

Supporting e-portfolio development in the UK

A final scoping report with recommendations to the JLT Committee meeting, September 2005

The recommendations arising from this final report are that the JISC should:

1. (in association with others) conduct a stakeholder audit of the usage requirements in respect of e-portfolio in the 14+, FE (including Adult and Community Learning and Work Based Learning) and HE sectors;
2. fund a consultative study into the development of useful, workable consensus definitions in respect of e-portfolio, and the relationship of these to *'integrated online personal support for children and learners'* (DfES, 2005), the concept of the *'online learning space'* and the practice of e-Personal Development Planning in HE;
3. on the basis of the outcomes of 1 and 2 above, no longer use the term 'e-portfolio' without qualification, but instead with reference to the outcomes of these studies;
4. support an 'observatory or similar structure so as to 'harvest' template tools, data bindings and systems that demonstrate the implementation of e-portfolio systems within an international development context;
5. satisfy itself that it has a clear appreciation of how strategic decisions on technological developments are made in F and HE, particularly with regard to 'buy-in' to commercial systems as opposed to 'open source', and the implications of this for inter and intra-institutional interoperability;
6. develop a strong relationship with the Higher Education Academy for the development of more effective e-portfolio provision with strong links to pedagogic practice;
7. consider funding for the piloting of the concept of e-portfolio as a system for managing learner information in a reusable way;
8. provide funding for the UK elements of a small series of Projects concerned to work with international partners to support the exchange of data between organisations, specifically in order to support coherence and progression of learner experience within HE;
9. commission the study proposed in the interim report concerned to establish the type and extent of e-portfolio use amongst employers as a first step towards facilitating connectivity between HE centred practice and other developments;
10. commission a study into the transfer of information to support learner progression with particular reference to implementation of the *'personalised learning space'* within FE and the range of e-PDP practice being developed in HE;

11. support piloting and implementation work to develop effective interrelationships between:
 - a. e-portfolio and supporting guidance services;
 - b. e-portfolio for learning and/or personal development and e-portfolio for assessment;
 - c. records of learning/thinking/planning developed collaboratively with individual records, particularly when developed within/generated by different systems;
12. support the development and implementation of an agenda in respect of social inclusion, specifically to consider how those outside formal learning environments can be effectively supported through e-portfolio use;
13. engage the employer community by:
 - a. funding work to develop 'employer', 'professional and training body' and 'sector-based' scenarios to inform standards development;
 - b. commissioning one or more demonstrator e-portfolio Projects linking learners, institution(s) and employer(s) and further involving HE Subject Centre and a Sector Skills Council;
 - c. commissioning one or more demonstrator e-portfolio Projects focused upon Foundation degrees and work-based learning;
14. make use of the scenarios developed in 13 a above, in the context of outcomes from the e-portfolio reference model and the e-framework in order to identify common services and associated profiles;
15. consider funding a further round of work on the transfer of data between systems as these become increasingly standards compliant.

A. The Context

An interim scoping group report was submitted to the May meeting of the JLT. This reported that, while much development work had been undertaken, this was often small scale and major issues remained. These included:

1. **The wide and often disconnected basis for development work**, with diverse sources of funding and activity for e-portfolio development leading to contradictory priorities and reporting requirements and to a limited flow of learning between funding providers.
2. **Discontinuities in respect of the emphasis upon e-portfolio usage in different sectors**, e.g. the 14-19 context, HE and employer and continuing professional development communities.
3. **Limited links between pedagogic and e-portfolio practice**. For example, whilst the final report of the Tomlinson 14-19 inquiry recognised *'the potential of this development to enhance the quality and efficiency of assessment'* (para 156), there are currently few examples of 'transformational' work in respect of e-assessment (see e.g. Ripley (2004)).¹
4. **Shared challenges to effective operational practice**, specifically the extent to which 'a lifelong e-portfolio' is envisaged as a single archive or a series of collections of records and evidence each associated with a single cycle of learning. The output from one cycle of learning may be kept entire or summarised; a learner may 'wrap up' one cycle and take the material with them, or lodge it with a database of their choosing for building on at the next stage of learning.
5. **Challenges to the integration of practice within sectors**. The DfES proposal for an online learning space, for example, conflates different e-portfolio supersets together without considering the challenges in such conflation. This is echoed within the HE sector, where an ongoing series of workshops has confirmed, in most cases, a limited relationship between the Transcript and Personal Development Planning elements of the HE Progress File.
5. Issues in respect of **the impact of technological change not only upon the technical infrastructures of organisations, but also their social and**

¹ At [http://www.qca.org.uk/downloads/7006_20040420_summary_mr_presentation\(1\).rtf](http://www.qca.org.uk/downloads/7006_20040420_summary_mr_presentation(1).rtf). An OCR pilot in the use of e-portfolios for assessment of a GCSE in ICT concluded that the moderation process took longer, and that e-portfolio products were not yet ready for mainstream implementation.

cultural mores.² Such factors may act to constrain the success of technological initiatives.

This final report seeks to update and where appropriate to confirm these in the context of further Project learning and a consultative meeting held on 2nd September 2005. It seeks to do this with reference to the role of JISC in the development process, and in the full appreciation that:

- a. the key recommendations of the interim report were not primarily technical. This reflected the view that the successful adoption of technological change and the incorporation of this within mainstream organisational processes relates primarily to organisational, social and cultural factors rather than technical ones.³ This view is confirmed by the further work undertaken in preparing this final report.
- b. there is a strong impetus towards the development of lightweight profiles capable of delivering the e-learning strategy across sectors,
- c. whilst much attention is paid to a lifelong, life-wide agenda the focus of the work of the JISC – and of its funders - may of necessity be more narrow and focused.

B. The Policy agenda(s).

There are a large number of policy agendas that – whether directly or indirectly, overtly or covertly – impact upon the e-portfolio arena. These include:

1. The DfES strategy, and Priority 2 in respect of the personalisation of learning in particular.
2. The HEFCE e-strategy.
3. The DTI digital strategy.
4. The Skills Strategy.
5. The work of the MIAP group.
6. The international agenda, and the Bologna process.
7. 14-19 Reform and the National Secondary Strategy
8. The implementation of Personal Development Planning in HE
9. The focus upon e-assessment within QCA.⁴
10. The expected outcomes from the Burgess Group on student achievement.
11. The CPD practices and requirements of professional bodies.

² An issue also highlighted within the e-strategy.

³ Data interoperability and transferability, accessibility, security and maintenance all depend on organisational processes as well as technical standards.

⁴ Feedback from QCA colleagues confirms that *'in the immediate future the key usage of e-portfolios in schools and colleges will be for the assessment of externally accredited qualifications.'*

Alongside these, there are more general concerns about economic and international competitiveness.

An important consequence of such a diverse range of policy factors is that it would be useful to identify where interventions of particular types should most appropriately be made, whether to test out the effects of policy implementation or to inform policy formation. This would also have implications for the nature of the intervention, with differing possibilities clustered around:

- a. Studies
- b. Piloting activities;
- c. Implementation.

Key milestones, taken from the DfES and HEFCE e-strategy documents⁵, are identified as Annexe B. The different formats within which these documents are written makes the use of a collated timeline problematic. Accordingly, these are referenced within the text as appropriate.

C. Developing conceptual understanding and language (studies).

As demonstrated above, the seminar reinforced the recognition in the interim report that 'e-portfolio' as a term represented a wide range of potential meanings, and that these were differently represented in different contexts. It also added to this picture by highlighting differences in funding models and business systems in differing contexts. Subsequently these differences have been highlighted by the views of the OECD.

This discontinuity in provision raises major issues for continuous and progressive practice across sectors in relation to support for lifelong learning, suggesting that it is necessary to pay attention to issues of both technical and semantic interoperability. More positively, it may also suggest that strong practice in one sector, e.g. in respect of e-portfolios as a vehicle for e-assessment, may appropriately be shared with those working in other contexts, though the means for doing this appear to be currently weak.

The September seminar also helpfully extended and refocused the consideration of e-portfolio as four contexts or supersets concerned respectively with:

- a. formal summative assessment⁶;

⁵ Though note the different emphasis placed upon e-portfolio within these documents (e.g. *investigate the feasibility of integrated e-portfolios with student tracking, and assessment for learning, and records of achievement*),

⁶ There has been an emerging emphasis upon the use of ICT in the assessment process in formal learning/training contexts, including the use of electronic portfolios with a greater use of evidence in digital format, such as in video, images or sound, which may also increase the opportunity for more flexible assessment processes (see e.g.

- b. presentation/showcasing for progression;
- c. supporting formal learning, including 'learning to learn' and
- d. supporting overall development, (encompassing personal and career areas as well as educational ones, and learning/experience derived from less formal contexts).⁷⁸

into a more dynamic interpretation, in terms of the means of the learner managing a repository of information capable of being accessed by multiple applications for a diverse range of purposes. This is also likely to include views on static and developing information held in institutional systems (e.g. records of academic achievement such as the HE Transcript).

On this basis it is recommended that JISC (and Becta) now focus upon the twin aims of achieving a common language as a basis for supporting diverse usage by:

1. conducting a stakeholder audit of the usage requirements in respect of e-portfolio in the 14+. FE and HE sectors⁹;
2. funding a consultative study into the development of useful, workable consensus definitions in respect of e-portfolio, and the relationship of these to '*integrated online personal support for children and learners*' (DfES, 2005), the concept of the '*online learning space*' and the practice of e-Personal Development Planning in HE;
3. on the basis of the outcomes of 1 and 2 above, no longer use the term 'e-portfolio' without qualification, but instead with reference to the outcomes of these studies.

JISC should also satisfy itself that it has a clear appreciation of how strategic decisions on technological developments are made in F and HE, particularly with regard to 'buy-in' to commercial systems as opposed to 'open source', and the

<http://www.pgce.soton.ac.uk/ict/eps/>). We do not define this as 'showcasing' as the learner may have little or no say in the elements that are required for such assessment.

An earlier example of the development of Portfolios for assessment in respect of vocational competence is to be found in National Vocational Qualifications (see <http://www.dfes.gov.uk/nvg/what.shtml>).

⁷ c) and d) comprise elements of Personal Development Planning in HE.

⁸ Helpfully, similar categorisations are presented in a report to Becta by Strivens '*Current e-portfolio developments in the 14-19, Adult and Lifelong Learning Sectors*' (2005, unpublished), and in a paper reviewing emerging practice in Europe developed to facilitate discussion at the 2004 e-portfolio conference held in La Rochelle (Rees-Jones, (ed) 2004 and in press ISBN 2-9524576-0-3). A fifth purpose, to support individual inclusion within contexts where learners may be undertaking programmes across different learning environments, might also be added. See <http://www.inst.co.uk/clients/jisc/e-portfolio/def.html> for a consideration of criteria in terms of function, information management and use which might be considered to be central to e-portfolio systems and support.

⁹ This related to action A proposed in the interim report, which also noted '*discontinuities in respect of the emphasis upon e-portfolio usage in different sectors.*'

implications of this for inter and intra-institutional interoperability. This is linked to recommendation 9 of our earlier report, which emphasised that:

'To support practical implementation, the emphasis upon 'open source' needs to be complemented by stronger levels of engagement with commercial Virtual Learning Environments providers.'

Taken collectively, this work will enable a coherent development agenda to be agreed which is integrated across sectors and organisations in terms of standards and interoperability and can inform the effective implementation of the DfES e-strategy. It will also enable attention to be paid to that aspect of the HEFCE strategy concerned with the promotion of links with agencies such as UCAS, QCA and the BSI – together with the Scottish Transformation Projects - in developing e-based systems for PDP.

D. Developing E-portfolio work in context(s) (Relationship building, studies and piloting).

A key issue for this report is the specific identification of a number of 'gaps' which were reflected strongly within the interim report and confirmed/developed through seminar discussions. Thus:

1. The interim report recommended a focus upon the connectivity between HE centred practice and other developments, and it is anticipated that the Studies recommended in C above will support the development of such connectivity. Arising from this JISC should additionally co-ordinate information concerning the technical developments that influence e-portfolio piloting and implementation. A range of e-Learning projects funded by JISC, HEFCE and other agencies within F/HE are investigating the application of interoperability standards and service oriented architectures to satisfy e-portfolio applications. There needs to be a mechanism to harvest template tools, data bindings and systems that demonstrate the implementation of e-portfolio systems within an international development context. The findings of such an 'observatory' are an essential element in determining the practicality of satisfying application requirements and ensuring subsequent projects conform to consensual technical frameworks. They should also pay full attention to the *'risks and issues'* associated with the implementation of e-portfolio identified elsewhere, i.e. security and authentication¹⁰, accessibility and civil liberties (Black, 2005).¹¹

¹⁰ Work on the potential of the Shibboleth undertaken by the current round of DEL Projects, for example.

¹¹ 'E-portfolios – a definition and directions paper', Becta, unpublished.

2. JISC should not only seek to cement their relationship with Becta (as a cross-sectoral partner with a shared remit) but also with the Higher Education Academy for the development of more effective e-portfolio provision with strong links to pedagogic practice. This may connect with the 'observatory' identified above, and meet the need for the development of a 'long-thin' Project that will last for a minimum of three years and that will act as a point of contact and source of information and guidance for work on e-portfolio implementation, highlighted in the interim report. The creation of a development agenda here will also enable stronger connections to be made between e-portfolio work, pedagogy and creativity/innovation, also an issue for attention raised in the interim report.

While such linkage might be made with the proposed e-learning Advisory and Support Centre, this should be seen as providing the conduit to engage with the fundamental focus of the Academy, upon learning and the student experience rather than upon technology. Whilst JISC has funded small-scale work within Academy Subject Centres in support of the HEFCE e-strategy it is notable that this has not so far covered aspects of e-portfolio development.

3. On the basis of the studies recommended above, JISC should consider funding for the piloting of the concept of e-portfolio as a system for managing learner information in a reusable way. This requires the information held to be structured as units which can be used – and reused - for different purposes and audiences. This may include purposes for learners and the connection of different purposes in respect of learners and management/administrative processes. Central to this will be the definition and development of the applications and 'services' necessary to underpin the re-use of e-portfolio information in new contexts;

Providing coherent access to e-portfolio information, where that information may be located in several data stores, needs to be solved to enable the operation of personal learning environments. This is also linked to the first element of action E proposed in the Interim Report.

4. Working with appropriate agencies and funders, JISC should provide funding for the UK elements of a small series of Projects concerned to work with international partners to support the exchange of data between organisations, specifically in order to support coherence and progression of learner experience within HE. This should take account of the new OECD study concerned with informal learning and credit transfer.
5. JISC should commission the study proposed in the interim report (see Action B/Recommendation 8) concerned to establish the type and extent of

e-portfolio use amongst employers as a first step towards facilitating connectivity between HE centred practice and other developments.¹²

6. JISC should commission a study into the transfer of information to support learner progression with particular reference to implementation of the '*personalised learning space*' within FE and the range of e-PDP practice being developed in HE.¹³

E. Developing the detail of practice (piloting and implementation).

A number of detailed contexts for e-portfolio development were highlighted in the interim report, and found support through the consultative seminar. These – which might appropriately be retitled in terms of significant interactions between system components will specifically facilitate a focus upon the cutting of specifications back to top-level terms and emphasise lightweight, flat, extensible specifications. This will facilitate the achievement of Priority 2 of the DfES e-strategy for 16+ learners, to '*ensure integrated online personal support for learners*'.

The following areas are identified for immediate attention – and JISC support – in respect of piloting and implementation.

1. The effective interrelationship between e-portfolio and supporting guidance services, whether within the technological infrastructure, (e.g. via questions designed to stimulate learner reflection) or via other forms of intervention, and specifically through dialogue with others (whether facilitated through the system or on a face-to-face basis).

This should focus upon support for planning processes and be linked to evaluation in respect of appropriate 'business' and 'learner' outcomes (learner development, retention, transition, educational progression, effective presentation for assessment or employment etc). As the interim report highlighted, this evaluation element has been lacking so far, with the timeframe for many short-term Projects only allowing the demonstration of 'proof of concept'.

2. The effective interrelationship between e-portfolio for learning and/or personal development and e-portfolio for assessment (whether of or for learning).

¹² It is recognised that this will need to take account of possible differences in meaning across sectors, with the possible emphasis in employment and CPD contexts upon compliance with occupational requirements, internal training regimes etc, rather than upon reflection and personal development.

¹³ This links to Action C/Recommendations 2 and 8 of the Interim Report.

This will require the breaking down of barriers between records developed for different purposes.

3. The effective interrelationship between/integration of records of learning/thinking/planning developed collaboratively with individual records, particularly when developed within/generated by different systems.¹⁴
4. (In partnership with Becta) the development and implementation of an agenda in respect of social inclusion, specifically to consider how those outside formal learning environments can be effectively supported through e-portfolio use.¹⁵
5. The effective engagement of the employer community¹⁶ by:
 - a. the funding of work to develop 'employer', 'professional and training body' and 'sector-based' scenarios¹⁷ to inform standards development;
 - b. the commissioning, through tender, of one or more demonstrator e-portfolio Projects linking learners, institution(s) and employer(s) and further involving HE Subject Centre and a Sector Skills Council;
 - c. the commissioning, through tender, of one or more demonstrator e-portfolio Projects focused upon Foundation degrees and work-based learning;¹⁸
 - d. make use of the scenarios developed in the context of 5a above, in the context of outcomes from the e-portfolio reference model and the e-framework in order to identify common services and associated profiles.
6. JISC may also wish to consider funding a further round of work on the transfer of data between systems as these become increasingly standards compliant. As the interim report noted:

UK e-portfolio projects and development initiatives are well-placed to build up experience in practical, 'semantic' interoperability. If they can be persuaded to work in more inclusive and consensual ways under the auspices of what has been CETIS LIPSIG then there is a real hope of developing (using the

¹⁴ Thereby seeking explicitly to connect Priorities 2 and 3 of the DfES e-strategy, and linking directly to 1.2 of the HEFCE e-strategy '*Encourage the design of technology for students to manage their own individual and shared learning*'.

¹⁵ See Home, A and Charlesworth, A (2004) The ePortfolio's potential as enhancer of social inclusion: Reflections of UK initiatives in light of the EU e-inclusion policy. Contact Anna.Home@bristol.ac.uk

¹⁶ This was also identified as a key issue within the Interim Report.

¹⁷ Through contact with relevant sector skills councils.

¹⁸ Thereby directly supporting 1.5 and 3.2 of the HEFCE e-strategy, to '*encourage the effective use of technology to enable work-based learning*' and to '*Utilise e-learning for delivery and support of foundation degrees*'. This also chimes with Action B/Recommendation 8 of the Interim Report. Additionally, there is some potential here to align with the Workplace Learning Strategy under development by the HEFCE.

experience of UKLeaP) a workable interoperability standard for the UK, positioned to form the basis of European and international standards in the future. To facilitate this, work currently led by CETIS needs to be supported and sustained over the longer term.'

Paper produced by Rob Ward

with support from Simon Grant, Helen Richardson and Janet Strivens.

Annexe A: List of seminar participants, Priory Rooms, Birmingham, 2nd September 2005

Paul Bailey JISC
Amanda Black, Becta (pm)
Val Butcher, HEA
Clive Church, CETIS
Simon Grant, CETIS/CRA
Anna Home, JISC/University of Bristol
Stuart Hunt, Becta
Peter Rees Jones CETIS
Helen Richardson CRA/University of Manchester
Janet Strivens CRA/University of Liverpool
Mark Stiles, University of Staffordshire
Sue Walton, QCA
Rob Ward CRA
Rowin Young, CETIS

Annexe B:

DfES e-strategy

Milestones for 14-19 Learners

First phase of development of a unique learner number, and learning data interface complete by 2006

Data Sharing Framework and personal record format, including the specification for qualifications and credit data required for QCA's Framework for Achievement agreed for December 2005

Policy clarification across all education and work-based learning sectors by 2006

Recommendations from feasibility study on how to provide integrated e-portfolios, by 2007.

QCA working with LSC, e-Skills UK, and LSDA, through the Framework for Achievement, to agree strategy to promote a common approach to assessment across sectors to support personalised progression by January 2006.

Milestones for post 16:

Priority 2

Ensure integrated online personal support for learners

Action

Develop better opportunities for extending access from socially-excluded groups.

Milestones

Measurable increase in take-up of e-skills passports and follow through by Ufl, by 2007

Sustainable model for UK online centres for 2005

National Institute for Adult Continuing Education (NIACE) to develop e-learning mentors (e-guides) in training ACL tutors who work in community settings, or 2005.

Action

Promote portability of assessment to support personalised progression.

Milestones

Road map for e-assessment developed by 2006.

Action

Provide a personalised online learning space for every learner that can encompass a personal portfolio.

Milestones

A personalised learning space, with the potential to support e-portfolios available within every college by 2007-08.

HEFCE e-strategy 3.4: Encourage e-based systems of describing learning achievement and personal development planning (PDP).

- JISC and the academy to continue to investigate the use of e-portfolios and other systems to support learner achievement and progression; and to promote and disseminate good practice in the development of new approaches for the use of e-portfolios and PDP.
- JISC to continue with the development of technical tools to support the use of e-portfolios across institutions and sectors.
- HEFCE to encourage the Europe Unit to support collaboration with European partners on the European Diploma Supplement.

- JISC and the academy to promote links with agencies such as the Universities and Colleges Admissions Service, the Qualifications and Curriculum Authority and the British Standards Institution in developing e-based systems for PDP.