

Embedding E-portfolios in a Law Program: Lessons from an Australian Law School

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1. Introduction

*Educating Lawyers: Preparation for the Profession of Law*¹ and *Best Practices for Legal Education*² challenged American law schools to re-examine the rationales and outcomes of legal education.³ While the former report focused on the development of professional identity and values, the latter focused upon the pedagogical means legal educators might deploy to develop the skills and ethical responsibilities that law school graduates would be required to demonstrate in legal practice.

Best Practices for Legal Education, otherwise known as the Carnegie Report, was particularly critical of traditional assessment methods which relied heavily on invigilated examinations designed to produce student rankings rather than measure how well students were learning.⁴ Consequently, the report

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1. William L. Sullivan, Anne Colby, Judith Welch Wegner, Lloyd Bond & Lee S. Shulman, *Educating Lawyers: Preparation for the Profession of Law* 13-14, 28-32 (Jossey-Bass 2007).
2. Roy Stuckey & Others, *Best Practices for Legal Education: A Vision and a Road Map* (CLEA 2007).
3. *E.g.*, Legal Education at the Crossroads v 3.0, Univ. of Denver, Sturm College of Law, Sept. 11-13, 2009; Implementing Best Practices and Educating Lawyers: Teaching Skills and Professionalism Across the Curriculum, Institute of Law Teaching and Education of Gonzaga Univ. School of Law, June 23-24, 2009; A Legal Education Prospectus: Law Schools & Emerging Frontiers in Curriculum, Lawyering, and Social Justice, Rutgers L. Rev. Symposium, Apr. 17 2009; Legal Education at the Crossroads: Ideas to Implementation, Univ. of Washington Law School, Sept. 5-7, 2008; Transforming Legal Education, Univ. of Maryland School of Law, June 19-21, 2008; International Conference on the Future of Legal Education, Georgia State Univ. Law School, Feb. 20-23, 2008; Rethinking Legal Education for the 21st Century, Ass'n of American Law Schools, Jan. 4, 2008; Legal Education at the Crossroads: Ideas to Action, Univ. of South Carolina School of Law, Nov. 2-4, 2007.
4. Stuckey, *supra* note 2, at 176-78.

recommended adoption of criteria-referenced assessments that informed students of the level of their professional development throughout their programs. One of the last recommendations of the report's chapter on assessing student learning was to require that students compile educational portfolios (commonly termed e-portfolios).⁵ This article sets out how we implemented e-portfolios into our law curriculum. It discusses problems we encountered and how we addressed them. We conclude with recommendations for enhancing the use of e-portfolios as a teaching and learning tool.

Despite increasing interest from elsewhere in the higher education sector,⁶ there has been little published in the United States on the issue of educational portfolios.⁷ There is little literature because e-portfolios are relatively new to the legal discipline, not only in the United States but also in other common law jurisdictions such as the United Kingdom and Australia. Between 2006 and 2008, the United Kingdom Centre for Legal Education funded four pilot projects that experimented with e-portfolios to document skills development and reflective practice among undergraduate and postgraduate law students.⁸ The project also extended to law firms and legal professional associations, which monitored and provided feedback on law student progression through a series of transactional exercises. Although the findings were positive in terms of the capacity of e-portfolios to demonstrate a broad variety of learning outcomes, facilitate personal development planning, develop reflective practice, enhance employability skills, and directly involve law firms in legal education, the project determined that until e-portfolios were required for professional accreditation, their implementation would be less than systematic.

5. Stuckey, *supra* note 2, at 196, Principle 11.
6. Simon Grant, *Electronic Portfolios: Personal Information, Personal Development and Personal Values* (Chandos 2009); *Electronic Portfolios 2.0: Emergent Research on Implementation and Impact* (Darren Cambridge, Barbara Cambridge & Kathleen Blake Yancey eds., Stylus 2009); Lorraine Stefani, Robin Mason & Chris Pegler, *The Educational Potential of e-Portfolios* (Routledge 2007); *Handbook of Research on Eportfolios* (Ali Jafari & Catherine Kaufman eds., Idea Group 2006); John Zubizarreta, *The Learning Portfolio: Reflective Practice for Improving Student Learning* (Jossey-Bass, 2d ed. 2009); Trudy W. Banta, *Portfolio Assessment: Uses, Cases, Scoring and Impact* (Jossey-Bass 2003).
7. One example is Susan R. Daile & Kevin Barry, *Thinking Outside Boxes: Using Electronic Portfolios to Encourage Student Reflection and Self-Assessment* (2009), available at <http://law.du.edu/index.php/assessment-conference/program>.
8. A summary of the project and preliminary findings can be found at UK Centre for Legal Education's publication, *using e-portfolios in legal education*, available at <http://www.ukcle.ac.uk/projects/past-projects/eportfolios/>.

Driven by government policies,⁹ and the desire to substantiate learning from a quality assurance perspective,¹⁰ as well as the increasing affordability of e-learning technology, e-portfolio developments are now being more commonly used in Australian high schools, vocational schools and higher education institutions. Many of the developments are summarized in the *Australian E-portfolio Project Final Report*.¹¹ An Australia-wide e-portfolio community of practice also provides a forum for dialogue on policy development, exchange of ideas and research, dissemination of resources, as well as a base for organizing workshops and symposiums for general and special interest groups within the e-portfolio community.¹²

In view of the potential of e-portfolios to assist students to become more reflective learners, the report recommended formulation of government policy regarding Australian e-portfolio practice, articulation of academic principles governing e-portfolios as a teaching and learning tool, as well as the development of interoperability and other technical standards. To some extent these goals have been achieved by the *VET E-portfolio Roadmap*,¹³ which establishes a framework for understanding and implementing e-portfolios in the Australian vocational sector.

At the same time, the University of South Australia (UniSA) launched a new law program in 2008, and sought to distinguish itself from other established programs as a high quality, student-centered school. UniSA had recently revised its teaching and learning framework,¹⁴ mandating the integration of experiential learning (including career management skills) into all programs. The school also adopted e-portfolios, incorporating evidence of

9. E-portfolios were seen as a means to encourage student mobility between Australia and other countries, including members of the EU, especially in light of the establishment of the Bologna Process in 1999. Gillian Hallam, Wendy Harper, Col McCowan, Kim Hauville, Lynn McAllister & Tracy Creagh, *Australian E-Portfolio Project: Final Project Report 113* (QUT Dep't of Teaching and Learning Support Serv. 2008), available at <http://www.eportfolioppractice.qut.edu.au/information/report/index.jsp>. See also Richard James & Lynn Meek, *Proposal for an Australian Higher Education Graduation Statement Commonwealth of Australia* (2008), available at <http://www.dest.gov.au/NR/rdonlyres/F01EBD84-7191-4FF0-B587-C0924F87B432/21651/ahegsfinalreport.pdf>.
10. Lesley Vidovich, *Quality Assurance in Australian Higher Education: Globalisation and "Steering at a Distance,"* 43 *Higher Ed.* 391 (2002).
11. Hallam et al., *supra* note 9. The report is further supplemented by an Australian E-portfolio Toolkit customized for learners, educators, institutions and employers. *Australian Eportfolio Toolkit*, available at <http://www.eportfolioppractice.qut.edu.au/information2/toolkit/index.jsp>.
12. Australian E-portfolio Community of Practice, available at <http://eportfoliosaustralia.wordpress.com/>.
13. *The VET E-portfolio Roadmap: A Strategic Roadmap for E-portfolios to Support Lifelong Learning* (2009), available at <http://www.unisa.edu.au/unisanews/2007/august/fromchancellery.asp>.
14. Peter Lee, *The Teaching and Learning Framework* (Univ. of South Australia 2007), available at <http://www.unisa.edu.au/unisanews/2007/august/fromchancellery.asp>.

incremental development of knowledge, skills and professional attributes, as a key mechanism to achieve these aims.

While there are a number of differences between legal education in Australia and the United States, UniSA's experience with educational portfolios offers lessons for American educators. This article begins by outlining the features of Australia's current legal education context which helped to steer the project managers to the view that embedding e-portfolios in the law program could assist with the implementation of the school's aims and objectives.

2. The Australian Legal Education Context

Despite the long entrenched rhetoric of student centred learning,¹⁵ in reality most legal education in Australia, as in the United States, is homogenised and monologist, rather than dialogic and transformational.¹⁶ Students are generally expected to absorb material delivered by lecturers or online in text form then apply it to hypothetical problems in situations far removed from the professional practice they are likely to encounter upon graduation. Opportunities for individualizing the learning process within courses/subjects are very limited as are opportunities for integrating atomistic learning experiences.

There are many reasons for the disjunction between rhetoric and reality in Australia: perilous funding for legal education;¹⁷ outdated accreditation requirements focused upon the attainment of discrete areas of knowledge rather

15. Under the student centered learning model the focus of teaching and learning switches from declarative knowledge proffered by the lecturer to the student's active participation in the construction of knowledge: John Biggs & Catherine Tang, *Teaching for Quality Learning at University* 21 (Open Univ. Press, 3d ed. 2007); Daniel Churchill, *Student-Centred Learning Design: Key Components, Technology Role and Framework for Integration*, 4 *Synergy* 18 (2006); Donna Brandes & Paul Ginnis, *A Guide to Student-Centred Learning* (Nelson Thornes 1996); Paul Ramsden, *Improving Teaching and Learning in Higher Education: The Case for a Relational Perspective*, 12 *Studies in Higher Education* 275 (1987).
16. Mary Keyes & Richard Johnstone, *Changing Legal Education: Rhetoric, Reality, and Prospects for the Future*, 26 *Sydney L.Rev.* 537, 547 (2004); Michael H. Schwartz, *Teaching Law by Design: How Learning Theory and Instructional Design can Inform and Reform Law Teaching*, 38 *San Diego L. Rev.* 347, 347-62 (2001).
17. Keyes & Johnstone, *supra* note 16, at 548; Julie Lewis & Rita Yousef, *Law Schools Struggling to Maintain Quality: Deans*, 45 *Law Soc'y J.* 10 (2007); Elizabeth Handsley, Gary Davis & Mark Israel, *Law School Lemonade: Or can You Turn External Pressures into Educational Advantages?*, 14 *Griffith L. Rev.* 108, 111 (2005); Les A. McCrimmon, *Mandating a Culture of Service: Pro Bono in the Law School Curriculum*, 14 *Legal Educ. Rev.* 53, 72-73 (2003).

than learning outcomes;¹⁸ university work practices;¹⁹ student expectations;²⁰ and an educational culture which tends to reward research output more highly than good teaching.²¹ In many parts of the Australian legal academy debate still rages as to whether the goal is to educate students to be effective legal practitioners or about the nature of law in society.²² The debate rests on two major foundations: First, the identity of law as a system of formal knowledge has been shaped by scholars and pursued through intellectual study rather than a trade made up of technical know-how acquired through apprenticeship.²³ As a result of this perspective, historically, Australian law schools, like those in the U.S., eschewed pedagogy that appeared to train students to act like lawyers emphasizing instead that they should learn to think like lawyers.²⁴ Second, Australian law graduates currently seek employment in a multitude of roles,

18. Verity Doyle, Rosalind Mason & Ross Grantham, *Lessons in Learning*, 28 *Proctor* 17 (2008). *See also* Catherine L. Carpenter et al., *Report of the Outcome Measures Committee*, (Am. Bar Ass'n, Section of Legal Educ. and Admissions to the Bar 2008) (reporting on the need to shift focus from input measures to output measures when accrediting law schools); Richard Johnstone & Sumitra Vignaendra, *Learning Outcomes and Curriculum Development in Law: A Report Commissioned by the Australian Universities Teaching Committee* 89-90 (Higher Educ. Group 2003); *Managing Justice: A Review of the Federal Civil Justice System*, Australian Law Reform Commission 126 (Commonwealth of Austl. 2000) (recommending a re-orientation of legal education from outmoded notions of what lawyers need to know to "what lawyers need to be able to do").
19. Don Houston, Luanna H. Meyer & Shelley Paewai, *Academic Staff Workloads and Job Satisfaction: Expectations and Values in Academe*, 28 *J. of Higher Educ. Pol'y & Mgmt.* 17 (2006) (commenting upon excessive workloads and undervaluing of staff and also recording staff dissatisfaction with the fairness and transparency of allocated workload).
20. Handsley et al., *supra* note 17, at 110. *See generally* Kerri-Lee Krause, Robyn Hartley, Richard James & Craig McInnes, *The First Year Experience in Australian Universities: Findings from a Decade of National Studies* 31 (2005) (noting a decline in student engagement with learning), *available at* http://www.dest.gov.au/sectors/higher_education/publications_resources/profiles/first_year_experience.htm; Richard James, *Students' Changing Expectations of Higher Education and the Consequences of Mismatches with the Reality*, in *OECD, Responding to Student Expectations*, at 71 (OECD Publ. 2002) (noting a misalignment between student expectations of workload, effort, and core academic values); Paul Sander, Keith Stevenson, Malcolm King & David Coates, *University Students' Expectations of Teaching*, 25 *Stud. Higher Educ.* 309, 316 (2000) (noting student preference for teacher-led teaching and learning).
21. Christine Asmar, *Strategies to Enhance Learning and Teaching at a Research-Extensive University*, 7 *Int'l J. Academic Development* 18 (2002).
22. Handsley et al., *supra* note 17, at 113; Keyes & Johnstone, *supra* note 16, at 555.
23. Sullivan et al., *supra* note 1, at 4-7; Byron D. Cooper, *The Integration of Theory, Doctrine and Practice in Legal Education*, 1 *J. Ass'n Legal Writing Dirs.* 50, 50 (2002); Handsley et al., *supra* note 17, at 113.
24. Nancy B. Rapoport, *Is Thinking Like a Lawyer Really What We Want to Teach?*, 1 *J. Ass'n Legal Writing Dirs.* 91 (2002).

often non-law related.²⁵ Legal professional competencies are consequently less relevant when graduates find employment outside the legal profession.

Nonetheless, along with discipline knowledge, nowadays Australian law schools aim to impart skills and values such as leadership, effective communication, problem solving, organization, critical reflection, adaptability, creativity, and social responsibility. These general understandings and competencies are collectively known as graduate attributes or graduate qualities.²⁶ In Australia and the United Kingdom graduate attributes transcend specific fields of study²⁷ given the likelihood that graduates will pursue a range of career paths over their lifetimes. Nevertheless, because graduate attributes are developed within the context of particular programs of study, they are interpreted and cultivated with specific discipline practices in mind.²⁸ Therefore, while all university graduates are expected to be effective communicators, law graduates are also expected to be capable advocates and to relate well to those who seek their counsel. Likewise, all university graduates are expected to be information literate. In the context of the study of law, this translates into proficiency with research databases and an ability to effectively

25. Australia Graduate Careers, Grads Online, *available at* <http://www.graduatecareers.com.au/Research/GradJobsDollars/AllLevels/Law/index.htm> (stating that only 39 percent of law graduates enter the legal profession upon graduation). By contrast, in the United States, where the J.D. is a post-graduate degree, only a fraction of graduates entered non-legal positions. *See* Ronit Dinovitzer et al., *After the JD: First Results of a National Study of Legal Careers* 25 (Amer. Bar Found. 2004) (finding that 91 percent of law graduates practiced law as their primary jobs).
26. Simon C. Barrie, *Understanding What We Mean by the Generic Attributes of Graduates*, 51 *Higher Educ.* 215 (2006); Simon C. Barrie, *A Research-Based Approach to Generic Graduate Attributes Policy*, [hereinafter Barrie, *Understanding*], 23 *Higher Educ. Res. & Dev.* 261, 262–63 (2004) (noting that graduate attributes are qualities, skills or understandings generic to any discipline and constitute the outcome of undergoing the process of higher education). While each university uses different nomenclature, generally graduate attributes comprise “(1) the acquisition of a body of disciplinary knowledge, (2) the critical understanding which comes from the communication, application and evaluation of a body of knowledge, (3) the commitment to ethical action and social responsibility, and (4) a capacity for employment and lifelong learning.” Janet Jones, *Generic Attributes: An Agenda for Reform or Control* 3 (2002), *available at* http://learning.uow.edu.au/LAS2001/selected/jones_2.pdf.
27. Mark Atlay, *Skills Development: Ten Years of Evolution from Institutional Specification to a More Student Centred Approach*, in *Graduate Attributes, Learning and Employability* 172 (Paul Hager & Susan Holland eds., Springer 2006); Debra Bath, Calvin Smith, Sarah Stein & Richard Swann, *Beyond Mapping and Embedding Graduate Attributes: Bringing Together Quality Assurance and Action Learning to Create a Validated and Living Curriculum*, 23 *Higher Educ. Res. & Dev.* 313, 315 (2004); Barrie, *Understanding*, *supra* note 26, at 217.
28. Anne Hewitt, *Producing Skilled Legal Graduates—Avoiding the Madness in a Situational Learning Methodology*, 17 *Griffith L.Rev.* 87 (2008); Sharon Christensen & Sally Kift, *Graduate Attributes and Legal Skills: Integration Or Disintegration?* 11 *Legal Educ. Rev.* 207, 212 (2001).

use case law, statutory provisions and secondary sources to construct legal arguments and resolve legal problems.²⁹

There is a growing consensus that the attainment of graduate qualities should be documented by evidence of the process and outcomes of student learning.³⁰ Such evidence is derived chiefly from assessments which tangibly demonstrate that law graduates can effectively communicate, behave ethically, engage in teamwork and so on, and which demonstrate the process by which students learned these things.³¹ Assessment should therefore be designed for a whole program rather than on a course by course basis with a view to ensuring that the range of graduate attributes claimed is examined, that unnecessary duplication is avoided, and that functional knowledge is acquired incrementally so that learning can be augmented and reinforced. There should also be opportunities for students to record and reflect upon their learning process³² but also continue as independent, lifelong learners.³³ Reflection also performs an important pedagogical function—bridging the dichotomy between legal doctrine and legal practice.³⁴ Student reflection facilitates the infusion of “multiple identity narratives, layered contextual descriptions, and

29. For a discussion of the development of specific graduate attributes for law graduates within Australian legal education, see Gary Davis & Susanne Owen, *Learning and Teaching in the Discipline of Law: Achieving and Sustaining Excellence in a Changed and Changing Environment* 54–71 (Austl. Learning and Teaching Council 2009).
30. Carol A. Dwyer, Catherine M. Millett & David G. Payne, *A Culture of Evidence: Postsecondary Assessment and Learning Outcomes* (ETS 2006); Leah E. Wickersham & Sharon M. Chambers, *EPortfolios: Using Technology to Enhance and Assess Student Learning*, 126 *Education* 738, 738–40 (2006); Debra Bath et al., *supra* note 27; Alison Bone, *Ensuring Successful Assessment* 3 (Nat'l Centre for Legal Educ. 1999).
31. Stuckey, *supra* note 2, at 179; Gregory S. Munro, *How Do We Know If We Are Achieving Our Goals: Strategies for Assessing the Outcome of Curricular Innovation*, 1 *J. Ass'n Legal Writing Dirs.* 229 (2002); David Boud, *Sustainable Assessment: Rethinking Assessment for the Learning Society*, 22 *Stud. Continuing Educ.* 151 (2000); Robert J. Marzano, Jay McTighe & Debra Pickering, *Assessing Student Outcomes: Performance Assessment Using the Dimensions of Learning Model* 11 (Ass'n for Supervision & Curriculum Dev. 1993).
32. See Heather Fry, Steve Ketteridge & Stephanie Marshall, *A Handbook for Teaching and Learning in Higher Education: Enhancing Academic Practice* 16 (Routledge 2009) (“Reflection on practice” is central to learning and development of knowledge in the professions. Recognised ‘experts’ in the field exhibit distinct artistry. This artistry cannot be learned solely through conventional teaching methods—it requires role models, observation of competent practitioners, self practice, mentors, experience in carrying out all the tasks of one’s job and reflection upon that practice.”). See also Anne Brockbank & Ian McGill, *Facilitating Reflective Learning in Higher Education* 3–15 (McGraw-Hill Int'l 2007) (arguing that reflective practice is essential to transformational learning).
33. Judith McNamara & Rachael Field, *Designing for Reflective Practice in Legal Education*, 2 *J. Learning Design* 66, 67 (2007); Karen Hinett, *Developing Reflective Practice in Legal Education* 1–4 (U.K. Centre for Legal Educ. 2002).
34. It thus has the capacity to mollify the intensity of the debate foreshadowed earlier in this article between those who believe that the law school should train lawyers and those who believe that the law school should educate students about law in society.

silenced community histories.”³⁵ The ability to reflect upon learning and the ability to seek and make use of feedback are now regarded as essential graduate attributes for law in the United Kingdom.³⁶

E-portfolios are one method by which the incremental development of graduate attributes can be recorded while simultaneously facilitating student centered learning and reflective practice. As e-portfolios are maintained over time and not limited to particular course assessment, they focus student attention on their incremental development rather than upon individual assessments and provide students, their assessors and potential employers with a holistic picture of knowledge, critical faculty and competency.³⁷ Furthermore, because e-portfolios are constructed by the learner, they are inherently student centered,³⁸ allowing students to highlight individual experiences, strengths, and achievements. They can incorporate any media: text, images, video and sound as well as social networking capabilities that permit users to share, comment upon and manipulate content. Consequently, e-portfolios can incorporate evidence of learning well beyond the classroom, allowing students to store items related to workplace learning and involvement in community activities.

Two constituent elements make up an e-portfolio: The tool or platform which acts as the repository of student learning; and the process of collecting evidence of learning, selecting artifacts that are representative of particular learning outcomes, reflection, and publication to a particular audience.³⁹

35. Anthony V. Alfieri, *Against Practice*, 107 Mich. Law Rev. 1073, 1085 (2009). *See also* Nancy Levit, *Legal Storytelling: The Theory and the Practice-Reflective Writing Across the Curriculum*, 15 J. Legal Writing Inst. 259 (2009), *available at* http://works.bepress.com/cgi/viewcontent.cgi?article=1008&context=nancy_levit.
36. “Ability to reflect critically: A student should be able not only to learn something, but to reflect critically on the extent of her or his learning. At a minimum, a student should have some sense of whether s/he knows something well enough or whether s/he needs to learn more in order to understand a particular aspect of the law.” Quality Assurance Agency, *Guidance Note for Law Schools on the Benchmark Standards for Law Degrees in England* (Nov. 1998), *available at* <http://webjcli.ncl.ac.uk/1999/issue2/aclec7c.html>.
37. Madhumita Bhattacharya, *Introducing Integrated e-Portfolios Across Courses in a Postgraduate Program in Distance and Online Education*, in *E-Learning Technologies and Evidence-Based Assessment Approaches* 243, 248 (Christine Spratt & Paul Lajbceygier eds., IGI Global 2009); Tina L. Cockburn, Tracey L. Carver, Melinda J. Shirley & Iyla T. Davies, *Using E-Portfolio to Enable Equity Students to Reflect on and Document their Skill Development*, 15 Waikato L. Rev. 64, 68 (2007); Abigail Garthwait & Jim Verrill, *E-Portfolios: Documenting Student Progress*, 40 *Sci. & Child*. 22, 23 (2003).
38. “The e-portfolio is the central and common point for the student learning experience.... It is a reflection of the student as a person undergoing continuous personal development, not just a store of evidence.” Joint Information Systems Committee (JISC), *Effective Practice with Eportfolios* 9 (HEFC 2008). *See also* Meaghan Botterill, Garry Allan & Sally Brooks, *Building Community: Introducing ePortfolios in University Education* (Ascilite 2008); Donna Read & Ralph Cafolla, *Multimedia Portfolios for Preservice Teachers: From Theory to Practice*, 7 *J. Tech. & Teacher Educ.* 97 (1999).
39. Hallam et al., *supra* note 9, at 610.

3. Project Implementation

The authors of this article led the project to embed e-portfolios into the law program at UniSA, which was generously supported by a UniSA Learning and Teaching Grant and topped up with funds from UniSA's Division of Business. At the outset, we sought to build constructivist e-portfolios⁴⁰ that mirror the framework of UniSA's graduate qualities.⁴¹ Those portfolios include the following elements:

- A digital archive allowing students to upload samples of their work in any media format, for example, video clips of negotiations and mock advocacy; research papers; legal documentation (draft pleadings and affidavits) and power point presentations;
- A digital archive of the student's achievements and acknowledgements of achievement (for example references and awards);
- A showcasing format allowing students to create multimedia resumes and to tell stories about themselves;
- Opportunities for students to identify evidence of their learning by examining their previous outcomes and looking forward to goals; and
- An institution-wide database collecting assessment data from learning experiences embedded into the curriculum.

One of our first priorities was to identify an appropriate e-portfolio tool that accommodated these aims and objectives. We conducted literature reviews, scoured websites promoting e-portfolio practice, attended conferences, as well as spoke with existing e-portfolio users and administrators at universities such as the Queensland University of Technology,⁴² the University of Melbourne⁴³ and Charles Sturt University.⁴⁴ Because we wanted to embed e-portfolios into teaching and learning using UniSA's graduate qualities as the governing framework, tools based solely on building resumes for career development we rejected in favor of more learning oriented tools.⁴⁵

40. Helen C. Barrett & Judy Wilkerson, *Conflicting Paradigms in Electronic Portfolio Approaches* (2004), available at <http://electronicportfolios.org/systems/paradigms.html> (proposing a balance between the need of educational institutions for an assessment management system with learners' needs for a reflective portfolio supportive of deep learning by linking the elements outlined above).

41. UniSA, *Graduate Qualities* (2009), available at <http://www.unisa.edu.au/gradquals/default.asp>.

42. The project managers are particularly grateful for the advice and assistance of Associate Professor Gillian Hallam, Professor Sally Kift, Wendy Harper, Lyn McAllister and Kim Hauville.

43. Claire Brooks at the University of Melbourne.

44. Carole Hunter at Charles Sturt University.

45. CareerHub, for example, has developed an e-portfolio to assist students in career development planning, available at <https://www.careerhub.com.au/default.aspx>.

As we examined the variety of e-portfolio tools, we also considered a number of policy related questions:⁴⁶

- Ownership of the e-portfolio: Would UniSA own the e-portfolio or would the e-portfolio be owned and controlled by students? Would students hold intellectual property rights to e-portfolio content?
- Legal liability for content: Would UniSA be legally liable for breach of copyright or defamatory material uploaded to student e-portfolios?
- Verification: Would the e-portfolio be considered an official record of student learning? If so, how could the information it contained be verified? Would the e-portfolio tool enable authentication of authorship of content?
- Interoperability and transferability of material: Could the e-portfolio be transferred to another institution? Could the content of other e-portfolios from secondary schools or the VET sector be transferred into UniSA's e-portfolio?
- Storage capacity: What server capacity was required to store the large amount of data generated by e-portfolios? What would be required to back up and maintain e-portfolio content?
- The links between e-portfolios and the existing UniSA learning management system and between e-portfolios and student assessment: How would the e-portfolio be assessed in a manner that was fair, valid and reliable? How would the e-portfolio link to existing systems for recording student assessment?
- Scalability: If the e-portfolio project in the law school was successful, could it be expanded to other parts of the university? Would it include alumni? What infrastructure would be required to ensure its successful deployment?

The answers to many of the above questions depend on the specific learning tool employed. For instance, if the university selected an open source tool requiring adaptation to the UniSA environment, such adaptation required a development server and later a means to deploy the adapted tool to students through the university's learning management system. In turn, subject to the effect of a disclaimer,⁴⁷ that meant that the university was likely to be regarded as legally responsible for student e-portfolio content. If the university was responsible for content, it would have to institute a system for monitoring

46. Many of the questions outlined below were prompted by George Lorenzo & John Ittelson, *An Overview of E-portfolios*, Educause Learning Initiative Paper 1 (ELI 2005), available at <http://net.educause.edu/ir/library/pdf/ELI3001.pdf>. See also Nicole Buzzetto-More & Avodele Alade, *The Pentagonal E-Portfolio Model for Selecting, Adopting, Building, and Implementing an E-Portfolio*, 7 J. Info. Tech. Educ. 45 (2008).

47. See Col McCowan, Wendy Harper & Kim Hauville, *Student E-Portfolio: The Successful Implementation of an E-Portfolio Across a Major Australian University*, 14 Austl. J. Career Dev. 13, 45 (2005) (At the Queensland University of Technology (QUT), a disclaimer appears at the bottom of each student e-portfolio and a systems administrator with access to every student e-portfolio can delete the portfolio if it varies from QUT protocols.).

content which may have run counter to student construction and ownership.⁴⁸ Use of an open source tool also had implications for scalability. Not only would large amounts of data require storage on university servers, but the tool had to be customized so that it might later be applied to a number of different programs and circumstances. On the other hand, if a proprietary e-portfolio tool was acquired, there could be problems effectively linking the tool to the existing UniSA student management system, in turn, raising issues for ongoing provenance and management of student submissions. Stand alone proprietary tools also tended to be expensive to implement.

The limited scope and budget of our project pushed us toward an off-the-shelf proprietary solution. After attempting to customize an open source tool to the law school's needs, it became evident that the tool required considerably more investment than the project allowed and that implementation would need substantial assistance from open source consultants.⁴⁹ Accordingly, we adopted Pebblepad,⁵⁰ a proprietary e-portfolio tool, whose key features of include:

- Cost;
 - Provision of hosting;⁵¹
 - Student control of access to their material;⁵²
48. Sally M. Kift, Wendy E. Harper, Tracy A. Creagh, Kim L. Hauville, Colin R. McCowan & David J. Emmett, *ePortfolios: Mediating the Minefield of Inherent Risks and Tensions*, *ePortfolio Australia—Imagining New Literacies* (2007); Helen C. Barrett, *Researching Electronic Portfolios and Learner Engagement: The REFLECT Initiative*, 50 *J. Adolescent & Adult Literacy* 436, 439–41 (2007). Most of the literature supports student ownership and construction of e-portfolios consistent with the philosophy of student centered learning: McCowan et al., *supra* note 47, at 44; Paul Gathercoal, Douglas Love, Beverly Bryde & Gerry McKean, *On Implementing Web-Based Electronic Portfolios*, 25 *Educause Q.* 29, 36 (2002); JISC, *supra* note 38, at 8.
 49. Lorenzo & Ittelson, *supra* note 46, at 10 (reporting that the cost associated with the technical support and maintenance of open source tools is a factor against their selection vis-à-vis other e-portfolio tools). However, in favor of open source tools they note there is no charge for open source software; members of the community participate in software development; and in the case of OPSI-Sakai, the tool operates in conjunction with the Sakai Project—a collaborative and learning environment.
 50. Pebblepad, *available at* <http://www.pebblepad.co.uk/>, is a personal learning system developed at the University of Wolverhampton in the United Kingdom and used in over 40 institutions by more than 100,000 individuals.
 51. Hosting of the e-portfolio by Pebblepad meant that questions of legal liability for content could be deferred. However, UniSA took over the hosting of its student e-portfolios in the second year of the project.
 52. Student command over access to their own material is important so that students feel secure that they can share only what they wish and control their digital identities. David Tosh, Tracy Penn Light, Kele Fleming & Jeff Haywood, *Engagement with Electronic Portfolios: Challenges from the Student Perspective*, 31 *Can. J. Learning & Tech.* 89 (2005); Mhairi McAlpine, *E-Portfolios and Digital Identity: Some Issues for Discussion*, 2 *E-Learning* 378 (2005); Will Meeus, Frederick Questier & Thea Derks, *Open Source Eportfolio: Development and Implementation of an Institution-Wide Electronic Portfolio Platform for*

- The combination of social networking and assessment features;⁵³
- Quick and easy implementation;
- User-friendly interface;
- Good user documentation;
- Interoperability;
- Ability to integrate with common student learning and management systems;⁵⁴
- The enthusiasm of Pebblepad developers and their willingness to assist us; and
- The ability to tap into an existing U.K. community of practice.

As we discussed which e-portfolio tool to use, we also identified the assessment tasks in level 1 (core) courses suitable to submit to the e-portfolio. Later in the project we did the same for level 2 courses.⁵⁵ However, as a result of time and resource constraints, we limited e-portfolio assessment to two courses in the first year (Contracts A and Contracts B) rather than the full range of assessment that had been identified for potential inclusion in future years.

E-portfolios were introduced to students as part of a two-day orientation program which emphasized that this tool would allow them to collect, store, organize and display evidence of their individual progression toward the UniSA graduate qualities. A lecture followed the orientation, introducing UniSA's career service, the concept of career management, and how students could use e-portfolios to assist in personal and career development planning.

Students enrolled in Contracts A, a level 1 course, had to submit a reflective journal on their experience in a negotiation exercise. The negotiation exercise itself was relatively simple. Students were asked to role play a simulated negotiation of better work-life balance in a law firm. Some students acted as junior lawyers seeking more time at home with their families and other students played the role of senior partners seeking higher levels of productivity from their employees. Prior to submitting their journal students were advised and instructed to incorporate self-evaluation and an outline of the areas of improvement of their negotiation skills into their journals.

A more complex negotiation exercise followed in Contracts B, combining problem-based learning and negotiation. In Week 3 of the ten-week course, students were provided with a commercial contract, witness statements,

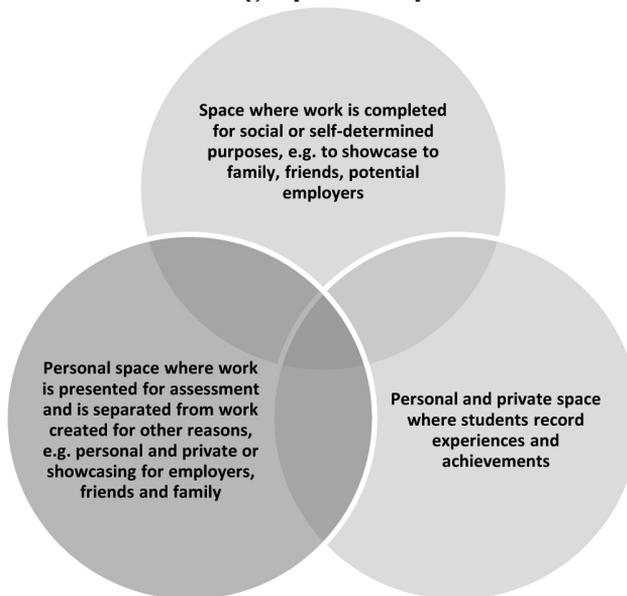
Students, 43 *Educ. Media Int'l* 133, 135 (2006).

53. Pier G. Rossi, Patrizia Magnoler & Lorella Giannandrea, From an e-Portfolio Model to e-Portfolio Practices: Some Guidelines, 25 *Campus-Wide Information Systems* 219, 221 (2008) (advocating the co-existence of formal and informal spaces for student submission).
54. This was an important feature for the authors with respect to scalability and the ability to authenticate authorship.
55. Only level 1 law courses were included at the start of the law program in 2008. When we were able to determine the curricula, teaching methodology and assessment, in 2009, we mapped these courses and identified suitable e-portfolio assessments.

correspondence and commercial documents, and were guided through a step-by-step legal analysis of the issues presented. Students worked in small groups facilitated by practitioners and attended subsequent debriefing sessions.

In Weeks 7 and 8, three-person student teams representing separate parties in another commercial contract dispute had to analyze the legal issues presented in a contract, witness statements, correspondence and commercial documents and then negotiate a settlement to the dispute. Student assessment included an individual reflection on the negotiation exercise, which, among other matters, addressed the development of negotiation skills between Contracts A and Contracts B. The individual reflections were submitted to Pebblepad along with later feedback from professors. Students were able to access the feedback and their grades when the examiners released them through what Pebblepad calls an assessment “Gateway.”⁵⁶ The relationship between students’ social space, personal and institutional space, bridged by the Gateway, is illustrated by the diagram below:⁵⁷

Figure 1: Interaction of personal, institutional and showcasing aspects of e-portfolio



56. Gateways are areas on Pebblepad where the institution, school and/or course instructor can limit user access. Gateways are institutional space where users can link material from their personal space for viewing by other users, e.g., examiners and supervisors according to their level of access.
57. This diagram has been adapted from Shane Sutherland, *Pebblepad: Not an Eportfolio* (2008) (on file with author).

In addition to the assessable tasks above, students in the Level 1 course called Australian Federal Constitutional Law participated in moots, which were digitally recorded and subsequently made available to students for uploading to their e-portfolios for reflection and showcasing purposes.⁵⁸ Otherwise, students were free to submit and collate any evidence of their learning drawn from any source to Pebblepad.

When the project was extended into 2009, students were asked to provide assessment through Pebblepad in the following courses: Legal Research and Writing, Corporate Law: Finance and Governance, Evidence, Civil Procedure, and Professional Conduct.

Legal Research and Writing

One of the major assessment tasks in this course required students to maintain a webfolio which demonstrated their understanding and application of legal research skills including the location and identification of case law, statute law, international instruments and commentary as well as their use and understanding of secondary sources.

Corporate Law: Finance and Governance

Students in this class were divided into groups representing different stakeholders in a corporate governance scenario designed to raise legal and ethical issues related to each stakeholder's perspective. Students were assessed individually on their understanding and application of corporate law principles as well as their demonstrated teamwork skills. The use of social networking and collaborative tools enabled recording of teamwork and enabled the examiner to give students feedback.

Evidence and Civil Procedure

Both of these courses built upon the scenario-based learning techniques practiced by students in Corporate Law: Finance and Governance. Students were divided into teams representing parties in a civil case and a criminal case. In Civil Procedure, students were given preliminary information about a dispute and then asked to advise on the appropriate form of dispute resolution. They were also asked to role play a mock application for security costs⁵⁹ and reflect on this experience, critique model pleadings, draft discovery documentation and engage and reflect upon a mock application seeking further and better discovery of material relevant to the proceedings.

58. Submission of video files required substantial compression as Pebblepad was limited to a 10 MB upload for any one file. Students were provided with documentation on how to compress files using Windows Movie Maker (a standard feature of all recent Windows systems).

59. In Australian civil procedure, the losing party is generally required to pay the winning party's legal costs. To ensure that parties are able to meet this potential obligation, courts may sometimes require them to lodge security of payment.

In Evidence, students were asked to engage in and then reflect on a number of advocacy exercises including an application to exclude evidence, a scenario involving a hostile witness, refreshing memory in court, adducing documentary evidence and dealing with expert witnesses. Part of this exercise asked students to reflect on their personal skills development and understanding of their professional responsibilities.

The examiner provided feedback on each reflection and students were able to collaborate in terms of the preparation and organization required for each exercise. Students could also provide each other with feedback on their submissions. As a result, the submissions were generally of fairly high quality and students appeared to improve their capacity to work both autonomously and collaboratively.

Professional Conduct

Students were required to submit an e-portfolio resume documenting their development of discipline knowledge, professional identity and legal skills, accompanied by an application for a legal position.

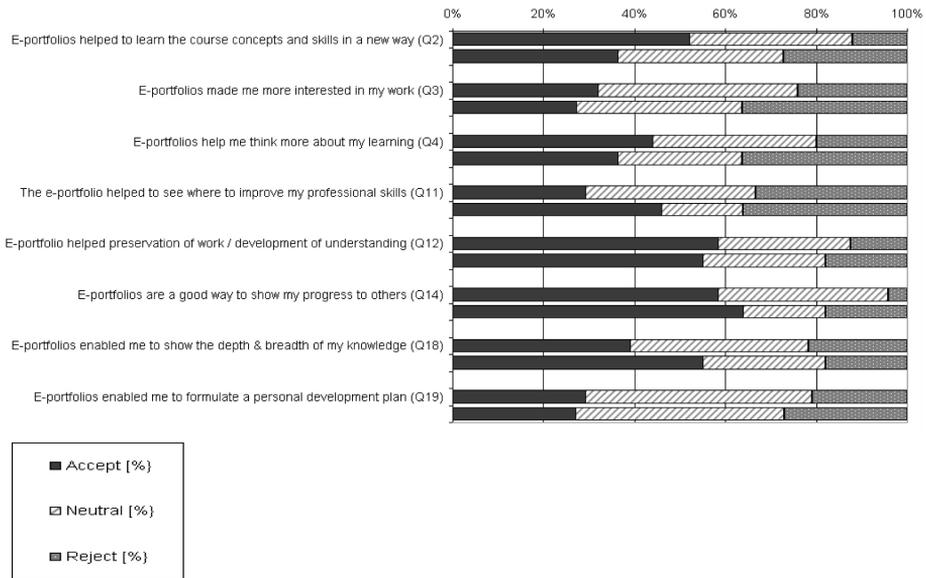
4. Lessons Learned

Following the initial implementation of e-portfolios in 2008, students were surveyed for feedback using an anonymous web-based survey. A list of the survey questions is appended to this paper in Appendix 1.

To our dismay, students did not embrace e-portfolio technology and practice as enthusiastically as we expected. Nonetheless, the overall student experience of e-portfolios was positive. The perceived benefits of e-portfolios are depicted below:⁶⁰

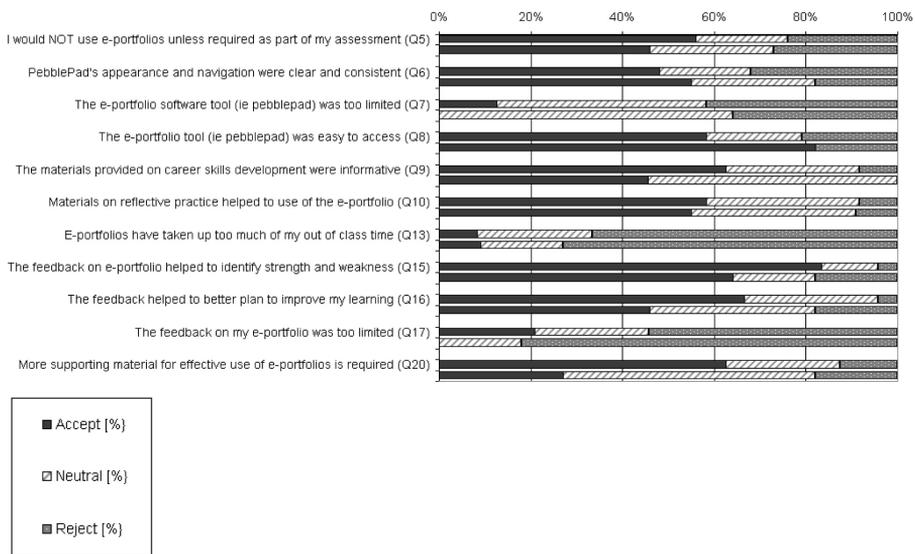
60. This graph was prepared by Dr. Christian Voigt, research assistant to this project. Surveys were administered in the first year e-portfolios were introduced, the first bar indicates results for Contracts A and the second provides Contract B results.

Figure 2: Perceived benefits of e-portfolios



Potential barriers to the embrace of e-portfolios appear in the graph below:⁶¹

Figure 3: Perceived barriers to e-portfolios



61. This graph was prepared by Dr. Christian Voigt, research assistant to this project. Surveys were administered in the first year e-portfolios were introduced, the first bar indicates results for Contracts A and the second provides Contract B results.

It appears that students saw e-portfolios as an assessment task rather than a tool for developing and recording graduate qualities.⁶² Thus, although the e-portfolio was constructed by the learner, constructivist learning was not necessarily occurring. The perception of e-portfolios as an assessment tool arose partly because submission to Pebblepad was required in only two out of the first eight courses, where two related experiences were recorded rather than the holistic development of students across the range of level 1 courses. Moreover, many of the students didn't regard the e-portfolio as an opportunity for learning. Most of the students saw e-portfolios as a device that would enhance their employability prospects rather than their learning, which was consistent with the manner in which e-portfolios had been promoted to them. Further, as this was the first year of a new program, there were few champions of the tool within the school and within UniSA who could provide examples of how they had used e-portfolios to enhance learning and development.⁶³ The authors concluded that until students had progressed into the later stages of their program they were unlikely to appreciate how e-portfolios could enrich their learning by providing a vehicle for reflection upon the incremental development of graduate qualities.

Commensurate with one recent study,⁶⁴ students were skeptical about employer acceptance of e-portfolios. Students told us that UniSA would need to actively promote e-portfolios to the legal profession and other relevant employers to give the tool credibility in their eyes. Nonetheless, the idea that potential employers could access student e-portfolios was seen as a good thing and again consistent with literature suggesting that employers prefer to search for employee information on the web.⁶⁵

62. See also Tosh et al., *supra* note 52 (noting that some students in their study viewed e-portfolio assessment as just another assignment).
63. Phillipa Butler, A Review of the Literature on Portfolios and Electronic Portfolios 4 (Massey Univ. Coll. of Educ. 2006), available at <http://akoatearora.ac.nz/download/ng/file/group-996/n2620-eportfolio-research-report.pdf> (noting that a lack of exemplars may lead to student confusion and anxiety); Tosh et al., *supra* note 52 (noting that champions who support and provide leadership in e-portfolio learning are important to establishing student buy-in). See also Evaluating E-Portfolios in Law: 2007 - 2008 (U.K. Centre for Legal Educ. 2010), available at <http://www.ukcle.ac.uk/projects/past-projects/eportfolios3/> (noting student demand for exemplars of e-portfolios specifically linked to their learning in legal education).
64. Chris Ward & Chris Moser, E-Portfolios as a Hiring Tool: Do Employers Really Care? 31 *Educause Q.* 13 (2008) (reporting that most employers were not even aware of e-portfolios). See also Norman Brady, E Portfolios: An Aid to Graduate Employability? (Univ. of Greenwich 2008) (noting that most employers do not have the resources to study complex e-portfolios). *But see* McCowan et al., *supra* note 47, at 48-49 (reporting that employers were "very impressed with the skills framework that was incorporated into the [QUT] e-portfolio...[and]...we were confident that the student e-portfolio would help them understand the 'person behind the resume'").
65. Ward & Moser, *supra* note 64.

Although a majority of students reported that the e-portfolio tool was easy to access, most students said they wanted more supporting material to use it effectively including, (a) material about using the e-portfolio tool and (b) material related to e-portfolios generally. Demand for material related to Pebblepad surprised the authors because Pebblepad user documentation was well developed and easy to access through a help button on the site. The authors believed that the student cohort, which was largely made up of the “net generation,”⁶⁶ would have little difficulty navigating the site. However, as studies have shown, student competency is variable if moving beyond entrenched tools such as email and mobile phones.⁶⁷ This produced anxiety among students regarding submission of assessable material. As a result, between the first delivery of Contracts A and the second delivery of Contracts A and Contracts B, the authors drafted a hard copy, step-by-step guide accompanied by screen grabs for submitting material for assessment. This material considerably reduced student difficulties. Those difficulties were further reduced in 2010 as a result of the introduction of computer based tutorials. During the first phase of the pilot program, in 2008, students did not use many of the e-portfolio features, including personal development planning, blogging, SWOT analysis, organizing group meetings and the social networking elements. As a result, we recognized that our e-portfolio tool required further development. However, in 2009, a number of social networking features were examined and applied in the Corporate Law: Finance and Governance course and later in Civil Procedure and Evidence. As noted earlier, all of these courses were built around collaborative scenario based learning exercises. Surveys⁶⁸ and in-depth interviews of 318 UniSA students, including 97 law students, conducted in June 2009 showed that student understanding and appreciation of the benefits of e-portfolios substantially improved, as displayed in Table 1 below:

66. Marc Prensky, *Digital Natives, Digital Immigrants Part 1*, 9 *On the Horizon* 1 (2001); Diana Oblinger, *Boomers, Gen-Xers, and Millennials: Understanding the “New Students,”* 38 *Educause Rev.* 37 (2003).
67. *Evaluating E-Portfolios in Law 2007-2008*, *supra* note 64 (noting student discomfort with e-portfolio technology); Gregor E. Kennedy, Terry S. Judd, Anna Churchward, Kathleen Gray & Kerri-Lee Krause, *First Year Students’ Experiences with Technology: Are they Really Digital Natives?*, 24 *Educational Technology* 108 (2008); George Lorenzo & Charles Dziuban, *Ensuring the Net Generation is Net Savvy*, *Educause Learning Initiative Paper 2* (ELI 2006) (commenting that although the current generation of students has never known life without the internet, they are not necessarily “net savvy”).
68. A total of 97 law students (37 percent of enrolled students) completed anonymous surveys about their experiences with e-portfolios. Students indicated their agreement with fifteen statements using a 5-point Likert scale.

Table 1: 2009 Student attitudes toward e-portfolios survey

(Arranged in order of Law Agreement)								
	Disagreed				Agreed			
Statement	Law	Law	Total	Total	Law	Law	Total	Total
	n=97	%	n=318	%	n=97	%	n=318	%
I would NOT use e-portfolios unless required as part of assessment	20	21%	51	16%	51	53%	210	67%
My e-portfolio has increased my skills of reflection	43	45%	135	43%	28	29%	86	27%
In my future career, my e-portfolio is a tool I may use to document my professional development	39	40%	147	47%	28	29%	72	23%
I have received enough support and direction on the construction of my e-portfolio in my course	32	33%	102	32%	27	28%	104	33%
My ePortfolio allows me to display my competence as a graduate to future	32	33%	113	36%	26	27%	84	27%
My e-portfolio was easy to create	32	33%	128	40%	25	26%	101	32%
I have been provided with constructive feedback on my e-portfolio	45	47%	113	36%	24	25%	98	31%
The role of my e-portfolio has been clearly communicated to me	39	40%	87	28%	23	24%	110	35%

The highest level of agreement was for the statement that students would not use e-portfolios unless required as part of assessment, confirming the importance of embedding assessment into the e-portfolio,⁶⁹ as well as the need to improve the student experience when introducing the tool. Student responses polarized on some statements including the value of e-portfolios in documenting professional development (40 percent disagreed compared to 29 percent agreed) and the tool's ease of use (33 percent disagreed compared to 26 percent agreed).

69. See also Madhumit Bhattacharya, *Introducing Integrated e-Portfolio Across Courses in a Postgraduate Program in Distance and Online Education, E-Learning Technologies and Evidence-Based Assessment Approaches* 243, 248 (IGI Global 2009) (discussing the capacity for e-portfolios to facilitate student construction of their own understanding of their learning across assessment tasks).

In addition to the anonymous survey, a researcher from the Ehrenberg-Bass Institute of Marketing Science interviewed 15 students and found that students perceived the e-portfolios to have little value in early courses but as a very valuable learning tool by the more experienced students. This attitude was also reflected in the comments provided in the anonymous survey, including the need to build communities of practice in e-portfolios:

They are interesting and maybe when I learn more about it, I will use it more, but not many people outside my course are familiar with them and those that are don't use them apart from when it's a course requirement.

Students valued receiving feedback and having an opportunity to develop a more complete piece of work, with many mentioning this as an incentive to begin work earlier. Using the e-portfolio platform for supporting group work was another benefit for students because it improves efficiency and transparency for them and the tutoring staff.

The literature makes clear that reflective practice is integral to e-portfolio pedagogy.⁷⁰ Reflective practice entails a conscious and explicit link between thinking and experience.⁷¹ However, deep reflection that enables the fusion of theoretical and critical perspectives of experience is not an inherent skill.⁷² Less self-reliant and pro-active students are particularly challenged by the reflective learning e-portfolios encapsulate.⁷³ As a result, in addition to highlighting the importance of reflection in the development of professional skills, students were provided early on with scaffolding material on reflective writing including examples of inadequate, adequate and excellent reflective writing.

However, student opinions were mixed on the value of reflection. We are concerned that despite embedding reflective activities in the use of e-portfolios in law courses, only 29 percent of respondents agreed that their reflection skills had increased (45 percent disagreed). This level of disagreement was also evident in other projects, with 27 percent of all students surveyed (n=318) agreeing compared with 43 percent disagreeing with this statement. The use of forms by law students to capture reflections, rather than the creation of blogs and webfolios, could be one explanation for this low level of agreement. Another explanation is that it takes time for students to understand and

70. George Roberts et al., *Reflective Learning, Future Thinking: Digital Repositories, e-Portfolios, Informal Learning and Ubiquitous Computing*, Spring Conference Research Seminar, Trinity College, Dublin (2005); Barbara Levin & Jean Camp, *Reflection as the Foundation for e-Portfolios*, *1 Soc'y for Info. Tech. & Tch. Educ.* 572 (2002).

71. Gillie Bolton, *Reflective Practice: Writing and Professional Development* 7 (SAGE Publ., 2d ed. 2005); Ruth Leitch & Christopher Day, *Action Research and Reflective Practice: Towards a Holistic View*, *8 Educ. Action Res.* 179, 181 (2000); John Loughran, *Developing Reflective Practice* 6 (Routledge 1996).

72. Stephen Hackett, *Educating for Competency and Reflective Practice: Fostering a Conjoint Approach in Education and Training*, *13 J. Workplace Learning* 103 (2001).

73. Margerete Imhof & Christin Picard, *Views on Using Portfolio in Teacher Education*, *25 Teaching & Teacher Educ.* 149, 153 (2009).

value reflective skills. Students enrolled in a postgraduate Environmental Masters program in 2009 used e-portfolios for reflection. In contrast to the undergraduates, 62 percent of those respondents (n=21) agreed that their reflection skills had improved by creating e-portfolios. This augurs more positively for the introduction of e-portfolio pedagogy in U.S. law schools where J.D. students are postgraduates and primarily focused upon learning for the purpose of entering the legal profession.

However, insofar as undergraduate Australian law students are concerned, despite the provision of the scaffolding material, it became apparent that more classroom time was needed to develop reflection and reflective writing skills. During the project, UniSA's Learning and Teaching Unit developed additional generic online resources to support reflective practice which could be incorporated into future classroom activities.⁷⁴ In addition, group discussion of written work and peer feedback on writing was introduced into tutorial classes in Contract B.

5. Moving Forward

E-portfolio learning will be crucial to UniSA Law School's plans to develop level 3 capstone courses. The level 3 curriculum will incorporate a professional experience course that will allow students to choose between engaging in clinical experiences, international or local internships with organizations such as the Red Cross or Amnesty International; working with barristers and solicitors on trial management; or creating multimedia material for community legal education. All of these options incorporate substantial experiential learning and reflection, for which e-portfolios will be ideally suited.⁷⁵ Elective courses in the other subject fields will also be required to incorporate a significant experiential element in student learning activities and assessment.

6. Building Communities of Practice

In 2009, UniSA took over hosting of Pebblepad and began linking Pebblepad to its student management system, acquiring 2,000 new user accounts. The pilot program which commenced in the law program in 2008 was extended to fourth year occupational therapy students, service learning in the Australian Defense Force, recording of service learning experiences in the School of Natural and Built Environments, recording of professional development in the Global Experience Program, and first year engineering students.

A community of practice within UniSA was established using Wikis and the UniSA learning management system, UniSANET. The UniSANet site contains material on reflective practice accompanied by online tutorials designed to

74. See Introduction to Reflective Practice, available at <http://resource.unisa.edu.au/course/view.php?id=246>; Critical Reflective Practice, available at <http://resource.unisa.edu.au/course/view.php?id=225>.

75. Buzzetto-More & Alade, *supra* note 46, at 55-57.

facilitate reflective practice and writing, examples of how Pebblepad can be integrated into the learning management system, examples of webfolios and profiles which facilitate self-assessment of graduate quality attainment, information regarding the creation of gateways and general information about each pilot project.

Staff at UniSA also began working closely with staff from the Royal Melbourne Institute of Technology (RMIT), which also piloted Pebblepad in 2009. RMIT has established a national Pebblepad users group comprised of representatives from UniSA, RMIT, Victoria University, La Trobe University, Flinders University, the University of Tasmania, Swinburne University of Technology and the Queensland University of Technology. The user group met and discussed matters of pedagogy, e-portfolio practice and technical aspects of Pebblepad. A webfolio for the group has been established on Pebblepad and a Wiki at RMIT where participants can exchange resources such as reflective practice templates and assessment rubrics and provide each other with advice. Through Pebblepad, the national user group also links to e-portfolio practitioners in the United Kingdom. In addition, UniSA and RMIT have joined forces to pilot the use of Turnitin with Pebblepad to deter plagiarism.

7. Conclusion

Thus, while the assessment literature strongly supports the value of e-portfolios for law students, evidence from our pilot program remains thin that the e-portfolio pedagogy leads to deeper learning and professional identity development. Furthermore, there must be significant investment in the development of learning materials, activities and assessment, as well as promotion, to successfully implement e-portfolios. Consequently, a degree of resilience will be required by those seeking to introduce e-portfolios, whether in a single course or across the whole of the law programs, especially where there are few e-portfolio champions on staff and where stakeholder (student and employer) confidence in the technology and its pedagogic value is low.

For those contemplating using this tool, we recommend the following:

1. Determine whether the e-portfolio will primarily be used as a learning and teaching tool, a showcasing tool or an institutional tool or a combination thereof.
2. If the e-portfolio is primarily a learning and teaching tool, decide who will control its content—we think the student should own and control the content.
3. Ensure that the tool integrates seamlessly with the institution's student management and learning systems. Student ownership and control also requires instruction regarding appropriate use and disclaimers for unlawful content.

4. The tool chosen should not require too much customization and/or servicing. In other words, academic staff and students should be able to easily use and customize their e-portfolios. Therefore, the more social networking options such as blogging and collaboration mechanisms the tool can offer the better.
5. Third parties such as legal practitioners and others who might work with students in experiential learning settings should be able to access and provide feedback on e-portfolio content.
6. Introduce the tool slowly and support its use with multiple materials, including:
 - Computer based tutorials allowing students to experiment with the tool's operations;
 - Hard copy screen grabs showing students how to use the tool;
 - Hard copy of reflective writing exemplars;
 - Classes and/or galleries where exemplars can be demonstrated;
 - Learning activities explaining the rationale of e-portfolio pedagogy;
 - Learning activities explaining self evaluation, reflection and personal development planning; and
 - Formative assessment followed by summative assessment of e-portfolio postings and reflective writing
7. Invite members of the legal profession to offer feedback to students' learning and resumes.
8. Promote e-portfolios to practitioners at legal careers fairs.
9. Form communities of practice within and outside of the institution to share experiences, information, templates and so on.

Participating in the commencement of a new school, new program and new pedagogy has been exciting and rewarding. Armed with what we have learned, we will continue using e-portfolios and believe that in the capstone year of our program they will prove advantageous for our new graduates.

Appendix 1

E-portfolio Student Survey Questions, 2008

1. What is an e-portfolio?
 - a. A digital collection of my work over time
 - b. A facility for me to reflect on my learning
 - c. A facility for showcasing my work to others
 - d. A way of expressing my personal identity
 - e. All of the above
 - f. None of the above
2. The incorporation of e-portfolios in this course helped me to learn the course concepts and skills in a new way
Agree/Disagree - Using Likert Scale
3. E-portfolios made me more interested in my work
Agree/Disagree - Using Likert Scale
4. E-portfolios help me think more about my learning
Agree/Disagree - Using Likert Scale
5. I would NOT use e-portfolios unless required as part of my assessment
Agree/Disagree - Using Likert Scale
6. The e-portfolio software tool's appearance and navigation were clear and consistent
Agree/Disagree - Using Likert Scale
7. The e-portfolio software tool was too limited
Agree/Disagree - Using Likert Scale
8. The e-portfolio tool was easy to access on UniSANet
Agree/Disagree - Using Likert Scale
9. The materials provided on career skills development were informative
Agree/Disagree - Using Likert Scale
10. The materials provided on reflective practice helped to maximise my use of the e-portfolio
Agree/Disagree - Using Likert Scale
11. The e-portfolio helped me to see where I need to improve my professional skills
Agree/Disagree - Using Likert Scale
12. The e-portfolio enabled me to preserve my work and the development of my understanding
Agree/Disagree - Using Likert Scale
13. E-portfolios have taken up too much of my out of class time

Agree/Disagree - Using Likert Scale

14. E-portfolios are a good way of enabling me to show my progress to others

Agree/Disagree - Using Likert Scale

15. The feedback on my e-portfolio provided by my teachers helped me to identify my areas of strength and areas of weakness

Agree/Disagree - Using Likert Scale

16. The feedback on my e-portfolio provided by my teachers helped me to better plan to improve my learning

Agree/Disagree - Using Likert Scale

17. The feedback on my e-portfolio provided by my teachers was too limited.

Agree/Disagree - Using Likert Scale

18. E-portfolios enabled me to show the depth and breadth of my knowledge and experience

Agree/Disagree - Using Likert Scale

19. E-portfolios enabled me to formulate a personal development plan

Agree/Disagree - Using Likert Scale

20. More supporting material for effective use of e-portfolios is required

Agree/Disagree - Using Likert Scale

21. I would like to see the following improvements in the e-portfolio software tool

Free form dialogue box - student to make entry as required.

22. I would like to see the following improvement in the learning materials supporting the e-portfolio

Free form dialogue box - student to make entry as required.