5. ISSUES RELATING TO EPORTFOLIO PRACTICE IN HIGHER EDUCATION

Goal 3: To identify any significant issues related to the approaches being developed in Australian education and the likely impact on what is happening in Australian higher education

5.1 Overview

The contemporary context of education is one of a rapidly changing learning environment that effectively challenges many of the assumptions of years past. Siemens argues that ePortfolio growth has been fuelled by ‘the dynamics of functioning in a knowledge economy, the changing nature of learning, and the changing needs of the learner’ (Siemens, 2004, p. 2), as outlined in the discussion on the policy environment in Chapter 4.

The critical issues surrounding ePortfolio can be divided into issues of policy or issues of practice. On the policy side are questions of government policy and its role in the development of ePortfolio across all the sectors including business and education, especially the higher education sector, as well as considerations of academic policy within the institution. The practice issues cover the learning and teaching context, not only in terms of academic staff, but also in terms of academic support. Issues impacting on the individual learner are presented and discussed.

The potential benefits of ePortfolios in education are widely discussed in the literature. DiBiase (2002) highlights the role of ePortfolios in developing students’ information technology skills and reflective attitudes, but argues that the benefits extend beyond the learners themselves to impact positively on faculty members and academic institutions.

A summary of the opportunities offered by Danielson and Abrutyn (1997) include:

- benefits to students (increased learning effectiveness; model professionalism; enhancing information technology skills; gain academic created for extracurricular learning)
- benefits to faculty (including to align objectives and evaluation strategies to more efficiently manage student deliverables)
- benefits to the institution (including opportunities to respond to calls for greater accountability and outcomes-based accreditation).

However, the ePortfolio world is one where an immature approach can limit the effective exploitation of the advantages ePortfolio offers. The following elements contribute to a dense and multi-layered environment: diversity of learners; the range of learning and teaching contexts and the distinctiveness of academic institutions; and the role played by extra-institutional bodies such as industry partners and government policy makers.

An examination of these policy and practice issues seeks to capture the perspectives not only of learners and educators, but also of academic managers and policy makers (Cooper & Love, 2007, p. 297; Beetham, 2006). It should be noted that the university itself interfaces with a number of other environments. The learner’s relationships with family, peers and the wider community are important areas of support and influence that are integral to the individual personality and behaviour. Beyond this, his/her experiences and outcomes from school, VET and employment are also likely to be factors that have been a support or influence. Through the learner, therefore, the institution interfaces with the schools sector, the vocational education sector and the employment sector. Meanwhile, the academics who interact with the learner as teachers or tutors are important stakeholders in the learning process. As such, their interaction with colleagues in other universities or with professional associates represents another example of the interface with organisations and individuals beyond the university.
In the academic policy area, there are interfaces at the faculty or division level, as well as at the institutional level. At the faculty or course level, there are relationships across universities, often in the immediate discipline area as well as with the professional bodies and associations. At the executive level, there are interfaces with academic peak bodies within and across the sector, once again with employers and the professions, and potentially also beyond the sector through interaction with other sectors such as the vocational education and schools sectors. At the higher levels, the relationships may extend beyond the Australian education context to consider international initiatives such as reciprocity of qualifications or international accreditation factors.

Findings from the research indicate that, for effective ePortfolio implementation, all the contexts, layers and stakeholders have a role to play and a contribution to make. Table 5.1 presents diagrammatically the different contexts, factors, stakeholders and relationships. With the elements comprehensively and coherently in place, an ePortfolio initiative may be successful, sustainable and scalable; if any of the elements are missing, the challenges are greater and the risk factors more significant. The different elements and their relationships form the topic of this chapter.
Table 5.1: The Hallam, Harper and Hauville model of ePortfolio factors, stakeholders and relationships

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5.2 Policy perspectives

If the higher education sector is to effectively fulfil its role in producing skilled professionals who will play a significant role in the future success of the Australian community and economy, then the potential of ePortfolios to bring together educational technologies and quality learning processes, and to provide evidence of individual achievement and employability skills should not be ignored. While the current policy environment in Australia (as discussed Chapter 4) differs significantly from the European policy environment, it is argued that clear policies and strategies are required at both the sector and institutional levels to ensure that advantage is taken of the opportunities for connectivity and cohesion in the development and delivery of education services.

5.2.1 Higher education policy

Higher education policy is set against the background of the broader education policy. Following the Federal election in Australia in November 2007, the new government has established a Review of Australian Higher Education. The terms of reference for the review panel include the need to report on the sector’s ‘fitness for purpose in meeting the needs of the Australian community and economy’ (DEEWR, 2008a), as well as the options for ongoing reform. The issues of national productivity, participation in the labour market and the ability to respond to the needs of industry are topical, specifically in the context of positioning of higher education within the broader tertiary education sector in order to achieve an integrated relationship with vocational education and training.

One of the critical aspects of government policy is to consider the relationship between education and employment, as well as the development of employability skills, especially given the current focus on the skills shortage in Australia. The significance of policy drivers for ePortfolio practice in Europe and the UK, discussed in Chapter 4, should be considered in the Australian context. Under the Lisbon Recognition Convention, ratified by Australia in 2002, the Australian education community is committed to the goals of the Bologna Process, which encourage greater consistency and portability of qualifications within and across different education systems. The Bologna Process aims to facilitate communication and movement between European education institutions. An Australian Government discussion paper released in 2006 argued that there is a danger of Australia losing European enrolments if such a system were to become the international norm without Australia as a party (DEST, 2006). Australia’s role as a major education provider in the Asia-Pacific region was also a factor to consider. The importance of student mobility, which can be supported through formal documentation such as the diploma supplement (see Chapter 7), as well as through the personalised records of learning outcomes, is therefore highly relevant to the ePortfolio debate.

Student mobility fuels the necessity for the transportability of academic credits across institutions, as well as transition in and out of secondary and vocational education. Some students complete university subjects or vocational certificates while still at school and require these achievements to be recognised when they apply for further study. As noted in Chapter 4, the Australian Flexible Learning Network has a keen focus on ePortfolio implementation in the VET sector, acknowledging the importance of cross-sector engagement. Authors of the background paper to the national symposium on ePortfolios in the VET sector underscore the importance of policy development to address the general development and management of ePortfolio services; the portability of information about qualifications and competencies; recognition of prior learning; the management and provision of secure and verifiable personal information and privacy (education.au, 2008a).

Leeson argues recent developments suggest the shift from ‘institutionally-owned’ to ‘learner-owned’ ePortfolio implies a rethink of policy or at least a shift in its implementation (Leeson, 2008). Leeson identifies a number of initiatives impacting on the education sector and on policy development: the PILIN project, Web 2.0 developments, the Australian Higher Education Graduation Statement (AHEGS) project and the current Australian ePortfolio Project. The PILIN (Persistent Identifier Linking Infrastructure) project examines the use of persistent identifiers applied to eLearning, eResearch and eScience. In the context of ePortfolios, it would be possible for users to maintain links to important data in their ePortfolio. The AHEGS project is discussed in Chapter 7 of this report, and issues associated with Web 2.0 are discussed in this chapter.
Especially pertinent to ePortfolios is the Federal government’s Digital Education Revolution policy, which has been described as aiming to create ‘sustainable and meaningful change to teaching and learning in Australian schools that will prepare students for further education, training, jobs of the future and to live and work in a digital world’ (DEEWR, 2008c). If ePortfolios were embedded in learning and teaching in the schools, there would be raised expectations of and familiarity with the ePortfolio process by the time the student reached the higher education sector. Among the new funding commitments is one to further ‘collaboration with states and territories and Deans of Education to ensure new and continuing teachers have access to training in the use of ICT that enables them to enrich student learning’ (DEEWR, 2008c), so that there is further potential to promote the use of ePortfolios in teacher education and professional development.

Within the context of higher education policy, there is also the opportunity to consider the topic of teaching quality, as indicated in the Higher Education Review discussion paper (DEEWR, 2008d). The ALTC has established a project to determine and shape the key issues for the sector and its partners. The Teaching Quality Indicators Project provides the Australian higher education sector with ‘the opportunity to proactively engage with the issue of recognising and rewarding quality teaching and teachers and to lead the institutions and sector in defining and developing indicators and outcomes of quality teaching’ (ALTC, 2008b). As discussed in Section 4.3.2, the role that ePortfolios can play in recording and reflecting upon skills development, for personal development planning and for showcasing achievements, is particularly relevant to the area of teaching excellence.

In the background paper on ePortfolios in the VET sector, education.au (2008a) has listed a range of issues that need to be considered by the various stakeholders. Of relevance to the policy context of the higher education sector, and indeed across the education and employment sectors, are:

- **Policy issues**: general development and management of ePortfolio services, portability of information about qualifications and competencies, recognition of prior learning, the management and provision of secure and verifiable personal information and privacy.

- **Standards and specification to enable interoperability and portability**: That is the ability to transfer an ePortfolio from one place to another without having to recreate the e-portfolio in another system. Portability can be achieved if there is interoperability (that is, the ability of one system to talk to another). Portability and interoperability increase the longevity of ePortfolios. At a system level a framework of common standards and specifications will be required to facilitate portability from institution to institution or across states.

- **Service oriented approach to e-portfolios**: this approach allows the aggregation of services from a number of providers. Key issues for discussion include how is this service provided and managed, what collaborative structures are required, and where is it best placed.

- **Future proofing ePortfolios**: we will need to consider how ePortfolio services might need to interact with other applications and services. Some might be other e-portfolio services while others could relate to services supporting ePortfolio activities. In short, ePortfolio standards will need to be addressed within an organisation’s infrastructure to include authentication and authorisation services, digital rights management, persistent identifiers etc.

### 5.2.2 Institutional policy

The culture of an academic institution can be either supportive of ePortfolio practice, neutral in support or, at its worst, counterproductive or even destructive. Ideally, an organisational culture will support behaviours that are consistent with the institution’s mission and values and encourage achievement of organisational objectives.

ePortfolio projects often succeed when a university explicitly supports and encourages a spirit of innovation that is aligned with the values of experimentation and entrepreneurial activity or fosters a culture of student-centred learning. Penn State University has accredited the initial success of its ePortfolio to ‘vision of a university culture centered on students’ evidence of, and reflections upon, their curricular and co-curricular achievements’ (Johnson & DiBiase, 2004, p. 18), while Garis (2006) acknowledged that the implementation of the Career ePortfolio at Florida State University, which is an
example of an ePortfolio structured around a matrix of skills, ensured that it was successfully integrated with the university culture. The university valued the students’ opportunities to link education and employment by developing and pursuing a personal but strategic career vision, contributing to a new global economy characterised by information technology and alternative ways of working, making effective contributions in the contemporary workplace, and by making clear connections between education, work and community organisations (Garis, 2006). In an increasingly competitive funding environment, many universities ‘strive for quality and uniqueness’ through their mission and philosophy to encourage enrolments at an institution (Leggett & Bunker, 2006, p. 2).

Beyond institutional culture and philosophy, however, there is the need for guidance through the university’s strategic direction. The strategic needs of the institution tend to be developed in long cycles, often five years, which allows the institution to manage the challenges and opportunities ahead. The strategic direction may, however, not be easily reconciled with emerging technologies, which can be developed and adopted in shorter timeframes. Strategy needs to be articulated into tactical decisions, with a strong balance between the ‘top down’ and ‘bottom up’ approaches:

Support by management is crucial, the lines of development are best to be chosen as a result of a bottom up process, but after the decisions are made management should support and facilitate them top down by defining a strategic framework

(Aalderink & Veugelers, 2005)

This means that while institutions are able to enact policy within the wider framework of their strategic plans, it is seldom the case that the policy is enacted before any practice. Where emerging technologies are concerned, practice is unlikely to be at the university level; however, it soon requires framing at the institutional policy level if it is to be effective.

In the UK, however, there are examples of policy driving practice; one example of university policy indicated the personal development of the individual should be promoted, specifically through the use of PDP as an explicit component of the student experience of learning. The policy was translated into practice through PDP being addressed, and assessed in some way, within one core module at each level of study in the Faculty of Arts, Law and Social Sciences (Cosh, 2008a). While the initiative took place within a single faculty, the value of the project to a wide group of stakeholders has been recognised at the institutional level, with responsibilities at both the strategic and tactical levels: a university-wide working party was established. The working party includes representatives from each faculty as well as from the Students’ Union and the Careers Service. The objectives of the working party are to provide simplified and more attractive web resources for students, provide web resources for staff including case studies and support materials, investigate further methods of supporting staff and encouraging engagement, and investigate how PDP could become more seamlessly integrated within the student experience (Cosh, 2008b).

The university’s own culture can therefore foster and support institution-wide consultation, which is, in fact, a recommended strategy: ‘Partnerships with academic technology departments, teaching and learning centers, and information technology groups should be established early in the implementation process’ (Batson & Chen, 2008, p. 7). Findings from the national audit indicated that there was a growing trend for cross-institutional collaboration, as well as — conversely — that a lack of collaborative support could impact negatively on an ePortfolio project.

education.au (2008a) highlights the range of issues to be addressed by institutional policies, although there may also be implications across institutions and the sector:

- **Storage and archiving**: how much space are institutions willing to provide to their users. If ePortfolios are to follow their creators throughout life, issues of archiving will need to be addressed. Standards and policies will need to consider the minimum and maximum storage allowances, maintenance procedures, portability and disposal. Costs and funding for storage will also need to be addressed.

- **Access, security and privacy**: A range of permissions will need to be accommodated. Models for a range of user types will need to be considered. Security issues include not only access but also portability and authentication. How do you ensure that one is the owner/creator of one’s ePortfolio artefacts? This raises security and privacy issues and threatens ownership and copyright to ePortfolios; there is a need for policies and guidelines relating to privacy and access.
Authentication: ePortfolios may be vulnerable to false claims of individuals. Assessors and employers may need to verify that the work belongs to primary users. In some instances, institutions and ePortfolio providers, by working together, can create automatic verification processes for claims such as awards and qualifications.

Learner owned versus institutionally provided ePortfolios: The notion of learner owned ePortfolios is gaining acceptance and attracting discussion. This approach will require a rethink of the policies and requirements of ePortfolios. In this environment ePortfolios may consist of artefacts drawn together from across the web using institutionally provided services and public web services.

Harper, McCowan, Hauville, Moody and Chorazyczweski (2007) stress the importance of ensuring that the policy frameworks and design controls allow students maximum flexibility whilst being realistic about issues such as privacy, confidentiality and intellectual property. While features such as student control over portfolio viewing access protect students from excessive risk, portfolio development and training also educates students to be careful when sharing information over the web. Other issues include accessibility and equity and internet access protocols. Many institutions have internet usage quotas for students, especially among undergraduates. Web-based software may impact on the volume of data uploaded and downloaded by students. Beyond this, if ePortfolios feature extended access to lifelong learning then consideration must be given to all the issues associated with extra-institutional use.

Ensuring compliance with data protection laws is critical for institutions and should be part of any ePortfolio development from a systemic, institutional point of view (Charlesworth & Home, 2004). Legal issues also include security of the data, especially of individuals and their permission to use it; the balance of access against privacy, especially when it comes to monitoring online activity; and potential liability on the part of the institution over content that they are hosting (Charlesworth & Home, 2004; Kift et al., 2007).

It has been argued that online social networking offers a 'solid basis for comparison' to hold against issues to student privacy and intellectual property when it comes to ePortfolios (Kift et al., 2007, p. 2). Again, the advantages of a strong policy framework at an institutional level to underpin ePortfolio use are regarded as critical.

In order for students to remain engaged in the ePortfolio process, it is necessary both to promote and to encourage creative and uninhibited reflection and expression while safeguarding students from institutionally-facilitated cyber-harm. The strong design controls and intentional policy framework we have implemented … provides a useful model for other institutions …

(Kift et al., 2007, p. 13).

With a university-wide ePortfolio system in place, QUT established a two-prong approach to policy:

- ensure that a coherent history of use by students was available
- make student users aware of the parameters of their use of the ePortfolio environment and their responsibilities in using it.

This policy approach, coupled with strong ICT support, means that problems may be targeted immediately and appropriately (Kift et al., 2007).

The degree of integration with other enterprise systems is an important issue for consideration. Some universities use ePortfolio applications that are integral components of the learning management system (LMS), such as Blackboard or WebCT, while other home-grown options have seen the tool incorporated into the internet portal that may typically provide student access to the enrolment, class allocation and timetabling systems. Aalderink and Veugelers have highlighted the technical challenges of creating functional workflows in an integrated technical infrastructure: 'In most cases e-portfolio is not just a single tool (one piece of software), it is more often part of a larger technical configuration, in which the required functionality may be met by the interoperation of different hard- and software tools' (Aalderink & Veugelers, 2005). The legal issues associated with home-grown systems must be noted: although developed by staff, the systems tend to belong to the institution, notwithstanding some parts that might have been created by contractors, so ownership would need to be assigned. Parts of the system might also have been derived from — and thereby designated — Open Source, which means rights would have to be included in any agreements of use (Charlesworth & Home, 2004).
5.3 Practice perspectives

The policy issues in themselves have the potential to stimulate discussion about how universities can contribute to the national agenda for increased participation in education and the professional labour market. ePortfolios have the potential to help individuals and employers focus on employability skills, career planning and lifelong learning. Beyond this, however, there is a range of practice issues to be considered to ensure the effective implementation of ePortfolios that will derive a positive impact on student learning outcomes. Academic staff need not only to understand the opportunities that are offered by ePortfolios, but also have the desired level of pedagogical knowledge and ICT skills to drive successful initiatives. Support for academic staff through ICT divisions, academic support services and careers and employment is also a critical factor. Beyond this, the learners themselves need to be prepared for the impact ePortfolios can have on their learning processes and learning outcomes.

5.3.1 Academic staff

At the ‘academic coalface’ teaching has moved from the traditional mode of the ‘sage on the stage’, which is predicated pedagogically on ‘what things individuals can be taught’ to a more constructivist mode of the ‘guide on the side’ (King, 1993), where the defining issue is describe ‘how and what people have learned’ (Cooper & Love, 2007, p. 273). However, at present, not all academics have made the transition from old to new modes. This is not necessarily because of stubbornness or perversity; it often reflects reasons such as the level of ICT skills of academics (which is a problem common to all eLearning areas, not just ePortfolios) or the fact that their teaching philosophy might not actually encompass the environment of eLearning.

In line with many other dimensions of eLearning, the implementation of ePortfolios in the curriculum will only be effective if they are integral to the learning activities or the assessment and if they have a specific and integrated purpose. The introduction of ePortfolios as a learning or an assessment activity therefore requires academic staff to consider the learning goals for the subject and to subsequently evaluate the extent to which there is congruence between learning activities, assessment and learning outcomes.

Portfolios should be tailored to the purposes for which they are used in the learning environment.
Introducing portfolios is not a good idea in all curricula.

(Aalderink & Veugelers, 2005)

However, DiBiase (2002) has argued that ‘by providing visible evidence of student achievement, e-Portfolios offer great promise as a means to assess the effectiveness of individual classes as well as entire academic programs’.

Specific benefits to teachers include the capacity to gain deeper insights into the learner as a person, so that the process of providing academic advice becomes richer and deeper (DiBiase, 2002), and potentially more meaningful to the student. At the same time the workload implications for academic staff must be acknowledged: ‘teachers … are responsible for the tasks involved. If they fail to appreciate the added value that working with portfolios provides, they will not invest the relatively large amount of time and energy required’ (Aalderink & Veugelers, 2005).

Drawing on her research at Anglia Ruskin University, Cosh (2008a) has argued that staff engagement is crucial, indicating that ‘there was a clear correlation between the attitudes of students to PDP [ePortfolios] and those of the staff delivering it’. It was felt that the attitude of staff towards ePortfolios had a significant influence on the student response, which meant that, for implementation to be meaningful, staff needed to be conscious of and committed to the benefits of ePortfolio practice. It was reported that not all staff understood the value of PDP, some of them regarding the activities as ‘an additional challenge or burden’ (Cosh, 2008a). It was found that there was likely to be greater engagement with the implementation of PDP if its inclusion in a learning module was mandatory: ‘if staff do not teach on a PDP delivery module, they [tend] to ignore the subject completely’ (Cosh, 2008a), which significantly reduced the potential value of ePortfolios being integrated into the whole program.

In terms of academic workload, the overhead of time to access individual students’ ePortfolios, plan and introduce the learning activities that utilise the ePortfolios, support and advise the students during
the semester, and also access the ePortfolios to provide meaningful feedback can be prohibitive and has support ramifications. Blunting academic engagement would be a great pity not only in terms of course delivery and its impact on students, but also because much of the innovation in the ePortfolio area has been ‘bottom up’, coming from individual academics or those, working collaboratively, in a unit. Undoubtedly, the Faculty or other unit can offer the opportunity for collaboration and peer support:

Sharing of outcomes with each other is also an important element. E-portfolio implementation is not an easy job to do. Learning from each other, and making new choices together helps to keep the stakeholders involved.

(Aalderink & Veugelers, 2005)

There are strong arguments for academic staff to be encouraged to develop their own ePortfolios. Current practice is outlined in Section 4.3.2, highlighting the value in the areas of tenure and promotion, and drawing together the multiple dimensions of academic life: teaching, research and service. In addition, ePortfolios also offer a way of recording an academic’s own achievements of teaching excellence, to provide evidence of and reflections on student learning.

5.3.2 Support for academic staff

In universities, support for academic staff is provided by the Faculty and support divisions, including Deans, Associate Deans, Heads of School, learning and teaching support staff, administrators and ICT support staff. In the context of ePortfolio projects in the Netherlands, it was found that ‘management should provide solid support for the educational change implied by the use of portfolios’ (Aalderink & Veugelers, 2005). A champion in each school or course can make a significant difference: it has been argued that ePortfolio practice essentially needs to become part of the culture in the school or the faculty if students are to be convinced of its relevance and value (Cosh, 2008a). The national audit confirms this, with strongly articulated needs for champions at the faculty and institutional level to support innovation and experimentation.

Cooper and Love have argued that effective support represents one of the most critical perspectives on ePortfolio: ‘pedagogic and administrative concerns represent the central functional issues in the design of e-Portfolios’ (Cooper & Love, 2007, p. 273). Within the institutional environment, learning and teaching support, along with ICT support services, are critical aspects of successful ePortfolio development and implementation. ‘Another important form of support is that on the functional-pedagogical and on the technical-instrumental side in the different departments and in co-operation with institution wide support units for IT and educational development,’ claim Aalderink and Veugelers (2005). In the US context, Espinosa conducted a 360 degree view of ePortfolios in a higher education setting, taking into account the perspectives of administrators and faculty managers. The study charted the complexity of the ‘relationships at the technical, policy and human touch points’, as well as the challenges not simply for communication but at the level of coordination and planning (Espinosa, 2007, p. 7).

In the PDP initiative in the Faculty of Arts, Law and Social Sciences at Anglia Ruskin University, the Assistant Dean and the Learning and Teaching Advisor played a key role in dealing with some of the issues raised by academic staff when asked to introduce PDP activities into their leaning modules. They developed guidelines and suggestions for the integration of PDP activities, as well as a workshop. The challenge of the academic workload meant, however, that the workshop needed to be scheduled for a time when the demands on staff time were not too high. The Anglia Ruskin initiative also saw the appointment of ‘link staff’ in each of the five different departments of the faculty, whose role was to coordinate PDP activities and ‘to cascade understanding of and commitment for PDP’ (Cosh, 2008a). At the conclusion of the project evaluation, the value of the link staff was acknowledged, both in terms of a coordinated understanding of the different approaches to PDP implementation and to develop the foundation for a community of practice to share ideas, to increase understanding and to disseminate good practice. This topic is expanded on in the chapter on communities of practice in Chapter 8.

The present project investigation indicated a rising instance of centralised coordination through ICT and/or learning and teaching support, which aided in the implementation of ePortfolios, taking some of
the burden off the individual academic units. The survey indicated, at the local level, the need for strong ICT support (which has been discussed at the international level):

Electronic portfolios must be supported by an adequate IT infrastructure. No ripples are felt while functioning is smooth, but problems with IT could prove an excuse to postpone or avoid investing in working with portfolios.

(Aalderink & Veugelers, 2005)

Additionally, like all ICT projects, ePortfolio requires a funding commitment on the part of the university. Regardless of whether the system is home-grown, off-the-shelf or open source it still requires support. In some ways a commercial vendor system may be simpler for the university, since the institution is already committed to supporting the infrastructure. There may, however, be tensions between the home-grown system and the generic commercial vendor approach, since the home-grown systems are often purpose-built for the particular environment of the university hosting it and the specific teaching and learning needs of staff and students. However, Batson and Chen stress the value of the ePortfolio process over the ePortfolio tool, recommending that a ‘clear articulation of the portfolio philosophy is necessary in order to keep discussions focused on learning outcomes and not on the technology and how to manage it’ (2008, pp. 6–7).

While ePortfolios have the potential to be the centre of convergence or an opportunity to join up the different dimensions of learning, it is important that academic staff involved in the implementation acquire the support they need at both the academic unit and the individual levels, whether that is pedagogical support from academic peers and teaching and learning support; technological support from ICT support and learning design; or management and administrative support at the faculty or other unit level.

5.3.3 Learners

It has been noted that the ePortfolio, as a product, provides a personal space where students can collect the digital artefacts that present evidence of their experiences and achievements, with the potential of articulating actual learning outcomes. On the other hand, the ePortfolio, as a process, allows students to move beyond the notion of what they have learned, to consider how they have learned and to understand the conceptual connections inherent in the creative process of learning. The ePortfolio also provides an opportunity for providing linkages between learning and assessment, with the focus changing from assessment of learning to assessment for learning. The processes of self-reflection and self-evaluation can encourage the independence, initiative and confidence of learners. Thus, ePortfolios have the potential to support pedagogical approaches that foster student motivation for learning and student engagement with their learning by highlighting the positive aspects of progress and achievement, as opposed to failure.

The benefits offered to learners by developing and using their ePortfolio are widely documented. education.au (2008a) has listed seven key benefits:

- Improving learning effectiveness
- Improving information technology skills
- Enabling accreditation beyond the classroom environment
- Enabling connections among formal and informal learning experience
- Enabling an archive of one's artefacts and reflections
- Enabling the efficient management of students’ work
- Increasing transparency.

Siemens (2004) supports and further augments this list:

- Personal knowledge management
- History of development and growth
- Planning/goal setting tool
- Provide the metacognitive elements needed to assist learners in planning future learning needs based on previous successes and failures
- Personal control of learning history (as compared to organisations controlling learner history).
DiBiase (2002) indicates that the ePortfolio initiative at Penn State University ‘promotes the development of personalised web-based collections’ that include selective evidence from coursework; artifacts from extracurricular activities and reflective annotations and commentary related to these experiences. The ePortfolio activity may be scaffolded across a unit of study (subject), across a combination of units, or across a complete program, with examples and reflections encompassing curricular and co-curricular activities that span the student’s entire academic career. One Australian institution, Macquarie University, announced recently that it planned an ‘overhaul of its curriculum designed to provide a broader education and more socially aware graduates’ (Ferrari, 2008) with all undergraduate students participating in some form of compulsory community work. The New England Award utilises an ePortfolio to support students at the University of New England who wish to demonstrate that, through their commitment to extracurricular activities, they are developing a broad range of graduate attributes that will help them prepare for employment and citizenship (UNE, 2008).

However, it is vital that learners are not viewed as one homogenous group. There is a wide range of individual learners, characterised by differences in age, culture, gender, level of achievement to date, and familiarity with the online environment. As individual learners bring with them their own personality, attitudes, aptitudes and experiences, the context and capacity of individuals need to be acknowledged. The range of responses represented within the survey data of the project investigation highlights this, with student expectations about ePortfolios, and indeed their experiences with ePortfolios, ranging from enthusiastic and positive through to anxious and confused.

The key findings of the project indicate ePortfolio practice in Australian higher education is more common in coursework programs than in research programs, with two main uses of ePortfolio being the collection of learning activity evidence and reflection on the learning process. In the context of the learner, there are a number of issues associated with the development and use of ePortfolios that can contribute to the degree of success of initiatives in higher education. These issues include the collection of evidence and reflection, but attention also needs to be paid to the relevance to the learner, assessment and the ICT skills of learners.

5.3.3.1 Relevance

An essential aspect of successful implementation is relevance. Students need to see the ePortfolio as relevant and useful in order to be motivated to use it. Such motivation may be established internally or externally: students may be motivated to create an ePortfolio because it is a required piece of assessment (external motivation), or because they see the relevance of the ePortfolio for their own development or career (internal motivation). One interesting (although perhaps not surprising) observation has been that in the main, where motivation has been primarily internal, students engage with the ePortfolio more deeply and with greater enthusiasm than they do if motivation is primarily external (Harper et al., 2007). There may also be relevancy differences between different discipline areas; for example, students in creative industries may be ‘more naturally’ reflective, keen to utilise their ICT skills and eager to illustrate their creativity; health science students may focus more directly on the professional competencies required to attain and maintain their registered status (Newland, 2008).

The degree of relevancy to their academic work was stated as a concern for some of the student respondents in the PDP evaluation study at Anglia Ruskin University, with many students finding it ‘irrelevant and time-wasting’ (Cosh, 2008a). It has been found that, from the very outset of the process, students need to understand the rationale for the use of ePortfolios in their studies. It is essential that there is clear integration with the discipline of study, especially in terms of their comprehension of employability skills. Ideally, this should become thematic across the learning activities so that the rationale remains contextualised and supported as the semester progresses.

The two types of motivation are not necessarily mutually exclusive. At QUT it has been found that paramedic students are, through the mandatory requirement to submit their ePortfolio for assessment, extrinsically motivated to use it. At the same time, however, the ePortfolio is so comprehensively embedded within the course that students are able to clearly view it as a critical tool to support them in their job seeking activities. External motivation of assessment alone is unlikely to provide sufficient motivation for a meaningful engagement with the tool (Harper et al., 2007).
The current project, through the survey findings and the focus group discussions, has indicated that career planning activities make a strong contribution to the relevance of students developing and using ePortfolios. By establishing the connections between the discipline-specific graduate attributes and their own career goals, the students can create an authentic record of achievement accessible by those outside the institution. Students have reported an increase in confidence in being able to record and track achievements (Temple, Allan, & Temple, 2003).

Students seem most interested in the ways ePortfolios can flesh out their resumes, both before and after graduation. If internship interviewers or potential employers can see an online resume that includes views of a student’s actual work, that student may be more likely to obtain the position. Students also want to see where they are in their college career regarding requirements. ePortfolios can facilitate this. (Batson, 2002)

One of the key issues of this area is how an ePortfolio might best meet the needs of the prospective employer and of industry. At Royal Melbourne Institute of Technology (RMIT) School of Medicine a study was undertaken focusing on ‘prospective employers’ satisfaction with the structure and content of electronic portfolios as an aid in employment selection processes’ (Temple et al., 2003, p. 2). Focus group discussions with employers indicated that, generally, there was a low level of awareness about the role ePortfolios could play in recruitment, with concerns expressed about the overhead of time required to review individual ePortfolios. Temple et al. (2003) have recommended using a ‘two tiered’ system that orders the data in a hierarchy useful for employers’ needs, although studies have found that many students believe that the ePortfolio development process in itself supports them in applying for jobs and preparing for interviews: selecting and reviewing their skills and experiences, and reflecting on the relevance of the various skills and experiences to the specific selection criteria is found to be of immense benefit in the way it builds self-awareness and self-confidence. There is anecdotal evidence of graduating students who have used ePortfolios as part of the career planning process performing extremely well in interview situations. Nevertheless, the current project found that there was considerable work to be done with employer groups to raise the awareness and develop the understanding of employability skills, graduate attributes and the presentation of these through ePortfolios.

5.3.3.2 Reflection

The complex nature of learning makes it difficult to objectively measure precise learning outcomes. However, contemporary learning theories assert that effective learning requires the active participation and engagement of the learner, as ‘the engaged learner, one who records and interprets and evaluates his or her own learning, is the best learner’ (Yancey, 2001, p. 83). A dominant discourse is that of social constructivist learning theories, which stress the interactive nature of learning, rather than the passive reception of information from teachers and written texts (Jonassen, 1991). Reflective practice represents a holistic approach to learning, where learners construct their own experiences and continually reflect on them. The goal is to create engaged learners for whom learning has a personal significance (Andresen, Boud, & Cohen, 2000).

Constructivist learning models stress the importance of learners’ reflective thinking, not only as individuals but also in group learning contexts where collaborative reflection can enhance group learning. ‘Reflective discourse with peers and more experienced others can improve both self and group actions’ (Lee, 2005), so that collaborative reflection allows learners to compare their own thinking with that of the others in the group, with the opportunity to adjust their understanding and interpretation of the concepts and ideas being discussed. As some students will inevitably feel uncomfortable with, and resist, the process of externalising and sharing their thoughts with others, it is essential that there is sufficient scaffolding in place to support the student, for example, with reflective cues, questions that stimulate reflective thinking and examples of good reflective practice.

Many academics recommended the ‘light touch’ in the preliminary stages, for example, simply asking students to add a few reflective statements as they review their assignment work. Some disciplines, such as teaching and nursing, traditionally include a stronger reflective component, whereby students are asked to review the quality of the work they have produced, to focus on their strengths and the areas that may require further development. These contexts naturally offer a more receptive climate for acceptance of ePortfolio activities. Learners, as they collate their experiences and artefacts in the ePortfolio, have the opportunity to reflect on the meaning of their studies and achievements, as well as
on the comments and feedback they may have received from peers, family, teachers or mentors. When students study for a test, they can review their own work and read the instructor’s comments on their work. ePortfolios will make this easier to do, especially over multiple semesters’ (Batson, 2002). The ePortfolio might then help students articulate their personal and professional goals, and over time measure their progress towards the goals, affirm or indeed reconsider the goals, to direct or redirect their career plans accordingly. In the UK there is clear synergy between ePortfolio use and the Personal Development Profile (PDP) initiative. As the PDP allows the building up of a lifelong and lifewide picture of the learner, the relevance of the ePortfolio process to the ongoing needs of the learner is at the core of that learner’s motivation to engage with it (Kift et al., 2007).

The staff involved with the Business Advantage and Masters of Information Management courses at QUT have stressed the importance of a scaffolded approach to implementing the Student ePortfolio. Business Advantage is a voluntary, non-award program that provides QUT business students with extracurricular development opportunities aimed at increasing their professional competencies and improving their competitiveness in the workforce.

Once again, it is important to acknowledge that the ePortfolio is a process as well as a product, and therefore requires a focus on skill development as well as technical training. Careers and Employment staff have played a significant role in supporting academic staff by conducting training sessions designed to provide students with the technical and reflective skills required to create a portfolio. By teaching students the STAR L approach to reflective writing (Situation, Task, Action, Result and lessons Learnt), the scaffolding enables students to meaningfully and systematically reflect on their experiences. The training sessions also provide an opportunity to contextualise these reflective practices by demonstrating how these reflections, recorded in the ePortfolio, may be utilised in job-seeking activities such as selection criteria writing. The involvement of Careers and Employment staff is particularly effective as students appreciate their ‘real world’ credibility, which anchors the ePortfolio for the students as a tool to help them find employment, once again further stimulating the internal motivation for using it (Harper et al., 2007).

If the goal of the ePortfolio initiative is to develop reflective practice as an ongoing professional tool, it may be valuable to introduce the QUT Student ePortfolio (SeP) at the beginning of the course (as was initiated in the Masters of Information Management course in 2006), in the hope that earlier engagement, encouraged through regular workshops and reminders throughout the entire length of the course (three semesters full time), will better entrench ongoing reflective practice by the time of graduation.

5.3.3.3 Collection of evidence

Although the collection of evidence of learning and achievement might suggest a simple or reductionist process, in the ePortfolio context it is anything but. The learner collects evidence not just of their individual subject or course — this process can extend across all the learners’ studies and into their career, forming a list of achievements and skills accessible by others, including potential employers. In the Australian setting (as well as in the UK) this picture of the learner can be and has been applied to the university’s or professional discipline’s graduate attributes (Cooper & Love, 2007; Sargison, Tatham, & Apsitis, 2005).

At QUT, there are ten ‘employability skills’, drawn from the institution’s ‘Generic Graduate Capabilities’, which form the core principles of the QUT Student ePortfolio. These employability skills follow closely the Employability Skills Framework published by the Australian Chamber of Commerce and Industry (ACCI) and the Business Council of Australia (BCA). The ten skills have been designed, with the help of faculty staff, to also be compatible with specific professional association attribute listings (such as nursing and teaching) and specific faculty/school competency listings. This means that more detailed faculty, discipline or industry-specific skill descriptors may be mapped to each employability skill to provide the students with greater detail regarding what is required for their particular career path.

The employability skills encompass:

- communication
- teamwork
- problem solving/critical thinking
- life management/lifelong learning
• technical/professional/research
• managing/organising
• social/ethical responsibility
• leadership
• creativity/design
• initiative/enterprise.

An additional, undefined skill is also available for students to include any skill area they feel is not covered by the core ten. In developing their ePortfolio, students enter experiences and artefacts against the relevant skills. At the highest level, the ten employability skills are common across all disciplines, enabling students to carry the ePortfolio with them across combined degrees and various career or study changes. It has been argued that this approach provides students with clarity about their current and developing skill sets, enables them to identify skill deficits, and motivates them to acquire experience or training to fill identified gaps. The focus on employability also increases the relevance of the QUT Student ePortfolio to students as a tool beneficial to their careers beyond university (Harper et al., 2007).

Because the picture built up is by the learner himself or herself, the result may be considered 'more authentic' than a formal transcript of academic progress and qualifications (Gibson & Barrett, 2003). This also leads to a plurality of portfolios: 'for a body of work by a learner there can be several portfolios or sharing collections, each aimed at a different audience for different purposes' (Gibson & Barrett, 2003, p. 573). In the UK, ePortfolio practitioners refer to the ePortfolio as an individual's particular story that is revealed to a specific audience for an explicit purpose. Sutherland (2007) argues:

> In real life when we relate ourselves to others we draw upon particular evidence to enhance the story we are telling at that time. We rarely, if ever, expose all of our selves to any one person; some parts of our story are reserved only for our self. So it is with an eportfolio, it draws upon a much larger pool of evidence

(Sutherland, 2007, p. 2)

Sutherland has stressed that the individual's ePortfolio should therefore focus on a particular evidence-based story that draws on the 'purposeful aggregation of digital items' (2007, p. 2), which the individual may wish to allow others to view, comment on or collaborate in.

### 5.3.3.4 Assessment

One of the issues of concern to many academics is whether or not the ePortfolio is really assessable. It has been noted that assessment can play a role as an extrinsic motivator for student engagement with ePortfolios; that is, if it is assessable as part of their course work, rather than merely adding to the student workload, indeed sometimes being perceived as 'extra work' (Dixon, Dixon, & Pelliccione, 2005; Wetzel & Strudler, 2006). Where nominal marks are awarded for ePortfolio activities, students may express concern about the effort involved and the final mark obtained (Tosh, Light, Fleming, & Haywood, 2005; Abrami & Barrett, 2005; McMullan et al., 2003; Wade, Abrami, & Sclater, 2005). Some ePortfolio practitioners have noted student resistance when ePortfolios are solely used for assessment purposes, as this can reduce student commitment and buy-in to the process, as well as intrinsic motivation. If the ePortfolio becomes an institutional necessity, only required for the successful completion of a course, the opportunity for fostering a culture of lifelong learning through the development of the reflective and evaluative attributes of the student falters.

In the context of ePortfolios for academic staff, Teitel, Ricci and Coogan (1998) argue strongly that 'Portfolio development should be a 'bottom-up', voluntary process that is owned by teachers and not used for evaluation purposes. The best way to kill it would be to make it mandatory or to use it for evaluation. Key benefits are lost if the reflective culture of professional development is replaced by a 'culture of compliance' where 'teachers go through the motions of assembling materials according to a predated checklist' (Teitel, Ricci, & Coggan, 1998, cited in Barrett & Wilkerson, 2004).

In 2004–2005, there was lively discussion at professional forums and on the e-lists about the issue of assessment of PDP: 'can we, should we [assess], and what would we assess?' (Atlay, 2005, p. 5). Most PDP developments in higher education in the UK have included the introduction of an ePortfolio. Distinctions were noted for the different contexts: within coursework programs, where the development of an ePortfolio may be integrated into the curriculum, 'PDP may be assessed either explicitly or as part
of the assessment processes associated with normal assessment tasks’ (Atlay, 2005). Within research programs, on the other hand, PDP was more likely to be student-owned, associated with personal tutoring, and non-assessed.

The current project investigation revealed that, in the Australian setting, there was an even balance between formative and summative assessment of ePortfolios, with academic staff the primary assessors involved, although there was some evidence of reviewing by peers and mentors. The purpose of the ePortfolio (for example, supporting application, transition, learning and teaching, and supporting CPD) will inevitably impact on the assessment processes.

In his paper on portfolios, learning and assessment, Baume considers how the assessment of portfolios might achieve the virtues of being ‘valid, reliable, fair and economical’ (2002). Baume argues that portfolios have the potential to ‘reduce the fragmentation that can characterise some assessment methods, and allow the student to show larger, perhaps programme-level outcomes achieved’ (2002), presenting a range of student work completed progressively over time, offering both the student and the assessor a more coherent view of achievement, which may be both subject-specific and generic. Baume notes that the reliability of the assessment will depend on the context of the assessment, as well as the clarity of the tasks to be attempted by the student and the clarity of the assessment criteria and the marking scheme. Holistic grades are considered more appropriate than atomistic assessment systems. Opportunities for discussion between different assessors and with the students themselves can enhance the reliability too. In terms of fairness, the ways in which portfolios encompass work over an extended period of time and may represent the work the student cares most about may be valuable. Baume concludes that despite many challenges facing those assessing portfolios, a holistic and indeed collaborative approach involving the students themselves can help make the process more economical than it otherwise might be.

Some of the very real issues for academics were summarised as:

- How does it fit in with our existing approach to assessment?
- What are we assessing? Is it a product (e.g. a final portfolio, curriculum vitae, skills audit) or a process?
- Are we giving it a grade/mark – if so should we use our existing system or is it just pass/refer (or similar)?
- What weighting do we give it?
- How do we capture the outcome and record it on students’ transcripts?

(Atlay, 2005, p. 5)

Summative assessment can be considered one of the key facets of learning with ePortfolios. It has been argued that the ePortfolio can give learners a greater choice in how they engage with their learning program and how they present evidence of their learning through the collection of and reflection on the artefacts within the ePortfolio. Indeed, some students find this kind of assessment less intimidating than examinations (Beetham, 2006, p. 5). However, Newland (2008) argues that, where an ePortfolio is used to present evidence that specific learning outcomes, criteria or standards have been met, the ePortfolio system may need to be designed to ‘facilitate the organisation of material linked to each outcome and cross-referencing between items’ (CRA, n.d., p. 2).

In the context of professional accreditation, the professional body has the opportunity to evaluate the evidence of student achievement of discipline knowledge and generic capabilities presented in the ePortfolio, which, when compared with a simple list of grades attained may present a far richer and more meaningful picture of student learning outcomes across a program. The potential for ePortfolios to play a role in the assessment of employability skills in the vocational education and higher education sectors, along with the association policy issues, was discussed in the previous chapter (see Section 4.2.1).

The implications of ePortfolio assessment impact on both policy and practice. Atlay (2005) has presented a synopsis of the main arguments for and against assessment presented by the UK PDP community:
For:

- Assessing PDP says to students that this process is important.
- Assessing PDP says to staff that this process is important.
- If we want students to improve their reflective practice through PDP processes then we need to provide them with appropriate feedback via assessment – formative if not summative.
- Only the good students will engage with PDP processes unless it is assessed.
- If you don’t assess, you are wasting resources since the level of engagement will be minimal.
- PDP processes are widely used in ‘professional’ life and often as part of a personal assessment of an employee – students need to be prepared for this and the associated process of gathering and using feedback, and they need to know how to get the most out of such events. Assessing PDP can provide them with feedback.

Against:

- Students want to study (and be assessed on) their subject – not PDP.
- We assess enough anyway – and this may already include elements of PDP.
- PDP reflections are personal and hence not easily assessed.
- We want students to be honest in their PDP self-assessments – making it assessed would affect this. Students might give the answers they think the assessors are looking for.
- Assessment has resource implications which we would find difficult to meet.
- Some PDP approaches have no clear product (such as a portfolio) to assess.
- There is no common understanding of the criteria for assessment – so ensuring consistency of assessment would be difficult.
- PDP is about helping students to be independent learners – by making it part of the assessment process we are removing this element of independence.

(Atlay, 2005, p. 5)

In situations where ePortfolios are indeed assessed, academic staff have stressed the importance of timing the introduction of the ePortfolio appropriately within the curriculum. A balance needs to be struck between providing students with adequate sessions over a period of weeks in which to properly engage and practice with the ePortfolio, and the students’ desire for just-in-time information delivery, which can in fact significantly reduce their interest in the ePortfolio until the assessment item is due (Harper et al., 2007). Different disciplines may have quite different requirements in terms of assessing both creativity and competencies in an ePortfolio (Newland, 2008).

In the Australian context, the primary issues associated with assessment focus on the assessment of student learning, whereas there is a growing body of literature in the USA which looks specifically at institutional assessment issues. American academic administrators have acknowledged the value of ePortfolios through their potential for:

- Creating a system of tracking student work over time, in a single course, with students and faculty reflecting on it.
- Aggregating many students’ work in a particular course to see how the students as a whole are progressing toward learning goals.
- Assessing many courses in similar ways that are all part of one major and thus, by extension, assessing the entire program of study.
- Integrate courses with new methods, orienting syllabi and curricula around learning goals.
- Encourage continuity of student work from semester to semester in linked courses (History 101-102, English 101-102, or prerequisites in a major, etc.).
- Have a more fully informed and dynamic, constantly updated view of student progress in a program, which is very helpful in formative assessment.

(Batson, 2002)
Batson and Chen stress, however, that ‘administratively, eportfolio activities on campus should be coordinated by offices that place equal emphasis on accreditation/assessment and on teaching/learning’ (2008) to ensure that the intrinsic value of ePortfolios to student learning, and to the students themselves, is not misappropriated.

5.3.3.5 Web 2.0 and social networking

Current trends in education in Australia see technological change impacting on many different levels: pedagogy, curriculum, policy, infrastructure, organisation and governance at the local institution as well as at system levels (Owen & Moyle, 2008). The learning environment for university students is changing: web-based technologies are used to deliver learning materials to students, there is an ever-increasing convergence between curriculum materials and support materials such as library resources, via eJournals, eBooks and websites, and students are often required to submit their assessment online. The ePortfolio represents part of this continuum of change. The process of developing and maintaining an ePortfolio can play a role in helping learners to develop their ICT skills: to work with digital files and potentially a range of media can build the technical confidence of students. It is predicted that future students, ‘the class of 2013’, will be savvier as learners:

Students’ education will be much more personalised with an emphasis on their own opinions and thoughts having equal weighting to those of their teachers. The use of technology has impacted upon teaching, learning, and the assessment of learning. There are new understandings about the nature of learning and students are far more aware of how ‘they learn best’. There is an increasing global dimension to life, learning and work. Students are far more aware of themselves, their strengths, and their weaknesses.

(Webster, 2008)

Digital Natives, or the Net Generation, are commonly said ‘to prefer receiving information quickly; be adept at processing information rapidly; prefer multi-tasking and non-linear access to information; have a low tolerance for lectures; prefer active rather than passive learning, and rely heavily on communications technologies to access information and to carry out social and professional interactions’ (Kennedy, Judd, Churchward, Gray, & Krause, 2008). However, the results of a study of incoming first year undergraduate students, undertaken in 2006, highlight the fact that incoming students are not homogenous in terms of their ICT skills. It appears that, on entering university, most students have a core set of technology-based skills (such as mobile phones, email and surfing the net) and that these skills ‘do not necessarily translate into sophisticated skills with other technologies or general information literacy’ (Kennedy et al., 2008). There were distinctions between international and domestic students, with international students tending to use ICT applications more (Kennedy et al., 2008). The 2006 data revealed that the reported use of social and Web 2.0 technologies (Facebook, MySpace, Flickr, YouTube, blogs etc.) was lower than anticipated. It was also found that less than one third of the student respondents felt that they needed social networking technologies or blogs to assist them with their studies.

Nevertheless, since the study was completed in 2006 interest in the use of Web 2.0 and social networking technologies has continued to grow, with many people using online tools to organise their lives and their thoughts. In the UK in mid 2007, it was reported that 65% of university students had a Facebook account, with the total number of users in the UK increasing from 500,000 to 3.5 million in a nine-month period (Joslin Rowe, 2007). ‘Web 2.0 tools tend to be relatively unstructured and are characterised by an ease of publishing, a high level of interaction, selfassigned [sic] semantics (tagging) and are often media rich’ ( Cotterill, White, & Currant, 2007). Web 2.0 processes can be aligned with the social constructivist educational philosophies: students are able to use the tools, such as blogs, for reflective purposes, and they can establish or join collaborative communities where they can develop shared understandings about topics of interest and not be guided or bound by the educational institution itself.

Cotterill argues that there are three broad approaches to using Web 2.0 tools to support learning. These are (Cotterill et al., 2007):

- Using the tools ‘out there’ (Facebook, MySpace, Ning etc).
- Institutional hosting of social networking software (wikis etc).
- Integration of Web 2.0 features into VLEs, ePortfolios and other institutional systems.
These approaches are not necessarily mutually exclusive. Cotterill et al. warn, however, that ‘Web 2.0 doesn’t provide any scaffolding to prompt reflection or planning or structured outcomes/objectives’ (2007, p. 8), which means that, as a learning context, attention may need to be given to student facilitation, perhaps through peer mentoring.

There are indications, therefore, that student behaviours in this area have the potential to impact on ePortfolio development, which would, in turn, have further implications for educational policy. Batson and Chen (2008) present an overview of the pedagogical developments that have evolved in the past decade to encourage and support ePortfolio activity in education, which in many cases have resulted in enterprise-wide ePortfolio systems. While Web 2.0 tools can continue to encourage the processes of deeper learning and increasing self-awareness and self-confidence amongst learners, they are in fact forging ‘new pathways for how next generation ePortfolios can be designed, accessed, shared, and presented’ (Waters, 2007).

Cotterill et al. (2007) advise against ignoring Web 2.0 technologies, as many students and staff are using social networking tools as a learning space, not just as a fun space. Nevertheless, ‘our “going there” might not always be welcomed — some students may want to maintain a distinction between their working and social lives’ (Cotterill et al., 2007, p. 8). Educational technologists have argued that overt attempts to emulate purely social networking systems have the potential of giving rise to the ‘creepy treehouse’ effect, defined in this instance as ‘repulsiveness arising from institutional mimicry or emulation of pre-existing community-driven environments or systems’ (cited in Stein, 2008). This occurs when an academic or teacher ‘forces those below him/her into social or quasi-social situations’ typified by mediums other than educational ones, such as networking sites (Stein, 2008).

At the Australian ePortfolio Symposium held in February 2008, Jonas argued that universities could not hope to compete directly or even keep up with the development of software dedicated to social networking applications, such as Facebook or MySpace. Jonas encouraged academic institutions to consider ICT solutions that would allow better opportunities for Web 2.0 applications to be implemented and enhanced within the university context (Jonas, 2008). Some commentators are indicating that Web 2.0 technologies have the potential to make ePortfolios ‘stickier’ for end users. The development of hybrid ePortfolio/social software applications may have inherent benefits that will help ‘to provide the “stickiness” needed to expand the true adoption rate [of ePortfolios], and get people to use the technology’ (Jafari, cited in Waters, 2007).

Cotterill and his team in the Medical School at the University of Newcastle, UK, have been involved in a project that attempts to ‘integrate blogging and community publishing facilities’ into an ePortfolio environment, ‘and directly link them to skills and learning outcomes’ (Cotterill et al., 2008, p. 91). The work is being evaluated as part of a regional ePortfolios project (EPICS-2) funded by JISC. Standard blog technology has been enhanced so that after blog entry creation, cross-referencing to skills/learning outcomes can be achieved. This draws on pre-specified categories which are program-specific; the blog entries can also be organised according to these categories. Students are therefore offered a sense of ‘structure related to purpose’, as opposed to the totally unstructured environment of Web 2.0 applications.

The issues associated with emerging evidence about employers accessing the social networking sites of candidates as part of the recruitment process to gain a better understanding of the candidate's qualities are discussed by Grant, Richardson, Wilson and Boggis (2008), specifically in the context of medical professionals. The Royal College of General Practitioners in the UK has clear guidelines on ‘good medical practice’, which advises medical students to be aware ‘that their behaviour outside the clinical environment, including in their personal lives, may have an impact on their fitness to practice. Their behaviour must at all times justify the trust the public places in the medical profession’ (cited in Grant et al., 2008, p. 100).

In the ePortfolio environment, it is acknowledged that the learner has complete ownership over their ePortfolio, determining who sees what, when and for what purpose. Developments in the UK, with the DfES strategy ‘Harnessing knowledge: Transforming learning and children’s services’ (DfES, 2005) see the requirement for learners to have their ‘personalised learning space’. While the ePortfolio offers that personal space, it also offers the opportunity for discussion and collaboration, with the confidence to share thoughts and ideas with others. This represents a shift in pedagogical approaches, moving away from managing learning through the perspective of the teacher, to ‘encouraging and facilitating wider
social learning processes, encouraging and valuing both formal and informal learning and recognising
the different contexts in which learning takes place’ (Attwell, 2007, p. 57). The learners themselves can
develop the skills to manage their learning, which will mean a shift for educational institutions: rather
than the learner engaging with the institutional provision of learning materials (for example, via the
LMS), the institution will need to engage with the learner, ‘via the users’ choice of applications, locations,
platforms’ (Fraser, 2007).

Web 2.0 technologies may be seen to offer 'a quick solution to the far more difficult question of how
institutions might engage with and support student-led participation’ (Fraser, 2007). Attwell suggest
that this move to ‘dynamic participation’ on the part of the learner will have an impact on the role of
educational institutions. While there will be an ongoing need for the provision of access to expertise,
structured knowledge and qualifications, institutions will need to understand that they will no longer
have 'a monopoly on knowledge which is distributed through different communities of practice’
(Attwell, 2007, p. 58f.). Attwell states that ePortfolio practice may well contribute to an alternative view
of education: 'the real potential for ePortfolios is in the widening contexts in which learning is taking
place — or is recognised to be taking place — and in the ability to bring together personal learning

In the context of the current policy environment in Australia that looks to widen access to educational
opportunities and to achieve greater integration between vocational education and training and higher
education with the goal of developing a highly skilled workforce that is committed to lifelong learning,
the potential to transform educational settings through collaborative eLearning strategies should not be
overlooked.

5.4 Summary

The issues to be considered by those planning to implement an ePortfolio project are varied and
challenging. However, rather than being problematic, many of these issues present themselves as
opportunities for the higher education sector. It can be argued that, even where there are tensions and
concerns, there are often significant opportunities to innovate in unpredicted directions, at the personal,
institutional and governmental levels, as well as to resolve sometimes longstanding concerns in a
cooperative and forward looking way.

The proposed model for the Australian Higher Education Graduation Statement, discussed in
Chapter 7, is an example of the wider context for ePortfolio articulation, development and integration
in the Australian context. It offers an example of a driver for interoperability, since uniformity and
standardisation are among the project's key determinants. The rationale for this approach illuminates
many key ePortfolio issues associated with information and data, such as privacy, integration, inclusion
and authenticity. There are opportunities for decision makers within government and universities to
engage with the policy direction required to develop and deliver education services that offer
institution-wide and sector-wide cohesion and connectivity.

The dimensions of engaging students in their learning and working towards productive learning
outcomes require a strong foundation of a learner-centred model of learning that offers flexibility and
personalisation, and supports individual, social and collaborative processes. In practice, the teaching
staff, with appropriate support from ICT and academic services, can utilise ePortfolios as an opportunity
for cohesion in the eLearning environment. The successful implementation of ePortfolio projects can
encompass, and potentially integrate, the broad spectrum of issues that are fundamental to learning
and teaching, including academic policy, technology, pedagogy, organisational and cultural issues. The
following chapter presents the current picture of ePortfolio practice in Australian higher education,
including the different approaches, purposes, audiences and infrastructure.