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The World of e-portfolio

By Allison Miller

Allison Miller is the Business Manager for the e-portfolio – Managing Learner Information Business Activity – for the Australian Flexible Learning Framework. She has lectured in Business Finance, Administration and Small Business Management and in 2006 and 2007 was the Coordinator of South Australia's 'e-dayz', the premier '2-dayz e-learning' event. In 2006, Allison was also the E-Learning Development Coordinator for TAFE SA.

In this article she provides an international perspective on the use of e-portfolios for recognition of prior learning (RPL) assessment. Allison writes that as we move deeper into a digital age, e-portfolios will be a key method for demonstrating existing skills. In order to reap their full benefit, however, employers, employees and educational institutions will need to make significant changes.

Abstract

This paper examines how electronic portfolios (e-portfolios) provide an effective means of assessing existing skills to gain recognition or credit towards a formal qualification, and how this process can enable individuals to be more marketable in an ever-changing labour market. International examples are used to show the need to recognise all forms of learning experienced throughout our lives, and to describe the factors and business drivers for success.



Australian Government

Department of Education, Employment
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Introduction: Chaotic learning

Ken Robinson writes in *The Element: How Finding Your Passion Changes Everything* that we live in a world which is 'changing faster than ever in our history'. In this context, businesses need to continuously invest in their human resources, and workers need to stay abreast in their fields. This requires diverse, complex training and development, managed through a combination of formal and informal learning experiences.

Learning is chaotic and non-linear. Education and training organisations now recognise that individuals no longer gain all of their employability skills through formal learning paths. By helping an individual develop a skills profile through a recognition of prior learning (RPL) assessment process, education and training organisations can not only enable them to gain 'credit' towards a formal qualification, they can also help empower individuals to use these articulated competences to gain access to further training and/or improved career opportunities.

The RPL process operates under different models in different countries. These models have similar aims, but use a range of terms to describe the process. Amongst these modes of assessment, portfolios have been recognised as a common assessment method in assessment of prior learning. Jens Bjornavold wrote in 2001 that the portfolio was 'one of the best methods of visualising and evaluating competences acquired in informal or formal contexts.'

As we move further into the digital age, wider adoption of digital technologies to capture evidence for RPL assessment via an electronic portfolio (e-portfolio) are beginning to play a key role.

RPL terminology

Internationally, a range of terms and acronyms are used to describe the RPL process.

A number of European countries use the term 'Valuation and Validation of Prior Learning (VPL)'. This term not only takes into account the 'validation' of an individual's current skills, but also puts emphasis on the 'value' of informal learning experiences.

Australia interchanges the term 'Recognition of Prior Learning' with 'Skills Recognition', 'Recognition of Current Competencies (RCC)' and 'Recognition of Informal Learning (RIL)'. These describe the different foci of the RPL process, from retrospective to current, as well as putting an emphasis on informal or non-traditional learning experiences.

The UK also uses a range of terms for how an individual can demonstrate current workplace competency standards, including 'Assessment of Prior Learning (APL)', 'Assessment of Prior Experiential Learning' or 'Accreditation of Prior Experience and Learning (APEL)'.

The UK's [Qualifications and Credit Framework \(QCF\)](#) documentation suggests using the term 'claiming credit' instead of RPL as a way of making the concept more easily understood. The use of 'claiming credit' stresses an individual's active role in the RPL process.

In the workplace, employees can view RPL negatively if they perceive it as identifying their weaknesses, thus potentially contributing to feared job loss or pay reductions through demotion. Alternatively, describing RPL as a means of 'career progression' or an opportunity for a pay rise helps change the dynamics of the whole process.

Hence, the **right** kind of terminology to describe the RPL process helps an individual understand and relate to the technical and academic terminology.

Using RPL to support lifelong learning

The exponential nature of information and the unpredictable flux of world economics means that an individual is constantly required to stay abreast or 'competent' in the workplace. At times, individuals are required to 'reshape' themselves to remain valuable members of an ever-changing labour market.

These constant changes require a continuum of competence development, no longer solely possible in formalised learning settings. This ongoing development has been termed 'Lifelong Learning' (LLL).

As part of this learning continuum, the RPL process allows individuals to formalise their LLL journeys by providing a snap shot of their existing skills and knowledge at a given point in time.

As Ruud Duvekot wrote in *The Unfinished Story of VPL: Valuation and Validation of Prior Learning in Europe's Learning Cultures* (2005), developments in LLL in Europe have identified two approaches to RPL – 'retrospective' and 'prospective'.

In a retrospective (or reactive) approach, individuals look backwards at their LLL journeys. The assessment process is undertaken to achieve 'credit' towards a qualification. However, through a prospective (or proactive) approach to RPL, individuals, with the assistance of educators, managers and careers advisors, use the RPL process to not only work out what they can do now, but to help them plan their future personal/professional development needs.

Business drivers for RPL

Work conducted in Europe to support LLL as a means of responding to an ever-changing labour market has recognised that RPL could bolster the investment organisations make in people.

Following are some examples of the business drivers for RPL.

1. *Helping employees stay abreast or 'reshape' themselves*

- Supporting the needs of individuals to keep up with workplace competence-development.
- Enabling the development of individualised personal/professional learning plans, which cater for individual, organisational or societal/economic needs.
- Helping employees transition generic skills from one industry to another, eg military employees with job skills that resemble civilian occupations such as transport and logistics, administration and other technical functions.
- Supporting people's mobility, eg helping skilled migrants quickly obtain local qualifications/licenses.

2. *Reducing training costs*

- Decreasing the time employees are absent from their workplaces as they undertake training for skills they already hold.

3 *Supporting human resources and human capital requirements*

- Providing a means of measuring the development of human capital within an organisation. This is particularly relevant in Europe, where EU laws require companies to include 'human capital' on their balance sheets.
- As DJ Brinke points out, effective recruitment and selection of staff and keeping personnel motivated through opportunities to progress within an organisation.
- Mandated or legislated changes which require workers to hold specific industry qualifications, ie [changes to child care standards in the UK](#) required Early Play workers to gain a Level 3 qualification in working with children.
- Enable small businesses to expand and improve business opportunities, eg [non-gas plumbers in the UK domestic market](#) were given the opportunity to gain the minimum qualification required to access increasingly large-scale industry contracts.

4. *Providing solutions to national/international labour demands*

- Resolving a workplace or economic issue, eg [supporting skills shortages](#) which affect Australia's economic prosperity.
- Supporting the reduction of a workforce due to lack of demand for products, eg the need to integrate Dutch retrenched automotive workers into other regional employment or further training.

Individual's motivations for RPL

As with the business drivers for RPL, there are a number of personal motivations for individuals to undertake RPL, including:

- improved self-esteem and confidence through the validation of past experiential learning
- empowerment to understand their skills and where they can take them
- development of organisational and reflective skills
- potential cost through lower course fees
- prevention of loss of income through unnecessary participation in training
- potential to earn more through improved career options.

In the UK, the QCF documentation stated that RPL boosts self-esteem, particularly amongst those disengaged from learning. However, for individuals to participate in the RPL process there must be:

- the opportunity to progress with the recognised skills, ie personalised training options or career progression
- faith in the quality of the RPL process, that it is not just a 'tick and flick' process
- measures to avoid rigid legislation and/or business policies that stifle flexible approaches to RPL, or the way the process is funded.

E-portfolios for RPL assessment in Australia

A portfolio is a widely adopted method of assessment for RPL, both in Australia and around the world. The Howard Community College states that a '[p]ortfolio assessment is a process that enables students to effectively document prior non-traditional learning acquired through employment, self-study, volunteer work, civic activities, etc in order to demonstrate that they have acquired skills directly related to courses in their learning program'.

The process of completing a portfolio is educational in itself, as it enables individuals to not only present evidence, but also to reflect on their experiences, gain confidence and redefine personal learning goals. However, as stated in the 2005 *Encyclopaedia of Adult Education*, portfolios can be problematic as they often rely on individuals' written skills to translate their experiences into examples of 'learning'.

The Australian Flexible Learning Framework (Framework), however, has recently undertaken work that describes how a number of training organisations are using electronic portfolios (e-portfolios) to support the RPL process in the vocational education and training (VET) sector in Australia.

Framework's 2009 report, 'E-portfolios for RPL Assessment', discusses how readily accessible mobile devices, such as digital and video cameras, mp3 recorders, smart mobile phones and point of view devices, allow individuals to quickly capture evidence which best represents their skills and competences. These digitally rich assets or artefacts are then best managed in an e-portfolio environment.

The research demonstrates that through capturing audio and visual evidence, RPL assessors can view an actual or 'live' representation of an individual's work, eg hearing the RPL candidate discuss how and why they completed a task in a certain way, or viewing the individual actually completing a task, without having to physically be with the person. This form of evidence generation provides an authentic means of recording an individual's abilities, beyond a traditional workplace's 'tick and flick' checklist assessment.

The report also identified that e-portfolios provide RPL candidates with a personal online space that enables them to manage and communicate their knowledge and learning. Quoting the report, the e-portfolio can also support 'all components of good RPL practice through effective evidence capture and validation; by establishing linkages to existing forms of evidence, and by complementing the conversational style of a good RPL process through regular asynchronous dialogue'.

E-portfolios for RPL assessment in Europe

Although the use of a portfolio to demonstrate competence has been widely adopted internationally, I was only able to find examples of e-portfolios in the RPL assessment process in Europe.

Reintegrating a declining workforce

Nedcar is a car assembly plant for several international car manufacturers in the south of Holland. Due to reduced demands, productivity has steadily declined. According to the Netherlands'-produced *European Inventory on Validation of Informal and Non-Formal Learning* (2007), Nedcar employees dropped from a peak production capacity of 6,500 to 1,300 in 2006.

In order to support the integration of retrenched employees into other employment or further education and training, Nedcar engaged in a partnership with their local municipality's employment agency, an unemployment benefits agency and several knowledge centres to create the Mobility Centre Automotive (MCA).

This dynamic partnership used Nedcar's existing human resources data (HR-XML) to translate workers' skills, through the support of an e-portfolio, into recognised competences that the local labour market valued.

The process involved:

- the employment agency assessing employee' competences
- the knowledge centre translating the assessments into competences and validating them via an e-portfolio for each employee
- the municipal social services helping employees move into new employment or into further education and training.

Upskilling non-gas plumbers

Lifelong Learning Network and Summit Skills, an industry skills council for Building Services Engineering in the UK, working in partnership with the University of Nottingham and the Leap Ahead program, enabled East Midlands plumbers to identify their current skill levels through the use of an e-portfolio and progress to the next qualification level.

By converting the occupational standards into plain English, an e-portfolio template was developed to enable non-gas plumbers to complete an online self-assessment tool at convenient times and places. This self-assessment tool used 'traffic light' indicators to help motivate individuals to progress to the next stage.

The e-portfolio is also used to upload the evidence required to complete the RPL process. The consortium responsible for the project reported positive initial feedback for the concept.

The Basics Printer Friendly

The Basics - NVQ 2 Rating

How many of these are you already doing, or have done?

- * Drill holes in masonry materials
- * Cut holes in masonry materials
- * Cut chases in masonry materials
- * Cut access in timber floors

All four of these are needed for NVQ 2

Count up how many you have done.

How do you score?

0	●	No NVQ2 experience in this area
1 - 3	●	You are part of the way towards NVQ2
4	●	Enough NVQ2 experience covered - congratulations!

Image 1: Screenshot e-portfolio for skills recognition in plumbing

Helping child care workers achieve mandated qualifications

'Slim portfolios' provide a minimum of evidence, eg two professional testimonies from independent referees, reflective writing which addresses set questions about individuals' existing practice, and how their knowledge and understanding influences their work. In a guided, reflective RPL process, assessment centre mentors used slim portfolios or e-portfolios to help volunteer childcare workers present evidence to achieve a mandated Level 3 certificate in working with children.

Proactive approaches to RPL for work-based learners

According to The University of Derby, 85 to 90 per cent of UK individuals participating in 'Learning Through Work' programs seek RPL. In response to this, the University led a project to trial how e-learning technologies, including e-portfolios, can facilitate work-based learners' RPL claims. The project aimed to help facilitate the gathering of information and self-assessment to streamline the RPL process.

The UK program 'Leap Ahead' is also trialling the use of an e-portfolio to help work-based learners manage their learning. In partnership with the Centre for International ePortfolio Development (CIEPD) at the University of Nottingham, this pilot will involve more than 1,000 learners.

Standardising qualifications for portability

In 1998, the European Commission and the European Centre for the Development of Vocational Training (Cedefop) established 'Europass' to enable portability of qualifications across member states.

Europass is made up of five documents. The individual manages two documents – the Europass Curriculum Vitae (CV) and the Europass Language Passport – while three other documents, the European Certificate Supplement, the Europass Diploma Supplement and the Europass Mobility – are issued by trusted member organisations.

[The Europass CV](#) is an online template that allows individuals to make their skills and qualifications easily understood in Europe so they can be mobile throughout Europe, and store them electronically, either as XML or PDF+XML.

It was recognised that an e-portfolio would be the ideal tool to support the Europass documents, benefiting EU citizens by, as e-learningeuropa.info records states, 'facilitating mobility, transparency and recognition for lifelong and lifewide learning and work experience'.

Wider adoption of e-portfolios for RPL assessment

Although e-portfolios can support both the retrospective and prospective approaches to RPL, there are currently limited examples of its use, both in Australia and internationally. There are a number of reasons for this, including the restrictive nature of current formal education and training systems' pedagogies, and policies and business rules designed to support the former industrialised manufacturing economy.

Adequate resourcing is required to encourage wider adoption of e-portfolios in the RPL process. This should include:

- competent assessors and mentors who can support individuals to generate evidence, develop their e-portfolio and manage their LLL journeys
- improved sources of support resources, such as brochures, websites, short videos, testimonies, sample RPL e-portfolios or 'virtual' e-portfolio tours; provision of a helpdesk hotline/online response service, discussion forums, together with access to responses to FAQs
- clear guidelines/resources about the RPL process, the types of evidence which can be submitted and how an e-portfolio supports the process
- ease of access to an e-portfolio through high speed Internet connectivity and digital technologies to capture and communicate evidence
- the assistance of employers in providing evidence which can support the process, ie references, job and person specifications, PD documentation, etc.

Educational organisations must also recognise the benefits e-portfolios provide for the RPL process, such as:

- structure
- sustainability, through digitally exporting and zipping RPL evidence onto CDs
- improvement of staff and RPL clients' digital literacy skills
- raising awareness of LLL through use of e-portfolios beyond the RPL process for personal/professional development, reclassification, licensing, performance reviews, etc
- provision of asynchronous communication throughout the RPL process for clients who have geographical or time differences to the RPL assessor.

Although the portfolio model of assessment has been widely adopted in the RPL process, educational organisations must realise that 'electronic versions' and e-portfolios are not equivalent. Hence, educational organisations need to consider an RPL candidate's level of information, digital literacy and availability of communication technology (ICT) for creation, editing, uploading, tagging and management of digital artefacts. Adequate resources and support are therefore needed to help them develop the digital literacy skills required to produce an e-portfolio for RPL assessment.

In 2008, one of the Framework's Innovations Projects developed such resources to help indigenous Australians move into training or facilitating. These resources can be accessed at the ['Power Up with e-Tools'](#) website and were used by indigenous art workers to develop their e-portfolios to seek RPL towards the Certificate III in Arts Administration.

Motivations for using an e-portfolio

As Hazel Owen wrote in her 2008 paper, 'Houston, We Have a Problem: ePortfolio Initiatives that Collide with Academic Practitioners' Perspectives', 'until relatively recently, portfolios have been paper-based, and although they share some key principles with e-portfolios (including selecting, synthesising, reviewing, organising and planning), aspects such as sharing and collaborating, and development over time, are not easy to exploit'.

Owen's research found that e-portfolios not only enabled learners to become more focussed critical thinkers, but they also:

- allowed for the development of a record of learning over a period of time (Smith & Tillema, 2003)
- provided increased insight into learners as individuals (DiBiase, 2002)
- fostered professional development planning (Hallam et al, 2008)
- enabled other stakeholders, including employers and professional organisations, to have active involvement (Hallam et al, 2008).

Owen's research also acknowledged, however, that there were a range of issues and concerns about adopting an e-portfolio, such as:

- overcoming tradition and the discomfort of doing things differently (Smith, 2004:xxii) (King, 1993)
- time and resources required to integrate e-portfolios (JISC, 2008) (Aalderink & Veugelers, 2005)
- technology issues and investment of time to upskill (Cho, Ater-Kranov, & Brown, 2008)
- perceived resistance (Cosh, 2008)
- lack of peer, department, managerial, institutional and ICT support (Aalderink & Veugelers, 2005).

Framework research has identified that using e-portfolios beyond the RPL process also provides an individual with a means of managing their future learning (both formal and informal), performance management processes, job applications and reclassifications, etc, which they can continue to update and contribute to throughout their working lives.

Using e-portfolios to support evidence verification

A variety of evidence types are required in the RPL process. Some evidence comes from 'trusted' sources, such as educational organisations and government departments, other evidence is 'personally' developed or sourced, eg work produced as a result of undertaking workplace tasks.

A number of trusted verification services exist. These include:

- the UK's MIAP 'Learner Record', which allows individuals over 14 years of age to share their formal education records with potential employers through a 'unique learner identifier' password
- professional services such as [Qualsearch](#), [Digitary](#), and [Purple Passport](#), which offer independent professional qualification verification services for employers and educational bodies.

Informal or personal evidence, however, requires an RPL assessor to use professional judgement in regard to authenticating evidence that demonstrates that an individual possesses current competency.

The following quotes indicate that e-portfolios offer an effective way to integrate formalised learning documentation with non-formal pieces of evidence, thereby, through a process of personal reflection, capturing the 'whole' picture of an individual seeking RPL:

- 'Evaluating the e-portfolio as a whole helps with verification because the many artefacts with reflection on them are not easily duplicable by someone else... part of the verification comes in the individual reflection written by the author.'
Barbara Cambridge, Inter/National Coalition for Electronic Portfolio Research, USA.
- '[T]he verification is intrinsic within the APL process, the learner is not asked to just supply evidence, but required to articulate the learning against a set of learning outcomes or level indicators, and the evidence is used to illustrate the learning which took place.'
Ann Minton, University of Derby, UK.
- '[I]t might be argued that [the e-portfolio] provides much greater scope for a fair and valid assessment of an applicant's abilities, in particular in the demonstration of assimilation of equivalent attributes/competency when matched with a programme's learning outcomes.'
Hazel Owen, Unitec, NZ.

Owen also noted that 'where multimedia is used there can be no question as to the authenticity of the event/process' and that 'the electronic format would also make it much easier to link multiple instances of illustrative evidence to specific learning outcomes'.

Verification through reflection allows people who may not have evidence or appropriate professional references to demonstrate competence. And in industry areas such as education and training, the ability to reflect on professional practice as part of the RPL process could be more important than the documented practical work experience.

Conclusion: A systematic approach

RPL is becoming an increasingly popular way to assess individuals' work and life experiences. Various support mechanisms are in place (ie in Australia several jurisdictions have 'Skills Stores') to facilitate the RPL process, but there is still a lot of work required to 'educate' people about accepting and valuing informal learning.

A portfolio approach has been recognised as an effective model for assessing RPL, but it is mainly used in a retrospective mode. As individuals are required to stay abreast with the skills requirements of an ever-changing labour marketplace, the need to adopt a lifelong approach to learning will see an increase in the prospective model of RPL, through the capture of digitally dynamic evidences, supported by e-portfolios.

As people's digital literacy skills improve, as access to technology and connectivity increases, and as education and training organisations realise the business advantages of using digital technologies, e-portfolios will become more readily used and accepted, both in Australia and overseas.

Educational and government organisations are experimenting with e-portfolios to support LLL in Europe and the Nedcar example of proactive RPL demonstrates the power of utilising existing digital information to create employee skills profiles for obtaining other work or further education/training.

As LLL receives greater status, especially for those traditionally disengaged from formal learning environments, so will the move to a prospective mode of RPL, with e-portfolios selected as the chosen vehicle to steer the process.

The work being undertaken in the VET sector in Australia in the use of e-portfolios to support RPL assessments definitely aligns with the RPL models and assessment methods of RPL being used in Europe. However, for the VET sector to see the wider adoption of digital evidences to support RPL, it will require high bandwidth connectivity, improved digital literacy skills, and a broader and more systemic approach to LLL.

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Useful websites:

<http://www.apelme.co.uk/>

<http://www.jisc.ac.uk/>

<http://www.jiscinfonet.ac.uk/infokits/e-portfolios/>

<http://www.derby.ac.uk/workbasedlearning>

<http://www.leapahead.ac.uk/ePortfolio.html>

<http://www.nottingham.ac.uk/eportfolio>

<http://www.cedefop.europa.eu/>

<http://www.eife-l.org/publications/eportfolio/>

<http://www.surestart.gov.uk/doc/P0000343.pdf>

<http://powerup.cdu.edu.au/index2.html>

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For more information contact:

Australian Flexible Learning Framework

Phone: (07) 3307 4700

Fax: (07) 3259 4371

Email: enquiries@flexiblelearning.net.au

Website: flexiblelearning.net.au

GPO Box 1326

Brisbane QLD 4001