ePortfolio Implementation for Career Education

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This case study outlines the portfolio implementation in the Division of Experience-Based Learning and Career Education. Using the Web 2.0 platform of their choice, students create capstone eportfolios to showcase their oral communication, written communication, and teamwork skills.

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Introduction

Electronic portfolios (eportfolios) are an increasingly popular tool in higher education since they can be used to prepare students for the cooperative education (co-op) job search process and to reflect on significant life experiences. The following case study at the University of Cincinnati discusses the implementation of eportfolios in a professional development course and its impact on student learning. We learned that incorporating course assignments and activities in an eportfolio fosters enhanced opportunities for peer feedback and student ownership in showcasing skills and learning.

Background of ePortfolio Use

The Division of Experience-Based Learning and Career Education has been utilizing eportfolios since the late 2000's. Within the University of Cincinnati, the Division serves as the central academic hub for cooperative education, academic internships, undergraduate research, service-learning and transdisciplinary learning. ePortfolios were initially required as part of the capstone experience in order for students to receive certificates in some of the experiential-based programs, specifically, the service-learning and civic engagement and academic internship programs. As a culminating experience, eportfolios were adopted as a unique method of reflecting on all of a student's curricular and co-curricular experiences within the programs.

Common usage of eportfolios in these programs is not at a critical mass as the numbers of students receiving these academic certificates are significantly small each academic year. Students also complete eportfolios as the culminating project for study abroad courses conducted annually. Again, the number of students completing an eportfolio every year is small. Given the state of non-proliferation of eportfolios, students do not connect their learning to other parts of their overall collegiate experience. The number of students producing eportfolios is not at a critical mass to be considered part of the division's culture. If students noticed that eportfolios were commonplace across programs and if their peers were producing quality reflections, then they may have the propensity to produce an eportfolio not only for their certificate program but

for all facets of their learning.

        In the academic internship and service-learning programs, eportfolios are introduced as a capstone project, at the completion of the program. With that said, the integrative reflection process is developed at the end of a student's time in the program. But in the cooperative education program, reflection is introduced in the first year through the Introduction to Cooperative Education courses. The first-year introductory course presents an opportunity for students to capture and showcase their reflections in an eportfolio. Recently, eportfolios were implemented in two sections of a first-year Introduction to Cooperative Education course (PD1010 and PD 1011) for students in the information technology program in the College of Education, Criminal Justice, and Human Services, and students in the College of Engineering and Applied Science. These course sections were taught during the 2015-2016 academic year by the authors as part of a project funded by the Ohio Means Internships & Co-ops (OMIC) grant through the State of Ohio. This portion of the OMIC grant was geared to study essential student learning outcomes in connection with cooperative education. As such, the focus was on identifying teaching practices, interventions, and curricular components that currently do not exist in career readiness programs.

        As a reflective practice, eportfolio is a method that "reinforces recursive narration about life experiences and classroom learning by encouraging students to revisit significant learning experiences and their impact upon present decision-making processes" (Robinson, 2009, p. 69). Given this practice, it was appropriate to promote eportfolio development early in students' college experience to introduce the recursive practice of reflection. OMIC is an initiative driven by the State of Ohio to promote workforce development within the state and also to aid Ohio in becoming a premier work-integrated learning setting in the world. The University of Cincinnati received an OMIC grant and is charged with the goal of preparing students who are work-ready when they graduate; engaging businesses in the higher education system as talent investors; and assisting institutions of higher education to be responsive to the needs of students and businesses. Developing eportfolios provides students with the iterative practice of showcasing their skills in a digital space, which extends beyond the traditional resume. Employers viewing student eportfolios represents an opportunity to evaluate possible student responses to behavioral and/or situational questions. It also offers interviewers material to develop deeper conversations with students when determining their candidacy for co-op jobs or full-time permanent roles after

graduation.

Intro to Co-op Learning Outcomes

The Introduction to Cooperative Education course is the first course engineering and information technology students take to learn about the co-op program and participate in the co-op job search process. The common learning objectives include the following outcomes. Student will be able to:

1. Describe the history and key concepts of Cooperative Education;
2. Explain the appropriate policies and procedures of the co-op program;
3. Explain the theory and practice foundation underlying the co-op program as well as some of the tools used to assess learning;
4. Apply the concepts of self-assessment as a tool for learning;
5. Use strategies and behaviors that lead to successful employer interviews and to success in the work place;
6. Create a resume and/or portfolio in preparation for the co-op referral process.

Given the above learning objectives, individual course instructors have the opportunity to add learning objectives as they pertain to the student population and associated discipline(s). The students producing eportfolios achieved the following additional learning objectives:

7. Students will reflect on their experiences to articulate their learning supporting teamwork, oral communication and written communication skills; and
8. Students will gain technical proficiency in developing an Internet-based portfolio using established website platforms.

Developmentally, students have the opportunity to reflect, define, and integrate their learning and collegiate experience in a manner that is encapsulated in an eportfolio. The eportfolio was designed for students to enhance the standard resume to showcase students' skills and offer viewers additional insight on their interests and identity. Additionally, the digital and dynamic nature of eportfolios lends itself to force students to consider how their reflections are interpreted by other audiences through the sharing and feedback activities in the course.

Integrating the ePortfolio in the Course

Course instructors in this case study approached the eportfolio as way for students to showcase their oral communication, written communication, and teamwork skills. These three skills were part of the student learning outcomes outlined in the Liberal Education and America's Promise (LEAP) initiative sponsored by the American Association of Colleges and Universities (AAC&U, 2008).

The AAC&U conducted research about essential student competencies driven by feedback from employers and recent college graduates (Hart, 2008). AAC&U determined that higher education institutions should provide opportunities for students to engage in experiences that focus on "important knowledge and skills but also experience putting those knowledge and skills to practical use in 'real-world' settings" (p. 1). Further, AAC&U's participating employers and recent graduates asserted that narrowly focused educational practices should be discouraged in higher education; rather, institutions should use liberal education models with a breadth of learning outcomes. ePortfolios were endorsed as an effective method to view how students demonstrate their skills, application of knowledge in real-world situations, and readiness for the workplace.

AAC&U's participating employers outlined four essential learning outcomes for students during their higher education experience: "integrative learning, knowledge of human cultures and the physical and natural world; intellectual and practical skills, and personal and social responsibility" (p. 2). Additionally, when surveyed about the most important skillsets necessary for new hires, employers articulated that they were most interested in "(1) teamwork skills, (2) critical thinking and analytical reasoning skills, and (3) communication skills" (p. 3). Alarmingly, 63% of these same employers do not believe that new college graduates have the skills necessary to be successful in today's global economy.

The employers providing feedback in this study provided several suggestions for institutions of higher education. Specifically, these employers suggested that higher education institutions should provide greater emphasis on their top five selected learning outcomes in the areas of "concepts and new developments in science and technology; teamwork skills and the ability to collaborate with others in diverse group settings; the ability to apply knowledge and

skills to real-world settings through internships or other hands-on experiences; the ability to effectively communicate orally and in writing; and critical thinking and analytical reasoning skills" (p. 8). When asked how colleges should focus resources to assess student learning, a third of employers identified eportfolios as recommended focal area.

Both employers and recent college graduates attest to the importance of real-world experiences as a vehicle for putting skillsets into action. Creating avenues to promote the integration of these skillsets in lived experiences should be a priority for higher education institutions. In particular, formal cooperative education and internship programs should be utilized to better prepare students for their transitions to the world of work by focusing on essential learning outcomes and skillsets provided by AAC&U's LEAP Report.

In order to appropriately assess student learning outcomes and skillsets identified by the LEAP Report, AAC&U began the Valid Assessment of Learning in Undergraduate Education (VALUE) Project. They state, "The VALUE Project developed ways for students and institutions to collect convincing evidence of student learning drawn primarily through the work students complete through their required curriculum, assessed by well-developed campus rubrics and judgments of selected experts, and demonstrated through electronic portfolios (eportfolios) that can be organized and presented in ways appropriate for different audiences" (AAC&U, 2010, p. 30). Essentially, eportfolios were identified as the best method for efficiently and systematically evaluating student work.

Course instructors designed the eportfolio as a repository for student assignments, a reflection tool, and a means for students to project a digital identity to external constituents (e.g., peers, faculty, prospective employers etc.). Assignments for the eportfolio course were designed to address three specific learning outcomes derived from the AAC&U VALUE Project. The specific learning outcomes identified for the course were centered on student competence in teamwork, oral communication, and written communication. The identified learning outcomes were further validated as essential undergraduate student learning outcomes by employer-partners associated with the co-op education program. Course instructors administered a survey to 180 employer-partners to measure the extent to which employer-partners valued the essential learning outcomes in potential employees. The results confirmed that over 90% of the employer-partners surveyed significantly valued students with strong teamwork, oral communication, and written communication competencies. Employer-partners also indicated interest in viewing a co-

op student's eportfolio to help ensure she/he is an appropriate fit for their company. The authors' survey results further support the findings Hart (2008) and associates released that endorses how eportfolios are an effective method to document and showcase students' skills and competencies.

In order to adapt assessment appropriately to document these skills, the learning outcome competencies of oral communication, teamwork, and written communication were modified into eportfolio assignment prompts. Each prompt was designed to introduce the definition of the learning outcomes and the associated criteria rubrics were modified such that the students easily understood the criteria so that they had the ability to participate in peer reviews. Before each assignment was introduced, students completed a simple pre-confidence survey assessing their confidence in articulating an example of the learning outcome. Students returned to class where they shared their work with a peer, using the modified rubric as a medium for evaluation and feedback. At the conclusion of the in-class activity, students completed a post-confidence survey assessing their confidence in articulating an example of the learning outcome.

Platforms and Training

Course instructors provided students significant flexibility on what eportfolio platform to use. Prior to the semester, the course instructors became familiar with the eportfolio platforms and were expected to build an eportfolio for themselves. One instructor already had an eportfolio built in Weebly and WordPress, each with different purposes, but he was sufficiently familiar with the other platforms. The other instructor built his eportfolio in WordPress. Students in the information technology program were highly encouraged to consider building their eportfolios in WordPress because a number of co-op employers require students to have exposure to content management systems through that platform. A majority of the engineering students in the course chose to use Weebly, Wix, or Google sites.

Supporting students consisted of a 55-minute class session dedicated to introduce the eportfolio and associated assignments. Course instructors walked students through a sample eportfolio and overviews of the possible platforms to use. WordPress, Weebly, Wix and Google offer simple to use templates and tutorials on how to build pages. Through the sample eportfolio, students learned what pages they were expected to build in their portfolios. They were highly encouraged to be as creative as possible to embed images, documents, and videos as related

artifacts. Grading for the eportfolio assignments was maintained on the university's learning management system (i.e. Blackboard), and students had to submit the URL of their eportfolio through the same system.

Attitudes Toward ePortfolios

As part of the end-of-semester evaluation, students completed surveys associated with the eportfolio assignments. One of the important findings from the survey was the use of learning outcome rubrics. As mentioned earlier, the rubrics were modified for ease of understanding. After each assignment (teamwork, oral communication, and written communication), students shared their eportfolio with a peer to review. Students used the modified rubrics to provide feedback and constructive critique. Even though the rubrics had no impact on the course assignment grades, the survey results showed that students valued peer and instructor feedback through the rubrics. In essence, the revised rubrics provided common language to students and outlined evaluative criteria on assignment content. Sharing eportfolios as part of the in-class activities influenced students to revise their eportfolios without prompting and/or instructor mandate. Use of eportfolios forced students to consider multiple audiences beyond the teacher-student relationship. The in-class peer review provided students instant feedback on their work by another peer, which either constructively affirmed the eportfolio author's narrative or introduced an interpretation the author had not considered. In the end, the eportfolio assignments fostered an iterative and organic process of reflective engagement, whereby students were indirectly encouraged to revise and continuously improve their eportfolios, which was not required for the course.

Another survey finding showed that students viewed eportfolios as a valuable tool in preparing them for professional experiences and reflecting on significant life events. Through drafting, peer review, and revision, students expressed spending substantial time and effort in building their assignments. The iterative process allowed them time to rehearse their response to the assignment prompt and understand how the content displayed in the eportfolio is interpreted by an audience (through peer review). Further survey data revealed enhanced student confidence in preparation for the co-op job interview process.

Future Considerations & Recommendations

For programs considering eportfolios, one must consider the overall vision of how the eportfolio will be used. For every touchpoint during a student's collegiate experience (first-year, mid-curricular, graduation year), programs should declare what student content must be included the eportfolio. For example, University of Cincinnati engineering students will have an opportunity to revisit the eportfolio through a Mid-Curricular Co-op Community course (PD 2050) after the second or third co-op rotation. When students revisit their eportfolios, attention should focus on prompting students to reframe their assignments based on the learning outcomes and reflect on their developmental growth since their first year of college or when they initially created their eportfolio. In addition to the learning outcomes, students should also have an opportunity to explore their strengths and areas of challenge now that they have completed two or three co-op rotations. As career education evolves at the university, faculty should direct efforts to build in a final touchpoint for students to fine-tune their eportfolios. As a showcase portfolio, mechanisms should be installed to build events for students to showcase the final product to peers, faculty, and potential employers.

Instructors considering eportfolios for the first time must understand that eportfolio pedagogy is relatively easy to access. Projects and assignments can be built iteratively and continuously over the course of an academic term or through the duration of a student's undergraduate experience. Compared to traditional assignments, students must have creative freedom so that they feel that they have ownership of their learning. With that creative freedom, students must understand how their content is now accessed. Traditional assignments were created with the intention of being accessed solely through the student-instructor dyad relationship. An assignment through eportfolios may be intended for multiple audiences so instructors must point out how multiple audiences may interpret digital content differently.

As with any eportfolio implementation, there is not a platform that addresses all of the needs an academic program may have. While others may have security issues, some have considerations like portability, transferability, and embedding Web 2.0 content. Regardless of platform, instructors and academic programs must build an eportfolio program based on required content. Students must have specific pages built and features that allow content to be

dynamically modified to appeal to a variety of audiences. Such structure facilitates uniform assessment against course and/or programmatic outcomes while supporting students in learning about how to best represent themselves in a digital medium within the context of higher education learning.

Conclusion

Cooperative education is based on a three-party relationship between the university, student, and co-op employer (University of Cincinnati, 2010). An eportfolio could be seen as the interfacing vehicle for all three constituent groups. For eportfolios to become useful for co-op employers, more students need to build eportfolios to create a critical mass in order to generate sufficient interest. Upon reaching that critical mass, employers will soon discover the power to evaluate students' candidacy for a co-op position that transcends the traditional resume and interview. Student-generated eportfolio content that addresses the student learning outcomes outlined by the AAC&U offers employers qualitative data that addresses the behavioral, situational, and skills based interview questions they may have. In the end, the employer-student interaction through the interview process could then be directed to address student interests and person-organizational fit. The eportfolio is the way to make this connection.

For the student, an eportfolio offers them an outlet for creative freedom and ownership of their learning. Embedded in the eportfolio development process, students showcase not only their skills, but their digital identity and web-based presence. The implications of portraying themselves through the Internet offers a new sense of reality that offers students a different form of feedback on how their presentation of self is reflected back to them. Such feedback could incite new perspectives on how students view relationships, present and organize evidence of their learning, and derive meaning from their experiences.

Finally, university faculty and instructors could use the eportfolio as a tool for teaching and instruction, focusing on capturing student experiences in a centralized forum. Educators have a critical responsibility to provide validation to students in their personal learning process. It should be acknowledged that the sharing of life experiences and personal learning through a public medium suggests a degree of vulnerability and trust on behalf of students. Educators can use this opportunity as a chance to validate students as knowers, which is a critical component of the student development process (Baxter Magolda & King, 2004). ePortfolios should be seen as

an opportunity for educators to provide validation to students regarding their expression of significant life experiences. The Division of Experience-Based Learning and Career Education values this validation process and believes that providing a student voice in the learning process can help them grow in their academic and professional careers. Through the use of eportfolios, students' current knowledge is validated, establishing a baseline of current experiences. Reflections published in student eportfolios offer students a point of comparison with peers to consider future learning goals for the duration of their experience at the university and beyond.

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