e-Portfolios in Australian education and training

2008 National Symposium Report
Understanding e-portfolios

Education.au’s National Symposium on e-portfolios

A National Symposium on e-portfolios, hosted by Education.au, was held in Adelaide on 11 June 2008. Leading policy and decision makers, and thinkers interested in e-portfolio development, were invited to discuss key strategic issues and directions.

The aims of the symposium were to identify and discuss issues associated with the development, implementation, interoperability and use of e-portfolios across the school sector and vocational education and training (VET) sector in Australia.

The symposium participants identified areas for collaborative cross sectoral problem solving and made recommendations regarding strategic directions for e-portfolios for key policy groups’ consideration.

A pre-symposium survey was conducted to gather information about the demand for e-portfolios, their use and issues associated with them. Surveys were forwarded to stakeholders in the school, VET and industry sectors. Thirty-one surveys from 25 organisations were completed. Results appear throughout this publication.

Ownership and purpose: In this discussion, participants were asked to consider the issue of e-portfolio ownership, and the responsibility for overall authorship, access, use and currency.

Interoperability: This discussion covered building an e-portfolio across a range of sectors, adapting to a variety of technical environments, portability and security, and long term access and maintenance.

Shared understandings: This discussion explored the challenge of building a shared and agreed vocabulary, for understanding the definition, purpose, content, and processes for assessing and validating content.

Training and user/teacher support: This focus area explored some of the curriculum and training implications of e-portfolios, technological support needs and policy development that will be required for consistent and widespread take up for all students. This discussion also raised the issue of access and equity.

Resourcing: The issues of development, trial and associated implementation costs were discussed in this focus area.

e-Portfolios

An electronic portfolio, also known as an e-portfolio or digital portfolio, is a collection of artefacts assembled and managed by a user, usually on the Internet. It provides an avenue for people to record, reflect and present information about themselves, their education, training, employment, academic achievements and life experiences.

In education and training contexts, e-portfolios are learner-centred and outcomes-based. They are created when individuals selectively compile evidence of their own learning activities and outputs as a means to indicate what they have learned or know. In this context, e-portfolios function as a learning record or transcript. Aside from the learning aspect, an e-portfolio could also evidence personal qualities and attributes, or any...
“competencies” that are relevant to the particular audience, who could be potential employees or colleagues interested in performance at work, as well as educators interested in the outcomes of learning. In a sense, e-portfolios reflect:

> **development**, in that they demonstrate one’s development and acquisition of skills over a period;

> **assessment**, in that they contain evidence of acquired skills and competencies through evaluative measures; and

> **presentation**, in that they provide the means to demonstrate exemplary work and skills.

Literature indicates that most e-portfolios applications are a combination of the three types mentioned above.

In the information economy e-portfolios are becoming significant as they enable the instantaneous transfer of information between markets, organisations and individuals. New possibilities arise through the adoption of standard approaches to e-portfolio development, enabling institutions to share and exchange e-portfolio data. This can lead to new approaches to teaching and learning, streamlining of the processes associated with recognition of prior learning, supporting student transitions through courses and training through single or multiple institutions.

### e-Portfolio users

Although anyone can create an e-portfolio, Curyer et al. offer the following main categories of users:

> **Primary**: students (from secondary schools, vocational education and training, higher education, adult and community education), recent school leavers, students seeking to re-enter the workforce, jobseekers, existing workers and volunteers

> **Secondary**: institutional staff, instructors (teachers, lecturers)

> **Tertiary**: prospective employers, admission centres, parents, award granting agencies.

Primary users are individuals but could be groups, organisations and institutions. An e-portfolio service for this user-group accommodates the needs of its users who create e-portfolios for the secondary users. A created e-portfolio can then be used in its original form or modified for multiple tertiary purposes. Thus the creator of an e-portfolio is the primary user while its audience is secondary and tertiary users.

Secondary users of e-portfolios would be the initial intended audience of the creator of the e-portfolio.

Tertiary users of e-portfolios are prospective employers, admission centres, parents and award granting agencies. The e-portfolio may not have been designed for the tertiary user but nevertheless provides evidence to verify a primary user’s knowledge and abilities.

### Potential benefits of e-portfolios

Some of the potential benefits associated with the development and use of e-portfolios are that they:

> increase learning effectiveness

> improve information technology skills

> enable accreditation beyond the classroom environment

> enable connections among formal and informal learning experience

> enable an archive of one’s artefacts and reflections

> enable the efficient management of students’ work

> increase transparency.

### Demand and drivers

#### Demand for e-portfolios

Two-thirds of respondents indicated demand within their sector for e-portfolios as a tool for teaching and learning.

A majority of respondents indicated medium to high level increases in demand for e-portfolios expected during the next five years.

Less than 25% of respondents indicated low or no future demand.

#### Drivers of demand

Who is driving demand?

Teachers, trainers and practitioners were reported as key drivers, followed by institutions and policy developers, and finally students.

What is driving demand?

> Recording learning opportunities

> Recognition of prior learning.

To a lesser degree, key drivers are seen to be:

> Assessment

> Job seeking

> Professional development

> Student records management.

---

Activity in the sectors: survey responses

The survey revealed that the development and uptake within the school and vocational education sectors are still in the early stages. There are varied understandings for what and how e-portfolios can be used. Current usage of e-portfolios covers; recording learning activity, assessment, recognition of prior learning, job seeking and professional or career development. The following provides a snapshot.

Government schools

> In the Northern Territory the development of student electronic profiles will lead to the development of e-portfolios.

> In Queensland schools have access to a range of online resources/tools to develop digital portfolios. Supporting material on the development and usage of e-portfolios is available for teachers and administrators.

> In South Australia reforms to the South Australian Certificate of Education have introduced the now compulsory ‘Personal Learning Plan’ subject which lends itself to the development of e-portfolios.

> In Western Australia the Department of Education and Training has implemented the Online Teaching and Learning System which provides a functioning e-learning space for learners.

> In Victoria teachers are using e-portfolios with students for teaching and learning. Teachers are also using e-portfolios to document their learning.

> In NSW the Connected Classrooms Program, a $158m State Government initiative, aims to provide Department of Education and Training (DET) staff and their students with new opportunities to connect with each other across enhanced facilities for sharing resources and data collaboration. The Learning Tools element of the program will provide tools that support the ability to create, store, edit, reuse, manage, view and deliver digital learning content from collections and repositories to staff and students across NSW. It will deliver an adaptable and scalable system that will provide the latest Web 2.0 technologies to staff and students as required to enable and enrich teaching and learning practices.

> NSW schools are accessing web-based services to showcase students work. In VET in schools, students are using an Employment Related Skills Logbook to record their learning activities. There is also a push to develop e-careers portfolios to document career plans.

Catholic education sector

Respondents indicated gradual development and implementation in primary and secondary education sectors. Examples include the Catholic education sector in Queensland, Western Australia and South Australia where the ‘myportfolio’ tool is used in teaching, learning and assessment activities. Some teachers have been using e-portfolios to document their professional learning.

Vocational Education and Training

Some e-portfolios had been designed for very specific purposes from preparing an application for recognition of prior learning through to the development of specific templates to record and manipulate information, manage a range of artefacts, create multiple curriculum vitae and provide permission to other parties to view and comment on entries.

> TAFE VIC has extended e-portfolio functionality to enable common interest groups to share content and information.

> Queensland has access to electronic tools and websites to digitise their learner management systems. The electronic employment matching service enables employers to access student resumes and qualifications.

> In NSW, the Centre for Learning and Innovation has developed Prove It, a tool that recognises prior learning and helps people recognise their existing skills and gain recognition for specific qualifications.

Note: As individual institutions were not surveyed it is acknowledged that more activity may be undertaken in these sectors.

Australian Flexible Learning Framework Project

The project, e-portfolios – Managing Learner Information Business Activity, is responsible for establishing a national standards-based approach to the use of e-portfolio technologies for people to manage evidence of their learning within the vocational education and training sector (VET). It is a part of the national training system’s e-learning strategy. A key aim of this activity is to ensure portability of learner collected evidence and to support Recognition of Prior Learning (RPL) and other transition processes.

For further details visit www.flexiblelearning.net.au/e-portfolios

Universities

At the symposium, activity in the higher education sector was discussed by representatives of the Australian e-portfolio Project, managed by a consortium led by Queensland University of Technology and funded by the Australian Learning and Teaching Council.

Visit the project website for more details on their research and findings at www.e-portfoliopractice.qut.edu.au
e-Portfolios in Australian education and training
2008 national symposium report

Issues and recommendations
The symposium included discussion around issues about the development and implementation of e-portfolios and generated recommendations for taking the e-portfolio agenda forward.

Specifications and Standards
Symposium participants discussed the need for national standards as the key to solving interoperability issues and achieving a cross sectoral approach to this complex area. Further, it was identified that interoperability is key to e-portfolios to ensure data and artefacts are portable and secure; adapt to a variety of technical environments, and facilitate users’ long term access to their information.

Few examples are available where specifications and standards are currently being used. Some respondents indicated that their e-portfolios met the information technology standards of their institutions, while others mentioned W3C XHTML (www.w3.org/TR/xhtml2/), W3C CSS (www.w3.org/) and compatibility with any browser.

Respondents ‘strongly agreed’ or ‘agreed’ with the importance of interoperability with other services and systems, including:

- Student management systems (85%)
- Learning management systems (81%)
- Authentication and authorisation (82%)

Recommendations
- e-Portfolio standards need to be applied to all educational settings, both formal and informal, to enable interoperability.
- The economic and personal benefits of e-portfolios needs to be established and applied to inform work plans for specifications and standards initiatives.
- Stakeholders should support the development of a national system of unique learner identifiers to enable cross sectoral exchange and transfer of information captured via e-portfolios.
- An interoperability framework needs to be developed that enables flexibility for users to draw on multiple resources from diverse places and that can be published in a variety of formats.
- Agreed models of content and functionality need to be developed.
Ownership and purpose

During this discussion, the key points raised for consideration included the need for a set of clearly defined principles to assist in the development of policy regarding ownership, purpose, privacy and access. Security and validity were also considered vital if e-portfolios are to be seen as credible.

Many agreed that the purpose of an e-portfolio will adapt and broaden according to the stage of an individual’s education and training. Flexibility was highly regarded as a key element if the nature of the e-portfolio is to mature over a student’s life. It was agreed that students should be introduced to the concept and possibilities through a base model of an e-portfolio and given an experience in their use that demonstrates the potential benefit of using one.

Shared understandings of e-portfolios

This discussion generated a considerable volume of debate which indicated the need to consider a set of agreements about the nature of e-portfolios. This would also require a common set of understandings and language around their use and portability.

A cultural acceptance in the self-managing of personal information about achievements, capabilities, qualifications and continuous redesigning of personal learning plans would also be highly valued in the e-portfolio process. The discussion also highlighted the importance of an e-portfolio that is appealing and motivating to the user.

Recommendations

- Ownership ultimately rests with the individual but should be supported at the systems level for formal authenticated content.
- There needs to be two clear areas of an e-portfolio; that which is validated and supports authenticated statements of achievement and that which is determined by the learner.
- A core e-portfolio should be built and expand with multiple sources of e-portfolio information using a variety of tools and resources that recognise evolving technology capabilities and trends.
- A set of guiding principles for the development and use of e-portfolios is essential.
- Systematic alignment with Career Advice Australia (CAA) initiatives, the Australian Blueprint for Career Development (ABCD), the Job Ready Certificate and Council of Australian Governments (COAG) agenda.
- A highly productive cross sector committee or group should be established to work toward genuine collaboration on e-portfolios and to work on policies, standards and other issues that will build consistency and usability.

Recommendations

- Build regular dialogue with stakeholders, over the sectors and across the jurisdictions, about the worth and capability of e-portfolios.
- Develop a minimum standards glossary/thesaurus to assist shared understanding and promote interoperability; based on existing frameworks and nomenclature.
- Develop a national leadership strategy based on the foundational e-portfolio principles, as agreed by stakeholders.
- Conduct a national audit and mapping across the sectors and jurisdictions and share best practice models.
- Use a research and development model that builds an abstract concept from practical examples and case studies.
- Develop and make explicit competencies for career development domains, incorporating a broad range of life roles and activities. These include competencies as detailed in the Australian Blueprint for Career Development.
- Explore the different language, standards and competencies frameworks that each sector works with so that understanding and meaning are attributed correctly.
- Ensure consistency and quality of professional development approaches.
Training and user/teacher support

Issues raised in this discussion ranged from analysing the different learning needs of stakeholders to targeted training programs. Educational practitioners would need to develop their own e-portfolios in order to experience the benefits. It was agreed that teacher education programs are a strong starting point for building a new culture and giving rich experience in the e-portfolio process. e-Portfolio flexibility and adaptability will be the key to widespread use across educational sectors and consultation with end users is important if take up is to be successful.

Recommendations

> Synthesise existing research around effective e-portfolios as a tool for teachers and an asset for students. Disseminate good practice examples through training programs.
> Ensure there is a curriculum and course development basis that teaches skills, knowledge and habits around life long learning and use of e-portfolios.
> Provide high quality professional development for teachers/lecturers to ensure practitioners are experienced and advocate the value in terms of student learning outcomes and quality transition between institutions and career points.
> Match policy and resource development with training and development strategies to ensure organisational synchronicity and teacher/student take up.

Resourcing

Discussions around resourcing implications for the successful implementation of an e-portfolio strategy focused on the costs associated with storage, access, security and infrastructure overhauls. It was suggested that learnings from international e-portfolio initiatives be researched.

Risks were also noted as needing careful analysis to ensure appropriate funding for contingencies. It was highlighted that other national and state/territory project funding should interconnect and integrate with e-portfolio initiatives.

Research and development, and innovation funding will be essential to get communities of practice underway with an underpinning of e-portfolio best practice, knowledge and support. Additionally, the development of an e-portfolio business case to demonstrate the real benefits to the economy and the individual user, in line with commitment from local bodies to fund professional development and ongoing user support, is essential.

Recommendations

> A national and local jurisdiction approach/project is developed.
> Costs of storage, preservation and enabling access to electronic records, supervision of content and usage during enrolment require estimates.
> National standards for e-portfolios to be linked to the Australian Information and Communication Technology in Education Committee.
> Education and training bodies need to embrace this as a strategic initiative and incorporate it into their curriculum reform work to ensure there is a coherent approach and common usage.

> Advocate that the Government Productivity Places Program incorporates the use of RPL and the use of e-portfolios.
> Analyse the issues that inhibit e-portfolio use e.g., literacy and technology skill levels.
> Build collaboration within and between institutions to expedite the educational and administrative implementation of e-portfolio models.
> Ensure that leaders of schools, colleges and RTOs are fully educated in the policy, curriculum and administrative issues related to the implementation of e-portfolios as a new initiative.
> Ensure the government and education providers support the use of e-portfolios to drive the recognition of informal and formal learning, including employability skills.

Innovation, research and development, incorporating international best practice are a key to the ongoing implementation of e-portfolios.

Projects associated with development of principles and national standards for e-portfolios be funded appropriately.

The need for a National Identifier for individuals is explored further.
Education.au's other e-Portfolio activities

Participants in the National VET e-portfolio Reference Group:

Jerry Leeson
Business Solutions Manager
E: jleeson@educationau.edu.au
T: +61 8 8334 3215

Suzanne Curyer
Manager, Career Development Technologies
E: scuryer@educationau.edu.au
T: +61 8 8334 3264

Representative on the VET E-Standards in Training Project: Jerry Leeson

Education.au is conducting a study on behalf of the Australian Flexible Learning Framework to provide information on the establishment of a strategy for the development of a national standards-based framework to support e-portfolio systems in the national training system.

For general information about Education.au's research and activities related to e-portfolios please visit www.educationau.edu.au or send an email to inform@educationau.edu.au

Consultancy services

Education.au provides consultancies and e-portfolio development capability. To enquire about our services please contact:

Carolyn Papworth
Business Development Manager
E: cpapworth@educationau.edu.au
T: +61 8 8334 3204

Acknowledgements and notes

This National Symposium on e-portfolios was supported in part by funding from the Australian Government Department of Education, Employment and Workplace Relations.

The views expressed here do not necessarily represent the views of the Australian Government Department of Education, Employment and Workplace Relations.

Further, Education.au advises that the views and recommendations contained in this publication or related publications do not necessarily reflect a shared view of all participants in the National Symposium on e-portfolios.