

Program-Based Assessment of Capstone ePortfolios for a Communication BA Curriculum

Wayne Buente, Jenifer Sunrise Winter, and Hanae Kramer
University of Hawai'i at Mānoa

Francis Dalisay
University of Guam

Yao Zhang Hill and Patricia Amaral Buskirk
University of Hawai'i at Mānoa

This article details a case of using ePortfolios in the evaluation process and assessment of the Department of Communication at the University of Hawai'i at Mānoa. The program is guided by seven SLOs (student learning outcomes), which are demonstrable skills or abilities that students are expected to possess before receiving their degrees. The SLO framework was implemented in our department with the intent to promote effective learning through the application of a cohesive curriculum that was designed by faculty members. In 2013, we evaluated our program to assess its successes and shortfalls through ePortfolios as an assessment tool. The assessment findings noted gaps in our curriculum, along with a need to improve specific processes, such as better alignment of learning outcomes with the assessment rubric. Overall, we found that the ePortfolios and the assessment process in our senior capstone courses ensure the value of the curriculum over time and serve as agents for cultural change within the department.

Culminating experiences, such as capstone courses or senior projects and seminars, represent extraordinary learning opportunities for college students. According to Kinzie (2013), capstone courses are designed as the final “integration of educational experiences and foster transition to work or further education beyond the bachelor’s degree experience” (p. 27). In the 2014 National Survey of Student Engagement (NSSE, 2014) of 622 U.S. institutions, senior culminating experiences ranked third in student participation for high-impact educational practices, behind only service learning and field experiences. In addition, senior culminating experiences such as the capstone course provide more opportunities for diverse students (e.g., first generation students) to participate in high-impact education practices, as compared to study abroad and research with a faculty member (Kinzie, 2013).

Although capstones are not necessarily a new phenomenon in higher education, there has been a rise in their importance as culminating experiences that accomplish both student development and program assessment (Berheide, 2007; Kinzie, 2013; Rowles, Koch, Hundley, & Hamilton, 2004). For student development, capstone courses provide opportunities to reflect on their own learning throughout their college experiences. This is done primarily through experiences that increase opportunities to “connect, deepen, and generalize learning beyond the immediate setting where it occurs” (Kinzie, 2013, p. 30). For program assessment, senior capstones provide key data to faculty regarding the quality of programs and instruction (Black & Hundley, 2004, p. 3). Student artifacts produced in senior capstone courses offer a

direct, authentic, and efficient method for assessing how successful a curriculum is in addressing learning objectives (Berheide, 2007). One such artifact is the ePortfolio.

In 2010, the School of Communications revised the undergraduate curriculum to reflect important developments that were occurring in the field of communication. Our decision to revise the curriculum was threefold. First, we acknowledged the move toward greater emphasis on mediated communication technologies and strategies (Lievrouw, 2009) and on how aspects of communication are altered in a digitally networked era (Papacharissi, 2011; Pfister & Soliz, 2011). A second reason was to elevate the importance of practical engagement experiences for our students (Jenkins, Purushotma, Weigel, Clinton, & Robison, 2009). We sought to provide more educational experiences that connect to real-life work and service opportunities. The final reason was to stay within alignment of the University of Hawai'i at Mānoa's strategic plan for improving student learning outcomes. The purpose of this paper is to detail our experiences with using ePortfolios in the implementation and assessment of a capstone course based on the revision of the School of Communications curriculum at the University of Hawai'i at Mānoa. In detailing our case study, the information provided in detailing our case study will be of benefit to universities, colleges, and departments conducting program assessments with ePortfolios.

ePortfolios in Higher Education

Electronic portfolios have been employed by programs in higher education in a wide variety of instructional and assessment roles (Barrett, 2004, 2010; Sherman, 2006). Lorenzo and Ittelson (2005) defined

an electronic portfolio or ePortfolio as a “digitized collection of artifacts, including demonstrations, resources, and accomplishments that represent an individual, group, community, or organization” (p. 2). Jafari (2004) described ePortfolios as a content-management system that “facilitates the process of collecting, reflecting on, sharing, and presenting learning outcomes and other professional accomplishments via a digital medium” (p. 38). ePortfolios help to address program evaluation and accreditation concerns by providing an asset management system that facilitates a “framework for the uploading, organization, and accessing of artifacts” (Light, Chen, & Ittelson, 2012, p. 97). Clark and Eynon (2009) noted a growing interest in integrative learning focused on student experience as among the major drivers for ePortfolio use in higher education.

Unlike an academic transcript, ePortfolios provide students with the opportunity to acknowledge learning that occurs outside the classroom through co-curricular or extra-curricular experiences. These formal or informal experiences may be on or off campus and can incorporate study abroad, community service, co-ops and internships. According to Light et al. (2012), it is important to capture these significant and meaningful experiences, since students may perceive value only in formal academic work. As a result, ePortfolios serve as a “context for integration of all learning as it occurs both inside and outside the classroom, but it can also make visible the internships, jobs, study abroad, and work in the community that are often opaque to faculty instructors” (p. 86). For example, Richards-Schuster, Ruffolo, Nicoll, Distelrath, and Galura (2014) found that students who participated in a capstone class for a community action and social change program demonstrated experiences of transformative and integrative civic engagement learning outcomes in their ePortfolio program assessment. Similarly, Kerrigan and Carpenter (2013) completed an ePortfolio assessment of capstone community partnership courses at Portland State University. Their findings revealed that students had a deepened sense of social responsibility and greater efficacy to serve as an advocate for underserved populations.

A second driver in the adoption of ePortfolios is the rise of digital technologies used in higher education and the increased acknowledgment of user-generated content on the web (Clark & Eynon, 2009). The ease with which social media platforms allow students’ content to be created and shared leads to the formation of digital identities and a web presence. Ramírez (2011) described this as a hyper-inclusive *ePerformance*, in which students can potentially share and link ePortfolios to a limitless audience on the Web. A student’s digital content often becomes the first impression for future colleagues, employers, and dating

partners. ePortfolios, unlike Facebook or LinkedIn, allow students to decide, intentionally and thoughtfully, who should access their content (Jenson, 2011). Specifically, for communication majors, the ePortfolio asks students to “reflect on their construction of effective messages” (Whitfield, 2011, p. 241). According to Hoger (1998), this includes thinking critically about themselves and others as communicators and going “beyond the literal content of a message, perhaps to detect and act on subtext, to read between the lines, to consider larger contexts, to interpret innuendo, to detect strategic maneuvering, or to consider side effects” (p. 64). As opposed to Facebook, which provides a more limited view of an individual, ePortfolios represent evidence for the intersection of experiences, accomplishments, and reflections (Reynolds & Patton, 2014). In other words, the process and product of a learning ePortfolio is the “development of an intellectual identity, not a social identity” (Light et al., 2012, p. 74). However, Light et al. (2012) also noted that future technological innovations in the ePortfolio will most likely incorporate social media features such as commenting, links to Facebook or Twitter, improved multimedia capabilities, and the ability to tag artifacts or posts.

Reynolds and Patton (2014) argued that students need to “manage their digital presence by creating a digital identity that reflects their values, skills, and accomplishments” (p. 102). In this vein, some researchers suggest that the ePortfolio process does lead to gains in developing a professional, digital identity (e.g., Peet et al., 2011). On the other hand, Snider and McCarthy (2012) revealed that the rigidity of an English ePortfolio system limited the flexibility for international students to craft truly personal and professional digital identities.

A third driver is the increasing pressures for accountability and program assessment. As funding for public research universities continues to decline, programs must often demonstrate their value and effectiveness, and in some cases there are external accreditation issues. As higher education becomes increasingly focused on evidence of student learning, portfolios are seen as a valuable tool to “inform accreditation and accountability efforts” (Chen & Light, 2010, p. 1). Chen and Light emphasized that this is especially important as a means to ensure curricular coherence in contexts where students have diverse learning experiences occurring both in and out of the classroom:

As an assessment tool, the student portfolio is unique insofar as it captures evidence of student learning over time—in multiple formats and contexts—documents practice, and includes a student’s own reflection on his or her learning.

Portfolios also encourage students to represent and integrate their formal and informal learning experiences (Chen & Light, 2010, p. 1).

They also noted that learning occurs in the process of portfolio creation. At the very least, assessment results can be shared with students, parents, and prospective employers to demonstrate the strengths of a program.

A final reason is that ePortfolios provide a helpful framework for students to document and take ownership of their learning experiences. Students can easily share and connect their learning experiences with others through a digital networked environment. The ability to articulate and reflect on their achievements and demonstrate how these achievements relate to each other becomes a very useful skill for a job or graduate school interview (Light et al., 2012). Therefore, the capstone course and ePortfolio represent a new culture of learning in which students ask and answer their own questions, thereby managing their learning.

As noted earlier, we provide our experience with implementing and assessing a capstone course and ePortfolio for the Communication BA at the University of Hawai'i at Mānoa. We outline the process of creating a program assessment process for a new curriculum designed by the Communication Department at the University of Hawai'i at Mānoa. We begin with a description of the learning environment at the University and the School of Communications and discuss specific student learning outcomes (SLOs) developed to guide program assessment. We then describe the new curriculum and the role of capstone ePortfolios for assessment strategies.

Learning Environment at the University of Hawai'i and School of Communications

The University of Hawai'i at Mānoa is a land, sea, and space grant university. It is a research institution with a mission that focuses on service to the state of Hawai'i and to both national and international communities. The Mānoa campus offers 292 degree and certificate programs, bachelor's through doctorate, and has a current student population of just over 20,000 (University of Hawai'i at Mānoa, 2015). As part of the *Mānoa Strategic Plan for 2011-2015*, a primary goal is a transformative learning environment, "build[ing] on the vision of education defined as the Mānoa Experience, which provides students challenging and distinctive academic programs, innovative teaching and service, and world-class research and scholarship reflective of global perspectives and a culturally diverse island state" (University of Hawai'i at Mānoa, 2011, p. 9). Focus on a revitalized undergraduate curriculum is further being pursued by the College of Social

Sciences, which is actively working to strengthen the liberal arts curriculum (the School of Communications is part of the College of Social Sciences). In alignment with the goals of the Association of American Colleges and Universities' (AAC&U, 2015a) national effort, Liberal Education and America's Promise, the College has initiated its own strategy called Commitment to Liberal Education, focusing on high-impact educational practices such as collaborative projects, service learning, capstone courses, and learning communities.

The Department of Communication offers one of two undergraduate programs in the School of Communications, as well as an MA program. It is also one of four departments, along with Information and Computer Science, Library and Information Science, and Management Information Systems, that sponsor the Interdisciplinary PhD Program in Communication and Information Sciences. There are approximately 235 active Communication Department undergraduates, most declaring in their sophomore or junior years.

Revised Communication Curriculum

In the fall of 2008, the School of Communications hosted a two-day faculty workshop to create a revised curriculum for the Communication BA and MA programs that would more strongly prepare our graduates for productive careers and engaged citizenship in a complex, global, technology-mediated world. In particular, we sought to strengthen critical thinking skills for addressing complex, real-world situations, foster strong communication skills directed to a variety of audiences using different media, build awareness of both global and local issues, and develop the ability to work collaboratively in teams (often geographically distributed) and enable student engagement with both face-to-face and virtual communities of practice. These goals formed the basis of the student learning outcomes (SLOs), skills that we expect all of our graduates to master prior to entering the workforce or commencing graduate education. Table 1 lists the present outcomes that guide our instructional and assessment activities.

Our revised curriculum was based on our understanding of the key traditions and evolution of the Communication field, our own faculty's strengths, student interests, and feedback from alumni. We identified three separate, but interrelated, learning tracks and identified a set of common core courses for all majors and prerequisites for each track. Each track also has a focused capstone, a learning community that focuses on specific problems relevant to that content area. The AAC&U (2007) recognized capstones as one of ten high-impact educational practices that encourage deep learning. Because capstones require graduating students to create a personal project integrating what

Table 1
Communication BA Program Student Learning Outcomes (SLO)

SLO	Criterion
1	Design communication and media projects to make meaningful contributions to diverse social, professional, or academic communities, communicating effectively orally, in writing, and through digital media.
2	Reflect critically on communication products such as media productions, research and policy reports, and everyday texts.
3	Demonstrate preparedness for academic and professional careers in communication.
4	Demonstrate global awareness, including an awareness of cultures in the Hawai'i-Pacific region and issues related to cross-cultural communication.
5	Engage in collaborative problem solving, both face-to-face and in online environments.
6	Analyze the ethical dimensions of communication.
7	Critically evaluate the use of technology in communication.

they have learned, they foster reflection, holistic understanding, and transition to work or post-bachelor's education (Kinzie, 2013). The revised curriculum was submitted to the university in 2009, and the curriculum changes were initiated in the fall of 2010.

The first track, Communication in Communities, focuses on communication in social, organizational, and professional communities ranging from small groups working together face-to-face or online to large organizations communicating with international publics. Intercultural communication, international communication, organizational communication, and public relations are traditional academic areas of scholarship that inform this track. The Capstone in Communication in Communities involves project development within either local or global communities. Project options include a public relations campaign, an organizational communication audit, or a program for preparing, training, and supporting people in dealing with cultural diversity. Students explore specific project ideas in consultation with their professor and client organizations.

A second track, Media Arts, includes two production sequences, Digital Cinema and Multimedia. Digital Cinema combines the learning of single-camera production skills in narrative with documentary-style filmmaking. Pre-production, production, and postproduction filmmaking skills are constructed with essential aesthetic values that go beyond technical application to theory, criticism, and cinema history. Multimedia combines visual communication theory and design aesthetics with digital media production knowledge such as digital still photography, time-based media, and web content design to convey information. Software programs used include Photoshop, Premiere Pro and other moving image, audio sound design, and interactive content management applications. Students in the Media Arts track may choose one of two capstone courses, Digital Cinema or Multimedia.

The third track, ICTs & Policy, focuses on information and communication technologies (ICTs) and how they are shaped by, as well as influence, society. Students learn how ICTs such as the Internet, social media, mobile phones, online gaming and virtual worlds, digital video, peer-to-peer networks, and other emerging network technologies are used around the world. The Capstone Project in ICTs and Policy focuses on specific ICT and policy problems related to Hawai'i and the Asia-Pacific region. There are several project options, including: a policy analysis presenting alternatives to address an issue related to ICTs; a traditional research project related to some aspect of ICTs; a project related to ICTs employing futures research methodologies; and an applied technology project with documentation.

The capstone projects challenge students to demonstrate mastery of the communication curriculum by creating an original research project related to an area of interest within the track. A series of required courses ask students to become familiar with the research designs and methods used by communication scholars in their area of specialty; to understand the conceptual foundations, principles, practices, and traditions on which communication research is grounded; and to develop the ability to evaluate critically communication research that is presented in journals, scholarly texts, and visual media projects. The capstone projects encourage students to synthesize and reflect critically on their learning experiences, both in and out of the classroom.

The capstones also involve the creation of an ePortfolio demonstrating mastery of our SLOs. While the specific projects vary, each capstone includes written reflection and electronic artifacts created in pre-requisite courses or through capstone assignments. Assignments from the four courses required of all majors are included in the portfolio, as well as track-specific projects. Faculty were in agreement regarding

the implementation of the senior capstone project as well as ePortfolios.

Our curriculum is designed to promote authentic learning by challenging students to address “real-world, complex problems and their solutions, using role-playing exercises, problem-based activities, case studies, and participation in virtual communities of practice” (Lombardi, 2007, p. 2). Authentic learning focuses on the cultivation of portable skills by engaging students in real-world tasks and problems, focusing on ill-defined problems that require sustained investigation, and fostering metacognitive reflection. We approach problems from multiple perspectives and encourage interdisciplinary inquiry. Learning assessment is “woven seamlessly into the major task in a manner that reflects real-world evaluation processes” (Lombardi, 2007, p. 3).

Integration of the ePortfolios was done incrementally beginning in the fall of 2010. First, we began to discuss the senior portfolio/capstone requirement in our required major courses. We requested buy-in from all tenured and non-tenured faculty. However, some faculty felt threatened by or anxious about the increase in transparency through the formal documentation of learning (Danley-Scott & Scott, 2014; Light et al., 2012). Majors became familiar with the rationale for assessment and learning portfolios, and they were encouraged to save class projects for later use. Our first capstones were offered in the spring of 2012. We offered five sections (including two of Communication and Communities and one each of the other capstones), and each senior created an ePortfolio as a course requirement. These portfolios contained an original project specific to a student’s track and personal interest, as well as at least four other artifacts from Communication courses. In addition, students were also required to provide a personal statement that incorporated elements of a reflective essay (Mummalaneni, 2014). By sifting through their various assignments and integrating knowledge from different Communication courses, students reflected on their own learning processes, encouraging metacognitive and critical thinking (Barrett, 2007; Zubizarreta, 2004).

Several ePortfolio technologies were considered for the senior capstone courses. As our emphasis was on the students’ selection and creation of artifacts rather than on their learning a new technology, we decided to implement the portfolio functionality within Adobe Acrobat Pro, software that students were familiar with and that was readily available in our labs at no additional cost to learners.

As noted by Clark and Eynon (2009), there is an increased focus on interdisciplinary learning in higher education. This includes a number of links between classroom activities, professional

obligations, and students’ experiences outside of school. Our three tracks are not silos, so students are encouraged to select artifacts that reflect their interdisciplinary strengths as well as applied learning from internships or service-learning projects. In some cases, these experiences are via civic media, which offer the potential to bring together diverse communities at local, national, or global levels and encourage civic engagement among students (Rheingold, 2008; Jenkins et al., 2009). According to the National Task Force on Civic Learning and Democratic Engagement (2012), there is a vital need to “[e]xpand the number of robust, generative civic partnerships and alliances, locally, nationally, and globally to address common problems, empower people to act, strengthen communities and nations, and generate new frontiers of knowledge” (p. vi).

In addition to providing evidence for program assessment, portfolio-building is a way to communicate our SLOs with students. Used as a point of reflection, our SLOs help learners to set personal and professional goals in relation to the curriculum. We share our assessment rubric with students in order to provide clear guidelines for scaffolding learning and enhancing students’ ability to do independent work (Bereiter & Scardamalia, 1987; Vygotsky, 1978). At the same time, we view learning as a social process and emphasize the role of students as active participants in social communities who are constructing identities by engaging in communities of practice (Wenger, 2000, 2005). In the context of higher education, learning communities both link learning in communities around specific domains of interest and connect these experiences to broader communities outside of the classroom.

Implementation of the assessment process. Our SLOs describe what we expect our Communication majors to be capable of before moving into the workforce or graduate education. However, for assessment purposes, we first needed to create measurable sets of performance criteria from our SLOs that are linked to portfolio components (Williams, 2010). These were, in turn, linked to an evaluation rubric. Our rubric was modified from several designed by the AAC&U (2015b).

Our first capstones were offered in spring 2012 and represented the first full cycle of our new curriculum. We have assessed one track’s ePortfolios each year. We agreed to pilot our process by sampling one track per year for the first three years and then sampling from all tracks once the capstone portfolio process was fully integrated. This was to provide additional time for instructors to integrate the ePortfolio into their capstone courses. A panel of faculty from other tracks, prospective employers, and alumni took part in the

evaluation, using rubrics employing measurable items associated with our seven SLOs. We see this assessment panel as an opportunity to strengthen ties with the community and, in particular, civic groups, potential employers, and alumni. This also provides feedback from various stakeholders about curriculum design. In this way, we hope to create “a feedback loop that serves to update the academy on the skills required by students as they enter society” (Acosta & Liu, 2006, p.18).

In 2013, all 40 ePortfolios from the Communication in Communities track were reviewed in order to assess the degree to which we have met our program SLOs. As discussed previously, ePortfolios serve as digital content management systems. As such, case study approaches have been described in various studies in information systems (Lee, Liebenau, & DeGross, 1997). The data for our study comes from various sources: analysis of student portfolio artifacts via data collected through a Qualtrics online survey completed by the assessment panel, panel feedback about alignment with artifacts with SLOs and about the rubric, and notes from the full Communication faculty discussion about the panel’s findings. Data from all of these sources comprised our “database” to formalize the organization and analysis (Yin, 2011).

In addition to four faculty members from the Communication Department, we invited two members of our Advisory Board, alumni with high-profile jobs in our field. In fall 2013, the six-member panel met for an orientation session, and each panelist was given a packet explaining the process. It was important to remind panelists that we were assessing the B.A. program, not specific students, instructors, or classes. Packets included copies of the rubric and a CD-ROM with a subset of the portfolios. Because there were 40 portfolios, we gave one third (either 13 or 14) to each panelist, and each portfolio was assessed by two people.

As noted by Berheide (2007), a priority for capstone assessment is to minimize additional work for faculty. Since this was our first round of assessment after the curriculum change and to ease any faculty apprehension, our focus was on streamlining the assessment procedures. To this end, the assessment coordinator explained the rubric and provided helpful portfolio examples to clarify correct application and alignment of student artifacts to SLOs. In addition, since we were employing the online survey software Qualtrics to input scores, the coordinator demonstrated how to access the website and input assessment data.

Senior capstone projects. Senior capstone projects represented key artifacts for the ePortfolio, highlighting practical engagement experiences that incorporate service learning to assist Oahu nonprofits. Students worked in teams to create a business plan for those nonprofits that agreed to participate in the

capstone experience and were tasked with the following: (1) do research on the history of the organization; (2) examine their social media presence from a public relations perspective; (3) evaluate current communication plans and procedures; and (4) provide suggestions to the client for improvement. Working with real-world clients helped students to connect their learning and experiences from the Communication program to specific goals and needs by local organizations. Notable clients included the Waikiki Aquarium, Surfrider Foundation Oahu chapter, and Native Hawaiian Student Services at the University of Hawai‘i at Mānoa.

After the orientation, panelists were given two weeks to review the portfolios assigned to them and input the scores into the Qualtrics online scoresheet. Once the scores were collected, the assessment coordinator constructed a summary table showing each SLO and the distribution (percentage) of students that were given each score. This was brought to the second meeting of the panel for review. During the second meeting, we gathered additional, qualitative assessment of students’ portfolios and also highlighted areas for improvement, both within the curriculum and the assessment process. A formal assessment report was created from this process. This was shared in advance with our entire Communication faculty, and a department-wide meeting was called to discuss the curriculum. The Assessment Coordinator created a summary report and shared it with Communication faculty at an assessment meeting in November. We set an initial benchmark of 80% of students scoring as either proficient or exemplary for each SLO. Results for each SLO are presented below (Table 2).

Additionally, we investigated inter-rater consistency on the ratings given to 40 students on seven separate SLOs. Two indicators were used to represent inter-rater consistency: (1) inter-rater agreement rate, which is the percentage of identical ratings given by two raters for each SLO; and (2) inter-rater agreement within one-point difference, which is the percentage of the ratings given by two raters on each SLO that differ by one point or are identical. Each rater was supposed to give one rating for each of the seven SLOs, using student work aligned with that SLO. Each student’s work under one SLO was evaluated by two raters. This means that the total possible number of paired ratings was 40 per SLO. However, some works had missing ratings from one or two raters. Table 3 shows the number of paired ratings that we used to calculate inter-rater agreement for each SLO. It also shows the inter-rater agreement rate, and inter-rater agreement rate within one-point difference.

In general, raters gave very similar ratings. Their ratings were the same or only differed by one point over 85% of the times on student works related to all SLOs

Table 2
Percent Distribution of Assessment Scores by SLO with Percentage Achieving Benchmarks (N = 40)

SLO	Summary	Unacceptable	Marginal	Proficient	Exemplary	Benchmark
1	Effective project design/ communication*	3	8	55	35	90
2	Critical thinking	0	5	77	18	95
3	Career readiness	0	15	65	20	85
4	Global/intercultural awareness	5	18	51	26	77
5	Collaborative problem solving	3	0	69	28	97
6	Ethical deliberation	5	37	42	16	58
7	Critical evaluation of ICTs	3	18	67	13	80

Note: All values are percentages. SLO Benchmark percentages in boldface have approximated or exceeded the 80% threshold.

Table 3
Inter-Rater Consistency by Number of Paired Ratings and Percentage of Inter-Rater Agreement (N=40)

SLO	Number of paired ratings	Inter-rater agreement	
		% of agreement	% of agreement (+1 or -1 difference)
1	40	50%	95%
2	37	52%	92%
3	40	53%	90%
4	35	40%	91%
5	31	61%	87%
6	34	29%	68%
7	37	32%	89%

except for SLO 6 (68%). The strict inter-rater agreement rates were much lower, ranging between 29% on SLO 6 to 61% on SLO 5. These results indicate that raters were able to give similar ratings, but more rater training will enhance rating consistency.

To increase the quality of data, a third rater evaluated all the student works with ratings that were more than one point apart. The outlier's ratings were discarded from the analysis. In the end, there was 100% inter-rater agreement within one-point difference

Overall, our graduates are meeting or exceeding our expectations. The two areas that we highlighted for improvement related to ethical deliberation (58%) and intercultural and global awareness (77%). We noted that some alignment issues were found between the artifacts presented and the rubric (i.e., students may have chosen works that were not ideal matches), so these data should be considered in light of this limitation. We discuss these results below.

Discussion

The revision of the Communications curriculum was motivated by recognition that our students needed additional preparation for a more complex, global,

computer-mediated world. Specifically, our goals reflect careful consideration of desired student learning outcomes where the ePortfolio can contribute to significant and meaningful teaching, learning, and assessment. In addition, we assessed the Communication program by sampling from ePortfolio submissions in the Communication and Communities track. Communication and Communities focuses on social, organizational, and professional communities, from large to small and in either face-to-face or mediated settings. Students sampled during this timeframe met or surpassed the benchmark (80%) in all but two areas. This provides evidence to support our expectation that student ePortfolios demonstrate almost all the learning outcomes in our curriculum. In a recent literature review of ePortfolio research, Bryant and Chittum (2013) concluded that there is a greater need to present original data on student outcomes through ePortfolio use. We believe our study helps to contribute to this need by assessing the ePortfolio's effect on communication students' learning outcomes.

As noted by Fitch, Peet, Reed, and Tolman (2008), our faculty "did not assume that all competencies are captured in student written assignments" (p. 47). In this regard, digital cinema and multimedia projects, student

presentations, and group work may also effectively represent student competencies but are more difficult to place as an ePortfolio artifact and to be appropriately acknowledged in the accompanying rubric. Multimedia assessment is a concern in ePortfolio research, since “the application of rubrics for assessing multimedia examples of student work collected via ePortfolios is currently being explored” (Light et al., 2012, p. 99). This is of particular importance in the communications field, where students learn and/or complete various multimedia campaign strategies, projects, and performances both in and outside of the classroom. As a result, we plan to integrate more assignments that focus on digital presence, purpose, and audience in the curriculum (Reynolds & Patton, 2014).

Policy Changes Based on the ePortfolio Assessment

The full faculty meeting held to discuss the findings of the assessment panel allowed for a great deal of informal discussion and novel idea generation. It also provided an opportunity for faculty to learn about each other’s courses and modify content to better foster student learning (e.g., identifying gaps in the curriculum or areas where strategic reinforcement of content across multiple courses would be beneficial). We used the end of the meeting to prioritize a few changes that are expected to have the greatest positive impact on student learning. These include the following:

- Introduction of a hallmark assignment for each track (as part of the required course for that track). Because the current process allows a great deal of flexibility in artifact selection, a signature hallmark assignment will allow comparisons of student learning across semesters.
- Integration of more assignments related to ethical considerations throughout the curriculum, along with an update of our curriculum map to demonstrate this competency. The curriculum map is a visual display of all courses that shows where in the curriculum the SLOs are introduced, reinforced, or mastered. This enables us to provide an appropriate sequence of learning experiences to address all SLOs
- Creating strategies to assist students/instructors in the selection of artifacts (to ensure alignment). We found that many artifacts presented as evidence were not well matched to the corresponding SLO. Thus, we focused attention on clarifying selection procedures for both faculty and students.

- Further rubric revision to enhance clarity and alignment. Our panel meeting and subsequent discussion also highlighted aspects of the rubric that panelists found problematic. For example, if there are multiple criteria at each level of the rubric, what happens if a student provides exemplary evidence for some, but not all? We addressed this by making some small changes to the rubric text and also clarifying the instructions given to the panelists.

Communicating the Results

We have several audiences for our results, and each required a different, strategic message. First, as noted above, our entire faculty received and discussed the results of the assessment panel. This led to enhanced coordination of classes and revision of content that improved the coherence of the curriculum. A second audience was our students. For prospective students, it is important to convey our results to show what they can anticipate learning in our program. We intend to feature future results on our department’s website, as part of an overall site redesign. This message is also important to share with current students, as it helps them to make sense of individual course objectives (that are linked explicitly to our SLOs). Instructors are encouraged to talk about the SLOs and our success in meeting them in courses throughout the program. A third audience is university administration, which gauges the health and success of our program based on our assessment data. We provide a summary assessment report each fall, and this is posted publicly on the Assessment Office’s website. We also presented our preliminary findings at a campus-wide poster session focused on assessment for curricular improvement. A final audience is our alumni and prospective employers, two groups that often overlap. Our strategy for reaching this group is similar to that for prospective students—we will have updated assessment results featured on our website after its redesign.

Conclusion

In this paper, we have detailed the case of our experiences with using ePortfolios in the implementation and assessment of the Communication BA in the School of Communications curriculum at the University of Hawai’i at Mānoa. We also presented the results of our pilot project integrating capstone ePortfolios for student learning and program assessment. As a field, communication is interdisciplinary, and we found that the ePortfolio can help make relational connections within our tracks, providing a more coherent learning experience that also integrates classroom experiences with real-life work

and service opportunities. We described the learning environment at the University and the School of Communications and presented the specific student learning outcomes (SLOs) that we developed to guide and assess learning outcomes. We then elaborated the process of implementing our assessment plan, and presented the results of a recent program evaluation. We found that student ePortfolios demonstrated that students met our benchmarks for five of seven learning outcomes in our curriculum. We also discussed how we used our results to strengthen our curriculum and how we conveyed our assessment results to different stakeholders. The assessment findings noted gaps in our curriculum and the need for improving specific processes, such as better alignment of learning outcomes with the assessment rubric. Overall, we found that the process ensures the value of the curriculum over time and serves as an agent for cultural change within the department.

References

- Acosta, T., & Liu, Y. (2006). ePortfolios: Beyond assessment. In A. Jafari & C. Kaufman (Eds.), *Handbook of research on ePortfolios* (pp. 15-23). Hershey, PA: IGI Global.
- Association of American Colleges & Universities (AAC&U). (2015a). *Liberal education and America's promise (LEAP)*. Retrieved from <http://www.aacu.org/leap/vision.cfm>
- Association of American Colleges & Universities (AAC&U). (2015b). *VALUE rubrics*. Retrieved from <http://www.aacu.org/value-rubrics>
- Association of American Colleges & Universities (AAC&U). (2007). *College learning for the new global century*. Washington, DC: Association of American Colleges & Universities.
- Barrett, H. (2004). *Differentiating electronic portfolios and online assessment management systems*. Paper presented at the Society for Information Technology & Teacher Education International Conference 2004, Atlanta, GA. Retrieved from <http://www.editlib.org/p/11939>
- Barrett, H. C. (2007). Researching electronic portfolios and learner engagement: The REFLECT initiative. *Journal of Adolescent & Adult Literacy*, 50(6), 436-449. doi:10.1598/JAAL.50.6.2
- Barrett, H. (2010). Balancing the two faces of ePortfolios. *Educação, Formação & Tecnologias*, 3(1), 6-14. Retrieved from <http://eft.educom.pt/index.php/eft/article/view/161>
- Bereiter, C., & Scardamalia, M. (1987). *The psychology of written composition*. Hillsdale, NJ: Erlbaum.
- Berheide, C. W. (2007). Doing less work, collecting better data: Using capstone courses to assess learning. *Peer Review*, 9(2), 27-30.
- Black, K. E., & Hundley, S. P. (2004). Capping off the curriculum. *Assessment Update*, 16(3), 3.
- Bryant, L. H., & Chittum, J. R. (2013). ePortfolio 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>
- Chen, H. L., & Light, T. P. (2010). *Electronic portfolios and student success: Effectiveness, efficiency, and learning*. Washington, DC: Association of American Colleges & Universities.
- Clark, J. E., & Eynon, B. (2009). E-portfolios at 2.0- Surveying the field. *Peer Review*, 11(1), 18-23.
- Danley-Scott, J., & Scott, G. (2014). The other half: Non-tenure track faculty thoughts on student learning outcomes assessment. *Research & Practice in Assessment*, 9, 31-44.
- Fitch, D., Peet, M., Reed, B. G., & Tolman, R. (2008). The use of ePortfolios in evaluating the curriculum and student learning. *Journal of Social Work Education*, 44(3), 37-54. doi:10.5175/JSWE.2008.200700010
- Hoger, E. A. (1998). A portfolio assignment for analyzing business communications. *Business Communication Quarterly*, 61(3), 64-66. doi:10.1177/108056999806100307
- Jafari, A. (2004). The "sticky" ePortfolio system: Tackling challenges and identifying attributes. *EDUCAUSE Review*, 39(4), 38-49.
- Jenkins, H., Purushotma, R., Weigel, M., Clinton, K., & Robison, A.J. (2009). *Confronting the challenges of participatory culture: Media education for the 21st century*. Cambridge, MA: MIT Press.
- Jenson, J. D. (2011). Promoting self-regulation and critical reflection through writing students' use of electronic portfolio. *International Journal of ePortfolio*, 1(1), 49-60. Retrieved from <http://www.theijep.com/pdf/ijep19.pdf>
- Kerrigan, S., & Carpenter, R. (2013). Culminating a college education while fostering civic agency. *Peer Review*, 15(4), 16-19.
- Kinzie, J. (2013). Taking stock of capstones and integrative learning. *Peer Review*, 15(4), 27-30.
- Lee, A. S., Liebenau, J., & DeGross, J. I. (1997). Information systems and qualitative research. *Proceedings of the IFIP TC8 WG 8.2 International Conference on Information Systems and Qualitative Research, Philadelphia, Pennsylvania, USA*, 1-8.
- Lievrouw, L. A. (2009). New media, mediation, and communication study. *Information, Communication & Society*, 12(3), 303-325.
- Light, T. P., Chen, H. L., & Ittelson, J. C. (2012). *Documenting learning with ePortfolios: A guide for college instructors* (1st ed.). San Francisco, CA: Jossey-Bass.

- Lombardi, M. M. (2007). Authentic learning for the 21st Century: An overview. In D. Oblinger (Ed.), *ELI Paper 1*. Boulder, CO: EDUCAUSE Learning Initiative. Retrieved from <http://net.educause.edu/ir/library/pdf/ELI3009.pdf>
- Lorenzo, G., & Ittelson, J. (2005). An overview of e-portfolios. In D. Oblinger (Ed.), *ELI Paper 1*. Boulder, CO: EDUCAUSE Learning Initiative. Retrieved from <http://net.educause.edu/ir/library/pdf/ELI3001.pdf>
- Mummalaneni, V. (2014). Reflective essay and e-portfolio to promote and assess student learning in a capstone marketing course. *Marketing Education Review*, 24(1), 43-46. doi:10.2753/MER1052-8008240107
- National Survey of Student Engagement (NSSE). (2014). *Bringing the institution into focus—Annual results 2014*. Bloomington, IN: Indiana University Center for Postsecondary Research.
- National Task Force on Civic Learning and Democratic Engagement. (2012). *A crucible moment: College learning and democracy's future*. Washington, DC: Association of American Colleges and Universities. Retrieved from http://www.aacu.org/sites/default/files/files/crucible/Crucible_508F.pdf
- Papacharissi, Z. (Ed.). (2011). *A networked self: Identity, community and culture on social network sites*. New York, NY: Routledge.
- Peet, M., Lonn, S., Gurin, P., Boyer, K. P., Matney, M., Marra, T., . . . Daley, A. (2011). Fostering integrative knowledge through ePortfolios. *International Journal of ePortfolio*, 1(1), 11-31. Retrieved from <http://www.theijep.com/pdf/ijep39.pdf>
- Pfister, D. S., & Soliz, J. (2011). (Re)conceptualizing intercultural communication in a networked society. *Journal of International and Intercultural Communication*, 4(4), 246-251. doi:10.1080/17513057.2011.598043
- Ramírez, K. (2011). ePerformance: Crafting, rehearsing, and presenting the ePortfolio persona. *International Journal of ePortfolio*, 1(1), 1-9. Retrieved from <http://www.theijep.com/pdf/IJEP21.pdf>
- Reynolds, C., & Patton, J. (2014). *Leveraging the ePortfolio for integrative learning: A faculty guide to classroom practices for transforming student learning* (1st ed.). Sterling, VA: Stylus.
- Rheingold, H. (2008). Using participatory media and public voice to encourage civic engagement. In W. L. Bennett. (Ed.), *Civic life online: Learning how digital media can engage youth* (pp. 97-118). Cambridge, MA: MIT Press.
- Richards-Schuster, K., Ruffolo, M. C., Nicoll, K. L., Distelrath, C., & Galura, J. A. (2014). Using ePortfolios to assess program goals, integrative learning, and civic engagement: A case example. *International Journal of ePortfolio*, 4(2), 133-141. Retrieved from <http://www.theijep.com/pdf/IJEP150.pdf>
- Rowles, C. J., Koch, D. C., Hundley, S. P., & Hamilton, S. J. (2004). Toward a model for capstone experiences: Mountaintops, magnets, and mandates. *Assessment Update*, 16(1), 1-2, 13-15.
- Sherman, G. (2006). Instructional roles of electronic portfolios. In A. Jafari & C. Kaufmann, *Handbook of research on eportfolios*. Hershey, PA: IGI Global.
- Snider, E., & McCarthy, A. (2012). Self-representation and student identity: A case study of international student users of Sakai. *International Journal of ePortfolio*, 2(1), 99-111. Retrieved from <http://www.theijep.com/pdf/IJEP56.pdf>
- University of Hawai'i at Mānoa. (2011). *Achieving our destiny: The University of Hawai'i at Mānoa 2011-2015 strategic plan*. Retrieved from <https://manoa.hawaii.edu/vision/dod-archive/pdf/achieving-our-destiny.pdf>
- Vygotsky, L. S. (1978). *Mind and society: The development of higher mental processes*. Cambridge, MA: Harvard University Press
- Wenger, E. (2000). Communities of practice and social learning systems. *Organization*, 7(2), 225-246. doi:10.1177/135050840072002
- Wenger, E. (2005). *Communities of practice: Learning, meaning and identity*. Cambridge, UK: Cambridge University Press.
- Whitfield, T. S. (2011). Electronic portfolios: A demonstration of multi-level communication skills and professional accomplishments. *Communication Teacher*, 25(4), 240-245. doi:10.1080/17404622.2011.601718
- Williams, J. M. (2010). Evaluating what students know: Using the RosE portfolio system for institutional and program outcomes assessment tutorial. *IEEE Transactions on Professional Communication*, 53(1), 46-57.
- Yin, R. K. (2011). *Qualitative research from start to finish*. New York, NY: Guilford Press.
- Zubizarreta, J. (2004). *The learning portfolio: Reflective practice for improving student learning*. Bolton, MA: Anker.

DR. WAYNE BUENTE is an Assistant Professor and Undergraduate Chair in the School of Communications at the University of Hawai'i at Mānoa. His research interests include digital inequality, digital citizenship, social media, social and community informatics, sociotechnical studies, and ePortfolios for curriculum assessment. Dr. Buente currently serves on the editorial board for the *Bulletin of Science, Technology & Society*.

DR. JENIFER SUNRISE WINTER is an Associate Professor and Graduate Chair in the School of Communications at the University of Hawai'i at Mānoa. Her research focuses on communication rights in ubiquitous network societies— in particular privacy, digital inequalities, algorithmic discrimination, and democratic discourse in the context of big data and the Internet of Things; the right to communicate; and curriculum design to foster civic engagement. Dr. Winter is an affiliate of the Center for Teaching Excellence (CTE)/Faculty Mentoring Program (FMP) and a member of the Institutional Learning Objectives Implementation Committee. She serves as Assessment Coordinator for the Communication BA and M.A. programs.

DR. HANAE KRAMER is an Assistant Professor in the School of Communications at the University of Hawai'i at Mānoa, where she teaches intercultural communication and cross-cultural training. She has written articles on East Asian cinema, the Hawaiian diaspora in the Bonin Islands, and World War II.

DR. FRANCIS DALISAY is an Assistant Professor in the Communication and Fine Arts Department of the College of Liberal Arts and Social Sciences at the University of Guam. His research interests include communication effects on public attitudes, public engagement, social capital, and socialization.

DR. YAO ZHANG HILL is an Assistant Specialist in the University of Hawai'i Mānoa Assessment Office. In her current position, she offers professional development

opportunities in the areas of student learning outcome assessment in the forms of workshops and community-based peer learning groups. She provides consultations to both internal and external faculty and administration regarding student learning assessment. She has extensive experience in survey research, educational program evaluation, and educational measurement validation studies. Areas of her publications and conference presentations are: language testing, evaluation of curriculum innovation, service-learning, professional development in higher education, student learning outcome assessment, and institutional research.

PATRICIA AMARAL BUSKIRK is an Assistant Professor in the School of Communications at the University of Hawai'i at Mānoa and teaches multimedia within the Media Arts Track. Her research focuses on emergent media, indigenous storytelling, and utilization of creative communication for civic engagement. Patricia is an Affiliate Faculty with the Indigenous Politics program (UHIP) located within the Department of Political Science.

Acknowledgements

The authors would like to thank Cassandra Tengan, Administrative Assistant at the School of Communications, for her outstanding support related to curricular improvement and assessment. In addition, we would like to thank the Assessment Office at the University of Hawai'i at Mānoa for their guidance and expertise throughout the process.