



## Assessment Toolkit

# Assessing with ePortfolios

Never stand still

Teaching @UNSW

## Overview

An ePortfolio is "a digitised collection of artefacts including demonstrations, resources, and accomplishments that represent an individual, group, or institution" (Lorenzo & Ittelson, 2005). It can be a digital repository for a range of learning materials, including those produced for course-based assessment. ePortfolios are planned and compiled by the owner (students) rather than by the educator.

ePortfolios can provide ways for students to use feedback from assessment to support their learning. The ability to collect, reflect and connect aligns with assessment-as-learning principles.

## When to use

Use ePortfolios:

- to enable students to reflect on their learning, performance and /or achievement in both formative and summative assessment
- to encourage independent learning
- to support students in planning their personal, educational and career development
- as ways for students to present evidence of achieving program outcomes through artefacts that demonstrate transferable skills
- to support life-long learning attributes by providing electronic learning records that students can take with them into employment
- in capstone courses and programs that require professional accreditation.

## Benefits

Just as their paper equivalents can, ePortfolios can transform and enhance curriculum ([Barrett, 2005](#)) and demonstrate to students and educators the connections between students' learning and the assessment criteria. This can encourage and promote learning in higher education (Lorenzo & Ittelson, 2005).

ePortfolios encourage a self-directed, individualised approach to learning that students can use throughout their lives. As they develop the appropriate skills to regulate their own learning and become responsible for it beyond the walls of the classroom, they can engage both individually and collaboratively in the ePortfolio project.

Educators can use ePortfolios in their assessment design to develop personalised learning spaces or environments. The cognitive skills required for self-directed students in an ePortfolio are "collect, select, reflect, connect" (Hughes, 2008). These skills are inherently expected of any university graduate.

You can assess ePortfolios both qualitatively and quantitatively; they are sound source of both kinds of information about students. In ePortfolios students build themselves a resource that, once assessment is complete, they can take with them into the workplace. ePortfolios thus constitute a form of "sustainable assessment" (Boud, 2000). They enable students to present themselves in a number of ways, empowering them as learners.

ePortfolios:

- act as sustainable assessment (Boud, 2000) that enables students to identify their learning, make judgments about

it and prepare themselves for future learning

- constitute ongoing, evidence-based assessment products that display a student's performance throughout a course or degree program
- provide a site for feedback that can be acted on and saved for future use
- encourage students to be self-directed and take responsibility for their own learning and assessment
- allow students to make connections between tacit knowledge and constructed knowledge
- track students' accomplishments and feedback over a sustained period, through ongoing assessment
- instil digital literacy skills by having students construct the portfolio in the educational context. These skills are transferrable after graduation.
- are beneficial for International students in that they reduce the reliance on written-word assessment
- allow students to select their best work and make specific decisions about what they share with others
- encourage students to own and direct their learning as they select and reflect on their evidence for presentation
- can allow students to use or reuse "a range of materials from a variety of sources, including those produced for course based assessment" (Housego & Parker 2009).

For staff, ePortfolios:

- can address a lack of integration among existing programs
- encourage sustainable assessment practices that "foster learning throughout life" (Boud & Falchikov, 2006) by encouraging self assessment
- enable "the linking of practice-oriented learning and the development of graduate attributes" (Housego & Parker, 2009)
- address any perceived lack of integration among existing programs, because they can contain all electronic documents related to learning from assessment tasks, tests, feedback and student work samples from all study programs the student is engaged in
- can demonstrate alignment of course learning outcomes with university graduate capabilities.

## Challenges

Learning how to reflect, collect, write and respond to feedback for ePortfolio assessment requires:

- students and staff to invest time
- students and staff to possess or develop technical proficiency, and
- students to develop a basic ability to critically reflect and select work for assessment.

To use portfolios, you must be prepared to engage with your learners in meaningful individual and collaborative activities, to cultivate in-depth interactive cultures and to "interrogate notions of authorship and audience" before you adopt them in a course (Hughes, 2008).

### Challenges for students

- Students may resist the idea of ePortfolios because they anticipate a heavy workload.
- They may require support in further developing their technical skills, as well as their critical skills, such as selecting, collecting and reflecting on material.
- Students may need to be directed on the appropriate netiquette of the ePortfolio environment and space.
- ePortfolios involve technical challenges for students without access to the Internet in their study time. System outages and site maintenance can mean that students and staff are not always able to gain access to the ePortfolio site. Some students' limited technical knowledge may mean that they require training before they can navigate the ePortfolio application.

### Challenges for staff

- ePortfolios may require you to change the traditional assessment practices in a course.
- They are time consuming, particularly when used with large classes and groups.
- They are very subjective and may compromise assessment reliability, if unsupported by rubrics and marking guidelines.
- You must be careful deciding when you will assess by ePortfolio, as it takes students time to become familiar with

the ePortfolio idea and the process of collecting, selecting and reflecting on potential material. If you assess ePortfolios later in the course, issues around grading may arise.

## Strategies

With ePortfolio assessment, you must:

- embed the assessment in the curriculum and align it with the learning outcomes and assessment criteria
- integrate the use of the ePortfolio within your assessment plan, not just use it as an add-on
- demonstrate standards and explicitly outline criteria to students
- clarify rubrics and expectations in marking guidelines to students and assessors.

Figure 1: Integrating ePortfolios and assessment-for-learning principles (Miller, 2011)

Student steps in compiling an ePortfolio for assessment	Integrated tutor activities that embody assessment-for-learning principles
1 Determine the ePortfolio's purpose and audience.	Provide a <b>picture of competence</b> (or of the assessment) using examples.
2 Collect work.	Using <b>questioning</b> , help the student understand what work to collect.
3 Select key pieces as evidence.	Provide <b>feedback</b> (and feed-forward) on the selection.
4 Reflect on, or self-assess, the learning process and the selected pieces.	Provide <b>self-assessment</b> opportunities.
5 Connect and share with others.	Encourage <b>peer assessment</b> and/or assessment by a mentor or expert.

The following strategies are recommended for the successful integration of ePortfolios (Krause, 2005):

- Start small. Plan a slow implementation, and explain everything clearly as you go. Integrate other electronic components into a course before you introduce the concept of a portfolio.
- Build towards a program-wide strategy, aiming for a new culture in assessment. This takes time. ePortfolios can transform pedagogy; you cannot implement them without real curriculum change.
- Develop a strong resources plan for technical rollout. If possible, run a pilot project and spend time developing technical proficiency among the team.
- Align the ePortfolio with the course learning outcomes, clearly defining the purpose of the portfolio for students and staff.
- Make the ePortfolio a sustainable assessment tool. Use ePortfolios to track and gather resources for students from Year 1 onwards.
- Set up professional development and skill based workshops. Support your team initially using face-to-face meetings.
- Prepare the evaluation so that you support ePortfolio enhancement, the exclusion of extraneous material and content improvements early, and continue this support throughout the course.

Krause (2006) and Lorenzo and Ittelson (2005) suggest that course developers or educators, before they adopt ePortfolios, consider the following questions.

- How will the ePortfolio be stored once submitted, for the purposes of official record keeping?
- Will it remain at the university after graduation?

- Who will own it—the university, the Faculty or the student?
- How will the institution or the Faculty promote and support it?
- How will it be assessed validly and reliably?
- How will it be used for reflection?

Figure 2: Staged support for ePortfolio assessment

Stages of ePortfolio assessment	Suggested support
<b>Introduce assessment by ePortfolio</b>	For fairness and equity, schedule some class time in a computer lab for students to contribute and establish an ePortfolio. All students and the lecturer/tutor to attend (see <a href="#">E-Portfolios for Student Success</a> ).
<b>Establish an ePortfolio, collect artefacts, reflect on them using rubrics and clear marking guidelines</b>	Provide and explain very clearly: <ul style="list-style-type: none"> <li>• an artefact log sheet</li> <li>• a reflective practice guide</li> <li>• rubrics (developed by the teacher or designed by the students and agreed between the students and the lecturer—see, for example, the <a href="#">University of Wisconsin eportfolio rubric</a>), and</li> <li>• marking guidelines.</li> </ul> <p>During collection of and reflection on artefacts, and prior to ePortfolio submission, instruct students to evaluate their ePortfolios using the rubric and marking guidelines.</p>
<b>Submit for assessment</b>	Clarify all aspects of the submission of the ePortfolio for assessment from the start, including due dates, expectations, content, selection and reflection.
<b>Self assess</b>	Include opportunities for students to reflect thoughtfully and critically on their learning and knowledge construction, by goal setting and identifying their ePortfolio's strengths and weaknesses.
<b>Future use: revisit, review and revise</b>	Encourage students to consider their ePortfolio as an ongoing resource post-submission and assessment.

## ePortfolio assessment tasks

Figure 3: Examples of ePortfolio assessment tasks

ePortfolio usage	Rationale
Assessment of a learning log or digital diary	Students can diarise and record their ongoing evidence, so that the ePortfolio becomes a reflective digital record of the learning journey of a student in a course or degree program.
Experiential learning and internships	With ePortfolios, students need to be resourceful and identify the key learning experiences in an internship or experiential learning activity. (See <a href="#">Assessing Experiential Learning through E-Portfolios</a> .)

Assessment of annotated bibliographies and readings	Throughout a course, a student uses the ePortfolio to complete weekly reading entries and summaries. Students and staff can annotate the ePortfolio to solve problems related to the lectures, readings or topic materials as an assessment component.
Assessment of visual artefacts	Throughout a course, a student in the visual and performing arts uses an ePortfolio to select and collect artefacts that represent a theme, genre or medium, and to reflect on their practice. Students can virtually exhibit their work, displaying increasing refinement in their curatorial decisions. Assessment centres on exhibition, display and sustained reflection.
Assessment of reflective practice	Students critically reflect as they gather digital artefacts and evidence to demonstrate the development of their knowledge, skills and competencies. ePortfolios "are a useful vehicle for facilitating critical reflection on one's learning and for compiling and demonstrating evidence of learning and skill development" (Krause, 2006, 1), as they hold, and preserve the arrangement of, evidence of learning. Students can construct their ePortfolios to constitute an official record of their work. ePortfolios "enable students to integrate their learning experiences", including feedback, and "make a substantial contribution to their personal development" (Housego & Parker, 2009).
Assessment of work integrated learning (WIL), utilisation as a curriculum vitae	ePortfolios can contain a combination of text, graphics, video, audio and hyperlinks. Just like a blog, an ePortfolio can be used as a diary of the WIL for assessment purposes; later, the student can direct potential employers/ funding bodies/ investors/ collaborators to the site to see evidence in support of an application.
Assessment of evidence of achievement through feedback on self-assessment	Feedback is an integral component of formative assessment and is critical to student learning. When feedback is driven purely by the teacher, students are unlikely to engage fully with the process. When the feedback process is driven by the student's own critical reflection, however, it has a far more powerful and lasting effect.

## Ensure fairness

ePortfolios are inclusive of all learning styles and abilities, and of most learners. However, in their usage of technology they can disadvantage some students.

You will need to explicitly instruct your students in the pros and cons of using ePortfolios, and support them technically and with training as they learn to use whichever ePortfolio tool you choose. Poor digital literacy skills can hamper students in their ePortfolio use, and any Internet access issues they have will also apply to ePortfolios.

## Additional information

### External resources

[Australian eportfolio project.](#)

Barrett, H. [Electronic Portfolio Development.](#)

Robles, R. University of Cincinnati, USA.

- [Assessing Experiential Learning Through E-portfolios](#), University Honours Program.
- [E-Portfolios for Student Success.](#)

University of Wisconsin. [EPportfolio Rubric.](#) May also be used for self-assessment and peer feedback.

UNSW Wikispaces. [Mahara](#). Mahara is an open source e-portfolio system with a flexible display framework. It is part of UNSW's TELT platform. (See also the [Mahara Beginner's Guide](#).)

UNSW Moodle support page: [Mahara Open Source ePortfolios in Moodle](#)

## Further readings

Boud, D. (2000) Sustainable assessment: rethinking assessment for the learning society. *Studies in Continuing Education* 22(2), 151–167.

Boud, D. and Falchikov, N. (2006). Aligning assessment with long-term learning. *Assessment and Evaluation in Higher Education* 31(4), 399–413.

Brown, M., Anderson, B., Simpson, M. and Suddaby, G. (2007). [Showcasing Mahara: A new open source eportfolio](#). In *ICT: Providing choices for learners and learning. Proceedings ASCILITE Singapore 2007*.

Chan, S. (2009). [E-portfolios using mobile phones and social networking sites: Workplace skill acquisition and identity formation](#). In *Same places, different spaces. Proceedings ASCILITE Auckland 2009*.

Gunn, C. and Peddie, R. (2008). [A design-based research approach for eportfolio initiatives](#). In *Hello! Where are you in the landscape of educational technology? Proceedings ASCILITE Melbourne 2008*.

Hallam, G. (2008). [The Australian ePortfolio project and the opportunities to develop a community of practice](#). In *Hello! Where are you in the landscape of educational technology? Proceedings ASCILITE Melbourne 2008*.

Housego, S. and Parker, N. (2009). Positioning ePortfolios in an integrated curriculum. *Education and Training* 51(5/6), 408–421.

Hughes, J. (2008). [Letting in the Trojan mouse: Using an eportfolio system to re-think pedagogy](#). In *Hello! Where are you in the landscape of educational technology? Proceedings ASCILITE Melbourne 2008*.

Krause, K. (2006). ePortfolios for graduate students: A discussion paper. Centre for the Study of Higher Education. University of Melbourne.

Lambert, S. (2007). [Reviewing the progress of a campus-wide e-portfolio rollout](#). In *ICT: Providing choices for learners and learning. Proceedings ASCILITE Singapore 2007*.

Lorenzo, G. and Ittelson, J (2005). An overview of ePortfolios. *Educause Learning Initiative Paper 1*, 2005.

Mason, R., Pegler, C. and Weller, M. (2004). Eportfolios: an assessment tool for online courses. *British Journal of Educational Technology* 35(6), 717–727.

Miller, A. (2011). E-portfolios and E-assessment—discussions.

Pelliccione, L. and Dixon, K. (2008). [ePortfolios: Beyond assessment to empowerment in the learning landscape](#). In *Hello! Where are you in the landscape of educational technology? Proceedings ASCILITE Melbourne 2008*.

## Acknowledgments

The contributions of staff who engaged with the preparation of this topic are gratefully acknowledged.