

Winter 12-31-2018

Deconstructing the Notion of ePortfolio as a ‘High Impact Practice’: A Self-Study and Comparative Analysis

Robin A. Mueller

University of Calgary, robin.mueller@usask.ca

Haboun Bair

University of Calgary, haboun.bair@ucalgary.ca

Follow this and additional works at: https://ir.lib.uwo.ca/cjsotl_rcacea

Recommended Citation

Mueller, R. A., & Bair, H. (2018). Deconstructing the Notion of ePortfolio as a ‘High Impact Practice’: A Self-Study and Comparative Analysis. *The Canadian Journal for the Scholarship of Teaching and Learning*, 9 (3). Retrieved from https://ir.lib.uwo.ca/cjsotl_rcacea/vol9/iss3/6

Deconstructing the Notion of ePortfolio as a ‘High Impact Practice’: A Self-Study and Comparative Analysis

Abstract

ePortfolio has become a popular pedagogical tool on the higher educational landscape, often referred to as a “high impact practice” that has the potential to generate transformative learning experiences. After reflecting on our educational development consultations and undergraduate teaching practices with ePortfolio, we identified areas of resonance with, and misalignment between, research literature and our experiences with implementation. We have conducted a self-study to capture the narratives of our experiences, and engaged in a comparative analysis of these narratives alongside ePortfolio best practice literature. We provide a comprehensive literature review, an overview of our narratives, and a discussion about the inconsistencies arising from our comparison. We conclude by offering some recommendations for application and suggestions for further inquiry.

L'ePortfolio est devenu un outil pédagogique populaire sur la scène de l'enseignement supérieur, on en parle souvent comme d'une « pratique à fort impact » qui a le potentiel de générer des expériences d'apprentissage transformateur. Après avoir examiné nos consultations en matière de développement éducationnel et de pratiques d'enseignement au niveau du premier cycle avec emploi d'un ePortfolio, nous avons identifié des zones de résonance ainsi que des dissonances par rapport à la recherche publiée et à nos expériences de mise en oeuvre. Nous avons mené une auto-évaluation afin de saisir les descriptions de nos expériences ainsi qu'une analyse comparative de ces descriptions côte à côte avec la documentation publiée sur les meilleures pratiques en matière d'ePortfolio. Nous présentons un examen complet de la documentation publiée, une vue d'ensemble de nos descriptions et une discussion sur les contradictions qui découlent de notre comparaison. En conclusion, nous offrons quelques recommandations concernant la mise en application ainsi que des suggestions pour un complément d'examen.

Keywords

ePortfolio, self study, comparative analysis, instructional design, assessment, SoTL

ePortfolio has recently emerged on the higher education landscape as a popular tool for fostering and assessing student learning (Watson et al., 2016). A virtual version of the hard-copy portfolio, ePortfolio provides students an opportunity to demonstrate their skills, competencies, reflective practices, and learning in an authentic and flexible manner. With an aim to leverage momentum around ePortfolio use amongst instructors and students, the Taylor Institute for Teaching and Learning at the University of Calgary has recently invested in providing campus-wide ePortfolio technology and support. However, despite the purported popularity of ePortfolios in higher education, our experience has revealed that instructors are hesitant to use them, and adoption of ePortfolio technology on our campus has been slow.

Puzzled as to the reasons informing this slow adoption, we have sought opportunities to both facilitate and observe multiple aspects of ePortfolio implementation. In addition to investigating our own consultation practices, we were recently able to use ePortfolios as part of a new, interdisciplinary, inquiry-based learning course. Through the act of contemplating the narratives that reflect our own experiences with ePortfolios, we discovered that there are areas of both resonance and misalignment between the ePortfolio research literature and our application of ePortfolio as part of higher education pedagogical practice. Consequently, we designed a self-study intended to examine our experiences, and then proceeded to compare the emergent narratives with best practices indicated within ePortfolio literature. It is our goal to use our personal narratives in comparison to a literature review as a way to better understand some of the existing gaps in ePortfolio research, and to suggest pragmatic recommendations for those who are using ePortfolios in their teaching practice.

ePortfolio Research and Literature

We conceptualized an ePortfolio as a multi-media environment where learners reflect on, synthesize, and present various kinds of evidence that represent their learning. Scholars have developed various typologies in order to characterize the broad qualities of ePortfolios. These classification systems include everything from binary categories (such as author-focused versus task focused) to functionally discrete categories. As a whole, ePortfolio typologies most often include general aims for ePortfolio use, such as enabling academic advising, fostering reflection, facilitating accreditation, demonstrating learning or skill development, demonstrating collaborative or project efforts, serving as a foundation for lifelong learning, and acting as a platform for career planning and development, amongst others (Cambridge, 2010; Reese & Levy, 2009; Strivens, 2015; Taylor, Dunbar-Hall, & Rowley, 2012). Regardless of where any particular ePortfolio effort fits within this typology, there is widespread agreement that ePortfolios “have the potential to considerably affect the ways... learning is planned, supported and documented” (Christmann & Dahn, 2007, p. 71). This impact is largely represented positively, with any challenges in implementation being mitigated by benefits at institutional, departmental, instructor, and student levels.

Recently hailed as the “eleventh high impact practice” in higher education (Watson et al., 2016, p. 65), the ePortfolio is often viewed as a pedagogical and evaluative tool that can foster student learning and success. According to a relatively new but growing body of research literature that is primarily case-based in nature, there are many compelling reasons for implementing e-portfolios in higher education. They are most commonly used to provide a repository for evidence of learning, which in turn serves as a way for instructors or potential employers to assess student achievement of particular learning outcomes (Bryant & Chittum,

2013; Challis, 2005; Lamont, 2007; Richards-Schuster et al., 2014). However, recent research also points to the potential for ePortfolios to be used as pedagogical strategies, reflective spaces, and hubs for identity development rather than straightforward artifacts of learning (Nguyen, 2013; Parkes, Dredger, & Hicks, 2013; Pitts & Ruggirello, 2012). This marks a shift, where, in some cases, ePortfolio implementation in higher education classrooms has become more about processes than concrete outcomes (Mueller, 2015c). In other words, ePortfolios may enable students to explore and create narratives about their identities, view their experiences in comparison with others, situate themselves within particular communities, and imagine future actions or possibilities (Nguyen, 2013). ePortfolio has also been situated as a narrative tool that eclipses conventional, linear representations of learning (Schreiner, 2016); it is thought to facilitate the holistic integration of engaged learning, academic determination, and social connectedness. As such, ePortfolios become both pedagogically and metacognitively focused, allowing students to direct, synthesize, assess, interrogate, and apply their own learning.

Accounts of implementing ePortfolios in ways that move beyond situating them as content repositories or assessment tools are rare. However, regardless of the reason for using ePortfolios, current literature dictates that it is the communication about purpose that is most important for ensuring their successful implementation. Scholars maintain that it is essential to communicate the nature, structure, and intended learning outcomes of any ePortfolio process with clarity and concision (Johnson, 2005; Lamont, 2007; Parkes et al., 2013; Ring & Foti, 2003). Students must understand the learning and/or developmental benefits that are associated with compiling ePortfolios in order to ensure their engagement in the process. Clarity can be ensured by: (a) providing students with structural expectations, sequences, and guidelines early in the process of using ePortfolios, including an assessment rubric; (b) developing a process for identifying acceptable evidence for inclusion in e-portfolios; and (c) establishing a schedule for follow-up with students about their progress with e-portfolio assignments (Richards-Schuster et al., 2014).

Scholars also recommend four broad steps for creating ePortfolios (Parkes et al., 2013; Richards-Schuster et al., 2014):

1. Collect – collecting, saving, and organizing artifacts from programs of study, courses, and individual learning experiences;
2. Select – using a critical framework to choose the artifacts that best serve as evidence of learning and development;
3. Reflect – reflecting, in a structured way, on how the evidence that has been selected demonstrates an evolution in learning; and
4. Connect – identifying points of connection across the artifacts and reflections for the purpose of creating a polished summary.

In addition to this process, there are some elements of ePortfolio implementation that are consistently recommended, two of which are particularly salient in our query: (a) that there is a balance between structure and flexibility in ePortfolio assignments that allows students to “create their own ways of capturing their experiences” (Richards-Schuster et al., 2014, p. 136), and (b) that reflection is evident and ties the elements of the portfolio together into a coherent whole (Lamont, 2007). Reflection, or demonstrating intentional thoughtfulness, is widely considered an important aspect of e-portfolio creation (Parkes et al., 2013; Pitts & Ruggirello, 2012).

Consequently, the materials included within any ePortfolio should be substantiated by structured reflections.

Our Context: ePortfolios at the University of Calgary

The University of Calgary is a mid-sized, research-focused, medical-doctoral institution in western Canada. Serving over 30,000 undergraduate and graduate students, the campus consists of thirteen faculties that offer a broad range of both professional and general education programs. The Taylor Institute for Teaching and Learning at the University of Calgary is our home unit, where we (the authors) work, one as an instructional designer and one an educational developer and faculty member. Our journey with ePortfolios began early in 2014 when we were asked to design some resources that would support our consultation practice with instructors or academic programs that were considering implementing ePortfolios.

Evidence based educational development consultation and ePortfolios. Over the past several years, we have offered several iterations of an ePortfolio workshop for colleagues on our campus. These workshops are developed according to evidence-based best practices and aim to integrate pedagogical and design principles. Initially, the workshops were structured to provide some theoretical knowledge about ePortfolio implementation and to allow participants an opportunity to use their course outlines to begin conceptualizing how they would use ePortfolio within their teaching practice. We found that though participants were keen to know more, most could not grasp what ePortfolios would look like in their own contexts. Thus, we adjusted our plans to meet our participants where they were, offering working sessions to provide information and examples about the process. Some participants would follow up with a consultation, which proved to be a more personalized experience for exploring ePortfolio as a measure of student learning and engagement.

Using ePortfolio as a tool to assess student learning in an inquiry-based course. The University of Calgary has recently offered a new undergraduate inquiry-based learning course. It is designed to engage interdisciplinary groups of first-year undergraduate students in the process of exploring a complex world challenge by way of immersive inquiry processes. This course represents an inversion of conventional learning in higher education, situating students as the agents of their own learning. Students direct their development by engaging in iterative inquiry; furthermore, they are also responsible for selecting and presenting evidence of their learning rather than being “tested” via typical assessment formats like exams and essays.

The new inquiry-based learning course has virtually no formal disciplinary content and was instead structured around learning outcomes associated with skill-building in inquiry practices. As such, a requirement for students to select, justify, and present evidence—in alignment with ePortfolio best-practices—seemed like an excellent fit for this course; so, we designed an ePortfolio assignment that was intended to replace a conventional final exam. We attempted to further align this effort with current ePortfolio literature in terms of both the structural aspects of the assignment and in fostering the potential for the ePortfolio to serve as more than just a repository for student work. The students used eportfolio.ucalgary.ca as a platform for their ePortfolio construction; this platform is a WordPress site tailored specifically for University of Calgary students. The required components for inclusion in the students’ ePortfolios were: (a) a portfolio introduction; (b) upload of assignments that had been completed by the student throughout the term; (c) a self-evaluation of the student’s own participation; (d) at least three pieces of self-selected evidence of learning, accompanied by a descriptive justification

of the evidence; and (e) a narrative to connect the elements of the ePortfolio, offer a reflective assessment, and indicate what the student would do as a result of his/her learning.

Ideal vs Reality: Comparing ePortfolio Literature with our Experiences of Practice

As we engaged with various types of ePortfolio consultation and implementation over the years, it became clear that the ideals espoused in best-practices literature—on which we based our practices—did not always align with the reality of our experiences. We became interested in making a formal comparison of the two, striving to achieve greater clarity about ePortfolio best practices in implementation. This analysis is important because we believe (and, on occasion, have seen) that ePortfolio can be a rich, meaningful, and potentially transformative learning experience for students and instructors alike. However, our experiences with application tell us that there are multiple challenges and barriers to achieving this ideal that move beyond what is typically represented in the ePortfolio research literature. We anticipate that our recommendations, and the resources that are developed in response to our analysis, will help both instructors and students to implement ePortfolios more effectively.

Foundations for reflection on narratives. As educational development professionals who have consulted on, and utilized, ePortfolios in higher education, we have consistently engaged in conversation and reflective practice to make sense of our experiences and to guide our future efforts (Brookfield, 1995; Coia & Tidwell, 2009). For us, reflective practice has been expressed individually through various forms of personal writing, and as collaborative, retrospective-focused dialogue where we worked together to identify and analyze shared experiences (Coia & Tidwell, 2009). We view these reflections as a point of departure; they allow us to identify the narratives emerging from “naturally occurring accounts” of our experiences (Sandelowski, 1991, p. 161), enabling our critical assessment of ideals regarding the use of ePortfolios in comparison with our own application in a localized higher education context.

Method and Results

In light of our reflective focus as part of continuous improvement, we used self-study as a mechanism to critically examine our own practices and experiences (Bullough & Pinnegar, 2001; Foote, Crowe, Tollafield, & Allan, 2014; Koster & van den Berg, 2014; LaBoskey & Richert, 2015; Loughran, 2007; Ritter, 2017), which then served as a foundation for our analytical project. Self-study involves the consideration and interrogation of one’s own practice, including an exploration of what is happening and what could be modified in future practice (Koster & van den Berg, 2014; Loughran, 2007). There are no prescribed methodological standards for conducting self-study (Ritter, 2017). We chose to align with Bullough and Pinnegar’s (2001) guidelines for generating a high-quality self-study: (a) the self study is characterized by an authentic voice and enables connection; (b) it enables interpretation that provides insight into educational practice; (c) the self-study researcher must be forthright and honest; (d) the self-study focuses on a challenge or issue in the context of education, with the goal of continuous improvement for the researcher and others; (e) the self-study researcher is careful to consider context; and (f) the self-study provides a unique perspective on established conventions or processes. We achieved this alignment by engaging in iterative, reflexive cycles of sharing our narratives in a half dozen face to face conversations, followed by writing the narratives

individually, and then comparing the narratives using a collocation approach (Mello, 2002). Collocation analysis honours the integrity of narratives by considering them as a whole rather than breaking them into analytical pieces. We focused on identifying textual and transactional similarities between our narratives, meaning that we looked for resonance with respect to patterns of behaviour and interpretation, personal significance, and context (Mello, 2002).

This self-study approach was initiated by us (the researchers), was focused on our own experiences and stories, and did not involve any other human subjects. While we refer to groups of people as part of our reflections (for example, general categories of people such as “students” or “instructors”), we do so only in a generalized manner. Furthermore, these groups were not the focus of our query; our analytical project was centered around our perceptions—as educational developers and instructors—of the ePortfolio as a pedagogical tool. As such, ethics approval at our institution was not required for this work (University of Calgary, 2015).

Ultimately, our focus was not on the narratives emerging from the self-study themselves; rather, we used the narratives and our analyses of the narratives as a foundation for a comparative critique. The stories we generated as part of our reflective practice enabled us to listen deeply and empathize with one another (Riessman, 2014), and, in their telling, we uncovered inconsistencies between what the research literature tells us about using ePortfolios in higher education and what we have witnessed as part of their actual implementation. We closely examined our stories of experience, in both verbal and written format; however, it is the comparison of our stories with the literature review regarding ePortfolios that has constituted the bulk of our effort.

At the Taylor Institute for Teaching and Learning, one of our functional priorities is to engage in evidence-based practice (University of Calgary, 2017). Thus, a review of ePortfolio literature has served as a baseline for our efforts since the inception of our ePortfolio consultation practice and scholarly consideration (Mueller, 2015a, 2015b, 2015c). As our consultation and teaching practices with ePortfolios unfolded over time, we used reflective writing, teaching practice notes, and face-to-face conversations to uncover the narratives of our experiences with ePortfolios. The instances when our stories did not resonate with recommendations arising from the research literature create the foundation for our critical comparison. What follows is our exposition of those narratives layered with our comparative analyses of our experiences and the assertions arising from ePortfolio research literature.

Haboun: ePortfolios in Educational Development Consultation

Many instructors with whom I have consulted about ePortfolio implementation and its potential to foster student learning are fascinated with the possibility of replacing a traditional assignment with something new. This “something new” sparks engagement within instructors because an ePortfolio has the potential to (figuratively) preserve learning in digital amber. Imagine a space that can hold a thought, where it grows and can be collected when it has ripened to share with others; then, planting new seeds of knowing only to begin again. This cyclical process, this space, this concept of authentic learning, should provide a holistic way for students to express their learning and show evidence of their growth.

Students “should” be able to do this and this belief is often laced with an assumption that students can think metacognitively to self-direct while the course proceeds. We fall in love with the idea of ePortfolio as a “mover and a shaker,” romanticizing the potential for ePortfolio as a transformative learning tool. Institutions showcase student-developed ePortfolios on their

teaching and learning websites, participate in annual ePortfolio competitions, and promote ePortfolios as a way for students to “sell themselves” to potential employers. In the classroom, however, the buzz is a bit quieter and somewhat awkward. ePortfolio has the tendency to unravel what we thought we knew. It can be an arduous process—for both instructors and students—that takes more than one expert to navigate.

As a learning and instructional designer, I have asserted that an ePortfolio assignment can complement the alignment of a course (Biggs, 2003), especially if the concepts and ideas are carefully scaffolded, and provided that instructors allow appropriate time, space, and feedback for students to create a dialogue with the process so they can see themselves in their learning. Based on follow-up consultations about how instructors have used ePortfolio, this is an area that is often overlooked. As a result, authentic representations of learning can sometimes be disguised as knowledge and skill retrieval, or an exam in shiny new clothes.

I often think about how Middendorf and Pace’s (2004) work on decoding the disciplines acts as a roadmap for instructors to begin thinking about how to manage obstacles in student learning by looking at those obstacles through an expert lens. Their model is a series of steps that begins with an instructor identifying a bottleneck or obstacle to student learning in the course (Middendorf & Pace, 2004). When I think about bottlenecks that instructors have shared with me about student learning around ePortfolio, many of them are similar to those expressed by students themselves: writing insightful reflections, choosing appropriate artifacts, connecting assignments across a course, starting their ePortfolio early, troubleshooting technology, etc. These bottlenecks are inhibitors of student learning, but Middendorf and Pace’s (2004) research reveals that, when it comes time for instructors to think about obstacles from their expert lens, the ePortfolio blurs the lines between the expertise of the instructor and student. I have begun to look beyond the disciplines and to begin decoding how the development of an ePortfolio can be a space of continuity where students and instructors can learn alongside each other, engaging with the complexity and uncertainty of their own thinking.

In ePortfolio development, who is the expert, and what happens when both the instructor and the student experience bottlenecks to their learning during the process? This line of questioning leads me to think that both the instructor and the student are co-creating an emergent academic experience. Therefore, even though instructors have expertise in their discipline and can model what it looks like to approach obstacles from an expert lens, cultivating a narrative identity in ePortfolio development is a way of thinking that is complex, multifaceted and “...rarely presented to students explicitly, that students generally lack an opportunity to practice and receive feedback on...” (Middendorf & Pace, 2004, p. 3). When experts in their discipline focus less on ePortfolio as a tool and more on ePortfolio as a learning environment (Roberts, Maor, & Herrington, 2016), ePortfolio implementation becomes more about integrating and scaffolding the process of learning throughout the course.

Robin: ePortfolios as Assessment of Learning in Undergraduate Education

In the fall months of 2016, I worked collaboratively with a group of instructors to develop a new inquiry-based learning course at the University of Calgary. I proposed the idea of using an ePortfolio as the replacement for a conventional final exam in the course as a means to achieve two ends. First, it would provide a non-traditional platform for students to provide evidence of their learning throughout the term; second, it would create a collaborative and

exploratory space for students to clarify their own identities in relation to the topics that drove the inquiry processes within our course.

In alignment with ePortfolio literature, we put a number of structural supports in place in order to ensure that students were successful with their ePortfolio assignment. Suspecting that the technology might create a barrier for some (Roberts et al., 2016; Taylor et al., 2012), students in all sections of the class were provided with an in-class WordPress orientation workshop that was hosted by staff from the technology integration team at the Taylor Institute for Teaching and Learning. In my own section of the course, I also provided students with a written guide and ongoing in-class coaching regarding the process for compiling and refining an ePortfolio, based on best-practices stemming from research literature. I hosted frequent conversations with students about collecting and assessing evidence, and facilitated sharing amongst students in the class about the kinds of evidence that they were collecting. Finally, students were required to attend at least one drop-in session with me to ensure that the ePortfolio was up and running and to address any questions about the technology.

The development of the ePortfolio assignment was also intentionally aligned with our idealistic aspirations. Our inquiry-based course presented what seemed like an optimal opportunity for students to use the ePortfolio as a virtual “discursive space” (Pitts & Ruggirello, 2012, p. 50) that enabled not only reflection and learning, but also identity development (Nguyen, 2013). Aware that students would likely require practice with reflective writing (Lamont, 2007; Parkes et al., 2013), I provided several reflective templates that they could use or adapt as they saw fit. I facilitated a half-dozen structured opportunities for students to use these templates, where they recorded their responses to our in-class activities and their group-focused inquiry processes. My hope was that these reflections would find their way to the students’ ePortfolios, and that the ePortfolio space would then offer a safe venue for sense-making. Ultimately, I wanted students to take advantage of the very few structural constraints required in the ePortfolio assignment and leverage the many opportunities embedded within the tool to exercise their creative freedom, to use the ePortfolio as exploratory space, and to represent their own learning in integrative and dynamic ways (Richards-Schuster et al., 2014). And, since students largely directed their own learning in this course, I expected that the process of compiling the ePortfolio would serve to extend and deepen their learning (Pitts & Ruggirello, 2012), and that this would be evident within the final submitted ePortfolio assignments.

ePortfolios in implementation. In implementation, use of the ePortfolio tool ran counter to my expectations in several ways. First, while I suspected that some students may have been uncomfortable with the technology, many of my students voiced explicit resistance to using the technology at some point during the term. Curious about this, I learned that the requirement to navigate the ePortfolio platform seemed to add substantively to the students’ workload within the inquiry-based learning course and, in cases, inspired active resistance to the assignment. It appeared that, rather than the ePortfolio platform opening up creative options, it instead contributed to a sense of limitation in the students’ thinking about how they might represent their own learning.

Our reading of the potential for ePortfolios to become exploratory and discursive spaces was also disrupted by the way that students took up the ePortfolio assignment in implementation. First, many students indicated that, for various reasons, they left the development of their ePortfolios until late in the term. There was little indication in the final ePortfolio assignments that students had been using their portfolios to document the development of their thinking, explore their own perspectives, or consider their learning on a metacognitive level. Many of the

final ePortfolio assignments seemed like they had been patched together in a rush. Adding to this, the work we had done with reflective templates was largely absent in the final ePortfolio submissions. Students seemed to really struggle with providing reflective commentary on the evidence they decided to showcase, and very few students used reflective narrative to connect or integrate the pieces of evidence within their ePortfolios.

Finally, many students' ePortfolios looked surprisingly similar, both aesthetically and in terms of content. To me, this was evidence of a "checkbox" approach to developing the ePortfolio, suggesting that the students perceived the ePortfolio as a relatively rigid tool that was being used to assess pre-determined learning tasks. Students most often did their due diligence and included all of the elements outlined in the ePortfolio assignment description, but did not use the ePortfolio to then make sense of these elements or to connect them to personal contemplations about their own learning. This was the aspect of ePortfolio assignment that was most troubling to me, since the very purpose of the ePortfolio in the context of our course was to provide an alternative to conventional testing and to allow students the opportunity to both drive and demonstrate their learning in unique, individually-oriented ways.

Discussion

We will report here on several observations and themes that arose from comparing our own experiences with ePortfolio implementation and what is reported in the research literature. It is important at this point that we be clear about our intentions. We have no desire to generate critical or generalized claims about what works and what does not in terms of ePortfolio best practices and implementation. Our observations are based solely on our own perceptions, and the attempts we have made to make sense of those perceptions; we recognize that our stories are reflective of just two of the many experiences with ePortfolio in higher education. Additionally, we acknowledge that the students' experience of ePortfolio is missing from this account. However, it was our goal to explore the depth and complexity of our own experiences with ePortfolio practice in higher education, so involving students did not fall within the scope of this self-reflective project. Despite the limitations of our contextualized and small-scale project, we assert that our experiences as instructors and educational development professionals may resonate with others, and our learnings may be of use if they can be adapted to enhance use of ePortfolios in settings beyond our own.

Our first observation is that our desire to see the ePortfolio used as a discursive and exploratory space often did not match the perceptions of the instructors we were consulting with, nor those of the students in our class. In our educational development consultation practice, we noticed that instructors tended to view the ePortfolio solely as an assessment tool, which in turn reinforced this perspective for students. This mismatch between our idealistic perception and the pragmatic views of others confirms Nguyen's (2013) observation of potential challenge with ePortfolio implementation: When the ePortfolio is seen as only a tool, it runs the risk of being pigeonholed as a means to help students achieve results rather than being seen as a living portal that expands one's horizons and cultivates student well-being.

Misalignment becomes more pronounced when we acknowledge that the ePortfolio (at least in our case) was a teaching and learning strategy that was unfamiliar to both instructors and students. As such, it rendered everyone in the teaching and learning environment vulnerable, and contributed to bottlenecks in learning for all. Complexity also emerges when we consider the roles, expertise, and expert lenses at play during the use of ePortfolio, including those of the

instructional designer, educational developer, instructor, and student. The literature provides evidence for ePortfolio development and practice, the designer and developer use that evidence to coach the instructor, and the instructor uses ePortfolio as an entry point for students to engage with her expertise. Meanwhile, the students' expertise is expressed in response to the process of their learning, where ePortfolio showcases their journey and makes their thinking visible. We believe that the complexity and interdependence of these relationships can put a strain on how ePortfolios are perceived in implementation. We learned first-hand how difficult it is to shift both instructors and students toward a novel approach to assessing learning, and even more difficult to situate ePortfolio as pedagogy in itself that alters the very foundations of how teaching and learning are enacted. It is reasonable to conclude that expecting students and instructors to make this leap all at once could be linked with experiences of challenge and struggle.

During our consultation work, we found that ePortfolio bottlenecks arose from moments of uncertainty when people were confronted with the process of ePortfolio delivery. During the design stage, when instructors prepare to use ePortfolios, conversations are typically characterized by curiosity, excitement, and naivety. In our experience, bottlenecks have most often been reported amongst both teachers and students during the implementation phase or once the course is concluded. We have surmised that, in response to discomfort, both groups may find ease in defaulting to strategies that uphold teaching and learning approaches that are more familiar, most of which place emphasis on knowledge and skill retrieval rather than strengthening non-academic learning outcomes that are complex and subjective in nature (Chen, Fan, & Jury, 2017). So, we have found a stark contrast between how people experienced the design and how they experienced implementation. Ultimately, feelings of uncertainty seemed to become an obstacle embodied in the ePortfolio implementation process, which made it seem like something "wrong" rather than an opportunity to investigate, reflect upon further, or share with others.

Despite the growing consensus that ePortfolio is a high impact practice in higher education, we suspect that successful implementation, at least with the goals we had in mind, will require more than following a to-do list of best practices. We suggest that a substantive shift in the way we view assessment and grades in the courses and programs where we use ePortfolio is necessary to create a more secure foundation for learning, and demonstrating learning, via the ePortfolio. This arises from our observation that the disconnect between the literature and our own experiences with implementing ePortfolio became most pronounced when we considered how the students' ePortfolios were ultimately graded. ePortfolio is routinely used as a stand-in for conventional graded assignments—in our case, it replaced a final exam. However, expecting students to develop a brand-new technological skill to engage in risky personal exploration can be problematic, especially given that we (the instructors) then assign numerical grades to that exploration. While we can create rubrics and standards to guide student progress and to refer to when we are marking, these systems render our hopes of using ePortfolios as transformative spaces moot because they subtly shift ePortfolio back into the domain of knowledge and skill retrieval.

Through the process of articulating our narrative reflections and comparing them to the current discourse about ePortfolios, we have found that much of the pragmatic content in research literature stems from descriptive or empirical case applications (Bryant & Chittum, 2013). This content is, of course, inherently shaped by the purposes that informed ePortfolio implementation in each case. Most frequently, the purposes reflected in the literature could be

captured under the umbrella of using ePortfolio as a tool to evaluate student learning. In some shape or form, the cases illustrated circumstances where ePortfolios were viewed as a strategy “to measure outcomes or student progress” (Nguyen, 2013, p. 135). It is actually an absence in the research, then, that has contributed to our experiential misalignment with ideals reported in ePortfolio literature, as there are very few recommendations for application when instructors are considering using ePortfolio as space, pedagogy, or integrative learning process rather than solely as a tool for evaluative purposes. Without realizing it, we attempted to borrow best practices and approaches from research literature that were not truly reflective of the aims and purposes driving our own consultation and teaching practices.

Conclusion and Recommendations

At the root of the disjuncture between ePortfolio literature and our own experiences, we believe that the use of ePortfolios has come to run parallel to what is often observed about teaching practice in higher education: that it is characterized by an absence of community dialogue and encased in a kind of “pedagogical solitude” (Schulman, 1993). In other words, there is a lot that is not being said. The use of ePortfolios, though seemingly well-represented in higher education research, is largely enacted in the context of private teaching and learning practices. We do not see many publicly accessible representations of ePortfolio voices, or the in-progress experiences of educational developers, teachers, or students; these narratives are often relegated to satisfaction-type post-scripts. It appears that we also shy away from collegial conversations about ePortfolios on our very own campuses, perhaps because of a pervasive dissonance between best practice claims and the difficulties of our own experiences.

So, do we romanticize the ePortfolio, or the potential that ePortfolio could reach in terms of enhancing student learning? Given the observations we have outlined here, how could we talk about ePortfolio in ways that better align with the realities of implementation? How might teachers and students embark on ePortfolio journeys with clearer expectations, while still leveraging the freedom that ePortfolio work should theoretically enable? These are complex questions that require further inquiry. However, based on our experiences over the last several years, and the observations we have made as part of this comparative exercise, we do have some suggestions.

First, we believe that instructors should engage in a close investigation of the alignment between purposes, expectations, and potential outcomes when considering use of ePortfolio. This moves beyond providing an explicit and specific description of the ePortfolio’s purpose within a course or program, as per conventional best practice recommendations. It is important to emphasize that we are not suggesting that there are better or worse purposes from which to choose; for example, using ePortfolio for assessment is no better or worse than using ePortfolio as a reflexive learning space. However, these purposes are different, and require different contexts, strategies, and approaches. In order to mitigate the possibility of misinterpretation, instructors must interrogate the purposes they have articulated. Is the purpose for using ePortfolio reasonable, given the course or program context, aims, and constraints? In addition to structural barriers, what kinds of conceptual misunderstandings might influence student engagement with the ePortfolio, and how might these be avoided? What kinds of risks would both instructors and students need to take in order to use ePortfolios effectively? When we generate the answers to these difficult questions we achieve a more realistic sense of how the implementation of ePortfolio might go, thus aiding with decision-making about the process.

In terms of consultation practices, we suggest that involving ePortfolio users as co-consultants might be a productive approach. In this case, the educational developer or instructional designer could become a lever for the initiation of a collaborative dialogue between current ePortfolio users and those who are interested in implementing them. These conversations could be facilitated with the goal of generating honest reflection about successes and challenges, and enabling a collaborative assessment about if/how ePortfolios might work when transposed to different circumstances on the same campus. Given the right conditions, this kind of consultation may even grow to become a community of practice support for instructors, where groups of colleagues maintain consistent connection in light of their common interests around ePortfolio use in higher education.

In the context of teaching practice, we advocate for some simultaneous design and pedagogical shifts when using ePortfolios. Pedagogically, it would be relatively straightforward for instructors to develop in-class practices that better support students' use of ePortfolio, including collaborative examination of ePortfolio evidence during class time, book-marking classes to work on ePortfolio engagement in "real-time," and facilitating reflective conversations that build on student responses to reflective templates by modelling the identification of connections between evidence and meaningful reflective narrative. Perhaps the instructor could even join in on the process, constructing his or her own ePortfolio in tandem with the students in the course, and making that process publicly visible. Intrinsically connected to this, we suggest that instructors re-consider the grading practices associated with students' ePortfolio submissions. How this might look would be dependent on context, but it could include shifting ePortfolio assignments to a pass/fail grading system, creating scaffolded low-stakes assessment around ePortfolios, or shifting the ePortfolio assessment to a largely formative evaluation of process rather than a summative evaluation of outcomes. Shifts such as these with respect to grading practice might create a safer environment for students to engage in some of the riskier practices associated with ePortfolio, such as reflective identity development.

In the end, our self-study and comparative analysis have generated more questions than answers. However, and perhaps interestingly, our enthusiasm for using ePortfolio in higher education has not been diminished! Despite the challenges and barriers that we experienced, we have witnessed many generative moments that centre on ePortfolio use. In consultation, we have seen instructors who are willing to manage ambiguity and discomfort with ePortfolio practices; they have made themselves vulnerable in the process of trusting that the learning gains for their students would be significant. These same instructors have responded with flexibility and grace, making their own learning about ePortfolios visible; we have developed long-standing consultation relationships with these teachers who are invested in making positive change to their teaching practice via ePortfolio implementation. We also have students who have taken up the challenge of engaging with their ePortfolio assignments in contemplative, innovative, and deeply personal ways. These students have not only demonstrated mastery of course learning outcomes by way of their ePortfolio assignments, but have extended their work with ePortfolio to become a personal development opportunity. So, despite our own misalignment when engaging in ePortfolio implementation, these students took the initiative to make the assignment their own. These examples are exemplars of the potential and possibility within ePortfolio, and we are committed to continue exploring ePortfolio implementation in both our consultation and teaching practice.

References

- Biggs, J. (2003). Aligning teaching for constructing learning. *Higher Education Academy*, 1-4. Retrieved from https://www.researchgate.net/profile/John_Biggs3/publication/255583992_Aligning_Teaching_for_Constructing_Learning/links/5406ffe70cf2bba34c1e8153.pdf
- Brookfield, S. (1995). *Becoming a critically reflective teacher*. San Francisco, CA: Jossey Bass.
- Bryant, L. H., & Chittum, J. R. (2013). E-portfolio effectiveness: A(n ill fated) search for empirical support. *International Journal of ePortfolio*, 3(2), 189-198. Retrieved from <http://www.theijep.com/pdf/IJEP108.pdf>
- Bullough, R. V., & Pinnegar, S. (2001). Guidelines for quality in autobiographical forms of self-study research. *Educational Researcher*, 30(3), 13-21. <https://doi.org/10.3102/0013189X030003013>
- Cambridge, D. (2010). *ePortfolios for lifelong learning and assessment*. San Francisco, CA: Jossey Bass.
- Challis, D. (2005). Towards the mature ePortfolio: Some implications for higher education. *Canadian Journal of Learning and Technology*, 31(3). <https://doi.org/10.21432/T2MS41>
- Chen, C., Fan, J., & Jury, M. (2017). Are perceived learning environments related to subjective well-being? A visit to university students. *Learning and Individual Differences*, 54, 226-233. <https://doi.org/10.1016/j.lindif.2017.01.001>
- Christmann, A., & Dahn, I. (2007). *The e-portfolio city*. Conference proceedings, International ePortfolio Conference, Maastricht, The Netherlands. Retrieved from https://www.researchgate.net/profile/Teresa_Guasch/publication/43669328_Creating_a_research_network_for_a_successful_e-portfolio_design_and_implementation/links/02bfe50ca07ca1c63f000000/Creating-a-research-network-for-a-successful-e-portfolio-design-and-implementation.pdf#page=71
- Coia, L., & Taylor, M. (2009). Co/autoethnography: Exploring our teaching selves collaboratively. In D. L. Tidwell, M. L. Heston, & L. M. Fitzgerald (Eds.), *Research methods for the self-study of practice* (pp. 3-16). Switzerland: Springer. https://doi.org/10.1007/978-1-4020-9514-6_1
- Foote, R., Crowe, A. R., Tollafield, K. A., & Allan, C. E. (2014). Exploring doctoral student identity development using a self-study approach. *Teaching and Learning Inquiry*, 2(1), 103-118. <https://doi.org/10.20343/teachlearningqu.2.1.103>
- Johnson, G. (2005). *ePortfolios in higher education*. Conference proceedings from the International ePortfolio Conference, Cambridge, UK. Retrieved from <http://epforum.sosnetwork.info/sites/www.epforum.eu/files/ePortfolio%202005.pdf#page=297>
- Koster, B., & van den Berg, B. (2014). Increasing professional self-understanding: Self-study research by teachers with the help of biography, core reflection, and dialogue. *Studying Teacher Education*, 10(1), 86-100. <http://doi.org/10.1080/17425964.2013.866083>
- LaBoskey, V. K., & Richert, A. E. (2015). Self study as a means for urban teachers to transform academics. *Studying Teacher Education*, 11(2), 164-179. <http://doi.org/10.1080/17425964.2015.1045774>

- Lamont, M. (2007). What are the features of e-portfolio implementation that can enhance learning and promote self-regulation? *European Institute for E-Learning*, 32-42. Retrieved from https://www.researchgate.net/profile/Hilary_Stevens/publication/242338523_The_impact_of_e-portfolio_development_on_the_employability_of_adults_aged_45_and_over/links/5655841608ae4988a7b0b551.pdf#page=32
- Loughran, J. J. (2007). A history and context of self-study of teaching and teacher education practices. In J. J. Loughran, M.L. Hamilton, V.K. LaBoskey, & T. L. Russell, (Eds.), *International handbook of self-study of teaching and teacher education practices* (pp. 7-39). The Netherlands: Springer.
- Mello, R. (2002). Collocation analysis: A method for conceptualizing and understanding narrative data. *Qualitative Research*, 2(2), 231-243. <https://doi.org/10.1177/146879410200200206>
- Middendorf, J., & Pace, D. (2004). Decoding the disciplines: A model for helping students learn disciplinary ways of thinking. *New Directions for Teaching and Learning*, 98, 1-12. <https://doi.org/10.1002/tl.142>
- Mueller, R. A. (2015a). *ePortfolios: Best practices for use in higher education*. Taylor Institute for Teaching and Learning, University of Calgary. Retrieved from http://ucalgary.ca/taylorinstitute/teaching-community/sites/default/files/resources/e%20portfolio%20support%20document_best%20practices%20final_0.pdf
- Mueller, R. A. (2015b). *ePortfolios: Purposes and rationale for use in higher education*. Taylor Institute for Teaching and Learning, University of Calgary. Retrieved from http://ucalgary.ca/taylorinstitute/teaching-community/sites/default/files/resources/e%20portfolio%20support%20document_purposes%20and%20rationale%20final.pdf
- Mueller, R. A. (2015c). *Shifting from product to pedagogy: Investigating the use of ePortfolios as pedagogical practice*. University of Calgary Conference for Learning and Teaching in Higher Education (round table presentation). Retrieved from <https://dspace.ucalgary.ca/handle/1880/50571>
- Nguyen, C. F. (2013). The ePortfolio as a living portal: A medium for student learning, identity, and assessment. *International Journal of ePortfolio*, 3(2), 135-148. Retrieved from http://www.theijep.com/past_3_2.cfm
- Parkes, K. A., Dredger, K. S., & Hicks, D. (2013). ePortfolio as a measure of reflective practice. *International Journal of ePortfolio*, 3(2), 99-115. Retrieved from <http://files.eric.ed.gov/fulltext/EJ1107797.pdf>
- Pitts, W., & Ruggirello, R. (2012). Using the e-portfolio to document and evaluate growth in reflective practice: The development and application of a conceptual framework. *International Journal of ePortfolio*, 2(1), 49-74. Retrieved from <http://www.theijep.com/pdf/IJEP43.pdf>

- Reese, M., & Levy, R. (2009). Assessing the future: ePortfolio trends, uses, and options in higher education. *EDUCAUSE Center for Applied Research – Research Bulletin*, 2009(4). Retrieved from https://jscholarship.library.jhu.edu/bitstream/handle/1774.2/33329/ECAR-RB_Eportfolios.pdf
- Research Activities Exempt, 2015
- Richards-Schuster, K., Ruffolo, M. C., Nicoll, K. L., Distelrath, C., & Galura, J. A. (2014). Using e-portfolios to assess program goals, integrative learning, and civic engagement: A case example. *International Journal of ePortfolio*, 4(2), 133-141. Retrieved from <http://www.theiejep.com/current.cfm>
- Riessman, C. K. (2014). Analysis of personal narratives. In J. F. Gubrium, J. A. Holstein, A. B. Marvasti, & K. D. McKinney (Eds.), *The Sage handbook of interview research* (pp. 367-380). <http://doi.org/10.4135/9781452218403>
- Ring, G. L., & Foti, S. L. (2003). Addressing standards at the program level with electronic portfolios. *Tech Trends*, 47(2), 28-32. <https://doi.org/10.1007/BF02763422>
- Ritter, J. (2017). Those who can do self-study, do self-study: But can they teach it? *Studying Teacher Education*, 13(1), 20-35. Retrieved from <http://doi.org/10.1080/17425964.2017.1286579>
- Roberts, P., Maor, D., & Herrington, J. (2016). ePortfolio-based learning environments: Recommendations for effective scaffolding of reflective thinking in higher education. *Educational Technology & Society*, 19(4), 22–33. Retrieved from <https://search.proquest.com/docview/1843843263?pq-origsite=gscholar>
- Sandelowski, M. (1991). Telling stories: Narrative approaches in qualitative research. *Journal of Nursing Scholarship*, 23(3), 161-166. <https://doi.org/10.1111/j.1547-5069.1991.tb00662.x>
- Schreiner, L. (2016). Thriving: Expanding the goal of higher education. In D. W. Harvard (Ed.), *Well-Being and Higher Education* (pp. 135-148). Washington, DC: Bringing Theory to Practice.
- Schulman, L. S. (1993). Teaching as community property: Putting an end to pedagogical solitude. *Change*, 25(6), 6-7. <https://doi.org/10.1080/00091383.1993.9938465>
- Strivens, J. (2015). A typology of ePortfolios. *The International Journal for Recording Achievement, Planning and Portfolios*, 1, 3-4. Retrieved from <https://view.joomag.com/rapport/0727239001439797282?short>
- Taylor, J., Dunbar-Hall, P., & Rowley, J. (2012). The e-portfolio continuum: Discovering variables for e-portfolio adoption within music education. *Australasian Journal of Educational Technology*, 28(8), 1362-1381. <https://doi.org/10.14742/ajet.776>
- University of Calgary (2015). *Research activities exempt from CFREB review*. Retrieved from https://www.ucalgary.ca/research/files/research/160912_cfreb_research_exempt_from_review.pdf
- University of Calgary (2017). *Educational development unit ePortfolio*. Retrieved from: <https://eportfolio.ucalgary.ca/edu/priorities/>
- Watson, C. E., Kuh, G. D., Rhodes, T., Light, T. P., & Chen, H. L. (2016). ePortfolios - The eleventh high impact practice. *International Journal of ePortfolio*, 6(2), 65-69. Retrieved from <http://www.theiejep.com/pdf/IJEP254.pdf>