporating both process and product, and including a range of tools within a system that links with other systems, as shown in Figure 1. Broadly, the product (e-portfolio) is a purposeful selection of items (evidence) chosen at a point in time from an e-portfolio repository or archive, with a particular audience in mind. Meanwhile, the processes required to create an e-portfolio include capture and ongoing storage of material, selection, reflection and presentation, using a variety of hardware and software tools from digital cameras to blogs.

Figure 1:
Components of an e-portfolio system



E-portfolios are not discrete, they are part of a system. An e-portfolio for all our students will have full group functionality, so children will be able to design web pages, to run and record their own forums, to run online questionnaires, so everything that the children are doing now is what will, eventually, form their e-portfolio.

LA ICT Coordinator

Key findings

The results of this study suggest that e-portfolios benefit learning most effectively when considered as part of a joined-up teaching and learning approach, rather than as a discrete entity. The approach should include online repositories, planning and communication tools, and opportunities for both students and teachers to draw out and present e-portfolios at particular times and for particular purposes. There is then likely to be substantial impact on both learning processes and learning outcomes.

Impact on learning outcomes

- The study found that e-portfolio processes support both pastoral or social needs and curriculum outcomes.
- E-portfolio processes and tools for organisation and communication support the learning outcomes of students with a wide range of abilities. Learners also develop ICT skills through using these tools, thus achieving curriculum outcomes through purposeful activity.
- E-portfolios make progress and attainment more obvious to both teachers and students, because viewing and revisiting the repository of work reveals development, achievements, strengths and weaknesses.
- The combination of software tools that allow learners space for experimentation, and the expertise of teachers who can scaffold further learning, has the potential to develop creativity. There is, however, a potential tension between facilitating creativity and designing supportive structures for students to enter information.
- Schools that had recently achieved 'best-ever' results believe this was the result of an integrated, whole-school or authority-wide approach to teaching and learning support that included online tools and repositories.

Impact on learning processes

- The individual and group processes of capturing and storing evidence, reflecting and planning that many institutions currently encourage – even where they do not use the term e-portfolio – have great potential to support future individual or group e-portfolio development.
- There are some learners in all age ranges who find that software that includes structured processes and organisational tools (such as templates for planning, calendars and goal-setting exercises) scaffolds their learning until they are confident enough to progress to working independently. Some value seeing e-portfolio exemplars before embarking on their own.
- Tools that support the important learning process of feedback from teachers and peers, and collaboration within class groups and across institutions, are much appreciated by learners and teachers. These include tools for commenting, discussion forums and 'wiki-type' spaces for group projects.
- There is great potential to make connections between e-portfolio processes, such as storing, reflecting and publishing, and learners' use of emerging social software tools used outside formal education.

PHOTO REDACTED DUE TO THIRD PARTY RIGHTS OR OTHER LEGAL ISSUES

Commencing and sustaining e-portfolio development

- E-portfolio programmes that start in a small way, taking account of teachers' and learners' readiness, and providing different types of professional development to suit local needs, appear to be successful in all phases.
- Although some institutions are working together across phases to use e-portfolios to support transition, teachers and learners rarely consider the nature of a 'lifelong' e-portfolio repository and how this might be managed.
- Learners in many sites demonstrated well-developed processes that will support future e-portfolio development. However, whole-institution or whole-authority approach does not imply that each area is at the same stage, and successful implementation in these cases took account of the individual and group differences.
- Many teachers and tutors realise that it would be useful to create their own e-portfolios as a professional development activity, but few have actually done so, as other factors, particularly the perceived lack of time, intervene.

E-portfolios for learning

Institutions have different primary purposes driving the use of e-portfolios and personal online spaces for learning, such as recording evidence of achievement in a range of digital formats, supporting personal organisation and planning in a pastoral context, and collaborating on curriculum projects with other learners locally and further afield.

Institutions have different primary purposes driving the use of e-portfolios and personal online spaces for learning, such as recording evidence of achievement in a range of digital formats, supporting personal organisation and planning in a pastoral context, and collaborating on curriculum projects with other learners locally and further afield.

The study found e-portfolio processes – for example, storing work in online spaces, giving feedback, reflecting and creating e-portfolios for public presentation – in all settings. Teachers and students were interviewed to find out their views on their impact on learning. Students in primary and secondary schools and FE colleges using online spaces and e-portfolios also responded to statements in an online survey (n = 172). Figure 2 shows the extent to which students agreed that they were helped to ‘think more about my own learning’, ‘organise my work better’, ‘plan how to improve’ and ‘understand my work better’.

The results indicate that students are encouraged to think more about their own learning (a form of reflection), particularly when using e-portfolios. It appears that using e-portfolios helps some students to improve the efficiency and effectiveness of their learning. Primary students gave higher ratings across the board, so it is important to compare responses across questions rather than across phases. There is strong support for planning to improve in secondary and FE settings, while e-portfolios are clearly seen to assist in organising work better. There is obviously potential for further development of e-portfolios, which, in conjunction with effective teaching, may increase the percentage of students who find they can better understand their work.

Recording and storing evidence

E-portfolios provide a way of storing textual, audio and visual evidence of a learner’s progress and achievement, potentially over a whole lifetime.

The study found that the content of personal online spaces was generated both by teachers and students, and in most cases was pastoral or curriculum-related, although gathering evidence of outside activities was sometimes encouraged. In the primary settings, teachers tended to collect a great deal of visual evidence by using digital cameras, and in one case, very young students used simple video cameras to capture evidence of learning activities, subsequently recording their own narration. One secondary school used cameras to record student work and developed a repository of images. Most current students, particularly in primary schools, claim they have sufficient storage space in their e-portfolio systems, although the demand is likely to increase in future.

Figure 2:
Proportion of student users of e-portfolios and online spaces who agree that they assist selected dimensions of learning

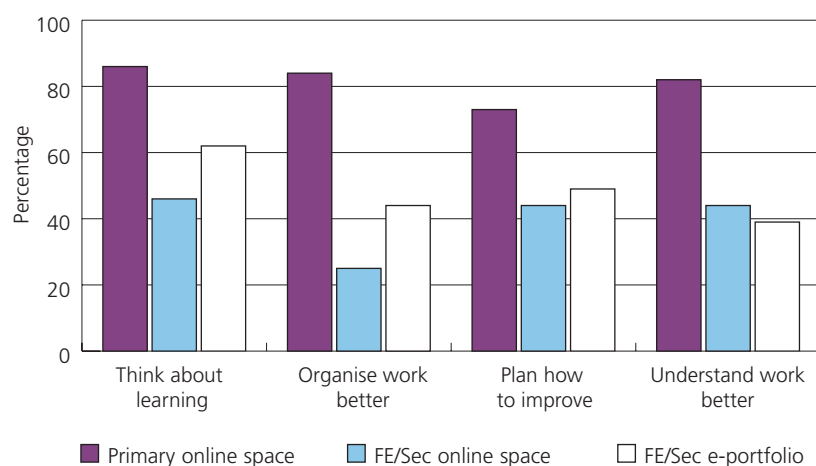


Figure 3:
Evidence over time from the repository
of a foundation year child

PHOTO REDACTED DUE TO THIRD PARTY RIGHTS OR OTHER LEGAL ISSUES



I thought it would be a good way to keep a portfolio of evidence of children's work on the website. So here is my portfolio. If Ofsted comes in and asks me about where is my evidence of work it's on here. And then I can get rid of those myriad bits of paper that we collect.

Teacher, Wilmslow

Personal storage devices and social networking software were used by students of all ages. These have similarities with e-portfolio systems in that they often combine the functions of a repository with communication tools, and allow the owner to set levels of access, thus practising some of the important e-portfolio

Learners say that they like the idea of e-portfolios and I can see that they now see it as an extension to the social software that they are becoming used to using in their personal lives.

FE tutor

MySpace is more for your personal enjoyment than for professional use than an e-portfolio would be. An e-portfolio is more for applying for universities.

FE student

In the sixth form, students come in with their iPods, where they've co-ordinated all their presentations. I get them to save them on the system and now we want to make it all accessible. It's growing.

Secondary ICT Coordinator

processes. However, there is a separation between home and school use in the minds of many students and teachers.

While it might be difficult to manage the use of these tools in institutions, the skills thus developed can be built on to achieve formal learning outcomes.

Organising and planning

E-portfolios can help learners to organise their work requirements, their resources and their time.

In many cases in this study, the purpose for e-portfolios and online spaces was to improve personal organisation and planning, particularly for secondary and FE students, as well as to list homework assignments.

According to one assistant headteacher, the digital repository particularly assists 'fragile learners' (those who are disorganised or borderline achievers) to organise themselves and avoid losing the evidence of work they've done. Students using the system also like the fact that when they submit work electronically, there is a record; and it won't get lost: they 'just have to look for it on the system'.

A sixth-form textiles teacher also used the learning platform and e-portfolio combination as an organising tool for her students. In addition to course information, tasks and a calendar, the student e-portfolio contains examples of finished work and ideas for new projects.

We show our parents the website and sometimes they go on and see what we're doing. Sometimes if we say we don't have homework, they can go onto the website and see if there's any homework on there, so they can check it out.

Primary student

My first piece I did in textiles in Year 10. We had to make a plan of an object, then take a photo of it and then try and draw it. My drawing wasn't that good, but my picture looked really good, and the colours were right, and the camera was good as well. Then I explained how I did it and how long it took me and that it was fun.

Sixth form student

We are using it as a method of recording and reflecting on skills and as a career development tool.

FE tutor

Figure 4:
A sixth-form student's e-portfolio screen

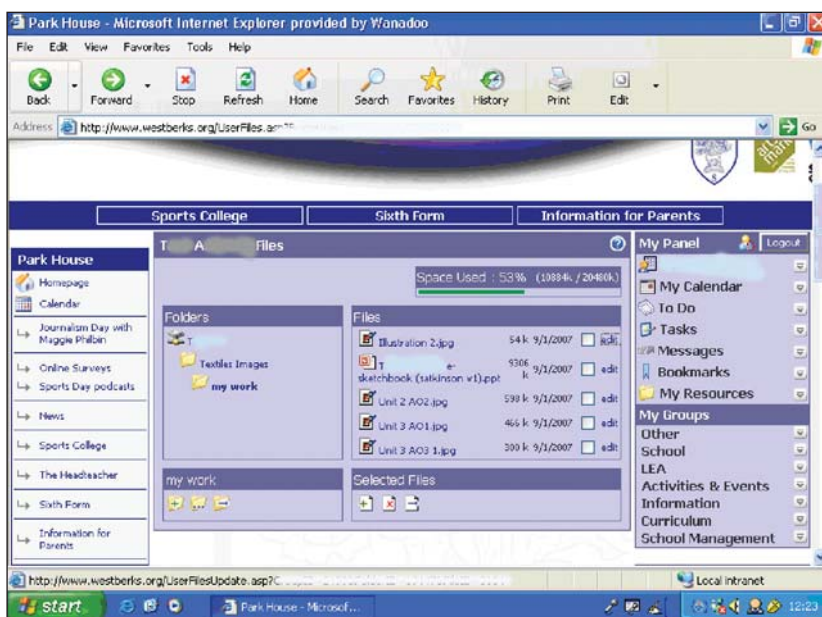
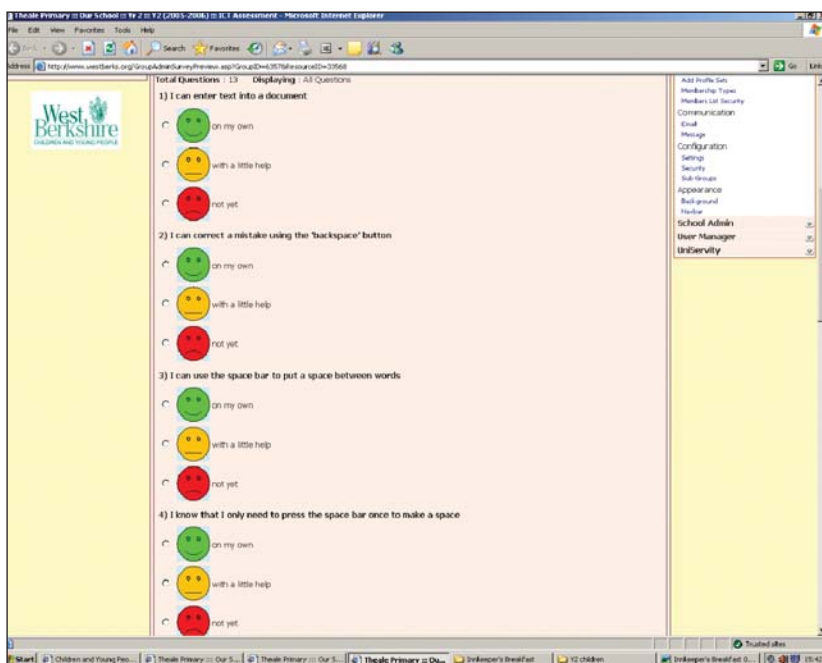


Figure 5:
An online survey used by teachers obtain feedback from young children



We give students a model to reflect: to look at what happened to them, why did it happen, what could they do in the future. We encourage them to upload an action plan, to continually look at their development, what they've already achieved, or could achieve by going on a course.

FE tutor

Reflecting

Creating e-portfolios can help learners reflect, an important part of the learning process.

Reflecting on individual items or on progress over time is an important aspect of the value of e-portfolios, and is closely linked with planning. Reflections can be recorded and revisited over time. The study found that by engaging in e-portfolio activity, both teachers and learners of all ages think more about learning (see Figure 2). As reflection is sometimes difficult for learners, teachers scaffold the process through structured questions or prompts.

The potential for e-portfolios to support reflection in this way appears very strong. Students can revisit previous contributions, and see the development in their skills through images of completed items or videos of activities. Being able to 'see' gaps in a visual display is useful to some students, and with planning resources linked to an e-portfolio process, they have assistance in planning where they can improve.

At one FE college, staff and students both felt that most learners who came to the college straight from secondary school did not have reflective or self-management skills, and it was the electronic progress file system that was instrumental in their development as self-managing learners.

Feedback and collaboration

E-portfolios and online learning spaces can support peer and teacher feedback, which helps learners to improve the quality of their work.

Feedback is an interactive process involving teachers, students, peers and parents. It is a vital part of the assessment process. Through an online space, primary students are invited to give feedback on the curriculum through simple surveys (see Figure 5), and also to give feedback on each other's work. Almost half of the secondary and FE students in the study gave feedback to each other through an online space. Some of the older students felt this could be problematic as it requires trust to share personal information, and the competition with fellow students for jobs or university places encourages individualism. However, selective sharing and peer support in using the e-portfolio system was thought to be helpful.

You can also send ideas to your friends. You can also send a message to the teacher and ask for help when you are stuck on a part of your coursework. I use my e-portfolio to send work there and back to my teacher. It is effective as my teacher can then review my work or help me with issues I am stuck on.

Secondary student

School students in this study tended to work together on curriculum projects, and share material with their parents and friends, and with friends in other schools locally and further afield. FE students generally did not collaborate in their institutional online spaces, as this was not required within their curriculum.

Out of school, primary and secondary students collaborate with friends and others in and outside their schools using more open software such as MSN, MySpace or email, which they sometimes found easier to use than the educational systems.

The potential for e-portfolios to support feedback is very high and, as the data shows, is much appreciated. The added value of e-portfolios is the repository where the

knowledge created through feedback and collaboration can be stored for later referral. In most cases in this study, the students were able to set levels of access to this space.

Presenting and publishing

E-portfolios enable learners to provide evidence of their achievements to teachers, lecturers and employers, and to publish selected material to a chosen audience.

Many of the purposes of e-portfolios involve presentation or publication, whether for celebration or assessment, or for applications to institutions and employers.

Teachers place emphasis on learners creating and populating e-portfolios that contain evidence with the potential to be presented to others, but they pay less attention to clarifying the likely audiences, whether they be other teachers, peers, parents, employers, admissions officers or completely unknown audiences.

It's a great way for children to share work and collaborate with children in other schools. The children are able to continue their learning and share work with their parents. It helps the parents to understand better what the children are doing in school and works to build greater home-school links. The children become more interested in the world around them and enjoy having a platform to share their work and show what they can do.

Primary ICT co-ordinator

I can send and receive messages from friends and teachers, which is helpful to me to do my coursework. I can send messages to my teachers if I need any extra work. It is really good to use because it becomes a part of school learning.

Secondary student

This kind of feedback and looking back at what students have achieved in the past... is a natural development of an e-portfolio.

Secondary ICT co-ordinator

The beauty of it is you've got something to show.

FE student

It has helped me to know what I need to do to improve my work. I also like it how I can send my teachers my work and they can give me feedback on it.

Secondary student

I have MSN for chatting to my mate, emailing my mate. We like to gossip. It has helped me with my homework.

Sixth form student

It's a tool to market yourself, a web-based resource where you can store information about yourself that can be made accessible. It's like an online CV that gets updated every time you do something. It's your whole identity in electronic form. It's your education, the history of your work, like a CV but it's a bit more than a CV as well...

FE student

Soon just giving in a CV and a letter of application will not be enough. Employers will ask for factual evidence and it's a good thing for our students to be involved in.

FE tutor

Publication of personally created material is often linked to self-esteem. E-portfolio creators need a sense of their audience to target the communication. Some students, however, were concerned that employers, particularly in small and medium-sized enterprises (SMEs), would neither have the time nor the inclination to view their e-portfolios.

Attainment

As noted in this report, effective use of e-portfolios is based on learning and teaching processes that can raise attainment levels. The potential for these processes to remove barriers for underachieving learners is particularly high.

Primary and secondary schools in one local authority that have been using an online space for three years have recently achieved their 'best results ever', while in another, there was an improvement of 12 percentage points in the number of students gaining five A*-C grades (from 43 to 55 per cent), greater than the national average increase. In both cases, the results were attributed to system-wide improvements in infrastructure, curriculum offering and support, rather than any single component.

A secondary college suggested that the e-portfolio system assists attainment because it 'removes some of the barriers to learning', specifically some individual students' inability to manage learning resources in hard copy form, or to set and meet deadlines.

e-portfolios to other ICT supports for learning. E-portfolios appear to make progress and attainment more obvious to both teachers and students by virtue of the on-screen display that shows both quantity and quality of evidence. This transparency can have the effect of giving the learner more control over their learning. A further benefit of e-portfolio systems is in tracking attainment scores for the purpose of individual planning, and, for institutions, in identifying patterns of strengths and weaknesses, in order to address curriculum and pastoral issues.

Engagement and motivation

It is often claimed that students are more motivated and engaged when using ICT, but the study found that while teachers believe their students are enjoying this use of ICT, for the students themselves it depends on the purpose and type of activity. Some 91 per cent of primary students surveyed found their institutional online space fun to use. The primary spaces were sometimes more open-ended and creative than those used in other phases, where students reported lower levels of enjoyment. However, they saw value in using them for career planning, reflecting or meeting high-stakes competency assessments, all activities that are not necessarily seen as 'fun'.

Teachers across cases and phases reported that particular groups, such as students with special educational needs and those at risk of exclusion, appeared to be more engaged than previously when working with the learning platform. Many gifted and talented students displayed proficiency and creativity in using the online spaces. Furthermore, student feedback to tutors suggests that they enjoy working through the sections and that they tend to do so in the order that interests them, focusing on areas which are relevant at that time or to current tasks.

In one FE college, a teacher reported that the visual aspects of working with ICT, and the reassurance of a secure environment which they trust is not open to the whole world, encourages some students to become more engaged in their work, and more motivated to produce new material.

That's a dramatic increase. She was a failing student, not only academically. But this kind of e-portfolio has given her a personalised learning space.

Secondary ICT co-ordinator

A Year 10 student described how he improved the quality of his photography and had the visual evidence to show that. A sixth-former was very pleased that since using the learning platform, she had raised her grades significantly, from E to a B or A in textiles.

The potential for e-portfolios to support attainment is linked to the other aspects of learning outlined in this report, and is likely to be influenced by the connection of

Retention

Although it is not possible to attribute a causal link, in one local authority using e-portfolio planning tools, the overall pattern of participation in post-16 education already shows significant improvement, with participation in full-time courses rising from 69 to 77 per cent, higher than the national increase.

Progress tutorials from previous years can be accessed online by tutors at an FE college, providing helpful tracking information that can assist transition and retention when students have new tutors or switch programmes.

approaching their learning. From an early age, collecting evidence of achievements appears to have an effect on learners' self-esteem. For example, as one foundation year teacher said, some students might not count very well, but 'they can ride a bike and here's a photo to prove it'. This is also of value to parents, who can work in partnership with teachers in developing their children's self-esteem.

Creativity

E-portfolios have the potential to encourage creativity by encouraging students to populate an empty repository with personally created material in a variety of digital formats. In this study, the focus of e-portfolio work in the primary schools appeared to be less structured and possibly more creative than in other settings, and allowed for collective repositories of evidence, which would also be useful elsewhere. Several schools encouraged multiple modes of recording and presenting evidence, and representing identities. In contrast, junior doctors have a set of competencies which they must meet, and at present they are not concerned with presenting evidence in a range of media.

In the longer-term, there is potential for e-portfolio use to assist in creating identity, through learners reflecting on their strengths and achievements, and making decisions about how to present themselves to the world.

We know that in the tutoring process that we've been evolving, it's had a good impact and improvement on retention, achievement and success rates, which have improved year on year. We have anecdotal evidence that the work tutors have done with students in relation to the process has had a positive impact.

FE tutor

Self-esteem

The positive effect of e-portfolios on the confidence and self-esteem of learners is often claimed. Students (and their teachers) in this study reported instances of increased confidence in using the technology and in

I have learnt that the e-portfolio helps me progress with my education as it shows me how much progress I've made and my tutor can help me if am struggling with work.

FE student

It makes me feel proud that I took my time to do that bit of work and now people can see what I can actually do.

Primary student

I feel proud of our school, we're a proud and clever school.

Primary student

It's a way of developing them as an individual and looking at themselves.

FE tutor

It is nice to have an area you can put stuff that you can be proud of, like in MySpace.

FE student

Personalisation

E-portfolios embrace personalisation when:

- the e-portfolio tools are designed to support the learners' purposes, such as developing communication skills, planning career paths or applying to institutions
- use of the e-portfolio system is integrated in the curriculum.

At different points in a learner's lifetime, there will be a need to focus more on recording, reflecting, planning or achieving competencies. Teachers have the expertise to personalise the experience and to scaffold learning as they see fit.

Personalisation is also supported through providing targeted resources, providing appropriate support and monitoring student progress. When used well, e-portfolios can provide a means of knowing more about learners' skills and knowledge in all phases, so that courses and activities can be tailored to take advantage of this.

Many learners prefer software that allows them to customise their e-portfolio space, as a means of showing some personality, among other things. In one FE college, the capacity to adapt computer screen displays to help visually impaired students was very popular with other students, too.

However, participants reported that, in some cases, the software hindered personalisation.

Lifelong learning and transitions

E-portfolios support lifelong learning when:

- institutions across all phases work together in a regional approach to make the learner's pathway relatively straightforward and share the knowledge they are gaining from current implementation
- both creators and audiences understand the purpose of using e-portfolios
- audiences such as secondary teachers use the evidence from transition e-portfolios to plan appropriate curriculum activities for incoming students.

...the culture change of not being the font of all knowledge, of allowing the children to lead where it goes... and to learn from them.

Primary teacher

I think is quite important because it's not the college, it becomes Alison Learner or whoever, and then they actually use it a bit more. That's the important thing.

FE tutor

I like e-portfolios for their potential but until I can customise it to suit the student group I want to use it with, they feel like hard work to set up, encourage students to use and maintain.

FE tutor

We've used PowerPoint and they will upload these e-portfolios onto the school website, so hopefully for the transition from Year 6 to secondary, they will be able to show just what they can actually do.

Primary school teacher

PHOTO REDACTED DUE TO THIRD PARTY RIGHTS OR OTHER LEGAL ISSUES

- the software is appropriate and reliable, becoming relatively 'invisible' and allowing users to concentrate on the learning processes.

Current students appreciate the repository space provided by institutional online spaces, and appreciate exemplars of completed e-portfolios when learning to construct their own.

However, students (and some teachers) are becoming familiar with other repository software – such as MySpace, Flickr and YouTube – and expect a high standard of functionality. As a recent report found (Demos, 2007), schools need to value the learning that goes on in these spaces, and enable students to recognise and transfer those skills in new situations, even into formal learning.

Using data

In general, teachers are not aware of, or do not use, the full capacity of their software systems to monitor and improve learning, using data such as:

- achievement scores of cohorts in national testing and local assessments
- reflections and other content created by learners
- 'behind the screen' data on usage and interactivity.

This data can be analysed and mined (subject to privacy considerations) for diagnosis of individual and group strengths and needs.

Although some teachers raised the potential difficulty of managing the large amount of data that represents a child's learning, this can be addressed by well-structured repository systems.

Just as individual learners have an e-portfolio for setting goals, storing evidence and reflecting, there is potential for institutions to use similar processes to plan, analyse data, and implement and evaluate curriculum and pastoral activities.

I engage in many e-portfolio-like practices. Those involving dedicated e-portfolio tools have been far less satisfactory than those involving social software tools such as blogs, wikis and social networking sites.

Project co-ordinator

The potential for e-portfolios to support progression is supported by the data from cases in the 14-19 sector, where increases in attainment and retention have been marked. To support lifelong learning, all types of institutions will need to provide ways to create and store e-portfolios, as well as to receive them. Within some local authorities in this study, there are initiatives to link schools, colleges and universities, including testing technical interoperability in a two-way transfer of information.

Efficiency

Efficiency gains are evident where:

- the e-portfolio practice is integrated into the teaching and learning of the institution, and into teachers' and learners' normal activities
- technology reduces the amount of paperwork and enables easy updates

Conclusion

The potential for e-portfolios to support learning derives from the many processes that they enable, including:

- recording and storing evidence and resources for learning
- reflecting on particular items or on a bank of evidence created over time
- giving and receiving feedback
- collaborating with others
- selecting evidence for presentation
- communicating learning outcomes and personal identities to a range of audiences.

While engaging in these processes, learners develop many skills that will support their lifelong learning, as well as building up a repository that reflects their personal history. This activity has the potential to motivate learners and increase their confidence and self-esteem, particularly where it suits their purposes and meets their needs.

Well-designed e-portfolio systems have the potential to support high-stakes assessment as well as creativity and self-expression, depending on the requirements of learners and institutions at particular times. However, audiences will need help to prepare themselves to receive and assess material presented in a range of multimedia formats.

Research methods

The project aimed to identify common themes – across a range of eight e-portfolio projects in schools, FE colleges and in the NHS – and to establish dimensions and baselines that could be used for future planning and implementation. Mixed methods were used, including document analysis, online surveys of 172 learners and teachers, and interviews. The data was coded to identify aspects of learning: engagement

and motivation; storing and presenting evidence; planning; reflection; feedback and collaboration; attainment; progression and retention; and self-esteem. Other factors such as efficiency of personal online learning spaces and e-portfolios, organisational culture and the role of teachers were considered in order to establish the transferability of each experience.

Acknowledgements

Carr Hill Primary School, Nottinghamshire
Learning Sciences Research Institute
Loughborough College, Loughborough
National Institute of Adult Continuing Learning (NIACE)
National Health Service, Edinburgh
Oxford Brookes University and associated FE colleges
The University of Nottingham

The University of Wolverhampton and associated schools and colleges
West Berkshire Council
Wolverhampton City Council

Bibliography

Becta: e-assessment and e-portfolios
<http://becta.org.uk/corporate/publications/documents/e-assessment.pdf>

Department for Education and Skills, 2005, *Harnessing Technology: Transforming Learning and Children's Services*, London: DfES.
<http://www.dfes.gov.uk/publications/e-strategy>

Hartnell-Young E, 2006, *E-Portfolios in Australian Schools: Supporting Learners' Self-esteem, Multiliteracies and Reflection on Learning*. In Mittermeir R T (ed), *ISSEP 2006, Lecture Notes in Computer Science 4226*, pp279-289, Berlin, Heidelberg: Springer-Verlag.
http://dx.doi.org/10.1007/11915355_26

JISC: Infonet
<http://www.jiscinfonet.ac.uk/InfoKits/effective-use-of-VLEs/e-portfolios>

QCA, 2004, *Blueprint for E-assessment*
<http://www.qca.org.uk/6995.html>

Their space: education for a digital generation DEMOS
<http://www.demos.co.uk/publications/theirspace>

Resources

Wolverhampton City Council

Underpinning systems home page:
http://www.wolverhampton.gov.uk/education_learning/youth_support/14_19devteam/underpinning.htm

Information about the curriculum framework and models in Wolverhampton:
http://www.wolverhampton.gov.uk/education_learning/youth_support/14_19devteam/curriculum.htm

http://www.wolverhampton.gov.uk/education_learning/youth_support/14_19devteam/my_ipan.htm

Video clips:
http://www.nordangliaelearning.com/platforms_ipan.asp?p=3

Loughborough College

http://www.jisc.ac.uk/whatwedo/programmes/programme_buildmle_hefe/project_0103_loucoll.aspx

Telford College and Leasowes College

http://asp2.wlv.ac.uk/epistle/5_report.pdf

Oxford Brookes Project

Roberts, G, 2006, My World: E-portfolios: Activity and Identity, *Brookes eJournal of Learning and Teaching*, 1(4).

<http://www.brookes.ac.uk/publications/bejlt/volume1issue4/perspective/roberts.html>

West Berkshire schools celebrate good practice in e-learning during their TV appearance

<http://www.westberks.org/GroupHomepage.asp?GroupId=2495>

NHS Doctors Online Training System

<https://www.nhsdots.org/NHSDots/ePortfolio/FoundationTrainee/completeView.asp>

Authors

A team of researchers from the Learning Sciences Research Institute at The University of Nottingham conducted this research project between October 2006 and March 2007.

Team leader:

Dr Elizabeth Hartnell-Young

Researchers:

Professor Colin Harrison

Dr Charles Crook

Dr Richard Pemberton

Dr Gordon Joyes

Tony Fisher

Lindsay Davies

Consultants:

Professor Jean Underwood,
Nottingham Trent University

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



Millburn Hill Road, Science Park,
Coventry CV4 7JJ

Tel: 024 7641 6994

Fax: 024 7641 1418

Research email: research@becta.org.uk

Becta main email: becta@becta.org.uk

URL: <http://www.becta.org.uk>

ISBN: 1 85379 464 3

© Copyright Becta 2007

You may reproduce this material free of charge in any format or medium without specific permission, provided you are not reproducing it for profit, or for material or financial gain.

You must reproduce the material accurately and not use it in a misleading context. If you are republishing the material or issuing it to others, you must acknowledge its source, copyright status and date of publication.