Australian ePortfolio Project

ePortfolio use by university students in Australia: Informing excellence in policy and practice

Supplementary report: October 2010
Acknowledgements

Support for the original Australian ePortfolio Project (AeP) was provided by the Australian Learning and Teaching Council, an initiative of the Australian Government Department of Education, Employment and Workplace Relations. The AeP PS Project was undertaken as a supplementary activity after the conclusion of the AeP Project.

The AeP PS Project Team would like to thank the 96 individuals who responded to the 2010 survey. Appreciation is also extended to Allison Miller and her colleagues at the Australian Flexible Learning Framework, Cher Schodel, Desley Gorle, Scott Hamilton and Mayumi Sui for their assistance and support.

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Published by the QUT Department of eLearning Services, October 2010.
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1. INTRODUCTION

1.1 Overview

In April 2007, the Australian Learning and Teaching Council (ALTC), formerly the Carrick Institute for Learning and Teaching in Higher Education, commissioned a study to examine the diverse approaches to ePortfolio use by students in Australian universities. The nominated research team for the Australian ePortfolio Project (AeP) comprised four universities: Queensland University of Technology (QUT) as lead institution, The University of Melbourne, University of New England and University of Wollongong. The goals were to consider the scope, penetration and reasons for use of ePortfolios, and to examine the issues associated with their implementation in higher education. One of the central research activities in the project was a national audit which sought to establish a picture of current and emerging ePortfolio activities in Australian academic institutions. The data collection activities took place in late 2007 and the findings were presented and discussed in the final project report, published in October 2008 (Hallam, Harper, McCowan, Hauville, McAllister & Creagh, 2008).

The ALTC subsequently invited QUT to apply for further funding to progress two of the recommendations in the final report: to establish, facilitate and encourage an Australian community of practice for ePortfolio researchers and practitioners; and to introduce a regular Australasian conference to provide a forum in which to explore and discuss ePortfolio research and practice. The second stage of the project, commonly known as AeP2, concluded in late 2009 (Hallam, Harper, Hauville, Creagh & McAllister, 2009).

In a summary of the AeP study, Hallam and Creagh (2010) reported that the national audit had revealed that there was a high level of interest in ePortfolios in the context of higher education. It was broadly acknowledged that ePortfolios had the potential to assist students become reflective learners, conscious of their personal and professional strengths and weaknesses, as well as to make their existing and developing skills more explicit, with an associated value apparent in the graduate recruitment process. In addition, there was a strong understanding about the need for interoperability across the different areas of education and employment, which resonated with the government policy focus on integration between vocational and higher education and the articulation of employability skills.

However, the extent of ePortfolio use in Australia’s tertiary sector was found to be very patchy. Respondents were very aware of the concept of ePortfolios, reporting that there were plans in place at their institution for either the investigation into or implementation of ePortfolios for learners. Where already implemented, the principal use of ePortfolios was centred in coursework programs, ie subject-specific or program-based, rather than in faculty- or university-wide activity. Responsibility for the implementation of ePortfolios generally rested with the individual teaching units, sometimes supported by teaching and learning and/or ICT support areas or by careers and employment services. There was an emerging sense of collaboration, with ePortfolio projects regarded as a joint activity shared by a number of players, for example with combined committees of academic staff, learning support and IT services, or partnerships between academic staff and eLearning.
The audit also indicated that a wide range of tools was being utilised in these experimental stages of ePortfolio practice. While some institutions were looking at ePortfolio programs, learning management systems were also commonly utilised, with some respondents reporting that web pages, blogs, wikis and paper-based systems also featured. Learners, as the primary users of ePortfolios, used the tool for collecting evidence and reflecting on their learning.

The AeP team hosted two national ePortfolio symposia at QUT in Brisbane, in February 2008 and February 2009. Following the conclusion of the AeP project work, the Australian Flexible Learning Network, which represents the eLearning strategy in the vocational education and training (VET) sector, took a lead role in planning the next iteration of ePortfolio meetings: ePortfolios Australia Conference 2010, being held in Melbourne in November 2010. When the original AeP research team was invited to present a paper, the idea of a ‘follow up survey’ was developed.

The resulting supplementary research activity was undertaken to update the data collected by the AeP project team in late 2007. The plan behind this ‘postscript to AeP’ project was to refresh the picture of ePortfolio practice in Australia by collecting new data to identify and map the use of ePortfolios in adult learning across the higher education, vocational education and training (VET) and the adult community education (ACE) sectors. The supplementary project has been referred to as the ‘AeP PS survey’. No funding was received from the ALTC to conduct the supplementary study.

1.2 Scope of study

The goal of the AeP PS study was to replicate the national audit, as stated in Goal 2 of the AeP project:

To document the types of portfolio, particularly ePortfolios, used in Australian higher education including the different approaches, purposes, audiences and infrastructure.

However, the AeP PS project also provided an opportunity for the data collection activities to be extended beyond higher education, to include VET and ACE respondents. As with original AeP study, there were three separate surveys which were tailored to elicit information from the different perspectives of:

- Learning and Teaching
- Management
- Human Resources.

Potential respondents were invited to identify themselves in one of the three cohorts:

Learning and Teaching Survey - academic, academic support and general teaching staff, lecturers, trainers, assistant deans, and those generally involved with teaching design and development and/or supporting students in recognition of learning.

Management Survey – people involved in governance, policy, resource development, department managers, administration staff, assistant directors and careers and employment officers.
Human Resources Survey – people involved in the professional development of university, VET and ACE staff, professional and/or academic, teachers/trainers.

Accordingly, it was hoped that the data would reveal the extent to which the picture of ePortfolio practice in Australian education had changed over the three year period, as well as to capture some comparative data about the use of ePortfolios in VET and ACE.

1.3 Structure of the report

In preparing the supplementary report, it was assumed that the audience had read, or has access to, the earlier AeP reports (Hallam et al, 2008, Hallam et al, 2009). The audience is referred to these two reports to gain an understanding of the ePortfolio context and the issues and challenges associated with ePortfolio practice. The present report is consequently structured very simply: Chapter 1 provides an introduction to the study, Chapter 2 outlines the research methodology and Chapter 3 represents the body of the report with an analysis of the research findings. The report presents a brief conclusion in Chapter 4.
2. RESEARCH METHODOLOGY

2.1 Overview

The AeP PS study drew directly on the research methodology described in the AeP report (Hallam, 2008, pp.21ff). The design and development of the research instruments are discussed in this chapter.

2.2 Research objectives

The AeP report clearly acknowledged that the national audit of ePortfolio practice in Australian higher education was a ‘snapshot in time’, depicting the state of play in late 2007. The research team was aware that the project itself, particularly through the Australian ePortfolio Symposia, stimulated considerable interest in ePortfolio learning. This meant that, as a number of institutions had embarked on their ePortfolio initiatives, the picture had inevitably evolved and changed over time. Older pilot projects have concluded, mainstream projects have commenced, and wider uptake has been reported in other institutions. Over time, there was a growing interest in finding out how the picture may have changed over a three year period.

The ALTC-funded AeP project focused primarily on the use of ePortfolios in higher education. One of the unanticipated outcomes from the AeP activities was, however, the opportunity for collaboration between the AeP team and colleagues in the VET sector. This cross-sector collaboration was timely, given the Australian Federal Government’s policy environment that sought to encourage widened access to education opportunities in this country and to stimulate integration between vocational education and training and higher education, in order to foster increased innovation and productivity as a strategy to ensure ongoing national economic development and growth. The ePortfolios Australia Conference 2010 is recognised as a forum for further valuable interaction between the two sectors in ‘the ePortfolio space’.

The primary objectives of the supplementary project were therefore simply to revisit the national audit of ePortfolio practice and to ask the question “Where are we now?” The study would enable the project team to collect new data that would identify and map current and emerging ePortfolio practice and to understand how ePortfolios were used in post-compulsory education. The decision to run a postscript survey provided the opportunity to extend the reach of the research activity to those stakeholders in the VET sector, which would then in itself allow comparisons to be made between the sectors and to facilitate the sharing of good practice between the different parties.

The key research goal was therefore a revised version of Goal 2 in the AeP study:

To document the types of portfolio, particularly ePortfolios, used in Australian higher education and vocational education and training, including the different approaches, purposes, audiences and infrastructure.
The supplementary project would enable the ePortfolio community to gain new insights into the role played by ePortfolios in learning, teaching, employability and career development processes.

2.3 Ethical considerations

The AeP PS research activities were recorded as a variation to the ethical clearance provided by the Research Ethics Unit of the Office of Research at QUT for the AeP project. All research participants agreed to take part in the data collection on a voluntary basis. Participants were advised that all data would be handled confidentially, with anonymity assured. Participants were able to provide their contact details, if they so wished, in order to assist the research team with any subsequent questions. The research team explained that the findings would be made available in the Supplementary Report which would be published as an online resource and that the project would be the topic of a presentation at the ePortfolios Australia Conference 2010.

2.4 Surveys

As already noted, the three questionnaires developed for the AeP project were used as the research instruments for the AeP PS activity. Given the expanded reach into the VET and ACE sectors, the questionnaires were reviewed by representatives of the Australian Flexible Learning Framework, to ensure that the questions, in particular the vocabulary used, were appropriate for respondents in VET. Minor textual changes were made.

The rationale for using online survey instruments was discussed in the AeP report (Hallam et al, 2008, p.23). Once again, SurveyMonkey (www.surveymonkey.com) was used to develop the questionnaires. The three questionnaires were designed for three distinct target cohorts (cf Section 1.2 of this report):

- Learning and Teaching
- Management
- Human Resources.

Following piloting by a small number of volunteers, invitations to participate, with embedded links to the online survey, were distributed to the ePortfolio community. Members of the research team maintained an e-list of 847 people who had had contact with them over the life of the AeP project. These contacts were encouraged to distribute details of the survey further to any colleagues who had an interest in ePortfolios. In addition, the email was distributed to interested parties by representatives of the Australian Flexible Learning Framework. Links to the survey were also made available on the Framework’s ePortfolio webpages and the AeP project website.
2.5 Summary

The fact that the AeP PS survey built on the earlier instruments ensured that the revision, editing and piloting work was an efficient process. The three online questionnaires were active for a period of three weeks in September 2010. The responses was analysed using the data analysis tool, QlikView (http://www.insideinfo.com.au), and the narrative comments were graphically presented using Wordle (www.wordle.net). The key findings are discussed in detail in the following chapter.
3. RESEARCH FINDINGS

3.1 Overview

One of the key goals of the original Australian ePortfolio Project (AeP) was to review and document the extent of ePortfolio practice in Australian universities. The AeP PS survey was undertaken with two objectives:

- To update the research data
- To determine the extent of change in ePortfolio practice over the life of the AeP project (ie a ‘before’ and ‘after’ comparison).

In addition, the development of cross-sector interests had led to a collaborative relationship with ePortfolio stakeholders in the VET sector. The AeP PS survey provided an opportunity to extend the reach of the research into the VET arena and the field of Adult Community Education (ACE). The data from the three surveys are presented: Learning and Teaching, Management, and Human Resources.

3.2 The ePortfolio picture in Australia

The data collected in the AeP PS survey provides an updated perspective of ePortfolio practice in Australian education. This chapter sets the current findings against the findings of the 2007 survey presented in Chapter 6 of the AeP report (Hallam et al, 2008). The topics discussed include:

- The different understandings of the concept ‘ePortfolio’
- The extent of ePortfolio practice in tertiary and vocational education
- The types of ePortfolio technology used in different settings
- The diverse ways ePortfolios were being used in educational programs
- The areas of the institution that held responsibility for project implementation, for policy and for strategic directions
- The impact of ePortfolios on students and staff
- The extent to which there had been any formal evaluation of the various ePortfolio projects.

Where appropriate, the differences between practice in the higher education sector and in the VET sector are explored.

3.2.1 The respondents

The three surveys were designed to examine the issues from the distinctive perspectives of academic/teaching staff, institutional managers, and human resources personnel. The Learning and Teaching survey attracted 68 respondents, with 65 valid responses; the Management survey had 22 respondents with 19 valid responses, and the Human Resources survey had 9 respondents, with 9 valid responses. In 2007, the Learning and Teaching survey received 73 valid responses, the Management survey 28 valid responses.
and the Human Resources survey 12 valid responses. This meant that the total responses received in 2007 were 113, slightly higher than the 94 received in 2010. The breakdown of responses for the AeP PS surveys across the different education sectors is presented in Table 1.

**Table 1: Number of respondents by survey and by sector**

<table>
<thead>
<tr>
<th>Surveys</th>
<th>Learning and Teaching</th>
<th>Management</th>
<th>Human Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher education</td>
<td>34</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>VET</td>
<td>24</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Adult Community Education</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>No response</td>
<td>7</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td>19</td>
<td>9</td>
</tr>
</tbody>
</table>

The relative proportion of respondents from the higher education and VET sectors are presented in Table 2.

**Table 2: Percentage of respondents by sector and by survey**

<table>
<thead>
<tr>
<th>Surveys</th>
<th>Higher education</th>
<th>VET</th>
<th>Blank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning and Teaching</td>
<td>56%</td>
<td>34%</td>
<td>10%</td>
</tr>
<tr>
<td>Management</td>
<td>67%</td>
<td>24%</td>
<td>5%</td>
</tr>
<tr>
<td>Human Resources</td>
<td>44%</td>
<td>33%</td>
<td>22%</td>
</tr>
</tbody>
</table>

Respondents were given the opportunity to provide their name and contact details if they so wished. Across the three surveys, a total of 44 respondents named their institutions, with 19 universities, 26 VET institutions and one ACE organisation. A further 19 respondents did not name their institution. While the named institutions were overwhelmingly Australian, it should be noted that survey responses were submitted by one educational institution in the United States and by two representatives of one university in New Zealand. The respondents for the AeP survey in 2007 represented 34 Australian universities.

### 3.2.2 The understanding of ‘ePortfolio’

Respondents were asked to describe, briefly, what they understood by the term ‘ePortfolio’. The narrative responses ranged from a succinct statement of four words to an extended discussion of 373 words. The original AeP study noted the subtle differences in understanding shown by the different cohorts of respondents. Those people involved in learning and teaching described ePortfolios as tools for learning and reflection, providing evidence of learning and development for a specific purpose. Academic managers tended to focus the notion of collection to demonstrate learning and
personal achievement, while those in the area of human resources highlighted their views of a collection to support personal development, career progression and career planning (Hallam et al, 2008, p.71-75).

In the AeP PS survey, the responses were viewed from the perspectives of both the higher education and the VET sectors. Academic staff in universities focused on the concept of an electronic collection of materials that served to showcase the individual’s abilities and achievements. Respondents recorded a strong sense of holistic student development, noting the spectrum of “intra- and extra-curricular learning” to demonstrate development:

*ePortfolio is an electronic means by which one can collate, structure, present and reconfigure artefacts that demonstrate ones skills, knowledge, experiences and processes through which one develops personally and professionally, over an extended period of time.*

Reflection was noted as an important dimension to support the individual’s “learning journey”. The ePortfolio was recognised as a digital tool that accommodated diverse file formats (text, image, video and audio), with the flexibility to tailor the content for different purposes and different audiences.

*Multimedia tool that enables people to record their achievements, aspirations and reflections. The tool enables the person to present those in a variety of formats to a wider audience.*

*ePortfolio is a tool, a process and a product, that assist students and others to develop, collect, review and publish reflective learning activities and products.*

The online tool Wordle ([www.wordle.net](http://www.wordle.net)) was used to create ‘word clouds’ from the narrative text. Prominence is given in the word cloud to the terms that occur more frequently in the source text. The word cloud for the higher education respondents for the teaching and learning survey is presented in Figure 1, with emphasis placed on the terms ‘learning’, ‘artefacts’, ‘evidence’, ‘electronic’, ‘collection’ and ‘reflections’.

![Figure 1: Word cloud – Higher education respondents, Teaching and Learning survey](image-url)
Respondents from the VET sector also stressed the idea of an electronic collection of evidence to support learning and development (Figure 2). However, there was a stronger understanding of the functional role of ePortfolios, as highlighted by the terms ‘CV’, ‘resumé’, ‘RPL’ (recognition of prior learning) and ‘employment’.

Figure 2: Word cloud – VET respondents, Teaching and Learning survey

Respondents underscored the opportunities offered by ePortfolios for presenting and reusing the various resources for different audiences.

In its most basic form, an electronic repository that can accept files in a range of formats that, once uploaded, can be repurposed as needed by the owner, for amongst other things, presentation for assessment including RPL and showcase for new employment/accreditation etc. However, ePortfolios have far wider functionality depending on the user and the context. Reflection, planning, communication, collaboration are all possible.

An online repository for collating information and encouraging lifelong learning in a form that can be shared with discretion by the author, used for personal and professional development, educational/academic/career purposes.

Institutional managers expressed the importance of access and sharing the ePortfolio across a range of purposes.

Any electronic means to store, share, and collaborate assets, files, evidence of learning.

It also lets you communicate with past or present students to build your professional and educational networks.

Respondents from higher education noted the potential value in the recruitment process, eg in education and in nursing, but they were aware that employers were not yet ‘on board’.

…Not sure if employers [School Principals] will rate them as important in the selection process. Are hospitals using them yet in graduate nurse selection? At present the overwhelming answer from all our recruiters is ‘No.’

The word cloud presented in Figure 3 illustrates the perspectives of university managers.
Managers in the VET sector were cognisant of the pragmatic role that ePortfolios could play in the assessment of competencies and RPL:

*ePortfolios can be shared between student and assessor, or can be a collaborative network between peers with learning occurring through socialisation.*

*An ePortfolio is an online space where staff and students can upload evidence of their work which can be utilised for audit purposes, RPL evidence or to apply for positions.*

These key issues are highlighted in the word cloud (Figure 4).

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**Figure 3:** Word cloud – Higher education respondents, Management survey

**Figure 4:** Word cloud – VET respondents, Management survey

Given the low number of responses to the Human Resources survey (n=9), the higher education and the VET responses were analysed collectively. The respondents commonly referred to ePortfolios as offering a mix of learning, assessment, achievements and reflection, within a digital or online environment, as illustrated in the word cloud presented in Figure 5.
There was a sense that the respondents to the AeP PS survey had a keener and, indeed, more consistent understanding of the concept of ePortfolios, compared to the earlier AeP survey. It was noted that some respondents drew on ‘formal’ definitions which were promulgated within their institutional documents, indicating that ePortfolio practice was more mature than it was in 2007. It could be argued that respondents felt that they were in a more informed position than earlier, with a number making reference either directly or indirectly to the AeP report (Hallam et al, 2008).

### 3.2.3 The extent of ePortfolio practice

A series of questions were posed regarding to the extent of ePortfolio practice in the respondents’ own contexts. In the teaching environments of both higher education and VET, the questions related to three specific cohorts of coursework students/trainees, teaching/academic staff, and professional staff. A fourth cohort, research students, was limited to the higher education arena. Options for the extent of use covered:

- Institution wide
- Department or Faculty wide
- Course or program based
- Subject or unit based
- Work placement.

There were also options for ‘Not used’ and ‘Don’t know’.

It was found that the highest area of ePortfolio practice for coursework students or trainees was course or program wide (n=16), followed by subject or unit wide (n=10) and institution wide (n=9). ePortfolios were least likely to be used as a faculty or department wide strategy (n=2), and – perhaps surprisingly – in work placements (n=2) (although it is noted that the specific course, program, subject or unit may well incorporate a work placement). Further data was reported in the Management survey to indicate that ePortfolios were being used most commonly at the coursework (n=4) and subject (n=5) levels (Figure 6).
When compared with the data collected in 2007, it was found that there had been a significant increase in the use of ePortfolios in the university-wide context, and a sustained level of practice at the course-wide level, compared to the earlier evidence of greater use at the subject- or unit-specific level. Figure 7 presents a comparison between the responses from the Learning and Teaching surveys in 2007 and 2010. While the data would appear to indicate a movement towards a more programmatic approach to ePortfolios in student learning, some concerns were expressed that availability of an ePortfolio platform did not necessarily translate into practice:

*The tool is more available institution wide as opposed to always used institution wide. There are pockets of good practice.*

*Although all students and staff have access to an ePortfolio in reality it is only used in some courses.*
It was found that the extent of the use of ePortfolios by research students had changed very little between 2007 and 2010. In the AeP PS survey, around one third reported that ePortfolios were not used by research students (31%), while a further 37% reported that they did not know. Where ePortfolios were used by research students, it was more commonly the subject level (11%) or the program level (5%). A comparison of the 2007 and 2010 data is presented in Figure 8.

There was wider reported use of ePortfolio practice by teaching staff (n=32) than by professional staff (n=16). The picture for both cohorts revealed that staff in the higher education sector were twice as likely to be developing their own ePortfolio, compared with staff in the VET sector. Management survey respondents also indicated more widespread use by staff in higher education (n=7) than by staff in VET (n=2). One respondent in the Human Resources survey stated that there was growing interest in using ePortfolios for ‘professional purposes’:

…professional development, performance management, professional activities - a few scattered staff beginning to use it…

While there was a significant amount of exploratory work in 2007, with phrases such as ‘we currently don’t…’, ‘we don’t as yet…, ‘planning to trial…’, there were far fewer comments about ad hoc experiences presented in the AeP PS survey, which could indicate a greater extent of planned and embedded activity.

3.2.4 The type of ePortfolio technology used

One of the key questions focused on the type of ePortfolio tools being used. As in the AeP survey in 2007, respondents could select multiple tools, as applied at their institution. In 2007, there was a considerable degree of uncertainty about the actual situation in the
various institutions; it was found that respondents in the current surveys were considerably more knowledgeable about the state of play in their institutions. Figure 9 presents the range of ePortfolio approaches in place.

The data in the AeP PS survey revealed a higher level of consistency in the use of ePortfolios. The findings in 2007 showed that there was considerable variety of practice within individual institutions, with a range of approaches in place (eg LMS, blogs, paper-based and an ePortfolio software pilot). The current data shows a significant increase in the use of specific ePortfolio software platforms, as presented in Table 3.

**Table 3: ePortfolio software in use**

<table>
<thead>
<tr>
<th>ePortfolio software</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>PebblePad</td>
<td>15</td>
</tr>
<tr>
<td>Mahara</td>
<td>12</td>
</tr>
<tr>
<td>Chalk &amp; Wire</td>
<td>3</td>
</tr>
<tr>
<td>Vumi</td>
<td>2</td>
</tr>
<tr>
<td>Adobe ePortfolios</td>
<td>2</td>
</tr>
<tr>
<td>Desire2Learn</td>
<td>1</td>
</tr>
<tr>
<td>Digication</td>
<td>1</td>
</tr>
<tr>
<td>Sakai</td>
<td>1</td>
</tr>
<tr>
<td>Skillsbook</td>
<td>1</td>
</tr>
<tr>
<td>Custom built</td>
<td>3</td>
</tr>
</tbody>
</table>
PebblePad and Mahara have become the most prevalent ePortfolio tools. Respondents mentioned that Mahara was utilised within the context of the Moodle LMS, highlighting the value of integrated online services for students. A range of wiki and blog platforms were also being utilised, eg Wetpaint, Mediawiki, WordPress, along with the wiki tools as a component of an LMS, eg Blackboard, WebCT or Moodle. Web 2.0 tools such as Google sites and Flickr were used to manage audio files and digital photos. One respondent reported using industry portals which were required for students to demonstrate the attainment of the relevant professional standards.

When a comparison was made of the data reported by respondents in higher education and in the VET sectors, it was notable that ePortfolio software platforms were more common in universities (Figure 10).

![Figure 10: Type of technology used: Higher education and VET respondents](image)

All PebblePad installations were in the higher education sector, while the majority of VET respondents using an ePortfolio platform (75%) indicated that Mahara, in conjunction with Moodle, was used as the tool.

### 3.2.5 The range of use of ePortfolios

The survey sought to determine how the diverse respondents were making use of ePortfolios in their respective contexts. A list of potential areas of ePortfolio activity was provided:

- The ePortfolio is part of formative assessment
- The ePortfolio is part of summative assessment
- The use of ePortfolio is encouraged and supported by teaching or academic staff
- The ePortfolio is available to students as an optional tool, independent of a program of study
The ePortfolio is about reflecting on learning
The ePortfolio is about collecting examples of evidence of learning
Course/program time is allocated to students to undertake ePortfolio activities.

Respondents were able to select as many options as were applicable, and there was also an opportunity to add any additional (unlisted) uses. A total of 223 responses were noted across the seven areas of use, compared with 209 in 2007. There were 171 responses from people in the higher education sector and 52 from VET.

It was found that the two principal uses of ePortfolios were in the areas of collecting examples of evidence of learning (n=42) and summative assessment (n=40). These two areas had also featured strongly in 2007, but the reported use of ePortfolios to help students reflect on their learning dropped in the AeP PS survey responses (Figure 11).

It was interesting to note that there was an increase in the use of ePortfolios for summative assessment, while the use for formative assessment remained constant. The use of ePortfolios for summative assessment was important for both VET (17%) and higher education (18%) (Figure 12). One quarter of respondents from the VET sector reported that the principal use of ePortfolios was for collecting evidence of learning, compared with 17% of respondents in higher education.

*It is used primarily for recognition of prior learning.*

*The ePortfolio is used for collecting examples of evidence for Recognition.*
It appeared that it was more common to allocate class time to ePortfolio development in VET, yet more academic respondents reported that the use of ePortfolios was encouraged and supported by academic staff. It was also more likely that university students had access to an ePortfolio as an optional tool, ie independent of their program of study.

Nevertheless, diversity of practice was underscored by respondents who stressed that there was a wide range of use of ePortfolios across the institution.

*Most of these apply, but not to all schools/departments/courses/units/students. Different units/courses use ePortfolios in different ways. Not yet rolled out to general student availability.*

Specific questions were asked in the Learning and Teaching survey about the range of student learning activities that were reviewed or assessed, including artefacts, reflections and/or the ePortfolio as a final product. A total of 81 responses was received, compared with 99 in 2007. While the most prevalent situation was to review or assess artefacts (n=31), it had become less common to evaluate the ePortfolio as a final product (n=22) (Figure 13).
Only four respondents stated that the ePortfolio was not reviewed or assessed. In terms of the review or assessment processes, respondents were asked whether the reviewers/assessors were fellow students or peers, teachers or tutors, or external specialists. They were also asked to indicate whether the ePortfolio was assessed as part of a face-to-face presentation or event, or as part of career planning or mentoring. There were 88 responses to this group of questions, compared with 89 in 2007. It was clear that the academic or teaching staff played a key role in reviewing or assessing the ePortfolios, but significantly there had been an increase in peer review amongst students (Figure 14).

![Figure 13: Review or assessment of ePortfolios: Learning and Teaching respondents, 2007 and 2010](image)

![Figure 14: Context of review or assessment of ePortfolios: Learning and Teaching respondents, 2007 and 2010](image)
Where there was student or peer review (n=18), there was always further assessment by teachers. Where there was review by external specialists (n=11), the process was frequently accompanied by student peer review (n=9). The review of ePortfolios in career planning or mentoring or in face-to-face presentations was also closely aligned with student peer review. However, it was noted that, overall, there had been a drop in the review of student ePortfolios in the context of career planning or mentoring (n=10).

Findings from the 2007 and 2010 surveys underscored the need for support from academic and teaching staff, with time allocated in the course for students to work on their ePortfolio. A series of questions specifically sought to identify the spectrum of support provided to students, considering online resources and hardcopy handouts about the purpose of the ePortfolio or about how to use the system, tutorial programs, tutor support – either face-to-face or online, and IT support for learners and for ePortfolio development. Overall it was found that there was little change between the data collected in 2007 (n=201) and 2010 (n=188). It continued to be more common to provide guidance online, rather than using handouts, about the purpose of the ePortfolio (n=27) and about how to use the tool (n=28). Respondents reported that tutor support was available in person (n=21) and online (n=20), as well as IT support (n=21). It was less common to provide access to electronic diagnostic tools (n=2) or IT developer support (n=10). As in 2007, it was found that multiple channels of support were offered.

Face to face introduction, in class demonstration and training for both staff & students in the use of the ePortfolio tool by a teacher who is highly experienced in its use - this is done on the first lesson with the students & class teacher present. Prior to this there is a 4 hour group session setup with staff from the teaching section and then individual support session 2-4 hours prior to first use. Ongoing support via telephone, email and online using the tool itself.

A number of respondents were still in the development stage, so ‘not there yet’.

Once again this is an aspiration, as [the university] is just moving to use of e-portfolios, but we intend to promote all of the above uses, though Schools and programs may place different weighting upon each of these aspects. However, there is significant career planning and development guidance and support, currently being integrated within the curriculum in a range but not the entirety of our courses and units, yet.

All in the planning stage for 2011.

The Human Resources survey focused on staff use of ePortfolios. The questions about usage attracted only 3 responses. Two respondents reported that the ePortfolio was available as an optional tool, while only one response was recorded to indicate that it was part of the formal staff development program. Staff were supported in their use, but there was no specific allowance of time to work on their ePortfolio.

### 3.2.6 Responsibilities for ePortfolio practice

A series of questions was presented to consider the areas of responsibility for ePortfolio practice in adult education, with three particular questions relating to ePortfolio implementation, to policy and to strategic direction.

#### 3.2.6.1 ePortfolio implementation
In 2007, the teaching unit or the faculty was most commonly responsible for the implementation of an ePortfolio. While this trend for a distributed model of implementation continued, with the department or school also playing a role, centralised services had become more active, with information technology services, teaching and learning support, including eLearning services, highlighted (Figure 15).

Figure 15: Responsibility for ePortfolio implementation: All respondents

As respondents could select more than one area of responsibility, it was evident that there was considerable joint activity in individual institutions. It was found that ITS, for example, would be working with teachers and educators as well as with teaching and learning support services in the implementation process. Where careers and employment services were involved, ITS, eLearning services and the teaching unit would also be partners in the activities.

[It involved] teachers, RPL unit and Marketing.

In the VET sector, the primary players were ITS and the teaching units, while in universities, the teaching units, faculty and ITS were the main proponents. Some of the comments provided stressed the energy and drive of individual teaching staff.

3.2.6.2 ePortfolio policy

The picture in 2007 revealed that while there were few instances of formal ePortfolio policies in Australian universities, policy work was likely to be driven by teaching and learning support services. It was found that considerable progress had been made over the past couple of years, with a leading role played by teaching and learning support services, as had been anticipated, sometimes in conjunction with information technology services (Figure 16).
 Comments provided reflected the collaborative aspects of policy development:

Centre for the Advancement of Learning and Teaching alongside ITR are responsible for most policies. Faculty is responsible for internal policies regarding use of ePortfolios (e.g. Faculty of Education has a working committee for ePortfolio use which determines internal policy.)

However, a number of VET respondents reported that there were, as yet, no policies; some of the comments indicated that the policy arena was still embryonic:

There are no discrete policies as such but the Learning & Teaching Unit would be the closest in terms of concerns about pedagogy and Information System & Technology Services would be responsible for the management and operation of the ePortfolio software.

No one department at this stage but now that broad agreement has been reached and Mahara is to be implemented, the Teaching and Learning Centre will most probably be responsible for ongoing related staff and student development.

The key player in academic institutions tended to be the DVC or PVC responsible for teaching and learning; in the VET sector it was noted that the manager of the RTO was likely to manage the policy issues.

### 3.2.6.3 ePortfolio strategy

As in 2007, it was found that teaching and learning support services were primarily responsible for driving the strategic direction of ePortfolio practice in the individual institutions (Figure 17).
However, it was found that a more centralised approach to strategic issues had emerged, with less responsibility lying with the faculty through Assistant Deans, although they were acknowledged to play a role in some institutions:

The Institute of Teaching and Learning and key individuals located in faculties including Associate Deans (Teaching and Learning), and discipline-specific academic developers and some academic leaders (eg unit chairs, course co-ordinators/directors) and enthusiastic academic staff.

In many cases, responsibilities had been devolved to joint committees and working groups, with DVCs/PVCs apparently less directly involved in determining the strategic direction. Careers and employment services had a lower profile than reported in the earlier survey.

TAFE eLearning Systems, Learning Technologies Unit & Workforce Capability Unit - ePortfolios Project Management Team.

Learning and Teaching Support Unit, Learning and Teaching Systems User Reference Group and its subcommittee, the ePortfolio advisory group.

Institute of Teaching and Learning and Knowledge Media and the Teaching Leaders Forum.

Nonetheless, while enterprising teaching staff were identified as leading the way in some institutions, the engagement would not necessarily translate into any cohesive strategy for the whole organisation.

Individual support person within learning and teaching support unit - but also practitioners who have adopted early.

Information Services has done some work and exploration but nothing tangible, therefore, the strategic direction has tended to come from individual academics with a teaching or research interest in ePortfolios.

Some respondents from the VET sector again commented on the absence of any specific strategic direction within their institutions.
3.2.7 The drivers and barriers for ePortfolio implementation

The surveys included questions about the drivers or factors that had contributed to the implementation of an ePortfolios project. In the Learning and Teaching survey, respondents were asked to determine the relative importance of a range of potential drivers for the use of ePortfolios, within the context of their own institution. A 4-point Likert scale of ‘very important’, ‘important’, ‘not very important’ or ‘not applicable’ was utilised. The potential factors included:

- Entry into courses/programs
- Discipline specific professional skills requirements
- Improve transparency of learning outcomes
- Practicum or work placement
- Integrative learning
- Improve reflective learning
- Better/varied assessment
- Recognition of prior learning.

In 2007, the most important factors were reflective learning and discipline-specific/professional skills requirements. While these two factors remained significant in 2010, the role of the practicum or work placement was found to rank highest. As in the earlier findings, improved transparency of learning outcomes and improved assessment were considered ‘important’ rather than ‘very important’, while comparatively little weight was given to entry into courses/programs and to RPL as drivers (Figure 18). In their comments, respondents noted that employability, external professional accreditation and graduate attributes policy also played a role.

![Figure 18: Degree of importance of factors contributing to ePortfolio implementation: Learning and Teaching respondents – ‘Very important’ and ‘Important’](image-url)
When a comparison was made of the two sectors, it was found that there was a marked difference between the use of ePortfolios in ‘professional education’ and in ‘vocational training’. Higher education respondents determined that the most important driver was reflective learning (n=15), closely followed by professional skills (n=14) and the practicum (n=14). Respondents from the VET sector, however, gave greatest weight to RPL (n=8), integrative learning (n=7) and the practicum (n=7), highlighting a more pragmatic approach to adult learning.

As in the 2007, the question about drivers and barriers was worded slightly differently in the Management and Human Resources surveys in order to accommodate the focus on broader strategic and policy issues rather than learning and teaching issues. The same 4-point Likert scale was used to determine the relative importance of the following factors:

- Graduate employability
- Graduate attribute policy
- Technology policy
- Strategic imperatives
- Teaching and learning policy
- Audit/review processes (eg AUQA, AQTF)
- Other external policies.

In the 2007 Management survey, teaching and learning policy scored highest in terms of being ‘very important’. In 2010, this factor was ranked lower, with greater significance was given to graduate employability. Graduate attributes policy and technology policy continued to be regarded as ‘important’ (Figure 19). Industry requirements were identified by one respondent as an example of external policy factors.

Figure 19: Degree of importance of factors contributing to ePortfolio implementation: Management respondents – ‘Very important’ and ‘Important’
Graduate employability and graduate attributes policy were viewed as the more important factors by the Human Resources respondents.

Respondents had the opportunity to highlight the specific factors which they felt had contributed to the successful implementation of ePortfolios at their institution. It was noted in 2007 that much of the ePortfolio work was exploratory, so not many activities were viewed as ‘successful’. While it was ‘too early to say’, the key elements for success were anticipated to include:

- Embedding ePortfolio activities into the curriculum, especially where there was a need to meet specific professional requirements
- Clear linkages with institutional strategic and policy directions
- Sound IT infrastructure
- Adequate funding
- Overt support from high level champions
- Commitment and buy-in from teaching staff
- Academic staff developing their own teaching portfolios.

The responses collected in the AeP PS survey indicated that these critical success factors had indeed come into play:

- Funding, staffing, user support, IT support, pedagogical training and support.

Effective planning and project management were recognised as being important, particularly in terms of coordination across the different stakeholder groups:

- A supported and managed implementation process - the ability to support both staff and students from an institutional level across from a range of pedagogical and technical perspectives, e.g. id management to helpdesk support - a single repository or personal learning environment for the user that is able to link to the external world including other Web 2.0 services - a way of maintaining quality assurance across delivery, training, support and resources - a single system so that students will only ever have to learn the one system.

- A focus on learning and "school champions" and commitment from senior exec. + cross course/multi school/discipline/faculty support & training.

A recent review of our virtual learning environment occurred at the same time as a working party of academic board being commissioned to develop specifications for an ePortfolio. This meant that there was an opportunity to achieve synchronicity across broad areas of the university.

Cross-institutional collaboration, influential champions, and enthusiastic, passionate and excited staff - also described as ‘dedicated, hardworking and stubborn’ – were highlighted, along with some external drivers such as national professional standards, the Tertiary Education Quality and Standards Agency (TEQSA), Australian University Quality Agency (AUQA), Australian Curriculum, Assessment and Reporting Authority (ACARA), industry skills councils and formal professional accreditation.

Nevertheless, there was still a high level of uncertainty amongst some respondents who were still in a period of transition or who indicated that there had been no successful implementation.
We haven’t “successfully implemented” ePortfolios on a broad scale; but we are building the use through identified needs and hope to grow from there.

I wouldn’t say we have implemented it successfully - we have been piloting on and off for a decade, and ePs are used only in a couple of isolated locations.

We are just entering a phase of transition, from undertaking pilot studies to seeking a replacement learning management system that supports an integrated ePortfolio solution.

Respondents were asked to identify any issues that they regarded as barriers to the implementation of ePortfolios. The barriers that existed in 2007 were felt to continue, with ongoing issues associated with the flip side of the identified success factors of funding, staffing, user support, IT support, pedagogical training and support.

For teachers, the themes that emerged as barriers included time, lack of academic interest, resistance to eLearning initiatives, reluctance to engage in reflective practices, and competing priorities. Interestingly, learners themselves were generally not perceived as presenting any barriers; institutional factors such as staff time, funding, technological infrastructure and change management were more of a concern. Respondents from the VET sector identified highly pragmatic issues that impacted on the students’ ability to make progress with ePortfolios:

Lack of computer accessibility.

Lack of reliable network and web-speed.

Lack of face to face time with students to encourage use.

[Challenges for students] just getting into a habit of using and recording all training every week.

In the higher education area, it was felt that the absence of strategic direction, resulting in a lack of cohesion in eLearning, and competing demands for technological solutions across the institution contributed to the difficulties:

Lack of Senior Level direction to support recommendations for ePortfolio uptake across the whole institution, as a benefits-driven process. Consequently, interest remains ‘patchy’, often limited to either departmental enthusiasts or a small number of disciplines with a professional requirement to include use of a portfolio in study programs.

Competing priorities are the main factor, especially when there are competing needs that require technological change and thus support. Sharing the success stories that can often be isolated from the main activities across the institution, is crucial to engaging decision makers in seeing the benefits of providing ePortfolio options in the mainstream of teaching and learning activities, rather than a peripheral activity or “passing fad”.

3.2.8 The impacts of ePortfolio use on students and staff

A key component of the research involved capturing data about the respondents’ perceptions of the impact of ePortfolios on students and on staff. A group of questions focused on the perceived changes of awareness about a range of education and training issues:
- eLearning technology
- Learning outcomes
- Reflective learning
- Graduate attributes
- Professional/industry skills
- Goal setting/career planning by learners
- Assessment and review processes.

In 2007, the most significant impact for students was recorded for an increased awareness of reflective learning, learning outcomes and professional knowledge/industry skills. Although the degree of impact was considered to be greater for students than for staff across all issues, respondents believed that the most marked increase in awareness for staff were in the areas of eLearning technology and graduate attributes. In 2010 there was still a strong feeling that it was ‘too early to tell’ (n=24). In terms of impact on students, the most significant areas were the increased awareness of eLearning technology, on both the part of students (n=22) and staff (n=22), student awareness of reflective learning (n=19) and student awareness of professional/industry skills (n=17) (Figure 20). Respondents from the VET sector also believed that ePortfolios could contribute to improved assessment or review processes (n=7).

![Figure 20: Impacts resulting from ePortfolio use – Students and staff: All respondents](image)

In 2010 it was found that there was a stronger perception of the positive impact on staff than in the AeP PS survey results with a far smaller gap recorded between the benefits to students and to staff. Comments provided indicated that it was also felt that there were improvements in terms of student engagement in learning. While one respondent suggested that it may be useful to try to capture improvements in the area of employment, the research activities underscore the widely recognised challenges in bringing employers on board as key stakeholders in the ePortfolio process.
3.2.9 **The evaluation of ePortfolio use**

As in 2007, there was limited evidence of formal evaluation of ePortfolio practice. There were 34 responses to the question about evaluation activities, with seven people stating that there was no evaluation work. Nevertheless, a number of respondents stated ‘Not yet’, with indications that while it was still too early in the implementation, evaluation would ultimately occur. Several informants (n=11) reported that they had undertaken some evaluations, through a range of approaches:

- Classroom evaluations
- Monitoring the uptake by students
- Student surveys
- Audit of final year students
- Review of assessment artefacts
- Review of academics’ reflections
- Reports on ePortfolio pilots.

At a more formal level, three respondents reported that they had published articles and research reports, and one respondent indicated that he/she was currently completing a PhD in the area. It was noted that the AeP Project and associated symposia had encouraged staff to adopt an evidence-based approach to their teaching.

3.2.10 **The philosophies underpinning ePortfolio practice in Australian higher education and vocational education and training**

Respondents were asked to consider a number of philosophical statements and select the one(s) which best described the philosophy that underpinned ePortfolio use at their institution. The philosophical statements included:

- It is a secure repository for students to collect and store evidence of their skills and knowledge attainment (‘Repository’).
- It is a place for students to reflect upon their learning journey – where they have come from and where they are going – it’s about the process of learning (‘Learning journey’).
- It is about evidence of skills, but there’s also an opportunity to show the process and to reflect on what this means to the student (‘Evidence + Process’).
- It is about reflecting on learning, but there’s also the opportunity to collect and attach some evidence for this (‘Reflection + Evidence’).

The findings from the AeP PS survey were similar to the initial survey undertaken in 2007. As respondents could agree with more than one statement, 144 responses were collected; the majority of responses were provided by the higher education sector (n=106), compared with the VET sector (n=37). Overall, the primary philosophy indicated that it was about evidence of skills, with the opportunity to show the process and to reflect on what this means to the student (n=41) (Figure 21).
In terms of the different sectors, respondents from the VET sector believed in the value of evidence, both in terms of the ‘Repository’ to collect and store evidence of the student’s skills and knowledge attainment (35%) and ‘Evidence + Process’ to show the process of attaining the evidence (30%). Reflecting on learning was a less common philosophy (14%). Responses from higher education respondents were more evenly spread, with the notion of ‘Evidence + Process’ marginally more recognised (28%) (Figure 22).

**Figure 21:** Philosophy underpinning ePortfolio use at the institution: 2007 and 2010

**Figure 22:** Philosophy underpinning ePortfolio use at the institution: Higher education and VET respondents
It should be noted that the philosophical statements were developed for the original survey conducted in 2007, which specifically targeted Australian universities. It was interesting to note that in the 2010 survey, some respondents felt that the key elements of ‘repository’, ‘learning journey’, ‘evidence’, ‘process’ and ‘reflections’ did not capture some of the elements that they felt were crucial to their own understandings:

*Also some emphasis on professional development and lifelong learning.*

*And include workplace learning.*

Others chose to invert the issues to develop statements of ‘what ePortfolios are not’:

*It is not: an institutional ‘cookie cutter’ use of templates so that all students are forced to comply with imposed standards. Creativity and choice for students to gather and reflect on evidence of their development over time, are essential components of effective ePortfolios.*

Several respondents provided very detailed descriptions of how the ePortfolio was used in their institution, offering evidence of the depth of thought and planning that had been achieved. One respondent outlined the Foundational Requirements and the Pedagogical Requirements which underpinned local ePortfolio practice, highlighting the opportunities for students to showcase their accomplishments internally and externally, to document course learning outcomes, to facilitate representation, revision and reflection, to exchange views with others, and to incorporate tools such as blogs and wikis. The value of ePortfolio practice to the teaching staff themselves was also viewed as critical – this was, not surprisingly, an important angle for the respondents of the Human Resources survey. Beyond this, it was noted that the institutional dimension of ePortfolio practice should not be overlooked:

*ePortfolios can also be used on an institutional level, for example, institutions and their organisational units could document their teaching, research and accomplishments to demonstrate meeting standards.*

*It is a powerful way to provide course level information and evidence for institutions.*

It was found that the survey question prompted some respondents to be circumspect about current activities at their institution:

*I don’t think the ePortfolio is used in my institution in the ways that it could be.*

*This is what I would like to use ePortfolios for but this has not happened yet. Still working on it!*

Beyond this there were some sensitivities expressed about the actual diversity of philosophies:

*This is the problem - there is no collective agreement about the definition or philosophy underpinning ePortfolio use.*

These words echo the concerns expressed in the AeP report: “…one of the key challenges for emerging projects wishing to establish best practice standards is the lack of a common language, not only within the higher education sector but also between the sector and outside agencies” (Hallam et al, 2008, p.3). Despite the work undertaken in both the higher education and VET sectors over the past couple of years, the diversity of contexts, purposes, tools and stakeholders continues to challenge ePortfolio practitioners.
3.3 Summary

The research team was pleased with the level of interest in the AeP PS survey, with a total of 94 valid responses received. The data not only allowed the picture of ePortfolio in Australian higher education to be refreshed, but also enabled comparative insights to be made across the different education sectors, with one third of the Learning and Teaching survey respondents and one quarter of the Management survey respondents representing the VET sector. In many respects, it was found that there was a more mature understanding of ePortfolios in education, yet at the same time it was apparent that there was still a considerable amount of exploratory work taking place in institutions.
4. **CONCLUSION**

When the 2010 data was compared with the data collected in the original audit of ePortfolio practice in 2007, it was found that the respondents’ understanding of ePortfolios was clearer and more consistent, with the AeP research reports acknowledged as offering a sound information base for newcomers to the field. The higher education respondents focused strongly on ePortfolios in an academic context, considering the process as a support for the student’s learning journey, stressing development and reflection. VET respondents provided more pragmatic perspectives, considering ePortfolios within the context of assessment of competencies, employment and RPL. When examining the drivers for ePortfolio practice in individual institutions, it was found that higher education respondents highlighted the significance of reflective learning and professional skills, whereas the VET respondents pointed to the factors of RPL and the students’ practicum experience.

The extent of ePortfolio practice had moved away from their use mainly in single units of study towards more programmatic implementation in undergraduate student learning: it was not only noted that there was an increase in ePortfolios being used by students at the course level, but also that there was a higher reported incidence of institution-wide availability. There was nevertheless a strong feeling that institution-wide availability was not necessarily aligned, in real terms, with comprehensive institution-wide practice. In the context of higher degree programs, it was found that no new patterns of usage had emerged, with a high proportion of respondents reporting that they did not know the extent of usage amongst research students. The findings suggested that, while there had been a gradual increase in interest and uptake amongst academic and professional staff, this tended to be in higher education rather than in VET. Overall, the 2010 data revealed that ePortfolio practice was less sporadic and ad hoc than it had been three years earlier, with a significant extent of planned and embedded activity.

The survey responses revealed that the increase in planned activity was reflected in the increased use of specific ePortfolio software tools. Nine proprietary and open source programs were named, with PebblePad and Mahara standing out as the main platforms, although there were still many examples of more informal approaches including blogs, wikis and Web 2.0 applications being used for ePortfolios. PebblePad was used predominantly in universities, whereas Mahara was being used across both higher education and VET. The wider incidence of Moodle as a learning management system was observed as a factor for the introduction of Mahara. Teaching staff continued to have primary responsibility for decisions the implementation of ePortfolios, but the AeP PS survey data indicated that there was less of a sense of isolation, with collaborative activity bringing together different players in the institution, to include teaching and learning support services and IT services. Over the three year period, progress had been made in the area of ePortfolio policy development in universities, driven principally by teaching and learning support services and IT services. Over the three year period, progress had been made in the area of ePortfolio policy development in universities, driven principally by teaching and learning support services. It was found, however, that respondents were aware that there was still work to be done in the policy arena, especially in the VET sector. There was a sense that strategic issues continued to be underplayed in institutions, with a mix of high level management engagement, joint working parties and individual early adopters leading the way in the more progressive institutions.
The critical success factors were widely acknowledged to relate to funding and staffing, as well as the need for adequate support for students in areas of pedagogy, or ‘ePortfolio learning’, and IT. Good planning processes and appropriate staff development were also significant factors. Unsuccessful ePortfolio activities were directly related to poor planning at both the strategic and operational levels, with little academic and management buy-in, inevitably resulting in the associated lack of funding and support. The research revealed that there continued to be a low level of understanding about the actual impact of ePortfolios on student learning outcomes. However, there was considerable interest in the area, and although little formal research had been undertaken, there was a belief, anecdotally at least, that ePortfolios contributed to increased awareness of eLearning technologies and reflective learning, as well as employability skills; to date, however, little formal research had been undertaken. Respondents reported that the AeP project work had contributed to their awareness of the importance of establishing an evidence base that could inform future practice, with a small increase in data collection activities by teaching staff in 2010, compared with 2007.

As a supplementary project, the AeP PS survey represents an important step in building on the original AeP work to answer the question “Where are we now?” In hindsight, the research team believed it would have been valuable to ask the 2010 respondents if they had contributed to the original 2007 audit, so that a more direct comparison could be made. When the first questionnaires were developed, however, no strategy was put in place to link individual responses to subsequent survey data. As a result, any interpretation of changing perspectives must remain circumstantial. Nevertheless, the AeP PS survey captured a substantial amount of valuable data about contemporary ePortfolio practice in the Australian higher education and VET sectors. There was an overall sense that ePortfolio practitioners were more confident in the work they were doing with students, and the uptake of ePortfolio tools such as Mahara and PebblePad had ensured that supportive relationships had been developed within and across institutions, thus reducing the strong feeling of isolation that was reported in 2007. It would be interesting to capture the views of students and graduates who have continued to develop their ePortfolios over an extended period of time. The need for further meaningful research continues to be a priority if the potential of ePortfolios to play a significant role in Australian education, training and employment is to be achieved.
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