6. NATIONAL AUDIT OF ePORTFOLIO PRACTICE

Goal 2: To document the types of portfolio, particularly ePortfolios, used in Australian higher education including the different approaches, purposes, audiences and infrastructure

6.1 Overview

Attention is frequently drawn to the distinction between ‘the portfolio as process’ and the ‘portfolio as product, or tool’; that is:

[the] difference between the portfolio as process (collection, selection, reflection, direction, presentation) and the portfolio as product (the notebook, the website, the CD-ROM or the DVD and the technological tools used to create the portfolio-as-product)

(Barrett, 2008)

An overview of these two aspects of ePortfolio practice is presented at the beginning of the report, in Chapter 1. The specific interpretation of the term ‘ePortfolio’ may depend on the perspective of the individual stakeholder. For example, those concerned about technical issues may think of the ePortfolio along the lines of the ‘tool’, as the software program itself with its associated functionality. Classroom teachers may think about the ePortfolio ‘process’, which encourages learners to engage in the process of knowledge construction through cycles of action learning supported by reflection, commentary and feedback. People who are more focused on student learning outcomes may consider the ePortfolio to be the aggregation of evidence of knowledge acquired and experience gained, which has been collected and reviewed over a period of time, perhaps along the lines of a digital repository. Those interested in the articulation of employability skills may think of the ePortfolio as a specific view or presentation of this collection of experiences for a specific audience. An understanding of ‘ePortfolio’ is therefore directly linked to the actual purpose in any given context.

The second goal of the Australian ePortfolio Project was to review and document the extent of ePortfolio practice in Australian higher education. Chapter 3 of the report provides an overview of the research methodologies utilised by the research team to collect the data: a series of surveys, focus groups and semi-structured interviews. The research subjects included the broad range of stakeholders involved in ePortfolio practice: individual students, academic staff and university managers, as well as representatives from the schools and vocational education sectors and a range of professional and employer groups. In the present chapter, the research findings are presented in detail. The data collection activities spanned the period from October 2007 to early July 2008: the national audit was undertaken in late 2007, while student surveys and interviews were conducted during the first semester of the 2008 academic year. The data therefore presents a picture of the state of play at that time. The theme of ePortfolios in education is, however, dynamic; the researchers are aware that the Australian ePortfolio Project had, in and of itself, increased the awareness of ePortfolios in general — it had also encouraged some academic staff to consider the possibility of introducing new projects at their own institutions.

The discussion in this chapter outlines the different understandings of the concept of ‘ePortfolio’, the extent of ePortfolio practice in Australian universities at the time of the study, the types of ePortfolio technology used in different settings and the diverse ways ePortfolios were being used in academic programs. Beyond these specific practice issues, the project sought to determine which staff or areas of the university held responsibility for project implementation and for the policy and strategy for ePortfolio activity. The study also considered the impact of ePortfolio use on students and staff, and the extent to which there had been any formal evaluation of the different projects. The focus group discussions were analysed to distill the main issues of concern to the participants. The key themes that emerged in this context were ePortfolios in relation to employability skills, to the student experience, the validity of ePortfolio content and the need for interoperability. The semi-structured interviews revealed further high level concerns associated with policy, funding and the need for coordination across the sectors.
The student surveys provided insights into the expectations of students prior to their engagement with ePortfolio in their course of study, as well as feedback concerning their actual experience of this engagement. Information was collected from a small group of ‘mature’ users. This enabled the project team to build a more complete picture of the student experience by looking at perceptions of the value and impact of the ePortfolio experience for these users. The chapter concludes with a review of the Australian ePortfolio Symposium activities.

6.2 The ePortfolio picture in Australian higher education

The principal data collection activities undertaken to fulfil Goal 2 of the current project encompassed the national audit survey of Australian universities, regional focus groups, semi-structured telephone interviews and student surveys. Through the audit survey questions, the project team sought to capture the information that would help develop a clearer understanding of the state of play: the different approaches in the use of ePortfolios, the various purposes of ePortfolios, the diverse audiences and the infrastructure in place. The research team was aware of the challenges they faced in the task to map ePortfolio practice in higher education, given the fact that ‘it sometimes seems that the e-portfolio landscape is changing and coming into (and out of) focus week by week’ (Stefani, Mason, & Pegler, 2007, p. 1).

Based on the researchers’ own understanding of the field, it was anticipated that there may be pockets of ePortfolio activity in different academic environments, with practitioners, administrators and technologists potentially having a piece of the turf, but that it was unlikely for there to be significant cohesion within or across institutions. As noted in Chapter 3, the process of identifying potential respondents in each university to ensure that the ‘right’ people were targeted for the survey would in itself prove challenging. The communications strategy chosen was to direct the initial communication to vice-chancellors and to then make contact with the key stakeholders such as deputy vice chancellors, deans and assistant deans, IT directors, learning support managers and careers and employment managers. One Australian university notified the research team that as there was no ePortfolio activity within the institution, they felt they could not participate in the audit. All remaining universities submitted a response to one or more of the questionnaires.

The diverse nature of stakeholders meant that the national audit of ePortfolio practice led to the development of three separate survey instruments to ensure the different perspectives were captured: a learning and teaching survey, which attracted 73 valid responses, a management survey with 28 valid responses, and a human resources survey with 12 valid responses. A total of 34 universities submitted responses to the learning and teaching survey, 23 to the management survey and 11 to the human resources survey. Multiple responses were received from most universities, with seven universities responding to all three survey instruments. For the purposes of presenting the findings from the survey, the primary lens used was the one that examines the data collected in the learning and teaching survey, which focuses on the experiences (and in some cases the plans) of academic staff and educational developers working with students in the area of ePortfolio practice. The subjects of the management survey were those involved in university governance, policy and administration. The data collected in this part of the audit revealed a strong sense that there was a growing awareness about ePortfolios, but the questions generally produced a high proportion of ‘don’t know’ and ‘not sure’ responses, supported by narrative comments to the open ended questions that emphasised that the respondents’ were offering their perceptions, rather than direct experiences of ePortfolios. As the focus of the human resources survey was the use of ePortfolios by academic and professional staff at an institution, the survey responses are reviewed separately.

The student voice was considered to be an important aspect of the study. It was felt that it would be valuable to capture both the views of students who were experienced or ‘mature’ users of ePortfolios, as well as of those who were being introduced to an ePortfolio for the first time. These ‘new’ students were asked to complete a pre-course expectations survey at the beginning of the semester, followed by a post-course experiences survey at the end of the semester. ‘Mature’ users were identified and invited to participate in a survey and a semi-structured interview. The institutional data was collected during the month of November 2007, while the student data was collected during the period March to early July 2008.
In the discussion that follows, the research findings are presented for the national audit, focusing on the respondents’ understanding of ePortfolio; the extent of ePortfolio practice at their institution; the ePortfolio platform in use; the range of ePortfolio use; and where the responsibilities for implementation, policy and strategic direction might lie. The drivers for and barriers to ePortfolio implementation are reviewed, as well as the perceived impact on students and staff. The findings from the national audit are amplified by comments from participants in the regional focus groups and the semi-structured interviews. The software tool Leximancer has been used to provide a graphical representation of some of the narrative comments captured in the research.

6.2.1 The understanding of ‘ePortfolio’

The opening question in the national audit asked respondents to briefly describe, in their own words, their understanding of the term ‘ePortfolio’. Where there were multiple responses from institutions, the individual nature of understandings of the concept were captured.

In the learning and teaching survey there were 73 responses. The most often reported understandings from this group were of ePortfolios as collections or tools for learning and reflection and as providing evidence of learning and development for a purpose.

A digital collection of artifacts representing outcomes, activity and assessment arising from enrolment in a subject, course or university.

An ePortfolio may also collect other work or valued contribution by the ePortfolio owner.

A digital portfolio or ePortfolio is a collection of authentic and diverse evidence drawn from a larger digital archive to portray a story to represent what a person or group has have learned over time. It includes reflection, and is usually designed for presentation to one or more audiences for a particular purpose.

Figure 6.1 shows the key concepts found in the range of definitions of ‘ePortfolio’ provided by respondents in the learning and teaching survey. It reveals an interest in the concept of the ‘tool’, but — interestingly — with an awareness that the purpose needs to be considered. The key ideas underscore the importance of recording achievement and presenting artefacts that provide the evidence.

The understandings of respondents to the management survey were exemplified by the concept of collection and of using this collection for demonstration of learning and personal achievement, for assessment, and for managing learning.
A collection of electronic files/artefacts that can be used for assessment, reflection or showcasing achievements. This portfolio does not have to be bound by subjects studied, rather it can store and present an overarching view of a student’s work.

An electronic repository of information including skills, attributes, educational, work experience and personal achievements, to draw upon when applying for graduate employment in regards to constructing resumes, addressing selection criteria, participating in assessment centre activities and interviews including presentations. Also, for use in course assignment work and assessment activities.

![Diagram showing iterations and definitions of ePortfolio]

**Figure 6.2: Definitions of ePortfolio: Management survey responses**

Figure 6.2 illustrates a more employability related concept of ePortfolios. The definitions refer to the idea of the ePortfolio as a repository of recorded activities that relate to the students’ development of skills, with a focus on work.

Respondents to the human resources survey also spoke of ePortfolios as collections, but more as a means of personal development, career progression and career planning.

A web based portfolio belonging to an individual. Can contain a myriad of things including blogs. Useful for career management if harnessed effectively.

I believe that an e-portfolio is an electronic learning record that provides actual evidence of achievement of an individual. It can be made up of many types of documents which combine to show an individual’s professional development over time.
Figure 6.3 highlights the key concepts captured in the human resources survey. These respondents consider the skills to be a central theme, but from the perspective of providing information about students’ learning and development of skills over a period of time.

To demonstrate the potentially different conceptual understandings of individual respondents from one single institution, one university — which submitted a total of seven responses to the three surveys, with respondents representing the job categories of academic staff, careers, eLearning, staff development and human resources — provided the following range of descriptions:

- **A course-long virtual space where students can store any relevant files and information, and make the space look however they want it to, in order to have an portfolio of work that can be viewed by other students, lecturers or employers.**

- **An ePortfolio is an electronic space where artifacts can be collected and viewed by those invited to do so via Web access.**

- **An ICT-mediated record completed by a student of that student’s completion of various tasks which demonstrate specific competencies.**

- **An online area, that is assigned to specific user, where that user can collect electronic resources and artefacts for the purposes of reflection, personal and skills development, showcasing of material and assessment.**

- **E-Portfolio is an on-line receptacle for storing information. One way it can be used is for students to track their university study, results and skills gained. They can also use it to keep track of projects they undertake and other activities, employment etc and the skills they gain from them.**

- **A web based portfolio belonging to an individual. Can contain a myriad of things including blogs. Useful for career management if harnessed effectively.**

The different descriptions highlight the range of vocabulary used by individual respondents, for example, ‘online’, ‘web’, ‘ICT-mediated’, and ‘virtual’ all encompass the fact that the portfolio is electronic or digital. In diverse ways, respondents consider factors of electronic ‘space’ or ‘area’, as well as scope for storage of data (record, receptacle, contain, collecting), and specific parameters such as time (course-long). Different types of content are mentioned: files, information, electronic resources and artefacts, blogs, results and skills. The purposes for the ePortfolio are varied: storing, keep track, reflection, personal development, skills development, showcasing of material, assessment, career management, demonstrate specific competencies and so forth.
Some of the respondents also consider the different audiences (students, lecturers or employers, or those invited [to view]). The key concepts extracted from the different definitions are presented in Figure 6.4.

Another university, which had an institution-wide ePortfolio, submitted six responses to the three surveys, with respondents representing academic staff, careers, staff development and human resources. It was interesting to note that, when compared with the responses from the other university (which had pockets of ePortfolio activity) there was a greater degree of common language and understanding across the definitions presented:

- A facility which enables students to reflect on, record, store and showcase evidence of skills and competencies which are related to and impact on their lifelong education and work.

- A system to enable students to record, reflect on, catalogue, retrieve and present their experiences, activities, and things they produce both inside and outside of university life as evidence of the skills developed while at [this university] that contribute significantly to their lifelong learning and career development.

- An ePortfolio is a virtual or electronic container for a collection of artefacts of process and products which are managed so that the user can index, search and theorise about their creative production. It can be used in learning or as reflective tool. The metaphor came from the creative arts use of Artist portfolios. The ePortfolio is broader than a textual reflective tool as it allows an artefact of the work to be present in the discourse about the work. ePortfolios allow the unfolding of an expressive narrative in media-rich contexts.

- Attached to an academic/tertiary education context the term ePortfolio describes for me an evolving electronic/online resource which acts to record, store and archive the artefacts of learning and reflection for an individual learner. An ePortfolio has the potential to demonstrate professional and personal growth, exemplify evidence based practice and provide a planning space for future professional development needs and experiences.

- Repository for documenting development of skills/capabilities; reflective tool; assist in development of CV

- An online collection of evidence, artefacts and stories relating to one’s professional career or capabilities.

These definitions encompass the multifaceted dimensions of an ePortfolio, which allows students to record, reflect, store, retrieve and present evidence of their capabilities and skills. The theme of reflection appears more strongly in this group of definitions, as illustrated in Figure 6.5.
The graphic illustration of the occurrence of central concepts using Leximancer software allows the perspectives of different stakeholders to be presented. The process also serves to highlight the importance of developing common language and understandings across an institution, across multiple institutions or across the sector as a whole.

### 6.2.2 The extent of ePortfolio practice

One of the initial questions in the learning and teaching and management surveys asked about extent of student use (that is, by coursework and/or by research students) and whether this might be university-wide, faculty or division wide, program (course) based or subject (unit) based. There were also options for ‘Not used’ and ‘Don’t know’. Questions were also asked about the breadth of use for academic staff portfolios and professional staff portfolios. Respondents were able to check all options that were relevant, so that multiple responses were possible. Respondents could be aware, for example, that in their specific context there were examples of ePortfolio activity in individual subjects, but also across a program and a faculty.

The learning and teaching survey results (n=73) indicated that by far the greatest use of ePortfolios was by coursework students, principally in subject-specific (n=35) or program-based (n=19) contexts. The occurrence of faculty-wide (n=4) or university-wide use (n=6) was rare.
Perceptions captured in the management survey also recorded an awareness of primary use being in the subject-specific context (n=11), rather than in program-based or faculty-wide contexts.

In terms of university-wide practice, one university reported extensive use across the institution, encompassing faculty-wide, program-wide and subject-specific applications. Another university indicated that it offered all students access to a web-based portfolio to support the development of core graduate attributes, while a third institution reported that it was working towards a similar goal.

**Case study: Institution-wide ePortfolio practice**

Queensland University of Technology (QUT) commenced the development of a proprietary ePortfolio system in 2003, as a building block within the university intranet. The initiative resulted from the collaborative work of the Division of Technology, Information and Learning Support and the Careers and Employment Office. Central to the design of the Student ePortfolio was the development of the Employability Skill Set, derived from both QUT and industry-identified graduate attributes, and developed in consultation with every QUT faculty. The schema includes life-wide perspectives of academic, work, community and personal achievements. Ongoing development has seen the graduate attributes mapped to a range of schema for professional standards, for example, education, nursing, business, law and engineering.

Over the past five years, there has been progressive take-up of ePortfolio practice across the different faculties and schools at QUT. In June 2008, more than 40,000 QUT students had developed their own ePortfolio. Table 6.1 provides an overview of the spectrum of ePortfolio practice across QUT, which highlights the diversity of use across different subjects and courses, as well as the opportunities for voluntary through to mandatory applications and the potential for formative and summative assessment activities (Harper et al., 2007).

<table>
<thead>
<tr>
<th>Context</th>
<th>Timeframe</th>
<th>Activities</th>
<th>Purpose</th>
<th>Commitment</th>
<th>Assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>University wide</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serendipity</td>
<td>Any time of study</td>
<td>Independent discovery</td>
<td>Exploration</td>
<td>Voluntary</td>
<td>No</td>
</tr>
<tr>
<td>Orientation</td>
<td>O week</td>
<td>Introduction to tool</td>
<td>Exploration</td>
<td>Voluntary</td>
<td>No</td>
</tr>
<tr>
<td>Careers &amp; Employment</td>
<td>Any time of study</td>
<td>Introduction to tool</td>
<td>Career planning</td>
<td>Recommended</td>
<td>No</td>
</tr>
<tr>
<td>Career mentoring</td>
<td>Final year</td>
<td>Introduction to tool</td>
<td>Recording experiences</td>
<td>Recommended</td>
<td>No</td>
</tr>
<tr>
<td><strong>Undergraduate coursework</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Nursing</td>
<td>First year</td>
<td>Introduction to tool; reflection writing; Record experiences and artefacts and release to tutor</td>
<td>Career planning; Development of a final body of evidence against nursing competencies for transition out</td>
<td>First year: Voluntary</td>
<td>First year: No</td>
</tr>
<tr>
<td></td>
<td>Third year</td>
<td></td>
<td></td>
<td>Third year: Compulsory</td>
<td>Third year: Yes</td>
</tr>
<tr>
<td>Midwifery double degree</td>
<td>Whole of course</td>
<td>Introduction to tool; enter experience and artefact; touchpoints throughout course culminating in presentation of ePortfolio</td>
<td>Making connections to curriculum; professional accreditation</td>
<td>Voluntary (strongly recommended as tool of choice)</td>
<td>Yes</td>
</tr>
<tr>
<td>Human Movement Studies</td>
<td>Third year</td>
<td>Introduction and application to career planning and job seeking</td>
<td>Career planning</td>
<td>Compulsory</td>
<td>Summative</td>
</tr>
<tr>
<td>Business Advantage</td>
<td>Extracurricular</td>
<td>Voluntary modules</td>
<td>Value-added skills development</td>
<td>Voluntary</td>
<td>No</td>
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<tr>
<td><strong>Context</strong></td>
<td><strong>Timeframe</strong></td>
<td><strong>Activities</strong></td>
<td><strong>Purpose</strong></td>
<td><strong>Commitment</strong></td>
<td><strong>Assessed</strong></td>
</tr>
<tr>
<td>Law</td>
<td>First year</td>
<td>Introduction to tool</td>
<td>Core skills in legal research and writing</td>
<td>Compulsory</td>
<td>Formative and summative</td>
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<tr>
<td></td>
<td>Second year</td>
<td>Virtual workplace</td>
<td>Employment skills</td>
<td>Voluntary</td>
<td>No</td>
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<tr>
<td>Accounting</td>
<td>First year</td>
<td>Introduction to tool; Record experience and artefact</td>
<td>Demonstrate link to professional development and connect to curriculum</td>
<td>Compulsory</td>
<td>Formative and summative</td>
</tr>
<tr>
<td></td>
<td>Second year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td>First and third year</td>
<td>Introduction to tool; weekly reflection in ePortfolio; mentoring by third years</td>
<td>HRM units</td>
<td>Compulsory</td>
<td>Percentage awarded for completion for first years Part of larger assessment item for third years</td>
</tr>
<tr>
<td>Built Environment &amp; Engineering</td>
<td>WIL units</td>
<td>Introduction to tool; professional development; capabilities recognition</td>
<td>Develop evidence and recognition of skills</td>
<td>Compulsory</td>
<td>Yes</td>
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<tr>
<td>Psychology</td>
<td>First year</td>
<td>Introduction to tool; record experiences and artefacts and release to lecturer</td>
<td>Skill recognition; reflection</td>
<td>Compulsory</td>
<td>Yes</td>
</tr>
<tr>
<td>Education</td>
<td>Third year</td>
<td>Introduction to concepts; record experiences and artefacts</td>
<td>Attainment of professional standards</td>
<td>Voluntary</td>
<td>No</td>
</tr>
<tr>
<td>Education (planned for 2009)</td>
<td>Whole of course</td>
<td>Introduction to tool; recording of evidence</td>
<td>Connection to curriculum; building evidence through course and then final ePortfolio as evidence of competency against standards</td>
<td>Voluntary through to compulsory</td>
<td>Yes in final year</td>
</tr>
<tr>
<td><strong>Postgraduate coursework</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Midwifery</td>
<td>Whole of course</td>
<td>Embedded</td>
<td>Integration at key points of course</td>
<td>Voluntary</td>
<td>No</td>
</tr>
<tr>
<td>Nurse practitioner</td>
<td>Whole of course</td>
<td>Embedded</td>
<td>Body of evidence for accreditation</td>
<td>Compulsory</td>
<td>Yes</td>
</tr>
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<td>Paramedic</td>
<td>Whole of course</td>
<td>Embedded</td>
<td>Monitors skill development</td>
<td>Voluntary and then compulsory for final practicum</td>
<td>Graded</td>
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<td>Library &amp; Information Management</td>
<td>Whole of course</td>
<td>Embedded</td>
<td>Recording of professional attributes; linking units of the course</td>
<td>Compulsory</td>
<td>Formative and summative</td>
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<td><strong>Postgraduate research</strong></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Recording of experiences and skills; diarising development and activities</td>
<td>Voluntary</td>
<td>No</td>
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<td></td>
<td></td>
<td></td>
<td>Recording of graduate attributes</td>
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<tr>
<td><strong>Staff</strong></td>
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<tr>
<td>Professional staff</td>
<td>Pilot</td>
<td>PP&amp;R Career planning</td>
<td>Voluntary but encouraged as tool of choice</td>
<td></td>
<td></td>
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<tr>
<td>Academic staff</td>
<td>Under development</td>
<td>Career probation; promotion pathways; excellence awards</td>
<td>Voluntary</td>
<td></td>
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</tbody>
</table>
The national audit findings revealed that while ePortfolios were being introduced in many areas of academic coursework, they were not yet widely used in the research student context, with the majority of respondents reporting that they believed there was no use of ePortfolios by research students (n=17) or that they did not know (n=23) (Figure 6.7). Three university-wide occurrences reported in the learning and teaching survey included research students as well as coursework students. One example of ‘ePortfolio-related activity’ referred to the database of research publications maintained by academic staff and higher degree research students:

*I consider the recording of our publications to be a very specialized ePortfolio … However, there is no other ePortfolio offered enterprise wide.*

Beyond this, there were responses that included one faculty-wide, seven course/program-based and four subject-specific occurrences of ePortfolio activity by cohorts of research students (Figure 6.7). Many respondents in the management survey (n=21) reported that there was actually no use (n=10) or that they did not know (n=5) of ePortfolio use by research students.

![Figure 6.7: Use of ePortfolios by research students: Learning and teaching survey responses](image)

The situation in Australia can be contrasted with the United Kingdom, where the ‘Roberts Review’ focused attention on the perceived mismatch in the skills of higher degree research students and the skills required by employers (Roberts, 2002). The review stimulated considerable interest in the development of transferable skills for postgraduates. The UK Government provided additional funding to the Research Councils to deliver additional training, specifically through the Career Development and Transferable Skills Training (Roberts) Payments. The UK GRAD Programme (2008a) supports the academic sector to embed personal and professional skills development into research degree programs. A number of ePortfolio initiatives have been established under the ‘Roberts’ funding arrangements, to ensure that through Personal Development Planning (PDP) and Training Needs Analysis (TNA) activities postgraduate researchers are encouraged to record, review and reflect on their skills development (UK GRAD Programme, 2008b). PDP is also referred to in the Quality Assurance Agency’s (QAA) Code of practice for the quality of academic quality and standards in higher education (2004).
Case study: ePortfolio practice for postgraduate research students

The University of Melbourne has an ePortfolio project under development that aims to provide structured support for PhD candidates. It provides access to award-winning online transition programs for new research students, Postgraduate Essentials, at the same time as encouraging candidates to document and reflect upon the achievements and skill gains acquired throughout the course of their degree. The project, a collaboration between the Melbourne School of Graduate Research and Information Services at the University of Melbourne, has involved the testing and development of ePortfolio functionality through the implementation and evaluation of various Web 2.0 technologies and is due to be completed in January 2009. Existing courseware is being migrated into a Sakai environment so that the new platform will utilise a customised Open Source Portfolio.

The Postgraduate Essentials program is being redeveloped into a more comprehensive program called Graduate Research Essentials, with 15 modules covering different aspects of being a successful research student. Each module combines information delivery with opportunities for facilitated discussion, and encourages candidates to complete ‘tasks’, which are stored in a personal workspace and can be returned to and edited at will. In addition to the personal workspace there will be areas for collaborative authoring and document storage. Finally, the ‘Doctoral Attributes Workshop’ will enable reflection on and documentation of the ongoing skills development associated with research.

The purpose of the ePortfolio is to scaffold PhD student progress towards thesis completion, and to support them in the transition into employment. A secondary purpose is to assist in developing a public profile for new researchers and to support the development of peer and collegial support networks. Paula is presented as an example of a postgraduate student using the ePortfolio.

Paula is a new postgraduate student who finds out about the ePortfolio during her orientation. She logs on and explores the introductory modules — Strategies for a successful start to your PhD. Paula checks the discussion forums for each module to read about other people’s experiences. She realises that participants in the discussion have all established their online research profiles, so she sets up her profile to promote her academic interests and plans. She then adds her posts to the forum, including a question about interdisciplinary reading groups. After a few days, another student from her department replies with information about a newly-created reading group.

Paula discovers one particularly progressive academic has a research website and blog where their latest projects are described in detail. Paula sees that each blog post has a number of comments from research colleagues and students and wonders if she should enter into the debate. She returns to her ePortfolio, updates her research profile and makes it publicly available. She also uses it to begin a blog of her own. After a few months of posting about her research progress — as well as reading group reflections, conference preparations and activities — she decides she is confident enough to leave a succinct question on the blog of the senior academic. This sparks readers of that blog to engage with hers, and slowly she becomes a regular participant in this international academic community.

Beyond the coursework and research contexts, alternative examples of use of ePortfolios were reported by some respondents:

I am the manager of a program which recognizes and rewards personal and professional development through extra-curricular activity and community involvement concurrent with university study. We have an ePortfolio which is used by students registered for this award to plan and document their achievements in order to apply for the award as well as to support graduate employment applications.

[At this university] we are introducing the use of ePortfolio to the TAFE Division both staff and students in 2008. In 2007 we have done some trial work with staff and students.

The University of New England offers students the opportunity to apply for the New England Award, focusing on extracurricular activities that are recorded and reflected upon in an ePortfolio.
Case study: ePortfolios for extra-curricular activity

The University of New England uses an ePortfolio (the unE-Portfolio) to support its New England Award (NEA). The NEA recognises student achievement through extracurricular activity. The primary objective of the award is the enhancement of the UNE Graduate Attributes and other personal and professional skills through involvement in local and university communities, voluntary work, leadership activities and extracurricular learning and training. Participating students gather evidence of their skill development through a variety of activities that fall into the categories of extracurricular learning or training, professional development and contribution to the university or wider community. The different activities are weighted with a number of points, which are able to be aggregated within the ePortfolio. Students are presented with their New England Awards at graduation.

The unE-Portfolio is an online tool that allows students to record their personal details, their extracurricular achievements, the personal and professional skills they have developed and other highlights of their university experience.

Your unE-Portfolio is like a diary. It is a convenient way to record and reflect on your achievements during your time at university and it will be this type of information that will allow you to market your skills and abilities to future employers.

For the purpose of the NEA students may enter NEA-approved activities into their portfolio and also propose new activities. Students not engaged in the NEA are also able to use the unE-Portfolio.

UNE students are encouraged to use the unE-Portfolio:

- To record their experiences.
- As a tool when preparing CVs and job applications.
- To focus on the UNE Graduate Attributes (communication skills, global perspective, information literacy, lifelong learning, problem solving, social responsibility and teamwork).
- To plan for the future.

From the time you enter university, you are on a career development path and the unE-Portfolio is a great way to help you plan your future directions. In general, you can take control of your career planning by following three easy steps:

- Exploring ... what do I want to do in my life?
- Experiencing ... a variety of potential career options
- Targeting ... where do I want to go and how do I get there?

The unE-Portfolio was a joint development project of the New England Award Manager and UNE Careers Advisers: [www.une.edu.au/nea](http://www.une.edu.au/nea).

In terms of use by university staff, in the learning and teaching survey the level of reported use of ePortfolios by academic staff was higher (n=21) than that by professional staff (n=8). However, an equal number of respondents (n=21) also stated that they were aware that there was, at that time, no use by academic staff nor by professional staff, although it was also clear that a significant number of respondents were not really sure about the actual situation at their institution. This lack of certainty was more prevalent in the context of professional staff use (n=23), compared with academic staff use (n=14). In the management survey, only five people indicated that they knew of the use of ePortfolios by academic staff; a further six knew that they were not used and 10 people reported that they did not know. There were only three instances of use by professional staff, with seven respondents reporting ePortfolios were not used in that context and 11 people did not know. While the human resources survey attracted a total of 20 returns, more than half the questionnaires were only partially completed. Of the responses received, there were three to report that academic staff were using ePortfolios, five responses to report that ePortfolios were not used by academic staff and four people did not know. In the professional staff context, there were two responses to report activity, eight responses to indicate no use and one person did not know.

Comments from respondents presented a mixed picture:

> ePortfolio is used in [one] centre by both academic and general staff for their MFP (management for performance).
Chapter 6: National audit of ePortfolio practice

There is no formal need for staff to have a portfolio at our uni. Some staff may organise their CV and associated documents in electronic folders.

ePortfolio only recently established [at this university], will be rolled out to university community over next 2 years. We hope to use it as a staff resource as well.

In terms of breadth of ePortfolio use, the surveys offered respondents the opportunity to select the option of ‘Other’. Thirty responses for ‘Other’ were recorded in the learning and teaching survey, with the central message being that there were investigations into, plans for and imminent implementation of ePortfolios in many institutions, although there were also some comments to indicate that there had been some initial exploratory initiatives that were no longer operational. Other comments highlighted the ad hoc, patchwork pattern of ePortfolio practice:

\[ \text{Breadth of use is difficult to judge as while we make the tools of creating ePortfolios available to all, we don't have the tools to audit use.} \]

\[ \text{Early days, very limited use (in a formative sense), but growing awareness.} \]

\[ \text{We are currently running pilot projects re the use of ePortfolios; hence usage is limited at this time.} \]

The common occurrence of phrases such as ‘we currently don’t …’, ‘we don’t as yet …’, ‘planning to trial …’, as well as statements like ‘I’m not sure …’ and ‘I can’t be certain …’ underscored the present situation in Australian universities: there are many small pockets of ePortfolio activity — generally subject or unit based — but at this stage much of the work tends to be exploratory.

### 6.2.3 The type of ePortfolio technology used

A subsequent survey question sought to discover the type of technology that was being used for ePortfolios — with the option to provide more than one response to the question — to capture the range of activities and tools potentially in place within the different universities. The learning and teaching survey recorded a null response of 39, which reflected the high level of investigation and exploration in individual institutions. Respondents revealed, however, that there was indeed considerable diversity of practice, with the largest number recorded for the learning management system (LMS) or virtual learning environment (VLE) (n=27), but an even distribution of alternative technologies such as blogs and wikis, student web pages and paper-based systems was recorded (Figure 6.8). Similar ratios were noted in the responses to the management survey and the human resources survey, both of which had a high null response rate (n=19 and n=13 respectively).

![Figure 6.8: Type of technology used: Learning and teaching survey responses](image)

The comments noted by respondents under ‘Other’ provided further details about particular LMS/VLE systems (with Blackboard, WebCT and Vista specifically named), about particular ePortfolio systems in place (for example, Sakai and OSPI, CareerHub, Mahara, WordPress) or home-grown platforms.
More generically, HTML programs such as Dreamweaver or MS FrontPage, or PowerPoint and Word were also utilised. There was emerging interest in the Web 2.0 tools such as blogs and wikis, YouTube, Flickr and MySpace.

Further comments from respondents indicated that there was often an element of choice for students within the ePortfolio activity, as well as reporting that considerable experimentation taking place within the institution, with various systems being trialled, or that investigations were still continuing.

_In post-graduate subject I teach I leave the format or application that the student uses to them, they decide - sometimes it becomes one of their learning goals. Undergraduates usually create a webpage. Next year we will have an online environment and that may mean the added choice of a template._

Specific software yet to be decided, but have identified CareerHub, Pebble Pad and WebCT as potentials.

_We are piloting the use of OSP within the Sakai LMS. Individual subjects/courses use different formats – Dreamweaver/MSFrontpage, paper-based, Powerpoint, etc. Mostly paper-based._

_We have trialled a number of purpose built back ends. We now work with Blog’s and Web 2.0 free sites such as YouTube, Flickr and MySpace._

**Case study: Diversity of ePortfolio practice across an institution**

An example of evolving practice that sees different ePortfolio systems being used in different contexts is presented for the University of Wollongong (UOW).

At UOW, the concept of the ePortfolio is not just as a tool, but as a process of engaging students in activities that allow them to identify, reflect on and maintain evidence of their developing graduate qualities and professional skills and to justify and explain their skills and qualities to others. UOW has been strategically exploring electronic portfolios since 2002 via two internally funded project grants. In December 2006 it was proposed to make an ePortfolio system available university-wide, based on ePortfolio trials conducted in 2002–2003 and 2006 (Lambert & Corrin, 2007). ePortfolio tools and tasks have been useful to enable rich learning dialogues about the university’s graduate qualities and discipline-based professional skills, as well as meet particular learning outcomes in courses, particularly those with work-integrated learning components (Lambert, 2007).

A growing number of different student cohorts and staff are engaging in this process and major courses such as Certificate of Global Workplace Practice are using ePortfolio. Support is provided by the faculty’s academic and professional staff, who are in turn supported by a Project Manager and broadly by their peers in an ePortfolio Reference Group.

A mixture of common tools and other specialist tools (iWebfolio for Staff, Clinical Log for Graduate School of Medicine, and a ‘home-grown’ product for the Faculty of Education) are currently meeting demand for supporting various ePortfolio tasks on campus. However, as usage matures from subject to cross-course, the demand for a comprehensive online specialist tool is anticipated to increase; therefore, trials of specialist ePortfolio tools will continue in order to meet the emerging needs of eLearning at UOW.

Table 6.2 illustrates the growing number of cohorts involved in ePortfolio practice at UOW.

<table>
<thead>
<tr>
<th>Context</th>
<th>Tool</th>
<th>Timeframe</th>
<th>Activities</th>
<th>Purpose</th>
<th>Commitment</th>
<th>Assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Services Marketing</td>
<td>Vista quiz tool</td>
<td>Second</td>
<td>Skills check quiz</td>
<td>Increased awareness of professional skills</td>
<td>Compulsory</td>
<td>Group task Graded, referencing ePortfolio</td>
</tr>
<tr>
<td></td>
<td></td>
<td>year</td>
<td>Group project final report</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cinema in Australia</td>
<td>Blackboard Portfolio for</td>
<td>Second</td>
<td>Reflective participation in online forum</td>
<td>Professional skills and career development</td>
<td>Optional, but encouraged</td>
<td>Not assessed</td>
</tr>
<tr>
<td></td>
<td>Vista</td>
<td>year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mechanical Engineering Design</td>
<td>Blackboard Portfolio for</td>
<td>Third</td>
<td>Learning log, Final project presentation</td>
<td>Increased awareness of professional skills</td>
<td>Compulsory</td>
<td>Group task graded, but not the entire ePortfolio</td>
</tr>
<tr>
<td></td>
<td>Vista</td>
<td>year</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
As a contrast, one example was given of a movement away from textual representation for multimedia musicians ‘to solve our own discipline problems with managing and evaluating non text media artefacts’. The interface of the ePortfolio resembles a blog, using a variety of Web 2.0 plug-ins (YouTube, Flickr, Facebook etc.) to enable arts-based practitioners to pull data from external sites into one ‘showcase’ online portfolio. As the ePortfolio integrates with del.icio.us and other tools, folksonomy processes are supported through tagging and there is some capacity for peer interaction, for example, comments on posts.

The data collected in the national audit indicated that there was considerable diversity of practice across the sector. It should be noted that the Australian ePortfolio Project has, in itself, raised awareness of and interest in ePortfolio software generally, for example, with the ePortfolio Showcase held in conjunction with the Australian ePortfolio Symposium in February, where developers gave demonstrations of both open source products (Sakai, OSP! Mahara) and commercial products (PebblePad, Desire2Learn, CareerHub and Blackboard). A poll of Symposium delegates, conducted using the Keepad audience response system, revealed that while about one half of symposium delegates represented academic institutions where students were already using ePortfolios, only one quarter were actually using ePortfolios in their own teaching (or were a user themselves, for example, by having their own teaching portfolio). Almost one third of symposium delegates indicated that ePortfolios were not yet in use at their institution. Delegates emphasised that they had a strong interest in learning about the types of ePortfolio tools available in Australia and internationally.
6.2.4 The range of use of ePortfolios

Survey respondents were asked to indicate the use made of the ePortfolio in their immediate context, with options as to whether it was used as part of formative assessment and/or summative assessment; whether the use of the ePortfolio was encouraged and supported by academic staff or if it was an optional tool available to students, so independent of a program of study; whether use of the ePortfolio was about reflecting on learning or collecting examples of evidence of learning; and whether course time was allocated for students to undertake ePortfolio activities. There was also the option of ‘Other’ to allow respondents to add their own comments. Multiple responses were allowed (Figure 6.9).

In the learning and teaching survey, a null response was recorded for 44 submissions. The highest response rate was received for the use of ePortfolios by students to collect evidence of learning (n=42), with a strong response for reflecting on learning (n=33). There was a strong correlation between the two dimensions: when ePortfolios were used for collecting evidence on learning it was highly likely that there would also be the need to reflect on learning. However, the common pattern was that ePortfolios were used in multiple ways, with just two respondents indicating that the ePortfolio was only about collecting evidence of learning, three respondents reporting that the ePortfolio was only used as an optional tool, independent of a program of study, and one respondent said it was only used for formative assessment. The model for the students’ use of the ePortfolio being encouraged and supported by academic staff was more common (n=28) than it being optional for students (n=17), with 26 respondents reporting that time was allocated in the study program for students to undertake ePortfolio activities. There was a fairly even distribution of the ePortfolio being used as part of formative assessment (n=32) and summative assessment (n=33).

Figure 6.9: Use of ePortfolios: Learning and teaching survey responses

It was noted that there were slightly different perceptions amongst the academic managers in their understanding of the use made of ePortfolios at their institutions. There was a sense that there was a balance between students using the ePortfolio to reflect on learning (n=13) and to collect evidence of learning (n=13). It was felt that the ePortfolio was used both as part of formative assessment (n=9) and summative assessment (n=7), or both (n=5). The optional model was believed to be more common (n=8) than the supported model (n=6).

In the poll of delegates taken using the Keepad audience response system during the Australian ePortfolio Symposium in February 2008, 30% reported already using ePortfolios for formative or summative assessment, with a further 40% planning to do so in the future. The use of ePortfolios as an optional tool for students, independent of study programs, was very low, with only 12% reporting that was currently the case, but a further 28% indicating that this was likely to be the case in future. On the other hand, 27% of symposium delegates indicated that the use of the ePortfolio was encouraged and supported by teaching staff, with course/program time allocated for students to undertake ePortfolio
activities, with a further 33% planning for this to be the situation in the future. Some of the narrative comments provided by the respondents served to amplify the breadth of utilisation of ePortfolios:

Although I have selected the ‘assessment’ elements above, the following explains further. In [this postgraduate course] the demonstration of professional practice capability is assessed in the foundation unit (40%). Students are encouraged to use the ePortfolio to build their professional practice ‘evidence’ for the foundation unit assessment and they are expected to continue to add materials and reflections throughout the 6 core units of the masters program and submit their ePortfolio at the end of the program. In this sense it is not the ePortfolio which is being assessed, but the evidence of their professional practice capabilities. The ePortfolio is a valuable ‘space’ to retain their records and reflections as part of their evolving learning experiences.

ePortfolio is a community of practice part of an extended real world community for music research students. It should allow personal, social and cultural interaction.

The surveys sought to determine which types of learning activities were reviewed or assessed as part of the ePortfolio process: artefacts in the ePortfolio, reflection on the process of creating the ePortfolio, the ePortfolio as a final product, or indeed, whether the ePortfolio was not reviewed or assessed. A further question then sought to learn more about the context of the review or assessment: who might be involved in the review or assessment process — students or peers, teachers/tutors, external specialists, as part of a presentation or event, or as part of career planning or mentoring. Multiple responses were possible. There was a high level of null responses to these questions: 51 to the question about what activities were reviewed and assessed, and 55 to the question about the context of review or assessment.

The responses received indicated that review or assessment would most likely focus on the artefacts in the ePortfolio (n=30) and the ePortfolio as final product (n=29), although reflection on the process of creating the ePortfolio was also important (n=21) (Figure 6.10). Fourteen respondents reported that all three elements (that is, artefacts, reflection and the ePortfolio as the final product) were reviewed or assessed. Ten people indicated that the ePortfolio activities were not reviewed. The responses received under ‘Other’ (n=18) stated clearly that there was no review or assessment activity to date, although there were indication of plans for the future (n=7).

No formal assessment yet, but assessment of it is being worked out in a new course.
We anticipate that this may change as our use of the ePortfolio evolves.
Different things happen in different faculties

In terms of the context for the review or assessment (Figure 6.11), teachers or tutors were most likely to be involved (n=36), either independently (n=10) or as one of several review strategies (n=26). The review of ePortfolio work in the context of career planning or mentoring was noted as being important (n=17), although this was always in conjunction with other review strategies (teachers, external specialists etc.). Student and peer review (n=13) was also undertaken in conjunction with other approaches.
Two respondents reported that the assessment was only conducted by external specialists (that is, professional bodies).

![Figure 6.11: Context of review or assessment of ePortfolios: Learning and teaching survey responses](image)

The responses to the option of ‘Other’ (n=16) once again highlighted the emergent nature of ePortfolio practice in many institutions, with decisions ‘not yet’ made.

- Not formalised yet in a new course.
- Not yet applicable in any serious sense.
- Part of our problem is it is not reviewed or assessed!

Respondents were asked to indicate the type of guidance or support provided to the users of the ePortfolios in their given context. Here again, the level of null responses was high (n=50). The options offered included guidance on the purpose of the system and on how to use the system (either online or handouts), tutorial programs, online tutors or mentors, personal tutor support, IT support, IT developer support (for future development), electronic diagnostic tools and electronic skills development tools. Respondents were also able to specify additional forms of guidance and support. It was found that online support was more common than printed handouts, especially to offer guidance about the purpose of the system (n=31) and how to use it (n=31). The selected options showed that tutorial programs (n=20), tutor support (n=21) and IT support (n=23) were readily available, although electronic diagnostic tools (n=2) and IT developer support were less common (n=10). However, it was important to note that multiple channels of support were offered, with most combinations of the list of options recorded. In the ‘Other’ responses (n=23), however, a high degree of uncertainty was recorded: ‘not sure yet’, ‘not yet decided’ or ‘not yet in place’ (although change was in the air for many institutions):

- As yet nothing but once the tool has been developed there will be online help resources as well as staff development to assist academics to help students.
- Early adopters only at this time. Improving support anticipated over the next 12 months.
- Once again — in the future!

The refrain of ‘it’s not happening yet, but we are thinking about it’ was voiced clearly.

In the human resources survey, the question regarding the actual use of the ePortfolio was answered by only four people. It was notable that responses indicated that ePortfolios were not part of any formal staff development program and that support was not offered to staff to use the ePortfolio. There was a fairly even spread across the range of other responses: the ePortfolio was available as an optional tool for staff, it was about staff becoming reflective practitioners and it was about collecting examples of evidence of work practice. One respondent commented on the possible future direction for staff ePortfolios at her institution where there was a pilot project for promotion applications.
6.2.5 Responsibilities for ePortfolio practice

The survey sought to determine the areas of responsibility for ePortfolio practice within higher education institutions, with questions focusing on implementation, policy and strategic direction.

6.2.5.1 ePortfolio implementation

Responsibility for the introduction and implementation of the ePortfolio varied across the different institutions (Figure 6.12). A decentralised model, that is, where the ePortfolio was implemented by the faculty (n=23) or the individual teaching unit (n=29), was the most common, with a centralised model occurring to a lesser extent, for example, coordinated by divisions such as careers and employment (n=12), IT services (n=13) and learning and teaching support services (n=5). Respondents in the management survey reported a proportionally higher incidence of centralised responsibility for implementation, specifically careers and employment and IT services, with a general sense that responsibility did not commonly lie with learning and teaching support services, faculties or teaching units in their own right. Only one external agency was reported as driving the implementation, which was associated with professional accreditation requirements (although it was noted that some work had been undertaken by contractors working in another case involving an open source application).

Most importantly, there was a strong element of collaboration, so that the responses did not reflect the sole responsibility of individual divisions, but rather joint activity shared by a number of players, for example, combined committees of academic staff, learning support and IT services, or partnerships between academic staff and eLearning. One interesting case was noted where implementation was linked to the national ePortfolio initiative being run in the vocational education sector.

![Figure 6.12: Responsibility for ePortfolio implementation: Learning and teaching survey responses](image)

6.2.5.2 ePortfolio policy

The picture for the responsibility for ePortfolio policy was, however, rather different. It was acknowledged by respondents that, in the majority of cases, there was as yet no formal policy in the institutions, or that it was early days in the process (with policies only just being developed). Figure 6.13 highlights the feeling captured in the learning and teaching survey that responsibility of ePortfolio policy was being predominantly driven by the learning and teaching support areas of the universities, although often in a collaborative way with academic staff, under the overarching framework of DVC (Academic) and university Teaching and Learning Committees. While areas such as IT services and careers and employment were often directly involved in the implementation of ePortfolios, their role in policy matters was reduced.
Once again, a degree of uncertainty was noted in the respondents’ comments: ‘it is likely to be led …’, ‘I am guessing …’, ‘None that I know of …’. Some future directions were referred to, with link to the eLearning agenda:

> We have recently recommended that the Learning and Teaching Committee be responsible for such matters. The L&T Committee will be advised by the Committee for IT Planning around academic priorities.

> At this time we have no governing policy re ePortfolios, but no doubt the governance would appear under the policy relating to the learning management system.

> None at this stage, but it is likely to be the eLearning Sub-Committee, the Teaching and Learning Committee and the IT Structure and Policy Planning Committee.

Respondents in the management survey stressed the role of learning and teaching support services in leading policy development.

### 6.2.5.3 ePortfolio strategy

In terms of the responsibility for strategic direction for ePortfolio activity in the different institutions (Figure 6.14), the respondents in the learning and teaching survey clearly recognised the role of the central learning and teaching divisions (n=14) as driving future strategy, while respondents of the management survey indicated a proportionally higher level of responsibility to DVCs. In the learning and teaching survey, there was a sense that the Assistant Deans (T&L) played a role in the strategic direction within the faculties, indicating that there needed to be a clear relationship with student learning activities.

> DVC(A) but the faculties defining at degree and program level would be the primary inputs, as well as the central strategic aims.

> [The Learning and Teaching area] is working with Faculties around the strategic use of ePortfolios. Division of Student Services will work with students on general ePortfolios.
Overall, however, joint responsibility was again attributed to committees led by DVCs, involving learning development, academic staff and supporting areas such as careers and IT:

*Joint project with an umbrella team that has representatives from the IT, teaching and learning area, school, learning adviser and career management areas.*

Nevertheless, there were a number of comments (around one quarter of respondents in both the learning and teaching survey and the management survey) that reported that there was as yet no strategic direction in their respective contexts:

*There is no strong central strategic direction on the use of ePortfolios. Strategic direction is determined locally and related to T&L goals generally. There is a small working group within [the Learning and Teaching area] which I am part of, but I don’t think it has much impact across the university generally.*

*No strategic direction provided – used on a very ad hoc basis.*

*At this time there is no university direction regarding ePortfolios. Projects trialling ePortfolio have been at the discretion of the faculty.*

### 6.2.6 The drivers for and barriers to ePortfolio implementation

In the Learning and Teaching survey, a question was posed about the degree of importance attributed by the respondents to certain ‘drivers’ or ‘factors’ that may have contributed to the implementation of the ePortfolio at their institution. Using a 4-point Likert scale to indicate ‘Very important’, ‘Important’, ‘Not very important’ or ‘Not applicable’, the factors listed encompassed:

- entry into courses/programs
- discipline-specific/professional skills requirements
- improve transparency of learning outcomes
- practicum/work placement requirements
- integrative learning
- improved reflective learning
- better/varied assessment
- recognition of prior learning.

The highest scores recorded for ‘Very important’ related to the improvement of reflective learning and the discipline-specific/professional skills requirements (Figure 6.15). Integrative learning and improved assessment were regarded by more respondents as ‘Important’ rather than ‘Very important’, while the least important or not applicable factors were associated with the entry into courses and the recognition of prior learning.
When the responses for ‘Very important’ and ‘Important’ were aggregated, the factor of professional skills scored the highest (n=51), closely followed by reflective learning (n=47). The scores for other factors were close: integrative learning (n=45), improved transparency of learning outcomes (n=43), better assessment (n=42) and practicum or work placement (n=41). The importance of course entry as a factor for implementation was far lower (n=17), along with recognition of prior learning (n=25).

Delegates at the Australian ePortfolio Symposium in February 2008 were polled using the Keepad audience response system. Forty per cent of participants indicated that discipline specific/professional skills requirements were ‘Very important’ as a driver, with a further 30% indicating that they were ‘Important’. Only 8% reported that they were ‘Not very important’. In terms of improving the transparency of learning outcomes, 30% felt this was ‘Very important’ as a driver for ePortfolio implementation, with a further 33% believing it to be ‘Important’. Eighteen per cent indicated that improving transparency of learning outcomes was not a significant driver for introducing ePortfolios.

In the general comments a number of respondents indicated that graduate attributes and employability had also had a role to play at their institutions, issues that were also picked up in the management survey:

- A significant driver was the Careers Advisory group assisting students preparing resumes.
- For research students, it’s being driven by a need to demonstrate employability skills, beyond the very specific research area (i.e. leadership, organisation, communication skills etc). For undergrads, it’s being driven by the need for a more holistic representation of skills and attributes, and to this in a way that is both iterative and accessible.
- While not yet introduced, ePortfolios have been identified as an important initiative to provide students with tools to report and reflect on learning outcomes and graduate attributes, and for work integrated learning.

The question for respondents of the management survey was worded slightly differently, seeking to look at broader strategic and policy factors rather than specific learning and teaching issues. Using the same 4-point Likert scale, the factors listed included:

- student employability
- graduate attribute policy
- technology policy
- strategic imperatives
- teaching and learning policy
- Australian Universities Quality Agency (AUQA) or other audit/review processes
- other external policies.
The single factor that scored highest in terms of being ‘Very important’ was teaching and learning policy. Strategic imperatives, graduate attribute policy, graduate employability and technology policy issues were all regarded as ‘Important’, while AUQA and external policy issues were the least important. However, when the scores for ‘very important’ and ‘important’ were aggregated, the most significant factors overall for academic managers were graduate attributes policy (n=18), graduate employability (n=17), strategic imperatives (n=16), while of lesser significance were the factors of teaching and learning policy (n=12) and technology policy (n=11). AUQA or other audit review processes (n=7) and other external policy issues (n=4) were considered only marginally relevant to ePortfolio implementation.

Some respondents looked more closely, however, at student related issues:

The original driver was pressure from specific faculties for reflective tools and tools for skill assessment.

I’d also add ‘flexibility’ as a key agenda (‘Important’) – recognition of prior skills, more flexible assessment pathways and so on. Portfolios are likely to be a good tool there.

Beyond this, respondents in both surveys were asked to detail the factors that contributed to the successful implementation of the ePortfolio in their context. Perhaps not unsurprisingly given the emergent nature of practice, a large number of people did not provide an answer to the question, or they indicated that it was too early to comment. Responses such as ‘successful may be a tad ambitious at this stage’ were common.

I don’t believe that successful is a word I would use in this instance for my institution. I think that it is a sporadic approach – not well understood.

I don’t believe that we have successfully implemented the ePortfolio. I am called on frequently to support an ad hoc approach in some courses. There is a faculty wide approach but no cohesiveness.

Of the responses provided, the embedding or integration of ePortfolio activities into the curriculum was considered very important, ideally with the ability to provide evidence of student learning outcomes, particularly when the activities were mandatory or relating to the need to meet specific professional requirements. The value of clear links with university strategy and policies was highlighted as having a bearing on the success of an initiative. A sound IT infrastructure, adequate funding and overt support from high-level champions were also noted as success factors:

University wide approach with involvement of key players from academic, senior executive, IT, T&L, Careers. Strong sponsorship and governance models.

People played an important role, with the interest, commitment and buy-in of the teaching staff mentioned specifically, augmented by the modelling of ePortfolio practice by academics who developed their own teaching portfolios. Additionally, the ability to draw on best practice was noted by one respondent, while another mentioned the importance of the university’s competitive edge through the fear of falling behind other institutions. Nevertheless, the complexity of the situation was noted:
Implementation is patchy. This is both a strength and a weakness. Portfolios are taken up in disciplines where there is local enthusiasm. They have been developed to be appropriate to their specific use. They are grassroots initiatives. Very little institutional funding has been provided and this has slowed implementation. This is not necessarily bad, as it has probably avoided some costly mistakes and has avoided the imposition of a system that might not be optimal and might not meet the needs of students, staff and other stakeholders.

To counterbalance the positive factors that were highlighted, the survey also sought to identify the issues that had made ePortfolio implementation difficult. High on the list of concerns cited were the general low levels of awareness and understanding as a consequence of the lack of clarity around ePortfolios as a concept generally, and around the potential of ePortfolios for learning in particular.

An unawareness of them and a lack of systemic approaches to implementation. At present there is no recognised need for them and no strategic policy to drive the use forward. Also anticipate some internal resistance.

As a result, it was felt that many initiatives were sporadic, piecemeal and under-funded. There were concerns about the e-skills of students as well as the aversion of many academic staff to mastering and adopting digital technologies in their teaching:

Some students are challenged through their lack of ICT skills and knowledge; especially mature age students. Beyond the course I convene, course coordinators have not been able to assemble teaching teams with adequate skills and knowledge to design and create ePortfolios.

Academic staff involved in developing new initiatives felt that there was no real shared, collective understanding amongst many of their colleagues about the pedagogical value of ePortfolios, that there was a lack of direction from Faculty leaders, and that there was frequently a lack of interest at the higher levels of the university, all resulting in a sense of conflicting expectations.

Many technical issues were raised as barriers to implementation, including a lack of interest on the part of IT services, a lack of consensus over the choice of tool, or indeed mistakes made in selection of the tool. It was felt that there were unavoidable constraints due to the high level of investment in the central LMS or competition for funding with other eLearning projects, plus issues of integration and interoperability across student systems overall:

Issues include coming to a common agreement on definition of an ePortfolio, possible uses and technological constraints or usability of current or other technical systems.

We’re trying to implement this at a time of major change in a whole range of different areas. ePortfolio is often put at the bottom of people’s priority lists.

Many respondents identified multiple problems in their own specific context:

Lack of leadership and high-level sponsorship. Lack of strategic directions for technologies in learning and teaching. Lack of funding and resourcing. Lack of understanding of potential and availability of software. No common focus/understanding on requirements across disciplines.

Lack of policy. Lack of will or a driving imperative. Technology system not a strong point, therefore it would be even harder, also technophobes. No clear rationale. Little evidence base of the value of ePortfolios.

Other respondents were less vocal, but acknowledged the challenges they had faced:

I don’t know about the factors – just that it has been incredibly hard.
I don’t know. But I can tell you how difficult it was for our centre.

Respondents in large institutions referred to tensions between a university-wide product and individuals wanting to be innovative and implement their own ePortfolio product. One issue presented indicated that the overall planning and control had favoured a university centric model as opposed to a student centric model in which students have ownership and control over their ePortfolio. Another respondent commented on the lack of alignment between the introduction of new technologies (at the institutional level) and the reality of students’ needs (at the individual level):
ePortfolios will be implemented across the board when there is sufficient demand. This demand may well come from the students. Staff are still grappling with new technologies and new versions of our LMS and we need to react to demand rather than let technology drive education. This is not to say that ePortfolios will not be promoted, but rather than generically, it will be done on a needs basis. At the moment staff and students are getting involved with wikis and experiencing collaborative learning strategies.

6.2.7 The impacts of ePortfolio use on students and staff

The Australian research sought to determine the actual impacts of ePortfolio use in the different institutions and contexts. One question in the learning and teaching survey looked at the relative impact of ePortfolios on the awareness — on the part of both students and staff — of specific aspects of academic life:

- eLearning technology
- learning outcomes
- reflective learning
- graduate attributes
- professional skills
- goal setting/career planning by students
- improved assessment and review processes.

In addition, there was an option of ‘too early to tell’. The null response was 46. Multiple responses were possible and it was noted that the majority of respondents recorded a range of impacts resulting from the use of ePortfolios.

Interestingly, in each category of academic life listed in the question that involved both students and staff, the increase in awareness was believed to be far greater for students than for staff.

![Figure 6.17: Impacts resulting from ePortfolio use: Students and staff learning and teaching survey responses](image)

The greatest impacts recorded were for increased student awareness of reflective learning (n=20), of learning outcomes (n=19) and of professional skills (n=19). There was also agreement that the use of ePortfolios could have a positive impact on goal setting/career planning by students (n=13) and improved assessment or review processes (n=14). The greatest benefit to staff was perceived to be an increased awareness of eLearning technologies (n=11) and of graduate attributes (n=11). However, a large number of respondents strongly felt that it was too early to say (n=29): there was a high degree of uncertainty, as well as the absence of any measurement.

The same question was included in the management survey, which recorded a null response of 18. Respondents were vocal in their belief that it was too early to say (n=13), and once again, the positive impacts were perceived to be stronger for students than for staff across the range of issues (eLearning, graduate attributes, learning outcomes and professional skills). It was not felt, however, that the use of ePortfolios had resulted in any positive impact on the selection, admission or retention of students, on staff review processes or on assessment or review processes.
This last issue contrasts strongly with the views of respondents in the learning and teaching survey, who had felt that the use of ePortfolios had led to improved assessment and review processes (n=14).

6.2.8 The evaluation of ePortfolio use

Respondents were specifically asked about the evaluation activities that may have been undertaken to determine the impact of ePortfolio use in their institution. There were 43 responses to the open-ended question in the learning and teaching survey, with close to 50% of the responses recorded indicating that, quite simply, no evaluation activities had been performed. A further 25% reported that informal, anecdotal evaluation had taken place, generally capturing student feedback via focus groups or semi-structured interviews. Only three respondents indicated some degree of formal evaluation: one in conjunction with a Masters by research project, with a small teaching and learning research grant and an Australian Research Council (ARC) Discovery grant; another who reported extensive publication on the topic of ePortfolios and digital storytelling; plus another who reported extensive evaluation of the ePortfolio and its implementation in the discipline area of nursing and midwifery.

A handful of respondents in the management survey answered the question about evaluation, which, in that survey, specifically asked whether:

- The ePortfolio model is not evaluated (n=5).
- A formal evaluation process is carried out (n=2).
- Evaluation of the ePortfolio model occurs on an ad hoc basis (n=5).

The responses in the ‘Comments’ area to this question principally underscored the fact that the respondents were not aware of any evaluation activities, or that what had been done was very rudimentary. Only one response recorded a more rigorous process:

> The first stage of ePortfolio project is currently being evaluated and feedback will be presented to the […] Steering Committee. Recommendations of a technical, policy and support kind will be made. Each phase of the implementation will be systematically evaluated with stakeholder feedback and in collaboration with the Evaluation Unit of [the Teaching and Learning unit].

6.2.9 The philosophies underpinning ePortfolio practice in Australian universities

The Australian ePortfolio Project sought to determine the central philosophies underpinning the use of ePortfolios in the different institutions. The statements presented to the respondents included:

- It is a secure repository for students to collect and store evidence of their skills and knowledge attainment.
- It is a place for students to reflect upon their learning journey — where they have come from and where they are going to — it’s about the process of learning.
- 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.
- It is about reflecting on learning, but there’s also the opportunity to collect and attach some evidence for this.

The highest score from the academic angle was the view that it was about evidence of skills, along with the opportunity for the students to show the process and to reflect on what it means to them (n=40).
From the management angle, the distribution of views was even, with the strongest view focusing on the possibility for students to reflect on their learning journey (n=12). In the open-ended comments, however, respondents indicated that there tended to be no institutional philosophy per se, but a collection of individual philosophies and that all of the philosophies had their place in the work they were doing. In the specific case of professional accreditation, the ‘evidence of skills’ was, of necessity, the most demonstrable philosophy.

Some of the respondents in the management survey highlighted that the philosophical statements were not mutually exclusive and that it did depend on the context of the ePortfolio:

*All four options are important, and will be more important at different times (especially from a life-long learning viewpoint) when we [do] have an ePortfolio solution, this balance will vary according to faculty implementation.*

This viewpoint was also proving problematic in one particular institution:

*Part of the delay in implementing here is the perceived competition between these drivers, and which one will be the primary focus of the institution.*

One respondent highlighted the importance of developing the confidence of students in the recruitment process, so that the philosophy was about having a tool to underpin an individual’s opportunity for success in the world.

Several respondents highlighted the fact that the concept of ‘lifelong learning’ was not included in the statements, but that they felt this was significant:

*the intention is to support a life-long repository of information about a person’s life with the institution.*

Once again, however, there was a significant group of respondents who inevitably indicated:

*this is the philosophy but not yet the practice*
*this is what we hope it to be when it is up and running*

### 6.2.10 Additional comments from survey respondents

At the end of the survey, respondents were invited to tell the research team about any issues that they felt were important, but which had not satisfactorily been addressed by the questionnaire. The question elicited 27 responses in the learning and teaching survey and 13 in the management survey. Inevitably, given the broad range of stakeholders who submitted their responses, a broad range of issues was raised. There were two negative comments about the survey based on perceptions that the survey seemed to anticipate established ePortfolio practice, which meant there was little scope to comment on work that was under development, and that the focus was too strongly on the platforms for ePortfolios, rather than on ePortfolios themselves.
In contrast, other respondents expressed pride that they were embarking on projects that offered promise for the future, that it was early days and there was a long journey ahead. There was a feeling of commitment and confidence to move forward.

One of the principal themes was the need for students to be central in the whole process:

- The rationale for portfolio building must make sense to the students. Implementation of portfolio based assessment highlights the need for formal teaching of many other adult learning skills, including reflective practice skills and skills about 'learning how to learn'.
- I see potential in using the ePortfolio to move tertiary students from formative to transformative learning (re Mezirow’s constructivist theory of adult learning).

There was concern that academics need to play a strong role in providing support for students, and to ensure that the students manage the process with a clear understanding of their learning, their learning outcomes, graduate outcomes and their potential employment outcomes.

Academic managers provided comments that not only stressed the need for adequate resourcing at the institution and sector levels, but also that the evaluation process should not be overlooked.

### 6.3 Focus groups and semi-structured interviews

The research methodologies chapter (Chapter 3) has presented the background to the focus groups (Section 3.5) and the semi-structured interviews (Section 3.6). The objective for the focus groups and semi-structured interviews was to use qualitative research approaches to capture richer data that would support and expand on the analysis of the diverse approaches, purposes, audiences and infrastructure that characterises ePortfolio practice in Australian higher education.

#### 6.3.1 Focus groups

The focus groups were held in Melbourne, Wollongong, Armidale and Brisbane, reflecting the geographic location of the four project partners, with additional meetings convened in Adelaide, Perth and Sydney. Unfortunately, the geographic distribution of the focus groups meant that it was not feasible to have a common moderator for all focus groups. Of the seven focus groups, four were conducted by the one moderator; two by a second moderator and the seventh focus group was facilitated by a local contact person owing to difficulties encountered at the time of the focus group discussion. All moderators had significant experience in the sphere of ePortfolios in the higher education sector, and with ample guidance about the structure and process of the focus groups they sought to achieve consistency of data collection across the sessions.

The size of each focus group ranged from eight to eleven people. A total of 45 people attended the focus group meetings, representing the tertiary, schools and vocational education sectors, along with employer and professional groups. While the research team endeavoured to ensure that the focus groups had a mix of sector representatives, it proved unavoidable that one focus group was attended by representatives only from the higher education sector. Nevertheless, this meeting was valuable in so far as quite diverse perspectives were presented in the discussions, as the participants all worked in different areas of the university, for example, from faculties, from learning and teaching support areas, and career and employment services.

Focus group participants were asked to respond to a number of stimulus questions that aimed to uncover their understandings of ePortfolio use, the purpose of ePortfolios in their immediate context and their perceptions of the support required for this activity. The questions included:

- What do you think an ePortfolio is/can be used for/comprises?
- What is the purpose of an ePortfolio in your sector?
- What are you doing with ePortfolio at the moment?
- What would you like to be doing in the future? Why?
- What support/factors would you like to have in order to progress your level of engagement?
- What would you like the higher education sector to be doing in terms of ePortfolio use/support?
The focus group discussions were recorded, transcribed and analysed using transcript-based analysis (Kreuger, 1994, p. 143). Two analysts who were not the moderators of the focus group discussions undertook this activity. Keywords and phrases were identified and then aggregated into themes. A brief summary of the issues was prepared from each focus group. The individual focus group summaries were then combined and collated to give an overall view of the themes emerging from the complete series of focus groups. As suggested by Breen, noteworthy quotes were included in the analysis to illustrate the ‘extensiveness, intensity and specificity of comments made’ (2006, p. 472).

The rich narrative data was further examined using the data mining tool Leximancer. This software tool enabled the collection and identification of all principal concepts and themes, some of which may have been overlooked in the initial phases of textual analysis. The specific value of Leximancer to the research team relates to the visual display of the extracted concepts. This software produces a conceptual map representing the main elements of the text and the relationship between the different terms (Leximancer, 2007). Leximancer primarily uses Bayesian theory to select key themes and is a relatively new type of analysis software developed at the University of Queensland.

Focus group participants initially provided various definitions of ePortfolios and how they were used within their specific context. The most common response to defining what they understood to be an ePortfolio related to how they would use the ePortfolio for either personal and/or career development, making reference to employability skills:

I’m really excited by the notion of ePorts I really like the idea of making it available to students and staff and whether for the RPL process or for the purpose of linking it to their employability skills.

With the work that’s been done with industry consultative councils – you need to be able to identify employability skills you need to articulate employability skills you need to be able to assess employability skills and report and they’re suggesting an ePortfolio is the way to do this.

The transcripts were analysed to identify the key topics raised by participants in the focus groups. The focus groups were effective in teasing out and expanding on a number of topics and issues that were only alluded to — or indeed, actually not raised — in the data collected in the surveys. These topics have been distilled into four principal themes that emerged from the discussions:

- the significance of employability skills
- the student experience
- the validity and authenticity of ePortfolio content
- interoperability issues.

6.3.1.1 ePortfolios and employability skills

The themes of ePortfolios in the context of career management and personal development were central to the discussions. Within this theme, the potential purposes of ePortfolios, discussed from the angles of diversity of use of and multiple applications for ePortfolios, were significant issues, with attention also paid to infrastructure and pedagogy.

One of the main issues related to the multiple contexts within higher education where ePortfolios could be used, so that the distinctiveness of the disciplines, along with faculty and/or divisional requirements, needed to be recognised. The problems of joint degrees and the movement of students between disciplines were highlighted:

There are some issues that arise from having combined degrees such as terminology and the language in the approach to ePortfolio use

Often the ‘tool’ is used for a specific purpose and may be hard to adapt – uses the example of developing an ePortfolio for medicine and then being unable to use in other faculties

However, the comments around career planning looked beyond the ‘tool’ itself to highlight the importance of the ‘process’ driven by ePortfolio practice in the development of employability skills and employment readiness:

An ePortfolio is not just about the output but is about the student becoming more aware of their thought processes across the course of their academic life - those skills are the things that will get them the job

Giving them confidence to communicate, they will understand their own strengths and weaknesses
A small number of participants talked about the role ePortfolios could play to enhance understanding of learning outcomes, so that both staff and students could grasp the relationship between the coursework and career opportunities:

- ePortfolios help students understand what they going to do with their degree …
- ePortfolios seem to be driven by concerns around Graduate Attributes that universities have been unable to embed successfully … we need to get more serious about Graduate Attributes and those processes

However, the employers who attended the focus group meetings generally felt that, in their field, not enough was known about ePortfolios and the role they could play in articulating skill development to support job applications. They also expressed their own concerns about the time involved in viewing and assessing individual ePortfolios. While they felt that ePortfolios could be better promoted to employers by the university careers and employment services, employers were also worried about the impact that a range of different ePortfolio tools might have on the recruitment process, so that in contrast to the academic viewpoint about the value of diversity, employers felt that diversity could be counterproductive.

- If an ePortfolio is in one format nationally then there is value in the product but if it is customised or individualised then the process of examination becomes time-consuming.

Interestingly, the concept of a national, uniform ePortfolio system was not presented as an option in any of the responses received in the national audit of academic staff, university administrators and human resources managers.

### 6.3.1.2 ePortfolios and the student experience

The focus group discussions considered the value that ePortfolios could add to student learning, to provide a deeper, more relevant learning experience that resulted in student motivation and student engagement:

- If the ePortfolio is made meaningful and relevant then the student will engage – relevancy is crucial

There was an awareness that the teaching staff were critical to the process, to ensure the ePortfolio was soundly embedded in the learning and assessment activities:

- If something is decontextualised outside a subject students don’t consider it as important, but if it is contextualised or assessment-based then … well, you have to convince the teaching staff that the ePortfolio is relevant

Many focus group participants saw that a key purpose of ePortfolios would be to establish connections within and across the existing curriculum to link subjects across the program of study. Within the context of curriculum renewal and curriculum design, however, there was an opportunity to be innovative and to make the most of ePortfolios:

- [introducing new courses] … these course coordinators should be made to consider how best to incorporate ePortfolios in their units.

In terms of pedagogy, the discussions also considered reflection as a central ePortfolio activity, with participants recognising the value of ePortfolios because of the way reflection could assist students understand their own learning and the importance of the learning process. Support for the development of reflective skills was discussed, along with the issue of how to effectively assess reflective practice. Participants drew attention to the need to re-conceptualise learning and assessment, to ensure student-centred, rather than teacher-centred practices. The themes of formative assessment, authentic assessment and student–teacher ratios were all explored.

There was a strong sense that ePortfolio practice frequently emerged as the result of passionate and enthusiastic teaching staff who intrinsically believed in the developmental and pedagogical values of the portfolio process to their students:

- … an institution like ours I think what you need are a few champions. XX has been a lone voice for quite a while using ePortfolios in her teaching practices and I think you get a few champions and you let them be held up as star performers
It was agreed that there was a need for some common understandings about ePortfolios, so that grassroots enthusiasm is more grounded, yet also balanced by commitment from the academic managers:

> What I’m saying is coming from the bottom we need to make sure that what we’re taking forward is a clearly articulated view of what ePortfolios are - how broad should they be, how can they be used - you need that coming up while the top down stuff is happening.

The two-pronged approach is essential, with further essential groundwork to be done on the part of the academics:

> I think that what we don’t do well is the business case. We can all argue the pedagogy of it the worth of it but we don’t provide the business case to the bean counters… I think we at a lower level need to take some responsibility for creating the business cases that we push up rather than wait for it to come down we need to say here’s the business case.

Participants were aware of a growing interest amongst academic staff using the ePortfolio as a tool to support their own career development, with a feeling that there could be merit in the teaching staff being able to model ePortfolio practice with their students:

> Academics are moving ahead with their career development and the ePortfolio would be a useful tool
> It would be useful to introduce ePortfolios to academic staff for a period of six months before students use it then staff can reflect of their own educational practices before their students use it

In terms of the student experience, focus group participants highlighted the need to keep the ePortfolio process simple and relevant, to consider the time that may be involved in introducing ePortfolios into a course (this includes student time and staff time) and to ensure that there was appropriate support for students at all points of their learning journey. Issues such as student diversity, equity and accessibility were also critical.

### 6.3.1.3 The validity and authenticity of ePortfolio content

Topics such as the validity of information presented in a student’s ePortfolio did not emerge as a factor for concern in the national audit. Focus group discussions did, however, raise questions about the issues associated with the authenticity and/or validity of materials, specifically within the context of a ‘skills passport’:

> If it’s a Uni X product how do we ensure the student whatever they put in is true (and if it’s coming from X Uni hosted site it looks like we’re endorsing) … So how do we ensure that actually what the student puts in either in a reflective or in an actual list of these actually is true … or indeed is their work

> That raises the issue about validation that’s again something that we’re working through because we had a validation process in place in relation to our skills passport but when the passport was first introduced there was quite a focus on validating students’ entries

> But as we’ve wanted to open up the passport and the recording of employability to beyond just what they’re doing in the TAFE sector to other life and work experience we’ve had to say to both teachers and students we don’t expect teachers to validate if the kid’s working at Bunnings

These issues expanded naturally into the topic of the National Diploma Supplement, which was understood to represent the information that ‘we can verify as an institution’, with employers hoping to gain a better grasp of some of the structural issues in higher education. While the idea of a diploma supplement (or the Australian Higher Education Graduation Statement, discussed in Chapter 7) was accepted comfortably as an authoritative, nationally uniform document, there were clear concerns about the possibility of a common, national ePortfolio system that was felt could be too restrictive to accommodate the range of professional needs, the various discipline-specific requirements and the diversity of students. Further disquiet was expressed in relation to the security, privacy and confidentiality of personal information.
6.3.1.4 Interoperability of ePortfolios

The tensions between the individual’s desire for flexible, potentially ‘unstructured’ formats and the need for formally structured data for administrative purposes were explored. As many of the focus group participants were drawn from sectors beyond the higher education sector, some of the issues inevitably extended beyond the natural sectoral boundaries. The views of representatives from the schools and vocational education sectors specifically considered the need for migration and articulation between the different sectors, together with the implications of student mobility:

Talk of ePortfolios going into schools in a type of national system brings about concerns around transportability and translation

Issues of portability and transferability – that is, after their academic career – is causing us problems at the moment

It was felt that students needed to be reassured that the efforts they put into their ePortfolio had ongoing value, so that if they studied at more than one institution, or interrupted their studies for a while but later returned, or if they ultimately completed their formal studies, they could continue to access and develop their ePortfolio.

… need a lifelong tool and it needs to be portable, able to move with the person and allow for the ongoing collection of information

The concerns about the potential of a specific ePortfolio system to evolve with a student's changing needs, especially with new technologies impacting on their lives, led to the discussion of issues of transferability of data between different ePortfolio systems. The notion of lifelong access was considered within the context of institutional ownership or stewardship, the sustainability or scalability of systems, licensing and maintenance costs, as well as data storage costs. Beyond the technical issues, however, participants in the focus groups noted the importance of establishing meaningful ePortfolio processes that would support and encourage lifelong learning and the continued interest in ePortfolio development.

6.3.2 Semi-structured interviews

A number of individuals were invited to participate in a semi-structured interview to enable the research team to explore specific issues in greater depth. Despite the current strong emphasis within the education and employment policy arenas on workforce participation, employability skills and productivity, the research team had found it frustratingly difficult to garner the interest and engagement of employers in the Australian ePortfolio Project. It was hoped that, through a series of semi-structured interviews with individuals who were personally invited to participate in the project, insights might be gained into the views of these stakeholders. A total of seven interviews were conducted. The interviewees who were selected represented, on the one hand, employers and the professions, and on the other hand, broader ICT policy issues, so that they presented alternative perspectives about their own interplay with the higher education sector.

As in the focus groups, the interviewees were initially asked about their current understandings of the use of and purposes for ePortfolios. The interviews uncovered a diverse range of understandings about ePortfolios and what they might be used for. There was a general awareness that students needed to be able to effectively present their generic skills or graduate attributes to potential employers. One interviewee had initiated a project for this purpose for a professional body:

We use it for reflection, gathering evidence of competencies, recognition of prior learning and then obviously careers development – also transitions between different sectors, also supports lifelong learning.

A graduate recruitment specialist felt there was a keen responsibility on the part of the higher education sector to better prepare students to address selection criteria in employment applications:

One of the community or employer reps on [our] board had made the observation that many graduates had some difficulty being able to explain during job interviews ‘thought of’ transferable skills

However, while the higher education and vocational education sectors are actively encouraging the use of ePortfolios to support professional learning and personal development, it was acknowledged that
the employment sector was not only slow to become actively involved, but that it also expressed some degree of scepticism:

I don’t see anything like an ePortfolio being used in my sector (recruitment).

I don’t think it would add anything to us getting a higher calibre of graduate because where we would benefit is actually being in person going to one of the actual third year accounting lectures and promoting us’

While there was a limited awareness amongst employers in general about the role or potential of ePortfolios, those closest to the vocational sector appeared to have the clearest understanding of the cross-sectoral value:

We are interested in your project because we are keen to work with other sectors because a real strength of ePortfolios is supporting a lifelong learning culture – students will move around doing different things – we would like to work with other sectors to see how we can align our goals and those sorts of issues – potentially people will first come across ePortfolios in schools so we are interested in working with schools a bit more as well.

Interviewees recognised that the major issues, for them, were the high level issues such as policy and funding:

Funding is always an issue… we don’t have actual funding around ePortfolio construction – individual implementers have their own issues with funding.

Another big area is policy – even if an ePortfolio system is implemented, there is still a lot of work to do around policy

When people do try to embed things on a broad scale you get bureaucratic complexities that often take longer …

It was felt that major difficulties resulted from the lack of cohesion across the education sectors in general, which presented challenges in terms of policy development and collaborative funding opportunities. The higher education sector was seen to be quite fragmented, with no real national approach to anything. However, it was acknowledged that greater levels of cooperation were required in the future:

We don’t see that we would implement one ePortfolio system for the whole country, but that whenever people are implementing systems, we need to work with them to ensure they work with the others.

Student mobility inferred that ‘evidence of learning’ would need to be moved between institutions and indeed sectors. It was acknowledged that some of the necessary foundations were in place and that interest in interoperability was growing. The Australian Access Federation Project (AAF, 2008) was noted as a key enabler that would allow different parties to exchange information in a secure way across institutions. Nevertheless, there was a need to establish and promote best practice, with clear guidelines illustrated by effective use studies:

You need clarity and national agreement on schemas and standards.

One participant felt, however, that as the level of understanding about standards and interoperability amongst senior decision makers was regarded as relatively low, there was a strong need for awareness-raising activities and for cross-sector projects:

We would like to be working with implementers to make sure we are doing things in an interoperable manner.

The Australian ePortfolio Project was identified as a conduit not only for raising awareness, but also for considering the global trends and building the opportunities for collaboration with international players.
6.4 Student surveys

While the research subjects in the national audit, the focus groups and the semi-structured interviews were teachers, educational designers, academic managers, employers and people involved in K-12 and vocational education, it was important to consider the views of the learners themselves. Therefore, as a further angle of the research, a series of surveys was developed to capture a range of students’ perceptions of and experiences with ePortfolios. The surveys included a survey of mature users of ePortfolio, augmented by personal interviews, and student pre-course and post-course surveys. Over 500 students took part in the surveys.

6.4.1 Pre-course and post-course surveys

The research team believed it would be valuable to build on the mature user data by listening to the ‘student voice’, capturing the initial expectations of students about to use ePortfolios in their academic studies and then reviewing their experiences of this ePortfolio activity.

Two separate online surveys were developed: one to be completed prior to a student’s use of an ePortfolio (the pre-course survey) and the second to be administered as follow-up survey for the same students, completed close to the end of this first semester (the post-course survey). Potential survey participants were targeted through Australian ePortfolio Symposium delegates who had indicated they were planning to use ePortfolios during the first semester of 2008. Representatives of six universities agreed to participate (see Section 3.7.1), with a selection of metropolitan and regional, ATN and sandstone universities involved. Two of the universities were partners in the research project. Notwithstanding the persistent efforts of the research team to increase the involvement of the other institutions, 83% of responses in the pre-course survey and 70% of responses from the post-course survey were drawn from one university, although it was noted that the respondents were spread across a wide range of disciplines.

6.4.1.1 Pre-course survey

The pre-course survey was developed to ascertain the students’ understanding of an ePortfolio prior to actually beginning to use one and to consider their expectations about what an ePortfolio might mean to them in their learning. Four hundred and four useable student responses to the pre-course survey were collected. The demographic data revealed that 85% of respondents were female; 60% were aged 16–20 years; 13% were aged 21–25 years; 8% were aged 26–30 years and 18% were over 30 years. One respondent was under 16 years. Eighty-nine per cent were undertaking undergraduate studies, with 15 different discipline areas recorded. The most represented disciplines were Nursing (28%), Psychology (12%), Health (10%) and Science (8%). The remaining disciplines were Behavioural Sciences, Biomedical Science, Business, Creative Industries, Education, Information Management, Law, Medicine, Pharmacy, Life Sciences and the Humanities. Eight per cent were postgraduate coursework students and there were five higher degree research students. The majority of respondents were full-time, internal students, with 69% reporting that they were in their first year of study. Seven per cent were international students.

The vast majority (87%) of respondents had never used an ePortfolio before; 21 students reported that they had used an ePortfolio at university in an undergraduate context and six in a postgraduate context. Eighteen students reported using social networking tools as an alternative format for an ePortfolio; eight students had used an alternative ePortfolio system for employment/recruitment purposes and 17 students had used an alternative ePortfolio tool in secondary education or vocational (TAFE) education. Only 72 students (18%) reported having their own website and of these, only a quarter (n=18) viewed their website as a type of ePortfolio.

Students were asked to select the statement or statements that best described their understanding of an ‘ePortfolio’:

- It is an electronic tool for self-assessment, a place I can record my experiences during my course, something like a diary
- It is an electronic version of a paper portfolio
- It is an electronic filing cabinet filled with examples of my course work
It is a secure electronic repository for me to collect and store evidence of my skills and knowledge attainment.

It is a place for me to reflect upon my learning journey — where I have come from and where I’m going — it’s about the process of learning.

It is about evidence of skills, but there’s also an opportunity to show the process and to reflect on what this means to me.

Other (please add your own definition)

Students were free to select more than one response to this question. The majority of respondents (66%) indicated that they thought ePortfolios were an electronic tool for self-assessment, a place I can record my experiences during my course, something like a diary. Beyond this, there was a spread of respondents considering ePortfolios to be a repository, a place for reflecting on the personal journey and a means for showing evidence of skills development, with about 40% of respondents selecting the relevant statements. Fewer respondents (less than 30%) indicated that they thought an ePortfolio was like an electronic filing cabinet or was an electronic version of a paper-based portfolio.

Over 70% of students agreed or strongly agreed that using an ePortfolio would help them with their studies across a broad spread of activities: providing a place to store examples of academic work examples, as well as extracurricular activities (for example, volunteer work and life experiences); facilitating personal reflection and evaluating learning processes; and helping them keep track of learning experiences. Ten per cent of students were sceptical, stating they did not believe that ePortfolio activity could actually help them become independent, self-directed learners.

Students were asked to identify how they felt about the prospect of using the ePortfolio for their unit of study, with the opportunity to select more than one option. A diverse range of emotions was recorded.

Table 6.3: Students’ feelings about the prospect of using an ePortfolio: Pre-course survey responses

<table>
<thead>
<tr>
<th>Enthusiastic</th>
<th>Positive</th>
<th>Neutral</th>
<th>Uncertain</th>
<th>Confused</th>
<th>Anxious</th>
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<tbody>
<tr>
<td>14%</td>
<td>37%</td>
<td>34%</td>
<td>27%</td>
<td>21%</td>
<td>10%</td>
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One student reported feeling technologically challenged by the prospect of ePortfolio requirements in the unit, and one student indicated feeling happy that it was to be assessed because this gave the activity purpose.

At the conclusion of the survey, students were given the opportunity to convey any other feelings they might have about the use of ePortfolios in their unit of study. Twenty-eight responses were received for this open question. Several students added a positive comment about looking forward to using the ePortfolio; three students linked their comments to a perceived benefit for career/employment; and five students thought they would need more support in using the ePortfolio. Individual students reported that they felt:

- ePortfolio activity is just an extra added workload and stress
- it should be voluntary and not assessed
- it provides very good support for students
- concerned about ongoing access beyond graduation.

It appeared that students saw the ePortfolio as being primarily for independent use, rather than for collaboration and communication with peers.

6.4.1.2 Post-course survey

The follow-up survey aimed to collect evidence of students’ actual experience of using the ePortfolio in a unit of study during the first semester of 2008. The survey was released to the student cohorts who had already taken part in the pre-course survey, timed to fit in with the end of semester learning activities for each cohort. The surveys were linked to the individual respondents through the use of a respondent-constructed code. The post-course survey sought to identify the potential correlations between the students’ initial perceptions and expectations and their actual experiences.
A total of 101 valid responses to the post-course survey were received — only one quarter of the total number of respondents who had completed the pre-course survey. Cohorts at two universities that had participated in the pre-course survey did not contribute to the post-course survey, and 70% of the respondents came from one university. The predominant discipline area represented was Nursing; Law, Business, Psychology, Information Management, Science, Behavioural Sciences and Biomedical Science were represented to a lesser degree. Interestingly, there were more ‘older’ respondents who completed both surveys. Forty-two per cent of all post-course survey respondents were aged over 26 years, compared to 26% for the pre-course survey. While 60% of pre-course survey respondents were aged 16–20 years, this figure dropped to 48% in the post-course survey. The majority of respondents were female, undergraduate, internal, domestic students, and 77% of these were first year students.

Seventy per cent of respondents indicated that their ePortfolio had been summatively assessed, while 40% reported that there was formative assessment of their work. Twenty-two per cent stated that their ePortfolio was only about reflecting on learning, and 14% said that it was only about collecting evidence of learning, while 64% agreed it was about both collecting evidence of and reflecting on learning. There was a fairly even distribution of responses about what was assessed in the ePortfolio, with about two thirds of respondents reporting that the artefacts, the reflective process of creating the ePortfolio and the ePortfolio as a final product, were assessed. Only 5% stated that the ePortfolio was not assessed at all. Ninety-seven per cent reported that the review or assessment was undertaken by teachers or tutors, while 11% stated that their peers were involved in the review or assessment; 7% highlighted the fact that the ePortfolio was reviewed as part of a career planning or mentoring process.

There was strong evidence of support for the students in their ePortfolio work: online support through web resources and tutorials were noted by about two thirds of students, while about half had face-to-face support from academic staff. Printed handouts were also available to more than one third of students. One question asked students to consider what they found to be the greatest challenge in using the ePortfolio: 70 of the 101 students provided an answer to the question:

- one quarter of them considered the selection of experiences and drafting the entries the biggest hurdle
- students found the reflective process specifically challenging
- six students said that finding time to work on the ePortfolio was a concern, given all the other responsibilities they had
- technical issues concerned 13 students, although four students directly commented on how easy they found the technical side of things.

In terms of the outcomes from ePortfolio use, 84% agreed or strongly agreed that it had helped them evaluate and reflect on their learning processes; 71% felt that it had helped them keep track of their learning experiences and reflect on areas of weakness; 74% found it a valuable place to store examples of coursework, while 60% noted that it had helped store examples of extracurricular activities that might be relevant to their future career, but less than half believed that the ePortfolio has contributed towards them becoming effective, independent learners. In conclusion, the students were generally constructive and optimistic about their ePortfolio experience. Half of the students felt positive or even enthusiastic about ePortfolio, while over one third were neutral.

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<th>Enthusiastic</th>
<th>Positive</th>
<th>Neutral</th>
<th>Uncertain</th>
<th>Confused</th>
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</thead>
<tbody>
<tr>
<td><strong>Pre-course</strong></td>
<td>14%</td>
<td>37%</td>
<td>34%</td>
<td>27%</td>
<td>21%</td>
<td>10%</td>
</tr>
<tr>
<td><strong>Post-course</strong></td>
<td>6%</td>
<td>43%</td>
<td>36%</td>
<td>8%</td>
<td>5%</td>
<td>3%</td>
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Sixteen per cent reported some sense of negativity, which was, however, considerably less than the 58% who reported concerns in the pre-course survey. Fifty-four per cent of respondents felt that the ePortfolio had been beneficial to them in their subject/unit of study, 23% felt it was not beneficial and 23% were not sure.
Respondents who reported feelings of confusion and anxiety also recorded both the lack of usefulness of the ePortfolio and the decision to discontinue using it. Seventy-four per cent of students indicated that the ePortfolio would continue to remain accessible to them, but only 39% said they would continue to develop it, with another 39% not sure whether they would continue to use it or not; 21% said they would not maintain their ePortfolio. Nevertheless, a quarter of students said they would be motivated to create their own ePortfolio if they could not use the institutional one.

6.4.2 ‘Mature’ user study

One specific cohort of interest was that of learners referred to by the research team as ‘mature’ ePortfolio users. Drawing on the data collected from the learning and teaching surveys, the researchers invited respondents who had reported extended use of ePortfolios to nominate students who could be considered ‘mature users’ and who would be interested in participating in the research. Contact was made with the representatives of seven institutions, resulting in invitations to participate being extended to 16 students or recent graduates. Nine people from two universities accepted the invitation. Of the nine subjects, three had already graduated, while the six continuing students fell into the different categories of undergraduate, postgraduate or PhD students. The demographic data revealed that six of the nine respondents were over the age of 45 years.

There were two parts to the ‘mature’ user study:

Part 1: A short online survey to capture some demographic and context-specific information about ePortfolio use

Part 2: semi-structured interview conducted by telephone or face to face.

The respondents were asked to select from a series of statements the description(s) of ePortfolios that best matched their own understanding. The statements encompassed the concepts of document storage, evidence of skills, learning, reflection and assessment. Respondents could also provide their own description.

Eight of the nine respondents selected the statement:

*It is a place for me to reflect upon my learning journey — where I have come from and where I’m going — it’s about the process of learning*

Additionally, seven of the nine respondents also indicated that:

*It is a secure electronic repository for me to collect and store evidence of my skills and knowledge attainment*

The majority of respondents (n=8) stated that their ePortfolio was part of summative assessment, and seven of the nine respondents claimed that the ePortfolio as a whole was assessed rather than specific components of it. Seven respondents had the ePortfolio reviewed or assessed by tutors and teachers while two had their ePortfolio reviewed by their peers. The main form of guidance and support provided to the ePortfolio users was in the form of printed handouts, although a mix of respondents indicated they had IT support.

The respondents were then contacted by phone to participate in a semi-structured interview. The questions were developed to stimulate discussion around the use of ePortfolios in relationship to their learning and reflection activities as mature users. The preliminary questions sought to summarise the respondents’ perceptions of the main benefits in and limitations to their use of the ePortfolios.

Having a clear purpose for and structure to the ePortfolio was highly valued:

*In the past when I’ve had to put together a portfolio it was really difficult to give specific examples of anything in a concise, easy to understand format, whereas the ePortfolio is organised, it is linked to work competencies and is ‘much-much easier’.*

Some of the positives included the opportunity afforded by the ePortfolio for the user to link their learning experiences with their required competencies:

*ePortfolio is organised, it is linked to competencies with your workload
Helps find connections between your work and this is easy to show … to show these logical connections*
The view was also expressed that a user was able to recognise the progress they were making in their learning:

\[
\text{Gives you confidence because you can see yourself developing in the skills base and what you are achieving.}
\]

Additionally, mature users of ePortfolios were able to recognise gaps in their learning or skills that they could promptly address:

\[
\text{The ePortfolio prompts you to think about a comprehensive range of skills, helps you recognise gaps in your skills. The different range of skills may not have been recognised if those prompts were not there.}
\]

Some of the benefits offered by ePortfolios as a digital platform were also discussed in the interviews:

\[
\text{We could place a variety of documents of various sizes and formats in the one location… also easy to call upon to show others and navigation was simple – rather than shuffling through lots of paper.}
\]

While there actually were very few limitations or 'negatives' discussed, those that were mentioned overwhelmingly related to functionality and interoperability issues. Some mature users felt the functional design of the system they had used was restrictive:

\[
\text{… I wanted something a bit more flexible, having a few extra options.}
\]
\[
\text{Really of question of what is omitted – the way it is structured should be more like a web blog so it can encourage some feedback.}
\]
\[
\text{The size of the ePortfolio can be an issue if you are sending it through to someone.}
\]

The interview also allowed mature users to offer their advice to others who may be contemplating using ePortfolio systems in the higher education sector. Essentially, the key comments were that students required support during their use of an ePortfolio:

\[
\text{The support structures [the lecturer] offered were a positive – both formative and summative in my context; had support in our workshops from both our tutors and careers people, who were able to share the experiences within the group and with other students.}
\]

Respondents felt that an ePortfolio should be introduced early in the student's university life:

\[
\text{Try to integrate it into a course – if it was just used in one unit it could just become a tick box exercise.}
\]
\[
\text{Students need to see an ePortfolio right at the beginning, see an example and realise the scope of what you can actually do.}
\]

Assessment of the ePortfolio was seen as essential to ensure that the student was motivated to use the ePortfolio regularly and consistently:

\[
\text{Assessing the item keeps the momentum going because a big issue is finding the time to use the ePortfolio.}
\]

Some mature users stressed the importance of clarifying the purpose of using the tool:

\[
\text{… once you know what the purpose is it is much easier to set up.}
\]

As the interview progressed, the discussions centred on the learning process in using the ePortfolio. The main focus was on the development of the student as a learner and the impact of their use of the ePortfolio. Mature users detailed several impacts that the ePortfolio had on their learning, both while at university and in their employment since finishing their studies. The main comments around impact on learning were broad ranging:

- application of reflective processes on their work
- increased their digital competencies
- able to identify and understand their skill sets
- increased efficiency in regards to the organisation of their learning
- improvement in the organisation of their work examples.

Respondents commented:

\[
\text{Made me understand more fully the different aspects of my learning and the skills.}
\]
Helped me to articulate reflective practice and has kept me focused on the required competencies that I needed to hone in on

Encouraging me to think outside the square – have to find evidence to support my work

All nine mature users believed their use of an ePortfolio changed the way they understood their development and growth as a learner. Many of the individual responses were similar and often overlapping. Most of the mature users discussed the role of the ePortfolio in their employment or employment searching activities:

- Helps you become more aware of what skills are useful and what skills are required in the employment sector
- I’m not using the ePortfolio this year but still using it as a ‘point of reference’ for future work
- I was able to see what worked well and what didn’t work well – helped me re-work areas, helped me work better

The mature users overwhelmingly agreed that the ePortfolio had assisted in the development of their reflective skills:

- It has immediately worked on future work I have undertaken; now I reflect on my tasks a lot more thoroughly
- I have placed reflective practice within the same network of the samples of work

Finally, mature users were asked to determine what level of impact, if any, their use of the ePortfolio had had on the process of applying for employment. Some mature users reported that they were already in employment when they using the ePortfolio in their university studies, so had not yet utilised it as part of a job application. Generally, respondents indicated that they had not submitted an ePortfolio to an employer but they would refer to the ePortfolio or select specific artefacts and components of it as they prepared an employment application:

- I haven’t used the whole thing, used it more like a ‘database’ where I can find resources or information of use for a particular area

One mature user was a manager in the health sector and was able to see the potential of the ePortfolio in selecting medical staff:

- We don’t do recruitment screening very well … I think if it were a recruitment screening tool which could then lead into – you know, they should be able to sell themselves without us asking them any questions, if the ePortfolio became the basis of an interview we could say ‘well, in here we’ve seen that you’ve done …’, it would just open it up so much more.

One education student referred to the use of hard copy portfolios as part of the professional recognition process with the state education authorities, incorporating an application form, resume, academic achievement, practicum results and a 500-word reflective statement. A nursing student also indicated that the health authorities were also investigating the value of using portfolios in the application process.

Although the sample size was small, the mature user study revealed that the ePortfolio experience was generally a very positive one, contributing significantly to the students’ understanding of themselves as learners and as emerging professionals.

### 6.5 Australian ePortfolio Symposium activities

Towards the mid-point of the Australian ePortfolio Project the research team hosted a forum to bring together representatives of the different stakeholder groups that had an interest in ePortfolios in higher education. The Australian ePortfolio Symposium was held at the Kelvin Grove campus of QUT on 7 and 8 February 2008. In the lead up to the Symposium, on 6 February 2008, there were two further activities: the Australian ePortfolio Policy Meeting and the Australian ePortfolio Showcase. The showcase was an open event, attended primarily by symposium participants plus a few other interested parties who did not register for the symposium. The policy meeting was an invitation-only event, involving key stakeholders in ePortfolio policy issues.
The dates for the symposium activities were determined early on in the project: the event was promoted in the Australian ePortfolio Project brochure, bookmarks were distributed and invitations to the event were included in correspondence relating to the national audit and the regional focus groups.

6.5.1 Australian ePortfolio Policy Meeting

The policy meeting was attended by key players from diverse areas of ePortfolio activity in Australia (such as the AeP Steering Committee; representatives of the Department of Education, Employment and Workplace Relations (DEEWR), ePortfolio policy in UK (HEA, JISC), the Australian ICT in the education policy arena, related ePortfolio research activities in the VET sector and the professional and employer sectors. The goals of the meeting were:

- To discuss the policy, strategic planning and infrastructure issues associated with ePortfolio practice in higher education in Australia.
- To discuss a range of relevant policy issues, including new directions in higher education policy and ICT in education policy in Australia; ICT in education policy issues in the UK (for example, JISC initiatives and activities); ePortfolio policy issues in higher education in the UK (CRA, HEA and JISC).
- To consider the relevancy of AeP activities to current and emerging Federal education policies.
- To discuss the key issues in order to inform and guide the formulation of possible strategies and recommendations to be presented to the Australian Learning and Teaching Council.

The project’s international guests (Rob Ward, Director for the Centre for Recording Achievement and Associate Professor Angela Smallwood, Director for the Centre for International ePortfolio Development) attended the meeting, and a DVD presentation from Peter Rees Jones, JISC-CETIS, was viewed to accompany the discussion around ICT issues internationally.

The general outcomes from the policy meeting included:

- an increased awareness of ePortfolio engagement within the sectors
- a desire for some common interaction and guidance around ePortfolio practice in Australia
- clarity around technology and interoperability issues
- a review of the international experience, particularly in the UK
- acknowledgement of common goals between JISC and DEEWR.

6.5.2 Australian ePortfolio Showcase

The Australian ePortfolio Showcase was a half-day event held at QUT’s Gardens Point campus. A range of currently available ePortfolio applications was presented to help participants develop a deeper understanding not only of the type of tools that could support ePortfolio practice, but also of some of the issues associated with ePortfolios that would be explored and discussed at the symposium itself. Nine invited representatives discussed their ePortfolio applications — both custom-built and open source — stimulating discussion on the features and issues associated with each application. As noted in Section 1.6 of this report, the presentations included:

- Sakai
- Open Source Portfolios
- Mahara
- Blackboard (two presentations)
- PebblePad
- Desire2Learn
- CareerHub
- QUT Student ePortfolio.

The individual presentations may be viewed at the Australian ePortfolio Symposium website (www.eportfoliopractice.qut.edu.au/symposium/showcase.jsp). The showcase was attended by about 70 people, representing more than 20 different universities. Positive feedback was received regarding the value of reviewing and comparing different tools prior to the symposium.
6.5.3 Australian ePortfolio Symposium

The Australian ePortfolio Symposium provided an opportunity both to share and to gather information around ePortfolio use in the higher education sector. Over 200 people registered for this free event, representing 32 Australian and three New Zealand universities, together with representatives from the government, vocational education, secondary education, industry, recruitment and employment sectors. The main focus of the symposium was provided by the international speakers:

- Rob Ward, Director of the Centre for Recording Achievement (UK)
- Associate Professor Angela Smallwood, Director for the Centre for International ePortfolio Development (UK)
- Darren Cambridge, Associate Director of the Inter/National Coalition for Electronic Portfolio Research (USA).

The video recorded presentations for each of the international speakers are available to view or download on the Australian ePortfolio Symposium website (www.eportfoliopractice.qut.edu.au/symposium/program.jsp). In addition, a pre-recorded presentation on the Dutch ePortfolio experience in higher education was provided by representatives of SURF NL: Marij Veugelers, Community Manager with SURF NL, and Wijnand Aalderink, Member of the NL Portfolio Steering Committee.

Professor Grant Harman from the Centre for Higher Education Management and Policy at the University of New England detailed the work to date on the development of the Australian Higher Education Graduation Statement within the framework of the National Diploma Supplement.

Members of the research team also presented a session to discuss the data collection activities conducted in the context of the AeP Project. The concept of ePortfolio maturity models was presented, with the Becta and SURF examples as illustrations (Harper & Hallam, 2008), with feedback sought from the delegates. It was generally agreed by the symposium delegates that this was a useful way to allow an institution to measure its ePortfolio preparedness and its technology capability, allowing benchmarking against other like institutions. It was felt that it was necessary to keep in mind that there was no ‘perfect answer’ and that any model should be able to support various levels of complexity and approach.

The research team believes that the original Becta model most closely fits the needs of the local environment and has undertaken preliminary work to adapt this model for use in the Australian higher education context (refer to Appendix). However, the team acknowledges that further work will be required in the future, as ePortfolio practice broadens and deepens at Australian universities, so that this first attempt should be treated as a Beta version to be discussed further across the sector.

As a further strategy to foster engagement and to encourage feedback, symposium participants were encouraged to capture their questions and thoughts triggered by the different sessions during the day by noting them on cards. The cards were then collected and reviewed at the end of the day.

The second day of the symposium allowed for further activities that encouraged participants to share and discuss ePortfolio issues. Associate Professor Angela Smallwood opened the day by reviewing the questions posed by delegates the previous day. The questions covered areas such as technology, interoperability, institutional policy, transportability between sectors, student and staff engagement and pedagogical applications:

How do we motivate students to adopt a ‘Personal Development Portfolio’ approach to their learning journey?

How should we influence a holistic approach to individual reflective practice as a learner-focused learning process?

Given the popularity of social network sites, would it be a good idea to make ePortfolios mirror a similar format?

If ePortfolios have a life beyond a course of study (as they must) who supports and maintains (design and technology) long term?

What support do you propose for students who are not computer savvy?

What about conflict with different ePortfolio systems in the one university?
How does the student show the ‘shadows’ for example, fails, lack of enthusiasm for a course or their non-engagement?

Do we need a national policy or at least an institutional policy that makes ePortfolios a requirement?

How can you see ePortfolios working in the VET sector, with movement of students from VET – HE and from HE – VET?

Role modeling may be more important for the successful adoption of PDP ePortfolios than having good technology, easy access etc.

These questions also helped to prepare delegates for the group enquiry activity, which involved delegates allocating themselves to eight breakout groups, each of which had a specific focus that would appeal to the broad range of stakeholders attending the symposium:

- Transition into higher education (schools, VET)
- Pedagogy/learning outcomes
- Student experiences with ePortfolios
- Employability/transition into employment
- ICT issues for ePortfolios
- ePortfolio for academic development (for academic staff)
- ePortfolio policy development.

Each group had a facilitator who was either a member of the research team or was considered to be conceptually familiar with the specific topic area, as well as a scribe to take notes. The goal of the group enquiry activity was for the delegates to discuss the topic area from the perspectives that interested or concerned them and to develop up to three key questions that they would like the expert panel to respond to during the afternoon symposium session. Each group saved their questions to a PowerPoint slide. The eight slides were subsequently collected from the breakout rooms and collated into one PowerPoint file for the expert panel session. The scope of the questions posed by the groups included:

- **Transition into higher education (schools, VET)**
  
  In regards to the UK experience how have the different sectors worked together to come up with commonality and transferability for an ePortfolio?
  
  From the Australian perspective how is the eFramework Project involving the sectors (HE, schools, VET) to find some common ground around ePortfolios?

- **Pedagogy/learning outcomes**
  
  How do we ensure that if we use ePortfolios our use is informed by what we know about learning?
  
  How do we integrate learning objectives (graduate attributes and professional requirements), learning activities, skills and assessment into the ePortfolios in a way that reflects the learning process and in a way that is meaningful and relevant for students?
  
  Are there common pedagogical principles that underlie portfolios? Do they exist?

- **Student experiences with ePortfolios**
  
  Is ePortfolio a method for involving students in ‘creation’ not just discovering things — and the role of reflection in this?
  
  What is the responsibility for this — students and universities and academics and professional bodies — re lifelong and lifewide learning? How do we engage the community?

- **Employability/transition into employment**
  
  Is it a process of development of learning skills and employability skills? Should this involve all parties? Is this more useful than tool itself?

- **ICT issues for ePortfolios**
  
  Are the ICT issues dependent on the policies, requirements and the pedagogical use of ePortfolios? For example, issues around development vs. presentation portfolios, or, needs of different disciplines.
  
  Is the prime single ICT issue portability? (Covering: interoperability, sustainability, access, storage of student information in ePortfolios)
**Chapter 6: National audit of ePortfolio practice**

- **ePortfolio for academic development (for academic staff)**
  
  *What’s the driver? What’s the purpose? Why do it? Can purpose be mandated? Should eportfolio be used primarily for individuals’ reflective purposes or as an organisational tool for measurement and marketing — or for multiple purposes?*

  *How can the language of the discipline be used as a means for communicating ePortfolio value in an accessible way?*

  *Ownership — institutional ownership? Marketing tool? Mandated structure?*

  *Rewards and benefits (intrinsic and extrinsic). How can the concept of ePortfolio not be seen as yet another task?*

- **ePortfolio policy development**
  
  *Who owns the product/who owns the data? (Which data?) Institution? Student? Dependent on purpose? Standards for interoperability?*

  The panel of experts included the international guest speakers, Associate Professor Angela Smallwood, Rob Ward and Darren Cambridge (each of whom brought their own wealth of experience and expertise in ePortfolio policy, practice and research to the panel), Bob Paton, CEO of the Manufacturing Skills Council (who provided employer perspectives), and Professor Tom Cochrane, DVC (Technology, Information and Learning Support) at QUT (who represented the perspectives of academic policy, ICT and learning). The moderator for the session was Professor Sally Kift, Professor of Law and ALTC Fellow.

  Given the wide ranging scope of the questions developed through the group enquiry process, the panel discussion was informative, with further views presented by delegates in the audience. The panel discussion was recorded; the video can be accessed at the symposium website (www.eportfoliopractice.qut.edu.au/symposium/program.jsp).

  Many of the questions raised through the group enquiry process reflect the topics and themes discussed in Chapter 5, which reviews the issues relating to ePortfolio practice in higher education.

  In planning the symposium, the project team did not overlook the ‘student voice’. A student panel was convened, consisting of six current or past students from different universities and TAFE colleges, to discuss their perspectives on ePortfolio use, especially in regards to careers and employment. The students were asked about their experience with ePortfolios, the perceived learning outcomes and also about using the ePortfolio for employment applications. Of particular interest to many delegates were the viewpoints presented by one postgraduate student, who believed that ePortfolios should be able to incorporate the social networking tools that were already used by students. The video recording of the student panel can be accessed on the symposium website (www.eportfoliopractice.qut.edu.au/symposium/program.jsp). Delegates reported on symposium feedback forms that they would have liked a similar panel to hear from academics using ePortfolio and hear about their experiences.

  The Australian ePortfolio Symposium was regarded by delegates as a very effective forum for airing and discussing the range of issues relevant to the different stakeholders in the ePortfolio process. There was a keen interest to keep the energy, momentum and networking opportunities alive and to establish some form or forms of community, encompassing policy, practice and research that could potentially sustain and develop the engagement with ePortfolios in the higher education sector. These ideas feed into Chapter 8 of the report, which considers ways to effectively share ePortfolio practice in Australia.

### 6.6 Summary

The findings from the national audit revealed that there was a high level of interest in the ePortfolios in the context of higher education, particularly in terms of the potential to help students become reflective learners who are conscious of their personal and professional strengths and weaknesses, as well as to make their existing and developing skills more explicit. The audit revealed some interesting examples of the early adoption of good practice in different institutions, although this tended to be distributed across the sector.
The main findings indicated that:

- The greatest use was recorded in coursework programs, rather than research programs, with most of the implementation reflecting subject-specific or program-based activity, as opposed to whole of faculty or university activity.

- Staff use of ePortfolios tended to be sporadic, but more common amongst academic staff than professional staff.

- There was considerable exploratory interest in ePortfolios in tertiary education, with respondents reporting investigations into, plans for and imminent implementation of ePortfolios for learners.

- A wide range of tools was being used: the learning management system was the most common application, but paper-based systems, student web pages, blogs and wikis all featured. There was often an element of choice of tool, which underscored the climate of experimentation.

- The main uses for the ePortfolio by learners were the two dimensions of collecting evidence of learning and reflecting on their learning activities, generally in combination.

- There was an even balance between formative and summative assessment of the ePortfolio, with assessment focusing on different aspects: the ePortfolio as final product, the artefacts in the ePortfolio and student reflection on the process of developing their ePortfolio.

- Responsibility for implementation frequently rested with the individual teaching unit, although a centralised model of coordination by ICT services, careers and employment or teaching and learning support was occurring.

- ePortfolio policy was mainly the responsibility of the learning and teaching support division, with some emergent examples of collaboration across the institution; a good proportion of respondents revealed, however, that there were as yet no formal policies.

- Strategic direction was primarily offered by central learning and teaching divisions. In some cases, joint responsibility was attributed to high level committees encompassing academic interests, careers and employment and ICT services.

- Successful practice highlighted the need to embed or integrate ePortfolio activities into the curriculum; to have the clear commitment and buy-in from academic staff; to have a sound ICT infrastructure, adequate funding and overt support from high level champions; to develop strong linkages with university strategies and policies.

- There was an express desire to draw on best practice to share ideas, knowledge and experiences across the institution and across the sector. The Australian ePortfolio Symposium held in February 2008 was acknowledged to be an important first step in this process.

The focus groups and semi-structured interviews amplified and enriched the audit findings. There is a strong appreciation, especially at the grassroots level of the education sector where learners interact directly with educators, that there are significant opportunities for students to use ePortfolios to support their learning and career planning. The current state of play in Australian universities is fragmented, and while not yet equal to leading edge practice in other countries, reveals clear evidence of strong interest across the sector. The higher education sector should take advantage of the opportunity to bring together the different pieces of the ePortfolio puzzle to build a cohesive composition that will benefit individual students, the quality of learning and the value of higher education outcomes.

ePortfolio policy and practice in other countries seek to draw together the different elements of integrated education and learning, graduate attributes, employability skills, professional competencies and lifelong learning, ultimately to support an engaged and productive workforce. In terms of documenting students’ qualifications, achievements and learning outcomes within the context of international education, it is also important to consider the relationship with the Australian Higher Education Graduation Statement, which has been proposed as a strategy to support the portability and transparency of academic study. The following chapter reports on the Australian Higher Education Graduation Statement project and the potential relationship between the Graduation Statement and ePortfolios.