SOCIAL MEDIA AND OPEN SOURCE IN HIGHER EDUCATION: WHAT DO STUDENTS SAY ABOUT E-PORTFOLIOS?

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Abstract

E-Portfolios can play a critical role in supporting students as a navigational strategy for 21st century learning outcomes. Since 2005, one professional program at the University of Oregon has been working with e-portfolios, which are based in an open source blogging platform, and which are integrated throughout the curriculum. This paper will present findings about valuing e-portfolios for learning and for professional preparation. The inclusion of open source social media approaches to learning has implications for institutions as well as for 21st century student learning outcomes.

Introduction to the Study

Since 2005, the University of Oregon has been working with e-portfolios in graduate professional programs. Beginning with showcase e-portfolios in the Arts and Administration program, the project has now transitioned to curriculum-based e-portfolios, which are integrated throughout the graduate student curriculum. The purpose of the e-portfolio project is:

> To implement a comprehensive learning system that serves as a hub for the generation of dynamic learning communities between faculty, students, and professionals; integrates demonstrations of excellence in academic objectives, community engagement, and leadership. (http://aaablogs.uoregon.edu/aad)

Students create and maintain learning e-portfolios throughout their graduate program, connecting curricular and co-curricular learning and achievements, providing evidence of the development of professional skills, critically reflecting and analyzing about their progress, and embedding technology strategies in their approach to research and professional practice. Findings from the project suggest that *e-portfolio learning* fosters habits of mind conducive to the kinds of 21st century skills that the creative business leaders are clamoring for, and that are useful to addressing the challenges that Higher Education is facing as alternative, technology rich educational structures compete with traditional educational institutions.

Context for the Study

Daniel Pink (2006) wrote: "The future belongs to a very different kind of person with a very different kind of mind – creators and empathizers, pattern recognizers and meaning makers. These people – artists, inventors, designers, storytellers, caregivers, consolers, big picture thinkers – will now reap society's richest rewards and share its greatest joys" (p. 1). He further noted:

> It is an age animated by a different form of thinking and a new approach to life – one that prizes aptitudes that I call "high concept" and "high touch." High concept involves the capacity to detect patterns and opportunities, to create artistic and emotional beauty, to craft a satisfying narrative, and to combine seemingly unrelated ides into something new. (Pink, 2006, p. 2-3)

The ability to synthesize, communicate, collaborate, and create something new are part of the range of so-called "soft skills" which both employers and education policy makers are now focusing on in identifying future education needs.

U.S. employers complain that today's young adults are not equipped with the skills they need to succeed in the 21st century workforce. In 2006, the Conference Board and three other organizations issued a report entitled *Are They Really Ready to Work?* Based on a survey of several hundred employers, the report concluded by calling for more focus on the development of such "21st century skills" as critical thinking, problem solving, creativity and communication. The *Wall Street Journal* reports that increasingly firms are asking to see evidence of job candidates' web presence, rather than a resume:

> Companies are increasingly relying on social networks such as LinkedIn, video profiles and online quizzes to gauge candidates' suitability for a job. While most still request a résumé as part of the application package, some are bypassing the staid requirement altogether. (Silverman, 2010)

The American Association of Colleges and Universities suggests that e-portfolios can play a critical role in supporting students, faculty and institutions as a navigational strategy for 21st century learning outcomes. Central to e-portfolios is the process of reflecting on the growth of one's knowledge and capabilities over time with an emphasis on metacognition (Brown, Peterson, Wilson, & Ptaszynski, 2008) by intentionally providing structured time and space for learners to consider and document the process of their learning and not just the product (assignments, tests, and so on). This process highlights the affordances of e-portfolios as not only potentially transformational with respect to individual learning and development.   Also, because e-portfolios enable students to authentically represent their own learning in a way that makes sense to them, the process encourages them, ultimately, to take responsibility for their own learning (Light, Chen, & Ittelson, 2011).

Project Description

The *e-Portfolio Project* began with the central idea of creating and fostering a digital neighborhood, or what is called the "commons," as the point of daily departure and return, where social capital is fostered through sharing thoughts, ideas, events, and professional development. The project sought a way in which what was happening in classes could be shared and made visible, and a forum for students and faculty to share how they were extending their thinking outside the three-hour weekly seminar. Another goal was to create and foster a virtual community where students articulate value and where students, faculty, and professional partners could foster connections between curricular and co-curricular work, and to make evident how students were transferring skills and knowledge across a range of experiences.

In the Arts and Administration Program at the University of Oregon[1] students create and maintain learning e-portfolios in a customized WordPress blogging platform throughout their graduate program. Faculties make use of the system to syndicate student learning e-portfolios to instructional blogs, fostering a community-learning environment conducive to student-centered learning. Students have the highest degree of control over the privacy of their e-portfolio and all the materials they publish on it – from fully private, to password-protected, to fully public e-portfolios that are searchable by Google.

Students are required to post their academic plan, and are encouraged to utilize the system in order to provide evidence of achievements and to document their growth over time, in this way embedding habits of reflection, evaluation, and documentation. Students are also encouraged to document and provide evidence of their professional growth through their internships, practicums and other professional activities, and encouraged to engage as digital citizens. In seventy-five percent of the courses, students are required to post course learning objectives, connecting these to their overall learning and professional objectives. At the end of the term, students then reflect on their course learning objectives, and analyze how they participated in working towards these objectives, identifying transformative moments, and discussing how their thinking has changed related to their future growth.

The author conducted a survey in March 2013 to assess how students use their e-portfolios, and what they value about learning in and through e-portfolios in an open source environment. The survey was sent to current graduate students and alumnus who had participated in the department-wide learning e-portfolio implementation via qualtrics, an open source online survey platform. Of the thirty-two respondents, eighteen were current students, and fourteen were alumni.

Respondents use their e-portfolios for a variety of purposes, including posting assignments and reflections on readings and class discussions. Students also use it for aggregating their academic resources and materials, documenting their internships and practicum, as well as their graduate research. Many students use

their learning e-portfolio for career advancement, offering it as a link to prospective employers. See Figure 1.
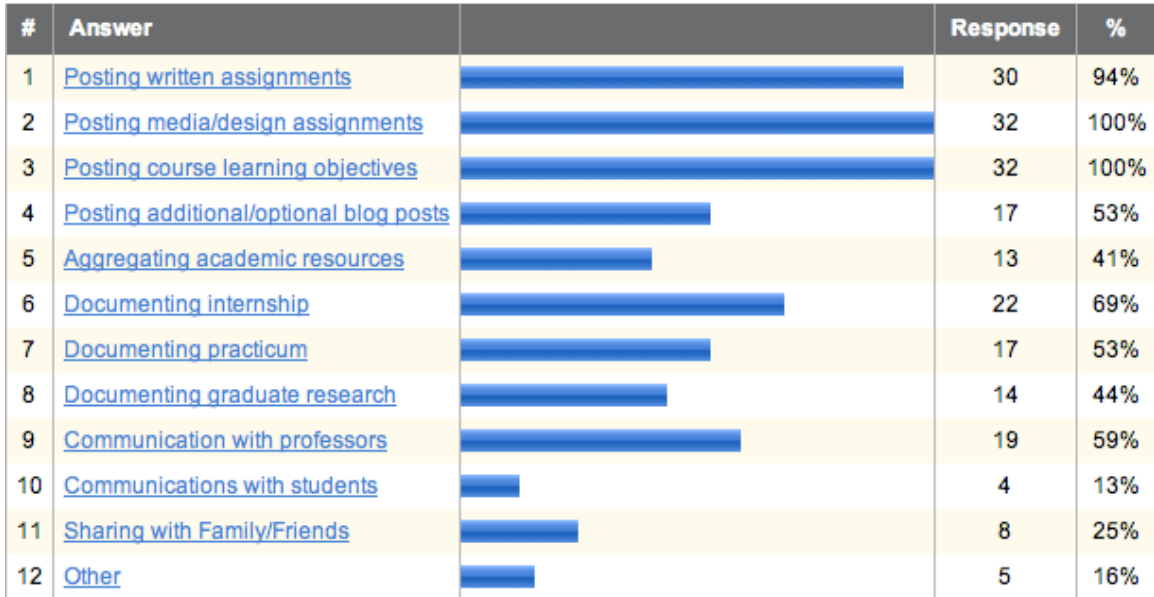
#	Answer		Response	%
1	Posting written assignments		30	94%
2	Posting media/design assignments		32	100%
3	Posting course learning objectives		32	100%
4	Posting additional/optional blog posts		17	53%
5	Aggregating academic resources		13	41%
6	Documenting internship		22	69%
7	Documenting practicum		17	53%
8	Documenting graduate research		14	44%
9	Communication with professors		19	59%
10	Communications with students		4	13%
11	Sharing with Family/Friends		8	25%
12	Other		5	16%

Figure 1. Use of e-portfolios for classes and coursework.

Respondents noted that learning to present themselves online through utilizing current web 2.0/3.0 tools was a significant benefit to their participation, as was the ability to aggregate all their materials and resources, and to track their academic progress through graduate school.

Many respondents reported that their use of e-portfolios in the WordPress environment extended beyond their use in their graduate program. Students appreciated the skills that they learned through using e-portfolios for its relevance to their current jobs. One respondent noted, "I ended up using the same blog software to create a program blog, and we now have high school student teachers blogging to document their experience in learning to teach art." Others noted that they used what they learned to set up websites for their internship sites, and that they now manage blogs at their current work. Students have also been invited to review professional web resources and to serve as guest bloggers on national professional platforms. Figure 2 highlights the benefits observed.
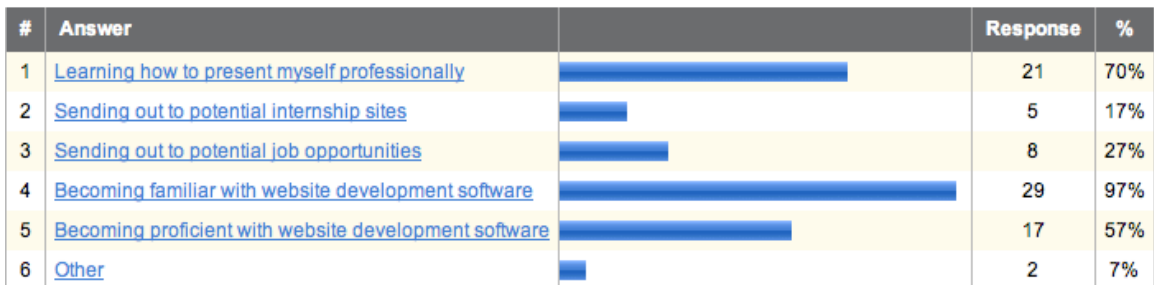
#	Answer		Response	%
1	Learning how to present myself professionally		21	70%
2	Sending out to potential internship sites		5	17%
3	Sending out to potential job opportunities		8	27%
4	Becoming familiar with website development software		29	97%
5	Becoming proficient with website development software		17	57%
6	Other		2	7%

Figure 2. Benefits of showcase e-portfolios.

When asked if they used their e-portfolios beyond the minimum course requirements, students replied that they used it to aggregate resource materials and to document co-curricular projects that they are working on, and that they often use these skills at work. Many students make use of their proficiencies to create and document community based projects that they are developing, or in demonstrating how they are connecting their research and professional practices through research blog sites. In terms of collaboration, one student noted, "I have created sites for three other courses to share that coursework and facilitate group projects." Another respondent acknowledged that participation in e-portfolios helped to "facilitate more meaningful and valuable group projects."

When asked about the benefit of using e-portfolios, in addition to increasing their digital literacy, 29% of the respondents valued making learning visible, and demonstrations of achievement, and 36% of respondents valued developing habits of mind, such as critical reflection and self-evaluation. See Figure 3.

#	Answer		Response	%
1	Habits of Mind: Critical Reflection, Self-evaluation, etc		16	50%
2	Learning how to use wordpress		25	78%
3	Using social media		7	22%
4	Making learning visible - demonstrations of achievement		16	50%
5	Having a visible record of my work over time		15	47%
6	Blogging and digital citizenship		7	22%
7	Other		2	6%

Figure 3. What would you consider to be the most important benefits of using e-portfolios?

Respondents also noted that participation in learning e-portfolios assisted them to increase skills in integrating technology into program development and documentation – an essential skill for today's workforce – and found the skills they learned to be highly relevant to their job preparation and growth. What is most interesting here is the recognition of how critical the habits of mind such as critical reflection and self-evaluation are, and it is this area that I believe has the most critical implications for discussions about the future of learning.

Summary and Discussion

The U.S. Department of Education (USDOE) is embracing the application of technology education in 21st century schools. The USDOE publication, *Transforming American Education* (2010) summarizes the national education technology plan.

> President Obama has called on our nation's governors and state education chiefs have begun to develop standards and assessments that measure 21st-century competencies and expertise in all content areas. Technology-based assessments that combine cognitive research and theory about how

students think with multimedia, interactivity, and connectivity make it possible to directly assess these types of skills. This can be done within the context of relevant societal issues and problems that people care about in everyday life. (p. vii)

The proliferation of education technologies liberates education from the traditional school day and traditional pedagogical and classroom structures. Technology already pervades every classroom in the United States, whether it is the use of content management systems such as blackboard, clickers, mobile apps, or You Tube. Advances in technology are allowing e-portfolio applications to demonstrate that e-portfolio learning is not about the technology, but about the learning and knowledge generation.

Jenkins (2006) discusses the need to harness the learner as co-creator in knowledge generation, in what Jenkins refers to as the "distributed cognition" approach, or "the ability to interact meaningfully with tools that expand mental capacities" (p. 37). E-Portfolios capitalize on the social networking behaviors of entering students, in support and enhancement of meaning making, and multi-modal communication and interaction. E-Portfolios help to harness skill sets necessary for the next generation of meaning makers, such as critical thinking and collaboration, and to make learning (and knowledge generation) visible to students, to peers, to faculty, and to professionals. Henry Jenkins (2004) promotes an "ecological approach" to learning with technology. He asserts:

> Rather than dealing with each technology in isolation, we would do better to take an ecological approach, thinking about the interrelationship among all of these different communication technologies, the cultural communities that grow up around them, and the activities they support. (Jenkins, 2004, p. 8)

In the age of standardized testing, it can be difficult to argue for and advocate for making learning visible, as it implies risk and subsequently failure. However fostering "noble failure" is needed in our nation's education:

> What we need in our schools -- what we don't have enough of -- is an environment where it is okay to fail, because that environment will make it okay to try. And, ironically, if failure is fun, if it is productive and noble, and if it becomes little more than permission to try again, our students will succeed more. (Landsman, 2010)

Where the leading design company in the world has the motto "Fail Often and Success Sooner", (as cited in Landsman, 2010), it may be in everyone's best interest to foster an environment of "high concept" and "high touch" (Pink, 2006), where employers perceive the ability to reflect, iterate, and revise to be the best evidence of success in the workplace. E-portfolios can be a means for students to demonstrate how transformations in thinking and learning occurred – to be able to

document and demonstrate what they learned from each iteration and their problem-solving process that leads to growth and learning. In this way, e-portfolios are one way of preparing students for this 21st century workplace.

Note

1. AAD is a small professional program composed of 50 students and five full-time faculty. It is located in the School of Architecture and Allied Arts at the University of Oregon -- a Research One institution in Eugene, Oregon.

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