



An ePortfolio recommendations roadmap supported by a UNSW Sydney education focussed (EF) Academic Fellowship program: Reflective practice and feedback literacy within ePortfolios matters

Professor Patsie Polly^{a*#}, Dr Donna Mary Salopek^{a#}, Dr Jacky Mo^a, Dr Gavin Mount^a, Dr Peter Neal^a, Dr Chona Ryan^a, and Dr Nayuta Yoshioka^a

^aUniversity of New South Wales, Australia

*corresponding author #equal contributing authors

Abstract

The Education Focussed (EF) Fellowship program was introduced by the UNSW Sydney Pro Vice-Chancellor Education and Student Experience Portfolio to support EF academics via an EF Fellowship Program in all faculties. The vision was for cross-faculty collaboration by EF Fellows on strategic projects identified as key for enhancing the student experience. EF Fellows would provide a comprehensive review of the pedagogical scholarship and shared practice expertise in education to develop a deep understanding of the needs and requirements to address various strategic projects. One of these strategic projects was focussed on ePortfolio pedagogy and practice. An important consideration was to ensure that time was granted to EF Fellows. Each EF Fellow was awarded funding equivalent to 0.4 full time equivalent for Term 3, 2021 to allow for time to generate thinking and practice around each strategic project. This supported approach enabled the ePortfolio EF Fellowship team to generate a set of recommendations for a roadmap towards a hybrid ePortfolio pedagogy and practice system.

Editors

Section: Special Issues

Senior Guest Editor: Dr Allison Miller

Guest Editor: Professor Michael Sankey

Senior Editor: Dr Cassandra Colvin

Publication

Received: 25 April 2024

Accepted: 26 May 2024

Published: 10 July 2025

Copyright

© by the authors, in its year of first publication. This publication is an open access publication under the Creative Commons Attribution [CC BY-ND 4.0](https://creativecommons.org/licenses/by-nd/4.0/) license.

Citation

Polly, P., Salopek, D.M., Mo, J., Mount, G., Neal, P., Chona Ryan, C., and Yoshioka, N. (2025). An ePortfolio recommendations roadmap supported by a UNSW Sydney education focussed (EF) Academic Fellowship program: Reflective practice and feedback literacy within ePortfolios matters. *Journal of University Teaching and Learning Practice*, 22(3). <https://doi.org/10.53761/tzaf5w55>

Introduction

In developing institution-wide pedagogical thinking, distributed leadership models encompassing Communities of Practice have been recognised as an effective approach to build capacity and share practice (Johnson et al., 2016; Baik & Larcombe, 2023). The Education Focussed (EF) Fellowship program was created by the UNSW Sydney Pro-Vice Chancellor Education Student Experience (PVCESE) portfolio to bring together a team of EF academics from various faculties, with a distributed leadership mindset, to work on projects addressing the student experience (Blevins & Brill, 2017; Jones, 2018). Student ePortfolios was one of these strategic focal areas. The ePortfolio EF Fellow team recognised that the connection between learning experiences and what students value in their university learning journey, may be perceived as disconnected in their coursework and/or missing in a learning management system (LMS) (Conefrey & Smyth, 2020). Development of ePortfolio pedagogy and practice offers a 'mechanism' to address this 'gap' for students by providing a more focussed learning experience (Watty & McKay, 2015). The ePortfolio EF Fellow team-led project rationale considered ePortfolios as a way to enhance how students visualise their experiential learning and inform their skills and graduate attributes (GAs) recognition while at university. Importantly, to reflect on and consider how to make best use of these skills and attributes beyond university in future endeavours (Polly et al., 2017; Jorre de St Jorre & Oliver, 2018; Thibodeaux et al., 2020). University learning and teaching during COVID-19 times highlighted that building student capabilities for ownership of/and lifelong learning was a critical area of need (Jorre de St Jorre & Oliver, 2018; Hammer et al. 2021).

The EF Fellowship program enabled the team of EF Fellows working with talent (skills, expertise, and understanding) in ePortfolio pedagogy, who represented different UNSW faculties, to work collaboratively and develop distributed leadership to address student and institutional needs. Collaborative leveraging of the team skills sets generated a set of recommendations and a roadmap towards a framework as posited by Hammer et al. (2021). We proposed that a future UNSW ePortfolio framework needs to address and/or contain the following:

- A university-wide approach to ePortfolio pedagogy, practice, folio-thinking and templates for students to collect and curate (Clarke & Boud, 2018) artefacts that demonstrate attainment of graduate capabilities (GCs)
- A faculty-focussed strategy mapping/connecting discipline relevant, student learning experiences/reflection/assessment-feedback artefacts with program learning outcomes to the universities GCs and how that could be harmonised across the institution.

Literature

The following review of relevant pedagogical scholarship is organised around several themes relating to ePortfolio design, development and delivery. These include: graduate capabilities and curriculum alignment; educational purpose, assessment, feedback, evaluating success, and the role of EF fellowships as institutional change agents.

Graduate Capabilities/Attributes

Higher education is constantly evolving with many demands and levels of competency and proficiency placed on a student's university learning journey (Janpirom, et.al., 2025). Students

often complete their academic degree program without full awareness of where and how graduate attributes are developed within their university degree program (Wahab et al., 2024). Universities also have strong incentives to present a coherent vision of their aspirations in delivering meaningful standards of educational excellence. Many scholars (Khoo, 2012; Su, 2014; Miller et al., 2020) suggest that graduate attributes can be addressed and made explicit in university ePortfolios.

Jorre de St Jorre and Oliver (2018) have described (paraphrased) the following as an assessment for employability where GCs are:

- embedded into assessed curricula
- explicitly stressed in each assessment repetitively throughout the course
- provided measures reflecting stakeholder perception
- consistently aligning the skills to allow a more constructive comparison by pointing out the obtained assessment grade
- continually emphasise attributes associated with global citizenship, teamwork, and communication
- emphasising independence, critical thinking and problem-solving
- aligned with the fundamental foundational skills of written and spoken communication
- regularly revised to ensure attributes are fit for purpose in our graduates' rapidly changing environment and our everyday education operation

Further, Hammer et al., (2021, p. 520) suggest that statements that contextualise GCs in the curriculum quality space should develop:

- *“detailed policy implementation plans to contextualise and integrate them with key strategic, policy, and regulatory documents”*
- *“a standards framework to articulate the relationship between their graduate attributes, other desired graduate learning outcomes, and relevant sector standards”.*

Bearing these recommendations in mind, graduate capabilities should be viewed as attributes that have become imbued within the person who has developed a critical, reflexive approach to personal and professional practices. ePortfolios can “help students develop the critical thinking and communication skills necessary to share their learning with a wide variety of audiences including instructors, program assessors, potential employers, and community” (Conefrey & Smyth, 2020, p. 1).

Educational Purpose

ePortfolios can provide a valuable mechanism to embody program coherence and function as a constructive alignment framework (Charlton et al., 2023). Studies show that students like to see clear and well-defined expectations of their program but find it hard to “abstract transferable skills from their coursework” (Conefrey & Smyth, 2020). It has been documented that students do not fully understand how the concepts and formulae of introductory courses relate to the practical applications they will study in the latter part of the program (Conefrey & Smyth, 2020). In this

regard, well designed ePortfolios can provide coherence and deliver what Holdsworth and Thomas (2020) describe the central purpose of education as the relationship between capabilities/attributes and discipline/professional competency in degree programs that map to program learning outcomes and graduate attributes (GAs).

There are challenges in translating graduate attributes and capabilities in a meaningful way. Jorre de St Jorre and Oliver (2018, p. 44) observed that “students find graduate learning outcomes too generic to be meaningful” and found that students wanted GAs to reflect industry-related experiences and their assessment to be driven by GAs that were explicitly reinforced the outcomes by future employers, professionals, and recent graduates. These studies on GA alignment highlight how the ePortfolio experience should aim to provide students with the skills of life-long learners and the ability and agility to adapt to new and emerging technologies, skills, practices, and ways of doing.

Assessment and ePortfolios

The tendency of students to prioritise learning associated with assessment is well documented (Boud & Falchikov, 2007; Gibbs, 2010; Jorre de St Jorre & Oliver, 2018). Studies have shown that the concept of “assessment for learning” should be an essential pedagogy in higher education (Ajjawi et al., 2025; Black et al., 2004) where the emphasis is placed on assessing the capabilities that graduates should obtain (Faulkner et al., 2013; Oliver, 2013). This point is made by Barker (2021) who argued that we should structure our university as “learning-oriented, transparent and accountable to customers, future-focused and ePortfolio-enabled – a genuinely lifelong learning institution.” The grader’s behaviour is a potential risk factor and can adversely affect both validity and reliability in determining the performance of individuals using an ePortfolio according to Sata and Karakaya (2020). This suggests that the most reliable way of developing students’ ability to self-assess, evidence and articulate their capabilities would be to design assessment in which it is specifically required.

Factors contributing to ePortfolio persistence were examined by Thibodeaux et al. (2020). They highlighted that learning ePortfolios have transformational power, but unfortunately, many universities have attached little significance to the potential enduring effectiveness of ePortfolios. The study concluded that ePortfolios should encompass real-world projects and authentic artefacts as a career tool and state that: “learner autonomy, control, and agency, as well as continued opportunities for choice and voice, led to increased appreciation and ownership of the ePortfolio beyond the program of study” (Thibodeaux et al., p. 19)

A life-long learning approach depends on graduates carrying forward competencies (such as teamwork and digital literacy) acquired throughout their graduate experience. ePortfolios have been shown to improve the interaction of students by providing shared learning practices. McDermott-Dalton (2021) pointed out the advantages of ePortfolios are ease of access to digital artefacts, to provide opportunities for collaboration (Sinfield, 2013) and a gateway to share and critique each other’s work (Keane, 2014). While ePortfolio studies have revealed that there are also issues such as the student confidence in using technology (Slade, 2015), lack of clarity around the role of the ePortfolio (Jenson and Treuer, 2014) and challenges to ePortfolio adoption on an institute-wide basis (Joyes et al., 2010; Reese & Johns, 2009); Encalada et al. (2017) demonstrated that ePortfolios can help students understand the valuable elements of each of the

stages of a lesson study. The challenges posed by ePortfolio implementation should be ironed out but they also equip graduates with resilience and agility to navigate futures challenges.

Many scholars have suggested that ePortfolios should consist of a performative ePortfolio and these courses should guide students to develop their ethos through integrating writing, speaking, and reflection (Li, 2016). The effectiveness and benefits of an ePortfolio can be extremely rewarding, but implementation requires well-instructed guidance and purpose. Kohler and Zile-Tamsen (2020) developed, executed, and assessed a capstone experience course, where they instructed the students reflective and integrative learning skills for the University of Buffalo. They found that their capstone course had a metacognitive impact on student learning. With an appropriate instructor's rubric rating, most ePortfolios were highly quality and highlighted the students' essential learning outcomes and integrated learning skills (Kohler & Van Zile-Tamsen, 2020).

For ePortfolios to succeed, the platform must provide 'feedback and buy-in' from students, staff, faculty, and university-wide leadership (Meyer & Latham, 2008). They suggest that the framework of ePortfolios should support an open implementation process and that educators need not worry about unexpected innovations stumbling blocks but use ePortfolios as a "means for student learning, assessment and professional development" (Blevins & Brill, 2017, p. 223). In their study, there was a high rate of dropping the use of ePortfolio (42% of the respondents). To address these shortcomings, they proposed that the ePortfolio should incorporate Sata and Karakaya's (2020) suggestion that graders should be continuously monitored since grader behaviour adversely affects both validity and reliability in determining the performance of individuals using an ePortfolio. To address this, Blevin and Brill (2017) constructed an implementation framework with components related to the essential elements. These elements contribute to successful ePortfolio implementation. They include awareness, motivation, commitment, resources, leadership and evaluation.

Feedback, ePortfolios and University Degree Programs

Students' feedback practices constitute a significant issue and a great concern among students and academics in most universities (Carless et al., 2020). Even though students have received some form of feedback, students may not 'digest' or 'understand' the feedback immediately, or the feedback provided was too late to act upon (Bjælde et al., 2023). This is usually because most feedback is provided at the end of a course or subject, leaving limited time to reflect upon what the teacher provides and revise how a student may improve when attempting the next assessment task.

Carless and Boud (2018, p. 1315) discuss the role of learners' feedback literacy and define it as the "understanding, capacities, and dispositions required to make sense of feedback comments and use them for enhancement purposes". In many cases, students are not trained to follow through with feedback practises of storing and accessing previous work and comments and applying it to current work in progress or making connections to future work. Without reinforcement from teachers and peers, students fail to learn the significance and appreciate the importance of feedback. There has been a lack of longitudinal studies of the learners' feedback literacy (Carless, 2019) which has created a disconnect between students and their institutions.

Hence, we should be revising our curriculum and assessment to promote learner feedback literacy.

ePortfolio use in programs can enable the learners to work with feedback over a period of time as suggested by Carless (2019). ePortfolios can be an effective tool for the learners to refine their work iteratively over time by using a range of internal and external feedback methods and undertaking a more active role act on the feedback insight provided by the teacher (Carless, 2019). One of the innovative opportunities of a well-integrated ePortfolio framework is that it permits students to reflect upon and respond to feedback from one course to another and across year levels in their learning journey. Program level learning objectives can help to scaffold this feedback to sustain continuity and the digital medium allows for this feedback to traverse different teaching and learning activities. As Carless (2019) observed,

digitally-enabled feedback storage tackles a problem that learners often find it difficult to track and act on the diverse feedback information they receive. The digital use of feedback can serve to activate the development of learner feedback literacy by focusing them on the need to revisit and use feedback messages (p. 61).

Elements Affecting ePortfolio Success

Students tend to use multimodal artefacts drawing from multiple resources, as seen in an ePortfolio course running within in a graduate student affairs preparation program (Jaekel, 2020). Also, weekly use of ePortfolio incorporated in courses was shown to sufficiently improve students' overall performance in a nine-week course (Händel et al., 2020). Jaekel (2020) stressed that faculty needs to make key connections, both in and out of the classroom, as successful ePortfolios is seen to allow the faculty to take on a more holistic way of assessing students' understandings and foundations in their field or discipline area. They suggested that this approach should be incorporated as part of the students' experience with ePortfolio use because it gives the students "more confidence and more knowledge not just about what they know, but about how they have come to know it" (Jaekel, 2020, p. 183).

In a study focusing on how ePortfolios can facilitate employability, Mitchell et al., (2021, p. 83) sought the answers to the following questions:

- *To what extent do employers and industry representatives use and plan to use ePortfolios in the recruitment process?*
- *In what ways do employers, industry representatives, and university educators value ePortfolios?*
- *How can the use of ePortfolios in graduate recruitment be improved?*

They provided some instrumental observations and argued that "ePortfolios have the potential to allow employers to make a more comprehensive assessment of the candidate, and to differentiate between candidates" (Mitchell et al., p. 96)

Mitchell et al., (2021) also found that ePortfolios seem to be limited or non-existent in the recruitment of graduates, despite the ePortfolio literature suggesting an important role for ePortfolio in employability processes. Mitchell and colleagues are not suggesting that ePortfolio will replace traditional applications soon, but stress that ePortfolios can complement traditional

recruitment methods (Mitchell et al., 2021). Hence, if the purpose of an ePortfolio is to gain employment, there is a need to make the contents of the ePortfolio cater to future employer preferences. They point out there is limited research on the student's views of using ePortfolios to acquire a future job (Mitchell et al., 2021). Viewed as a phase of life-long learning, ePortfolios can serve not only as a pathway for employment but as a type of reputational currency in a learning society (Ravet, 2007). Further, ePortfolios are considered 'learner-centred', and the benefits/success of ePortfolio largely depend on the learners' long-term use. This is supported by a study conducted a study from the learners' perspectives found that "satisfaction and attribution are the key factors driving the users' continuous intention towards the ePortfolio rather than perceived usefulness and attitude" (Hsieh, et.al, p. 828).

Education Focused (EF) Fellows as Change Agents

At UNSW a well supported and sustainable EF program is seen as critically important for facilitating ePortfolio design, development and delivery and forms a component of the UNSW Teaching Gateway (2025). ePortfolio implementation and use in universities is not a new concept. However, and especially in the context of a research-intensive university, investing in EF Fellows to work collaboratively and influence institutional change by leveraging their talent and insight in higher education pedagogy and classroom experience is a novel concept. EF Fellowships are an effective way of enabling middle-out approaches at a higher education institution. While enabling EF Fellows to collaborate and produce a set of institutional ePortfolio recommendations, the key present-era focus is the student experience and ultimately student success. ePortfolio pedagogy and practice is seen as a mechanism for supporting that endeavour.

Implementation of the EF Fellowship Program

The ePortfolio EF Fellow Team project was significantly enhanced by well-resourced and sustained institutional support for Education Focused scholarship. The EF Fellowship program engaged interest from the EF community via an expression of interest (EOI) call out. EF Fellowships were awarded on the quality and focus of the application, with a lead selected to manage each strategic project. The most important element in enabling EF Fellows to work together was to provide a support structure and internal funding to buy out, for example, time required to perform teaching administrative tasks. Each EF Fellow received 0.4FTE paid teaching relief for term 3 (10 weeks) in 2021, which reduced workload to create time to think and develop ideas and processes to address issues raised within each strategic project.

ePortfolio EF Fellows, effectively collaborated to suggest change. This was achieved, and applied by all EF Fellow teams at UNSW, by leveraging each team member's diverse discipline understandings, functioning in a cross-faculty, distributed leadership approach to address institutional priorities (Blevins & Brill, 2017; Slade et al., 2013, Slade et al., 2017). Importantly, the EF Fellowship program allowed championing of ePortfolio use at UNSW and for EF academics to be valued as institutional experts in the relevance of this high impact practice (Kuh, 2012).

Forming EF Fellow Collaboration

This project drew upon the distinctive EF Fellow educational experience and expertise in ePortfolios for each team member, informed by pedagogical scholarship on graduate capabilities,

educational purpose, assessment, feedback and effectiveness. Recognition and support through the EF program which acknowledged the role of EF Fellows as institutional change agents was critical to the entire EF Fellowship program and the approach(es) taken by each EF Fellow team.

Ultimately, the EF Fellowship approach leveraged the combined EF Fellow team skill sets and insights into various elements that needed investigation to address how this could be achieved. The key aspect to this was meeting in the middle and therefore harmonising across UNSW Sydney to get an ePortfolio pedagogy and practice that was aligned for the university, faculties and all stakeholders to enhance the student experience (Blevins & Brill, 2017). The important approach to this PVCESSE-funded EF Fellowship program was to facilitate a connection between institutional strategic initiatives and processes (top-down) to course and practitioner (bottom-up) systems. Alignment of various elements and stakeholder engagement are important when considering strategic ePortfolio implementation across faculties in universities (Slade et al., 2017; Thibodeaux et al., 2017).

Identification and Focus on Critical Elements for a UNSW ePortfolio

Graduate Capabilities are a pivotal feature of an ePortfolio program. By way of example, the UNSW Graduate Capabilities (GCs) are indicated below and summarised in Figure 1.

Figure 1.

UNSW Graduate Capabilities (2010)



Each element of the capabilities has sub-sections, or a set of actions that potentially fulfil these capabilities in the following ways, to ensure UNSW has:

Scholars who are understanding of their discipline in its interdisciplinary context and are capable of independent and collaborative enquiry, through being rigorous in their analysis, critique, and reflection. Who are able to apply their knowledge and skills to solve problems as ethical practitioners. And who are capable of effective communication, as they are information and digitally literate.

Leaders who are enterprising, innovative, and creative and capable of initiating as well as embracing change both as individuals and in collaborative team.

Professionals who are capable of independent, self-directed practice, whilst being capable of lifelong learning, and able to operate within an agreed Code of Practice.

Global Citizens who are capable of applying their discipline in local, national, and international contexts and are culturally aware and capable of respecting diversity and acting in socially just/responsible ways, whilst being environmental responsible.

In practice, as far as ePortfolios are concerned, embedding this into curriculum is formulated by focussing on the following elements:

- Integrating Graduate Capabilities within the ePortfolio architecture,
- Modelling curriculum mapping at program and course levels,
- A literature review to address the landscape at the international and national levels,
- Invitations for colleagues at other institutions to present their institutional ePortfolio systems and cases,
- Assessment of existing ePortfolio pedagogy and practice at UNSW Sydney,
- Where badging and microcredentialling may be incorporated *and*
- The role of reflective practice and feedback; particularly the developing the concept of creating a feedback loop and feedback literacy as Carless and Boud (2018) have previously discussed.

These elements all worked together to generate a set of recommendations and a roadmap to ePortfolio pedagogy and practice which was platform agnostic that could inform a future framework.

Project Outcomes

The case presented here primarily relate to UNSW needs, however, the project outcomes and insights revealed some general principles and recommendations that are of broader relevance for other Higher Education institutions seeking to embark on a similar process.

PVCESE program outcomes included bringing together EF academic teams to work on key education initiatives and leveraging the collective EF skill set across faculties and schools at UNSW Sydney. The ePortfolio EF Fellowship team was an example of a successful program outcome with the key aim being to design and develop a set of recommendations and a roadmap toward harmonised ePortfolio pedagogy, practice and implementation for students at UNSW Sydney.

A central finding of this ePortfolio EF project was to support ePortfolio implementation to recognise UNSW needs to provide an integrated approach to students' education and reinforce its Graduate Capabilities of scholar, professional, leader and global citizen through program and course learning outcomes. It was asserted that the reassurance of these capabilities through program and course assessments will most likely increase student satisfaction and cultivate an appreciation of the institution's role and guidance in their higher education journey. An ePortfolio also articulates the UNSW's aspirations as a leader in educational excellence and demonstrates

how its education strategy maintains ongoing relevance among its graduates as they progress into the workplace with skills as lifelong learners and productive global citizens.

Other recommendations that emerged from this project included that an ePortfolio framework be implemented to integrate with a student's university degree program to ensure consistent student experience. This should provide the vehicle for creating an active, ongoing feedback loop between teachers and students as suggested by Carless and Boud (2018). In turn, this would potentially generate a conversation starter, where the focus should not only be on academic feedback but should also incorporate the learner's feedback.

A major driver in this is to help support students in observing that they have achieved and developed competence, knowledge, and skills and to be valued as future employees of any company. The desire being that this meta understanding may deliver outcomes that go beyond the immediate gains of career orientation and employability to also be a resource for education, identity and sense of belonging.

By digitally facilitating evidence and amplifying students' scholarly, professional and leadership, and citizenship capabilities there is an opportunity to highlight engagement with the professional and institutional identity upon graduation. The aim of this being to provide a mechanism not only for becoming employable but more as a life-long resource of learner identity and understanding of the professional self in development.

Effective management and quality assurance of an ePortfolio program requires consideration of some further issues. In reviewing the scholarship, stakeholder consultations and reflecting upon the collective expertise, the EF Fellow team recommended that graders and rubrics should be continuously monitored, and supported with workshopping opportunities. Also, that the university should promote the thought that ePortfolios have an 'after-life' status through digital media such as LinkedIn.

Therefore, we as EF Fellows with a focus on ePortfolio pedagogy and practice, posit that the ePortfolio is more than a mechanism for becoming employable but more of a journey of learner identity and understanding of the professional self in development.

Discussion

When addressing project needs, it was identified that EF academics are key stakeholders in higher education initiatives. This is especially relevant in research-intensive universities with emerging teaching-intensive profile, where EF academic insight should be leveraged to address key university strategic education initiatives and projects. Challenges were also identified which included working collaboratively as stakeholders with negotiated heavy teaching workloads as EF academics. Ensuring stakeholders, who are faculty colleagues with heavy teaching and/or research workloads, have capacity to implement ePortfolio pedagogy in courses and programs especially during and emerging from the COVID-19 pandemic. A funded support system for EF academics to undertake key university strategic initiatives was a valuable way of engaging academic stakeholders in having an active role in each strategic initiative. This demonstrated institutional trust and influence in the collective talent of the EF Fellow teams. Stakeholder understanding of the future currency of ePortfolio pedagogy which is linked to UNSW graduate

capabilities and life-long learning were important learning outcomes for this ePortfolio EF Fellowship team in this process.

The EF Fellow team also identified that a UNSW ePortfolio ecosystem can play an essential role as 'reputation currency' for the university (Ravet, 2007). This is dependent on reflecting on ePortfolio purpose and strategic planning to build a sense of student and staff belonging. Our belief is that a UNSW ePortfolio has the power and purpose to anchor that university community, which is driven by a sense of belonging and value system. Naturally, this is dependent on all stakeholders being engaged in ePortfolio pedagogy, practice and purpose and that they value the institutional ePortfolio ecosystem.

Conclusion

This sharing practice paper focuses on how a team of UNSW Sydney EF academics, determined a set of key elements required for effective university-wide, student-centred ePortfolio pedagogy and practice at a research-intensive, and emerging teaching-intensive, Australian university. While a university-wide framework is yet to be developed, the ePortfolio EF Fellow team findings recommended that a hybrid format consisting of key elements such as curriculum mapping to address skills and graduate capability/attribute development coupled with reflective practice and feedback be explored.

Acknowledgements

The author(s) disclose that they have no actual or perceived conflicts of interest. The authors disclose that they have not received any funding for this manuscript beyond resourcing for academic time at their respective university via the UNSW EF Fellowship Program (UNSW Sydney Pro Vice-Chancellor Education and Student Experience (PVCESE) Portfolio). The authors have not used artificial intelligence in the ideation, design, or write-up of this research as per Crawford *et al.* (2023).

References

- Ajjawi, R., Tai, J., Bearman, M., Boud, D., Dollinger, M., & Hayes, A. M. (2025). The multiplicity of authenticity in higher education assessment. *Teaching in Higher Education*, 30(3), 583–591. <https://doi.org/10.1080/13562517.2025.2468598>
- Baik, C. & Larcombe, W. (2023). Student wellbeing and students' experiences in higher education. In C. Baik & E. Kahu (Eds.), *Research Handbook on the Student Experience in Higher Education*. Edward Elgar Publishing.
- Barker, K.C. (2021). Graduate Attributes as the Framework for the Future University. *FuturEd Info Bytes*. LinkedIn. <https://www.linkedin.com/pulse/graduate-attributes-framework-future-university-chang-barker-phd>
- Bjælde, O. E., Boud, D., & Lindberg, A. B. (2023). Designing feedback activities to help low-performing students. *Active Learning in Higher Education*, 26(1), 123-137. <https://doi.org/10.1177/14697874231212820>
- Blevins, S., & Brill, J. (2017). Enabling systemic change: Creating an ePortfolio implementation framework through design and development research for use by higher education professionals. *International Journal of Teaching and Learning in Higher Education*, 29(2), 216-232.
- Black, P., Harrison, C., Lee, C., Marshall, B., & Wiliam, D. (2004). Working inside the black box: Assessment for learning in the classroom. *Phi Delta Kappan*, 86(1), 8–21.
- Boud, D., & Falchikov, N. (2007). *Rethinking assessment in higher education: Learning for the longer term*. Routledge.
- Carless, D. (2019). Learners' Feedback Literacy and the Longer Term: Developing Capacity for Impact. In: Henderson, M., Ajjawi, R., Boud, D., Molloy, E. (eds) *The Impact of Feedback in Higher Education*. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-25112-3_4
- Carless, D., & Boud, D. (2018). The development of student feedback literacy: enabling uptake of feedback. *Assessment & Evaluation in Higher Education*, 43(8), 1315-1325. <https://doi.org/10.1080/02602938.2018.1463354>
- Carless, D., To, J., Kwan, C., & Kwok, J. (2020): Disciplinary perspectives on feedback processes: towards signature feedback practices. *Teaching in Higher Education*. <https://doi.org/10.1080/13562517.2020.1863355>
- Conefrey, T., & Smyth, D. (2020). Reflecting, Integrating, and Communicating Knowledge through ePortfolios to Increase Civic and Scientific Literacy. *International Journal of ePortfolio*, 10(1), 1-18.

- Charlton, N., Weir, K., & Newsham-West, R. (2022). Assessment planning at the program-level: a higher education policy review in Australia. *Assessment & Evaluation in Higher Education*, 47(8), 1475-1488. <https://doi.org/10.1080/02602938.2022.2061911>
- Clarke, J. L., & Boud, D. (2018). Refocusing portfolio assessment: Curating for feedback and portrayal. *Innovations in Education and Teaching International*, 55(4), 479-486. <https://doi.org/10.1080/14703297.2016.1250664>
- Encalada, J., Santiesteban, K., Portela, Y., Cruz S., & Arboleda, M. (2017). The Development of e-Portfolio for Lesson Study. *2017 International Conference on Information Systems and Computer Science (INCISCOS)*, Quito, Ecuador, pp. 274-278. <https://doi.org/10.1109/INCISCOS.2017.35>.
- Faulkner, M., Mahfuzul Aziz, S., Waye, V., & Smith, E. (2013). Exploring ways that ePortfolios can support the progressive development of graduate qualities and professional competencies. *Higher Education Research & Development*, 32(6), 871–887. <https://doi.org/10.1080/07294360.2013.806437>
- Gibbs, G. (2010) *Using assessment to support student learning*. West Yorkshire: Leeds Metropolitan University. Retrieved from: <https://www.leedsbeckett.ac.uk/-/media/files/clt/using-assessment-to-support-student-learning-by-graham-gibbs.pdf>
- Hammer, S., Ayriss, P., & McCubbin, A. (2021). Style or substance: how Australian universities contextualise their graduate attributes for the curriculum quality space. *Higher Education Research & Development*, 40(3), 508-523. <https://doi.org/10.1080/07294360.2020.1761304>
- Händel, M., Stephan, M, Gläser-Zikuda, M., Kopp, B., Bedenlier, S. & Ziegler, A. (2022). Digital readiness and its effects on higher education students' socio-emotional perceptions in the context of the COVID-19 pandemic. *Journal of Research on Technology in Education*, 54(2), 267-280. <https://doi.org/10.1080/15391523.2020.1846147>
- Holdsworth, S. & Thomas, I. (2021). Competencies or capabilities in the Australian higher education landscape and its implications for the development and delivery of sustainability education, *Higher Education Research & Development*, 40(7), 1466-1481. <https://doi.org/10.1080/07294360.2020.1830038>
- Hsieh, T-C., Chen, S-L. & Hung, M-C. (2015). Longitudinal test of ePortfolio continuous use: an empirical study on the change of students' beliefs. *Behaviour & Information Technology*, 34(8), 838-853. <https://doi.org/10.1080/0144929X.2014.907344>
- Jaekel, K. S. (2020). Benefits and challenges: Implementing E-Portfolios in a graduate student affairs preparation program. *College Student Affairs Journal*, 38(2), 172 – 185. <https://files.eric.ed.gov/fulltext/EJ1275362.pdf>

- Janpirom, C., Tuntiwongwanich, S., Pimdee, P., Kulworatit, C., & Moto, S. (2025). Lecturers' perspectives on undergraduate students' innovative thinking skills and creative problem-solving skills: A comparative needs analysis. *International Journal of Instruction*, 18(3), 121-140. https://www.e-iji.net/dosyalar/iji_2025_3_7.pdf
- Jenson, J. & Treuer, P. (2014). Defining the E-Portfolio: What it is and why it matters, Change: *The Magazine of Higher Learning*, 46(2), 50–57. <https://doi.org/10.1080/00091383.2014.897192>
- Johnson, G., Dempster, N., & Wheeley, E. (2016). Distributed Leadership: Theory and Practice Dimensions in Systems, Schools, and Communities. In: G. Johnson & N. Dempster (Eds.), *Leadership in Diverse Learning Contexts. Studies in Educational Leadership*, vol 22. Springer, Cham. https://doi.org/10.1007/978-3-319-28302-9_1
- Jones, S. (2018). Blended leadership: From conceptualization to practice. In: C. Bossu & N. Brown, N. (Eds.), *Professional and Support Staff in Higher Education*. University Development and Administration. Springer. https://doi.org/10.1007/978-981-10-1607-3_33-1
- Jorre de St Jorre., T & Oliver, B. (2018). Want students to engage? Contextualise graduate learning outcomes and assess for employability. *Higher Education Research & Development*, 37(1), 44-57. <https://doi.org/10.1080/07294360.2017.1339183>
- Joyes, G., Gray, L., & Hartnell-Young, E. (2010). Effective practice with E-portfolios: How can the UK experience inform implementation? *Australasian Journal of Educational Technology*, 26(1), 15–27. <https://doi.org/10.14742/ajet.1099>
- Keane, Ó. (2014). *E-Portfolios in the design curriculum: Enhancing the practical dimensions of the design studio class*. Dublin Institute of Technology. <https://arrow.tudublin.ie/cgi/viewcontent.cgi?article=1000&context=designpart>
- Khoo, L.M.S. (2012). *Using an eportfolio to enhance graduate attributes among engineering students in Malaysia*. PhD thesis, Murdoch University. <https://scispace.com/papers/using-an-eportfolio-to-enhance-graduate-attributes-among-an47ockpx2>
- Kohler II, J.J. & Van Zile-Tamsen, C. (2020) Metacognitive Matters: Assessing the High-Impact Practice of a General Education Capstone ePortfolio, *International Journal of ePortfolio*, 10(1), 33-43.
- Kuh, G. D. (2008). *High-impact educational practices: What they are, who has access to them, and why they matter*. Vol. 9. Association of American Colleges and Universities.
- Li, S. (2016). Performative ePortfolio: A learning tool in technical and professional communication class, *2016 IEEE International Professional Communication Conference (IPCC)*, Austin, TX, USA, pp. 1-4. <https://doi.org/10.1109/IPCC.2016.7740492>

- McDermott-Dalton, G. (2022). Putting the 'e' in portfolio design: an intervention research project investigating how design students and faculty might jointly reimagine the design portfolio activity. *International Journal of Technology and Design Education*, 32(2), 1207-1225. <https://doi.org/10.1007/s10798-020-09640-8>
- Mehmet, S., & Karakaya, I. (2020). Investigation of the Use of Electronic Portfolios in the Determination of Student Achievement in Higher Education Using the Many-Facet Rasch Measurement Model, *Educational Policy Analysis and Strategic Research*, 15(1), 7-21. <https://doi.org/10.29329/epasr.2020.236.1>
- Meyer, B., & Latham, N. (2008). Implementing Electronic Portfolios: Benefits, Challenges, and Suggestions. *Educause Review*. February 13. <https://er.educause.edu/articles/2008/2/implementing-electronic-portfolios-benefits-challenges-and-suggestions>
- Miller, K. K., Jorre de St Jorre, T., West, J. M., & Johnson, E. D. (2020). The potential of digital credentials to engage students with capabilities of importance to scholars and citizens. *Active Learning in Higher Education*, 21(1), 11-22. <https://doi.org/10.1177/1469787417742021>
- Mitchell, L., Campbell, C., Mari Somerville, E.C., & Williams, L.T. (2021). Enhancing graduate employability through targeting ePortfolios to employer expectations: A systematic scoping review. *Journal of Teaching and Learning for Graduate Employability*, 12(2), 82–98. <https://doi.org/10.21153/jtlge2021vol12no2art1003>
- Oliver, B. (2013). Graduate attributes as a focus for institution-wide curriculum renewal: innovations and challenges. *Higher Education Research & Development*, 32(3), 450-463. <https://doi.org/10.1080/07294360.2012.682052>
- Polly, P., Vickery, R., Thai, T., Yang, J-L., Fath, T., Herbert, C., Jones, N., Lewis, T., Pather, N., Schibeci, S., & Cox, J. (2017) ePortfolios, Assessment and Professional Skills in the Medical Sciences (pp 47–64). In: Rowley, J. (Eds.), *ePortfolios in Australian Universities*. Springer, Singapore. https://doi.org/10.1007/978-981-10-1732-2_4
- Ravet, S. (2007) *ePortfolio for a learning society*, Available at <https://www.semanticscholar.org/paper/ePORTFOLIO-FOR-A-LEARNING-SOCIETY-Ravet/d1ace6553af08b18a896830f3c6c0e75ea2dd948>
- Reese, M., & Johns, T. (2009). Assessing the future: E-Portfolio trends, uses, and options in higher education. EDUCAUSE Research Bulletin, Issue 4, February 24. EDUCAUSE Center for Analysis and Research. Retrieved from: <https://library.educause.edu/resources/2009/2/assessing-the-future-eportfolio-trends-uses-and-options-in-higher-education>

- Sata, M. & Karakaya, I. (2020). Investigation of the Use of Electronic Portfolios in the Determination of Student Achievement in Higher Education Using the Many-Facet Rasch Measurement Model. *Educational Policy Analysis and Strategic Research*, 15(1), 7-21. doi: 10.29329/epasr.2020.236.1
- Sinfield, D. (2013). Graphic design in a digital world: Enhancing graphic design teaching through digital technologies, *The International Journal of Design Education*, 7(1), 57–64. DOI: doi:10.18848/2325-128X/CGP/v07i01/38438.
- Slade, C. (2015). Early student aspirations of using EPortfolios". In I. Dobson & R. Sharma (Eds.), *Proceedings of the 2015 Tertiary Education Management Conference, Leading Locally Competing Globally*. August-September. pp.185-194
- Slade, C., Murfin, K., & Readman, K. (2013). Evaluating Processes and Platforms for Potential ePortfolio Use: The Role of the Middle Agent. *International Journal of ePortfolio*, 3(2), 177-188.
- Slade, C., Murfin, K., & Trahar, P. (2017). A Strategic Approach to Institution-Wide Implementation of ePortfolios. In: Rowley, J. (Eds.), *ePortfolios in Australian Universities*. Springer, Singapore. https://doi.org/10.1007/978-981-10-1732-2_11
- Su, Y-H. (2014) Self-directed, genuine graduate attributes: the person-based approach. *Higher Education Research & Development*, 33(6), 1208–1220. <https://doi.org/10.1080/07294360.2014.911255>
- Thibodeaux, T., Cummings, C., & Harapnuik, D. (2017). Factors That Contribute to ePortfolio Persistence. *International Journal of ePortfolio*, 7(1), 1-12.
- Thibodeaux, T., Harapnuik, D., Cummings, C., & Dolce, J. (2020). Graduate Students' Perceptions of Factors That Contributed to ePortfolios Persistence beyond the Program of Study. *International Journal of ePortfolio*, 10(1), 19-32.
- UNSW Graduate Capabilities (2010). *UNSW Teaching Gateway*. June. Retrieved from: <https://www.teaching.unsw.edu.au/graduate-capabilities>
- UNSW Teaching Gateway. (2025) *Assessing with ePortfolios*. Retrieved from: <https://www.teaching.unsw.edu.au/assessing-eportfolios>
- Wahab, M.H.S., Hosen, M., Islam, M.A., Chowdhury, M.A.M., Jantan, A.H. & Wahab, S.A. (2024), Graduate employability: a bibliometric analysis. *Global Business and Organizational Excellence*, 44(2). 38-57. <https://doi.org/10.1002/joe.22267>.
- Watty, K., & McKay, J. (2015). Pedagogy and ePortfolios: purpose aligned to design (or the why and how). *International Journal of Pedagogies and Learning*, 10(3), 194-207. <https://doi.org/10.1080/22040552.2015.1135498>