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E-Portfolios: A Look at Where We've Been, Where We Are Now, and Where We're (Possibly) Going

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The word on e-portfolios is out in higher education. According to the 2013 survey from the EDUCAUSE Center for Analysis and Research (ECAR), use of e-portfolios has increased sharply since 2010, when the survey first asked about them: 57 percent of US postsecondary institutions say they have made some use of e-portfolios in the past year, and 53 percent of responding students report engaging with e-portfolios in at least one course in the past year (Dahlstrom, Walker, and Dziuban 2013). The continuing proliferation of vendors and products attests to a growing market for e-portfolio platforms. From my own experience directing a campus-level e-portfolio initiative, I know that, increasingly, faculty members, advisors, student life professionals, and career services staff are hearing about e-portfolios through their own disciplinary and professional venues and bringing ideas about them back to their campuses.

A growing body of e-portfolio research and resources is supporting this surge of e-portfolio engagement, including a relatively new international professional organization founded in 2009, the Association for Authentic, Experiential, and Evidence-Based Learning (AAEEBL), which offers annual international conferences and regional gatherings in the United States and Canada, and the *International Journal of ePortfolio (IJeP)*, founded 2011, which provides e-portfolio researchers and practitioners an online and print outlet for disseminating their work. These developments follow several prominent national and international networks and projects that, beginning in the early and mid-2000s, have fostered the growth of a community of e-portfolio users and contributed to our understanding of effective e-portfolio practices. These include, among others, AAC&U's VALUE project, the Inter/National Coalition for Electronic Portfolio Research, the Electronic Portfolio Action and Communication group (known as EPAC), the Making Connections National Resource Center at LaGuardia Community College in New York, and that center's current project, Connect to Learning.

E-Portfolios, Yesterday and Today

Where is all this interest and activity coming from? E-portfolios represent a convergence of several ideas and practices that have developed within higher education over the past few decades. They are, of course, direct descendants of reflective print portfolios, which have had a long history in college-level writing programs and teacher education programs and had already begun attracting interest from other disciplines by the late 1980s and early 1990s (Batson 2002; Yancey 2001). These print portfolios were meant to cultivate habits of metacognition, reflective practice, and self-critique among students and, in some cases, to demonstrate student achievement of defined learning outcomes. The advent of the web in the 1990s and the subsequent development and increasing penetration of learning management systems accelerated the migration of student work into digital formats. At the same time,

the growing influence of the assessment movement, particularly increased demands from accrediting associations and state and federal governments for direct evidence of student learning, has served as another catalyst for e-portfolio development and deployment, especially in disciplines subject to specialized accreditation. Here, the ability of e-portfolios to capture work representing authentic performances in multiple digital media—like a video clip of a candidate for teacher licensure teaching a lesson—offers a clear advantage over more traditional forms of assessment.

Today, some researchers (e.g., Barrett 2010; Matthews-DeNatale 2014) point to distinct types of e-portfolios—learning, assessment, and career showcase portfolios, for instance—while others argue that a given portfolio may serve multiple aims simultaneously (e.g., Cambridge 2010). Whichever view one holds, it seems clear that increasing adoption of e-portfolios is driven in part by the range of educational purposes and priorities they can serve, as illustrated by the variety of practices featured in this issue of *Peer Review*. Eynon, Gambino, and Torok's piece, in particular, points to emerging research that demonstrates the multifaceted benefits for students of well-conceived, well-executed e-portfolio programs: improved achievement, retention, and graduation; deeper engagement and learning; and enhanced capacities to think integratively across learning experiences and disciplinary boundaries.

Those of us who have had the opportunity to teach and refine our practices with e-portfolios over a period of time have also seen firsthand that thoughtfully conceived and guided e-portfolio development can catalyze new learning, actively engaging students in making sense and meaning of their learning experiences so that they approach these experiences with a greater sense of purposefulness, agency, and accomplishment. We have seen how, as students use hypermedia to compose representations of self for various audiences on an e-portfolio site, they construct and integrate academic, professional, and personal identities. E-portfolio artifacts and reflections yield a rich trove of multimodal information on what students are learning and how they are experiencing our curricula, programs, and institutions. This rich information supports both accountability for and improvement of learning, and enables assessment of more nuanced and complex abilities and outcomes like critical thinking, integrative learning, and ethical reasoning.

In a larger sense, e-portfolios also embrace several ideas that have been central to the higher education innovation and reform movement that has taken shape over the past generation: a constructivist epistemology that puts students at the center of building knowledge and meaning, urging instructors off the podium and turning them into intellectual mentors and guides; high-impact practices that take students out of the classroom and into contexts that ask them to transfer and apply knowledge; and active, social pedagogies in which students create, integrate, and apply knowledge together. Research emerging from both institution-based and multi-institution initiatives is demonstrating how well-scaffolded e-portfolios can serve as virtual sites for students to purposefully carry out and represent these activities. (To find examples, see the articles in this issue of *Peer Review* or glance at the table of contents for any issue of *IJeP*.) More purposeful and self-aware learning in college in turn prepares students for purposeful lifelong learning—another theme of the calls for higher education improvement and reform.

For those of us who are e-portfolio proponents, not all of the news has been good. While the ECAR survey cited at the beginning of this essay points to accelerating adoption of e-portfolios, it also finds that that adoption is spotty: only a quarter of students reporting engagement with e-portfolios over the past

year said that they had used the portfolio in more than half of their courses, and the great majority of institutions reporting e-portfolio adoption characterized this adoption as “sparse.”

These findings are not surprising. E-portfolios represent a shift from the “teaching paradigm” to the “learning paradigm,” in Barr and Tagg’s terminology (1995), and paradigm shifts don’t occur easily or painlessly in higher education (or anywhere else). Darren Cambridge makes a similar point when he observes that e-portfolios “touch everything; virtually every obstacle to improving teaching and learning in higher education is also an obstacle to using e-portfolios well” (Cambridge 2010). The ideas and ideals that have animated the e-portfolio movement can engender resistance. In other cases, new e-portfolio initiatives have underestimated the magnitude and implications of change e-portfolios represent—expecting them to be “plug and play,” for example, rather than understanding that, like any other new pedagogy, assessment approach, or technology, an e-portfolio will require successive iterations to “get it right.”

Campuses just beginning to work with e-portfolios today can avoid such common pitfalls by taking advantage of the wealth of recently developed resources. AAEEBL conferences and regional meetings, *IJeP*, and AAC&U’s annual E-Portfolio Forum, among others, offer information, models of successful course, program, and campus implementation, and examples of effective e-portfolio practices. The VALUE rubrics have been adopted or adapted by programs and campuses across the country and offer a foundation for both valid and reliable e-portfolio assessment. The Catalyst for Learning model and website developed by the Connect to Learning project address the various challenges that new and continuing e-portfolio initiatives must negotiate and provide exemplars of and advice on support systems and strategies for developing and sustaining successful e-portfolio programs.

On the Brink of an Era

*In light of the rapid spread of e-portfolio adoption and dissemination described above, where do e-portfolios—as a field of research and practice in higher education—stand today? I believe that we are on the brink of an era of expanded adoption and impact of e-portfolios. The 2013 ECAR survey and other studies show clearly that e-portfolio use is increasing. The founding and flourishing of AAEEBL, *IJeP*, and the Inter/National Coalition for Electronic Portfolio Research and the visibility and influence of national initiatives like the VALUE project and Connect to Learning signal that e-portfolios have emerged as a professional field. Growing numbers of proposals for presentations at AAEEBL conferences, AAC&U’s E-Portfolio Forum, and e-portfolio tracks at AAC&U meetings and IUPUI’s national Assessment Institute offer us another indication of accelerating interest, recognition, and adoption. As Gail Matthews-DeNatale of Northeastern University notes in an upcoming article, we have “reached a tipping point in the recognition and support for e-portfolios” (Matthews-DeNatale 2014).*

By now, colleges and universities as diverse as Spelman College, Portland State University, and the Virginia Military Institute have successfully adopted and maintained campus-wide general education e-portfolio initiatives that serve a range of purposes. Notable success stories have emerged from the community college sector—LaGuardia Community College comes to mind here, of course, but so do Salt Lake Community College, Tunxis Community College, and others. While campus-wide e-portfolio programs may not become the norm at large research campuses, where consensus on common approaches is more difficult to achieve, the ECAR survey shows that program-level initiatives are on the rise at these institutions, and, to the extent that these

projects are thoughtfully implemented and sustained, students will benefit from a more intentionally reflective and integrative approach to learning—and programs will have rich repositories of evidence for assessment and improvement.

Next Steps

What's next? How can we more fully exploit the capabilities of e-portfolios to deepen student learning and engagement and to inform and enrich our assessment practices and findings? First, we need to take advantage of existing resources, some of which are freely available online, including the many e-portfolio galleries featured on college and university websites. (For two excellent and informative examples, see the LaGuardia Community College ePortfolio Gallery and the Virginia Tech ePortfolio Gallery.) An increasing amount of this information is situated within specific contexts and disciplines—notably first-year experiences, capstones, general education, service learning, various health care disciplines, and teacher education—and may alleviate the need for new e-portfolio initiatives in these areas to wholly “reinvent the wheel.” Substantial additions to existing resources are emerging from the Connect to Learning project, the Inter/National Coalition for Electronic Portfolio Research (I/NCEPR), *IJeP*, and the AAC&U E-Portfolio Forum, which has been highlighting new research for the past two years. In my own experience, I have been surprised and impressed by the power of team attendance at AAEEBL Conferences and participation in multi-campus collaborative initiatives—including two cohorts of the I/NCEPR, Connect to Learning, and the VALUE project—to enrich and accelerate the maturation of local practices.

We also need more empirical research on effective e-portfolio practices and on the impact of these practices on student learning. In a recent review of the e-portfolio literature that appeared in *IJeP*, Bryant and Chittum found that, over the past three years, “e-portfolio research is increasingly evident in the literature,” and that this research is moving from a focus on “descriptions of practice and theoretical arguments to a focus on data collection and presentation” (2013). These authors credit the advent of *IJeP* itself as a key driver of this encouraging trend. At the same time, they call for more research that incorporates “empirical assessment of [e-portfolios’] impact on student outcomes,” particularly in the areas of “integration of knowledge and metacognitive awareness.” Similarly, Matthews-DeNatale identifies a need for more research on “design and impact.”

I would add two possible avenues of inquiry to those identified by Matthews-DeNatale and Bryant and Chittum:

- Research on assessment of work in multiple digital media. E-portfolios offer students an array of new possibilities for representing their learning experiences. On my campus, I have found that instructors and evaluators recognize that such multimodal work offers new kinds of information about student learning, but lack established methods and rubrics for assessing this work, particularly in fields that have relied traditionally on written media. The Inter/National Coalition for Electronic Research has begun to address this issue, but more research and discipline-specific exemplars are needed. A related question is whether multimodal e-portfolio development has an impact on student learning and, if so, what that impact is. For example, is greater multimodality associated with increased integrative learning, problem-solving, or creative capacities?
- Investigation of e-portfolios as a meta-high-impact practice. Randy Bass

has noted that “one essential quality that makes high-impact practices high impact...is that they help students find a sense of purpose in their learning,” and that integrative social pedagogies, including e-portfolios, help students “find new meaning in their learning—by connecting and reframing” (personal communication). What happens when we combine e-portfolios with demonstrated high-impact practices like first-year experiences, service learning, or study abroad? Can we approach e-portfolios, as my Indiana University–Purdue University Indianapolis colleague Susan Scott has suggested (Kahn and Scott 2013), as a meta-high-impact practice? Under what circumstances and in what contexts can e-portfolios most effectively expand the impact of high-impact practices?

In today's rapidly shifting higher education landscape, we cannot, of course, predict what the future holds for e-portfolios. Decades of debate about the relative merits of standardized tests and authentic assessment to evaluate the contributions of higher education to students' development have not been resolved; old paradigms die hard; and we never know what new technology, innovation, or policy agenda may be around the corner. But e-portfolios have gained increasing traction, recognition, and influence among educators and students worldwide, and a knowledge base grounded in research is developing rapidly. We know that we have only just begun to tap the potential of e-portfolios to enhance learning and improve our programs and institutions. I look forward to seeing what happens next.

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