International Journal of ePortfolio
http://www.theijep.com

2015, Volume 5, Number 2, 155-167
ISSN 2157-622X

Institutional Assessment and the Integrative Core Curriculum: Involving Students in the Development of an ePortfolio System

Mary Lourdes Silva, Susan Adams Delaney, Jolene Cochran, Ruth Jackson, and Cory Olivares
Ithaca College

The majority of research on the implementation of ePortfolios focuses on curriculum, faculty development, or student buy-in. When ePortfolio systems have been described in technical terms, the focus has been on the functionality, affordances, and limitations of ePortfolio systems (e.g., TaskStream, LiveText), free web tools (e.g., Google Docs), and course management systems (e.g., Sakai). Seldom do researchers discuss the socio-political context that leads to the development of the ePortfolio design or architecture; more importantly, seldom are students involved in the decision-making process about assessment and learning. Rather, students are treated as data for the improvement of ePortfolios rather than significant stakeholders during development. Our pilot project with students as co-authors and research assistants illustrates one approach for colleges and universities interested in the implementation of an institutional ePortfolio. Our findings show that the design of ePortfolios should not be treated as neutral and unproblematic. According to our student authors, the affordances of ePortfolio design mediate their thinking and level of engagement in regards to affect and identity. Our pilot project also shows that students can and should play a larger role in institutional assessment.

The European Institute for E-learning defined an ePortfolio as "a personal digital collection of information describing and illustrating a person's learning, career, experience, and achievements" (2015, p. 1). The use of electronic portfolios in education has a rich history. Prior to the popular use of the Internet, users would save electronic portfolios on 1.44MB floppy disks. Soon after, CD-ROMs, with available storage space of 650 MB, were widely adopted to store larger mixed-media files. Since the mid-1990s, increased Internet speeds, web resources, and data storage at decreasing costs have made it possible for educators and students to experiment with different websites (e.g., Google sites), web tools, course management systems (e.g., Sakai), and ePortfolio technologies (e.g., LiveText, TaskStream). Unlike paper-based and text-based portfolios, electronic portfolios allow users to embed digitized multimedia content (e.g., video, image, interactive graphics) and hyperlinks, utilize search features to locate content quickly, and share work across a distributed social network. In a comparison between traditional and electronic portfolios, Barrett (2007) stated that technology enhances archiving, linking/thinking, storytelling, collaborating, and publishing.

Although paper-based portfolios have long been used by artists, journalists, writers, and architects to document a person's life works or development, the systematic adoption of electronic portfolios in higher education is a somewhat recent phenomenon. Early adopters were from professional schools, such as teacher education, nursing, and engineering. In professional schools and programs, state standards and assessments were dictated by accrediting bodies; ePortfolios functioned as a new delivery system to streamline the process. These early adopters did not view ePortfolios as necessarily transformative in regard to student learning and agency. Use of ePortfolios for outcomes assessment has more than tripled between 2009 and 2013 (Eynon, Gambino, & Török, 2014).

Recent research suggests that ePortfolios offer promising opportunities for improving both learning and assessment (e.g. Cambridge, Cambridge, & Yancey, 2009; Eynon et al., 2014). In their review of LaGuardia Community College's ePortfolio initiative, Eynon et al. (2014) highlighted the integrative potential of ePortfolios to "help students link and make meaning from various learning experiences" (p. 96). Cambridge et al. (2009), in their edited collection of studies from 20 institutions, asserted that ePortfolios offer "an antidote to the inadequacies of testing" (p. 195) and provide opportunities for students to take a "greater role" in discussions about learning as they "document, reflect on, and analyze what occurs during their own learning processes" (p. 196). Certainly, authentic student engagement is as critical to assessment as it is to learning, as demonstrated by ETS researchers Liu, Bridgeman, and Adler (2012), who measured substantial improvement in test scores of students who were given incentives to do well—who, that is, felt that they had a stake in the results. Likewise, Lizzio and Wilson (2013) argued that transparency and clarity are key to improving student engagement with tasks. While these studies focus on non-portfolio assessments, they underscore the value of recognizing students as stakeholders.

Such recognition means more than offering incentives or making assessments more transparent. Historically, students have been excluded from discussions about institutional assessment. For example, teacher education students would not be involved in the ePortfolio development phase, where

information architecture and relationship to student learning and assessment are discussed. Certainly, many programs have attempted to include student input. For instance, the University of Delaware's ePortfolio expansion effort involved interviews and surveys with students, as well as faculty (University of Delaware). However, the primary representation of students in the assessment process is in the form of artifacts to be scored and converted to data. Decisions about ePortfolio design and policy should not only be made for students, but with students, as well. As researchers and educators, we must function as assessment sponsors and invite students to the discussion of ePortfolio design and policy.

How can we include students in these processes? What might student perspectives on institutional assessment offer? This paper reports on a semester-long pilot project that involved four undergraduate Writing majors at a private liberal arts college in the development of an institutional ePortfolio in its early stages of implementation.

Research on Electronic Portfolio Design

Zaldivar, Summers, and Watson (2013) classified two types of ePortfolios: product-based portfolios and process-based portfolios. Product-based portfolios have been perceived as a reliable assessment method, whereas process-based portfolios have been viewed as "too loose, too flexible and hence preventing scaffolded, guided facilitation of learning" (p. 223). Long-time scholar of ePortfolio theory and practice, Helen Barrett (2007), distinguished between the two portfolio types according to their educational and rhetorical purpose—process-based portfolios are student-centered, contingent, and messy, mediating reflection and assessment *for learning*; product-based portfolios, in contrast, showcase knowledge and function as assessment *on learning*. Barrett (2007) argued that we are losing the stories that students share about their learning in exchange for checklists of skills. Zaldivar et al. (2013) stressed that product-based portfolios, as an assessment option, are ideal when compared to traditional test-based assessments. Moreover, a process-based portfolio structured as a "messy" representation of a student's cognitive journey may not be ideal to show to potential employers or graduate programs, whereas a product-based portfolio would provide a more coherent, linear narrative. Although process-based portfolios can reflect genuine learning, they fail to evaluate institutional programs structured around very specific learning objectives and outcomes. Some degree of standardization is needed for administrators to make generalizable claims regarding the quality, effectiveness, and shortcomings of a program. To reconcile tensions between different portfolio types, Barrett (2007) recommended a design approach that integrates an archive of student work, a multimedia/multimodal authoring environment, and a standards-based assessment program.

Scholar and educator of ePortfolio design, Kathleen Blake Yancey (2004), distinguished between print and electronic portfolios according to their affordances. Traditionally, print portfolios have been organized in three ways: (a) by genre, (b) by learning outcomes, and (c) by an intellectual framework (e.g., guiding questions, themes, or principles). Similarly, digital portfolios have been structured in three ways. First, online assessment systems such as TaskStream have been used to organize student work. Each student works with the same interface and web tools and houses his or her work for program assessment. Yancey (2004) described the second model as the "print uploaded" portfolio in which the content, arrangement, and rhetorical purpose mirror the print portfolio and do not exploit the digital affordances of a hypermediated, multimedia/multimodal environment. In the third model, the student takes full advantage of the web presence by using hyperlinks, images, video, etc. Unlike the print portfolio, remediated from the book, which evinces a linear narrative of progression, the digital portfolio allows students to communicate multiple narratives through different modes and media. Yancey (2004) used the metaphor of the *gallery* to describe a unified fragmentation that exists within the online space. Within this space, artifacts can be articulated, repurposed, interrogated, and reflected upon. Much like a palimpsest, the digital portfolio is multi-layered and complex in its construction.

Barrett (2007) cites Paulson and Paulson (1994), who classify portfolios as either positivistic or constructivist in design and intent. The positivist (or assessment) portfolio is based on learning outcomes that have been appropriated externally, not by the individual student. According to Paulson and Paulson, positivism "assumes that meaning is constant across users, contexts, and purposes" (p. 7). In this model, a portfolio is evidence of whether or not students effectively met the learning outcomes. A constructivist designed (or learning) portfolio, on the other hand, "assumes that meaning varies across individuals, over time, and with purpose" (Barrett, 2007, p. 440). In this model, students construct narratives of their learning through the selection, organization, and reflection of artifacts. In sum, the positivist-assessment portfolio would be an assessment of learning, whereas the constructivist-learning portfolio would be an assessment for learning (Barrett, 2007).

Student Agency and Institutional Constraints

In binary descriptions of portfolios, there tends to be an "us versus them" approach, in which institutional assessment is perceived as the antithesis to learning,

while the student-centered portfolio is the embodiment of authentic learning. The difference between process/product-based portfolios or positivistic/constructivist portfolios has less to do with student learning and more to do with what counts as academic currency in a hierarchical system in which students have little influence or power to change that currency. For example, in colleges where institutional portfolios function as a graduation requirement, standardization ensures that each student fulfill the same minimum requirements to obtain a degree. In addition to grades, the most common currency in an educational system, ePortfolios are marketed as alternatives or supplements to traditional assessments and grades. Overly prescriptive ePortfolios, on the contrary, can produce the same effects as traditional models, minimizing student ownership of learning (Zeichner & Wray, 2001). Institutions market ePortfolio software as student-centered, noting web-authoring tools and resources as opportunities to share with non-academic stakeholders (e.g., potential employers, graduate programs, and social media). However, to develop a system that satisfies the needs of all stakeholders (e.g., administrators, educators, ITS, and students) is untenable (Yancey, 2004). Yancey (2004) stated that the problem with the institutional assessment portfolio is that "each portfolio has *two* composers, (1) a student and (2) the system, with the system's override capability exerting greater authority" (p. 745). Thus, the design and objectives of institutional portfolios ultimately limit student innovation and freedom of expression. In addition, if students fail to meet the standardized requirements, the product of their academic labor cannot be exchanged for a degree and holds little value in this particular economic system.

Wilhelm et al. (2006) warned that a "significant challenge exists when the same e-portfolio system is used both for student-centered purposes and for satisfying institutional needs such as program evaluation and accreditation" (p. 63). For Wilhelm et al. (2006), it becomes problematic to conduct research in this area because the terms *electronic portfolios* and *electronic assessment systems* are used interchangeably. In theory, ePortfolios have the potential to transform student learning, establish a dialogical and collaborative relationship between educators and students, and influence global changes in education. The bureaucratic problems that arise with large-scale electronic assessment systems suggest that portfolio pedagogy is inherently flawed. Barrett and Wilkerson (2004) acknowledged this dilemma regarding ePortfolios and electronic assessment systems when they ask, "How do we match the needs of the institution for valid and reliable data for accreditation and accountability while still meeting the needs of learners for formative assessment to enhance and support the learning process?" (para. 17). When ePortfolios are viewed as a type of currency within a hierarchical system, there is little compromise: a student's work either counts or does not count for graduation.

One motivation for large-scale ePortfolio assessments is the impetus to acquire validity and reliability, allowing administrators to formulate generalizations about student performance and comparisons between large groups. Huot and Williamson (1997) explained that large-scale assessment is always situated in political contexts in which tensions exist between multiple parties: for instance, taxpayers demanding accountability versus administrators, educators demanding academic autonomy versus administrators, or students demanding grades for degrees (or in some cases, academic freedom) versus educators. Huot and Williamson (1997) wrote,

> The fact that students are compiling portfolios or writing in their classes with their teachers' and classmates' help is secondary. The ultimate authority in these situations has nothing to do with the activity in the classroom which produces the portfolios themselves. Instead, they are being used to generate scores which can support the reform movement. (p. 51)

In the end, assessment results are data used as evidence by various stakeholders to marshal arguments for additional (or reduced) resources and funds, accreditation requirements, and/or policy changes.

Thus, while many advocates of ePortfolios emphasize the importance of students in the assessment process, the hierarchical structure of institutional assessment necessarily marginalizes students. Driscoll and Wood (2007) wrote that educators presume that they need to direct student learning and "have seldom asked students about what kind of learning outcomes are important for their studies" (p. 58). Even advocates of student agency struggle, as evidenced in Light, Chen, and Ittelson's (2011) guide, *Documenting Learning with ePortfolios: A Guide for College Instructors*, in which they consistently speak of students as owners of their ePortfolios, but ultimately trace a highly constrained role for students. We are, of course, not the first to critique assessment or portfolios. While even proponents recognize many of the problems inherent in the process, Jensen (2010) argued that we may fall victim to a "will to student empowerment" (p. 129) and miss the ways that portfolio assignments can actually reify existing hierarchies. Yancey's (2011) response cites Joyes, Gray, and Hartnell-Young (2010), which analyzed ePortfolio implementations and noted the potentially disruptive nature of student ownership. However, while their very definition of ePortfolio

emphasizes learner ownership and management, they identify this as a threshold concept—an idea that once understood wholly and irretrievably alters one's perception—noting that "e-portfolio implementation can be like a game of snakes and ladders where initial rapid progress can suffer major setbacks due to a poor understanding of the nature of e-portfolios" (p. 25). Failing to fully comprehend the implications of student ownership, then, can undermine the goals for ePortfolios.

Though inclusion of students at the level of classroom evaluation is not a radically new idea, particularly in Writing Studies (e.g., Danielewicz & Elbow, 2009; Inoue, 2005; Tchudi, 1997), the highly constrained role of students in ePortfolio design reflects the fundamental view of students throughout higher education. Whether students are considered children (as under *in loco parentis*) or consumers, they are rarely included in significant decision-making. Following the student protests of the 1960s and 1970s, longtime administrator Louis Benezet (1981) argued, "It is time to increase student membership on policy committees from tokenism to fair proportions" (p. 713). Benezet (1981) argued for the inclusion of students in everything from student affairs to curriculum development to institutional planning. Decades of scholarship viewed such inclusion as essential to creating a responsive, democratic campus culture (Benezet, 1981; Boland, 2005; Hawes & Trux, 1974; McGrath, 1970; Zuo & Ratsoy, 1999). Yet despite research on student inclusion in higher education, students continue to be excluded from decision-making and are frequently unaware of opportunities that do exist (Menon, 2003, 2005).

ePortfolio Design and Implementation at Ithaca College

Ithaca College is a comprehensive private residential college with around 6,700 students, mostly undergraduates. Founded in 1892 as a music conservatory, the college has always sought to balance a professional orientation with a liberal education, with individual schools maintaining their own general education requirements. Over the past two years, in part in response to accreditation pressures, the college instituted a brand new college-wide general education program. This Integrative Core Curriculum (ICC), which began full implementation in Fall 2013, is the main pillar of the IC 20/20 strategic plan, which promises to prepare students to be integrative thinkers and collaborative problem solvers.

The ICC (n.d.) website defined integrative learning as "the process of making connections among concepts and experiences so that information and skills can be applied to novel and complex issues or challenges" (para. 1). In other words, integrative learning seeks to enable the transfer of strategies and ideas from one context to another. We want students, for example, to be able to take what they have learned in the required first-year writing course to assist them in understanding and composing arguments in a politics class, or to take the concepts learned in macroeconomics and use them to make sense of complex problems in an advanced business seminar. ICC utilizes a "themes-and-perspectives" model in addition to requiring courses that emphasize diversity, quantitative literacy, and writing. To help students develop and demonstrate integrative learning, the college decided to roll out a brand new ePortfolio system along with ICC, with students collecting artifacts throughout their college careers.

The rapid development and implementation of this new general education system—a radical change in both form and scope—has necessarily prompted resistance, both to the substance of the system (with its emphasis on assessable student learning objectives [SLOs]) and to the process, with some faculty arguing that there has been insufficient time for careful deliberation. Students have also expressed concern about the process, including coverage in the student newspaper and direct questioning of administrators at student government meetings. This new general education curriculum, with its key ePortfolio component managed by TaskStream, thus presents both a challenge and an opportunity for the college. In the context of skepticism and resistance on the part of faculty and students, student buy-in becomes even more essential for successful implementation.

It is important to stress that what ePortfolio researchers and program leaders mean by a term like *implementation* varies across publications. On the Catalyst for Learning (n.d.) website, 24 campuses report on the success and challenges of implementing ePortfolio initiatives at their campus. At the University of Delaware (2013), their explanation of the implementation process began with the development of a conceptual framework based on the Inter/National Coalition of E-portfolio Research. Faculty members discussed their educational goals for undergraduate students. At Virginia Tech (2013), their scaling-up story is described in four phases, over a range of six + years. In the first phase, faculty pursued ePortfolios independently or within professional programs. In the second phase, there were systematic efforts to bring technology and pedagogy to the forefront. For the third phase, there was an institutional commitment to build an ePortfolio agenda for different purposes. At the present stage, the campus has adopted social pedagogies, reflective practice, and assessment.

In Hains-Wesson, Wakeling, and Aldred (2014), ePortfolio implementation at a university in Australia

emphasizes more the ongoing technical instruction/support and professional development of faculty around the use of a new, open-source ePortfolio software. In contrast, our present study focuses on an early phase of implementation: the intersection between a major overhaul of our general education program, the design of the ePortfolio software, and development of assessment policies for student learning and program review. As part of this early implementation phase, Mary Lourdes Silva coordinated the development of two separate ad hoc committees—one charged with creating the Directed Response Folio (DRF) within TaskStream (Figure 1), and the second charged with creating rubrics for each of the SLOs for ICC. The first committee was presented with the challenge of mapping the new ICC onto the new ePortfolio software. Due to her background in portfolio pedagogy and theory, Silva found it important to serve on both committees. At the same time, both authors collaborated to conduct a pilot study on ePortfolio design and implementation with four Writing majors. Silva attended biweekly meetings, reporting out on the results of the pilot study to both committees. Much of the literature focuses on portfolio design as a game changer when it comes to curriculum. It facilitates self-assessment and reflection (Rickards et al., 2008), integrative learning (Light, Sproule, & Lithgow, 2009), folio thinking (Chen & Mazow, 2002) and self-regulated learning (Massey, 2009). For that reason, Silva deemed it essential to include student input during the early design phase.

Part of the early discussions about TaskStream was the idea that this ePortfolio would solve all of our educational woes. First, it was supposed to direct students away from a checklist curriculum, which was perceived as a central problem with our old general education program. Second, it was supposed to assess the new general education program, ICC, which had been redesigned from the ground up. Third, it was perceived as transformative in that it would foster student autonomy, intentionality, metacognitive thinking, and self-regulated learning. Last, the ePortfolio was seen as a way for students to produce a showcase portfolio to professionalize their academic work for various stakeholders. There were, however, several contradictory objectives. To the committee, it was paramount that students take ownership of the ePortfolio and have the opportunity to upload any artifact in any medium or mode, so long as the artifact met the indicated SLOs. However, it was equally important to the committee that for assessment purposes, submissions should be "locked." In other words, after a set date students would not be capable of re-submitting artifacts. Assessment of selected ICC elements from the preceding semester are completed twice a year, in January and in May. In theory, students could revise and re-submit artifacts during the Spring semester or submit work from other courses, so long as the new artifacts met the target SLOs. This is great for student learning because their understanding of the SLOs may evolve, and the evidence they wish to provide may change as their awareness changes. For assessment purposes, however, this presents problems because currently the ePortfolio software does not track which students resubmitted work; moreover, it does not segregate these students from the general population. Consequently, it would be difficult to evaluate the program efficiently.

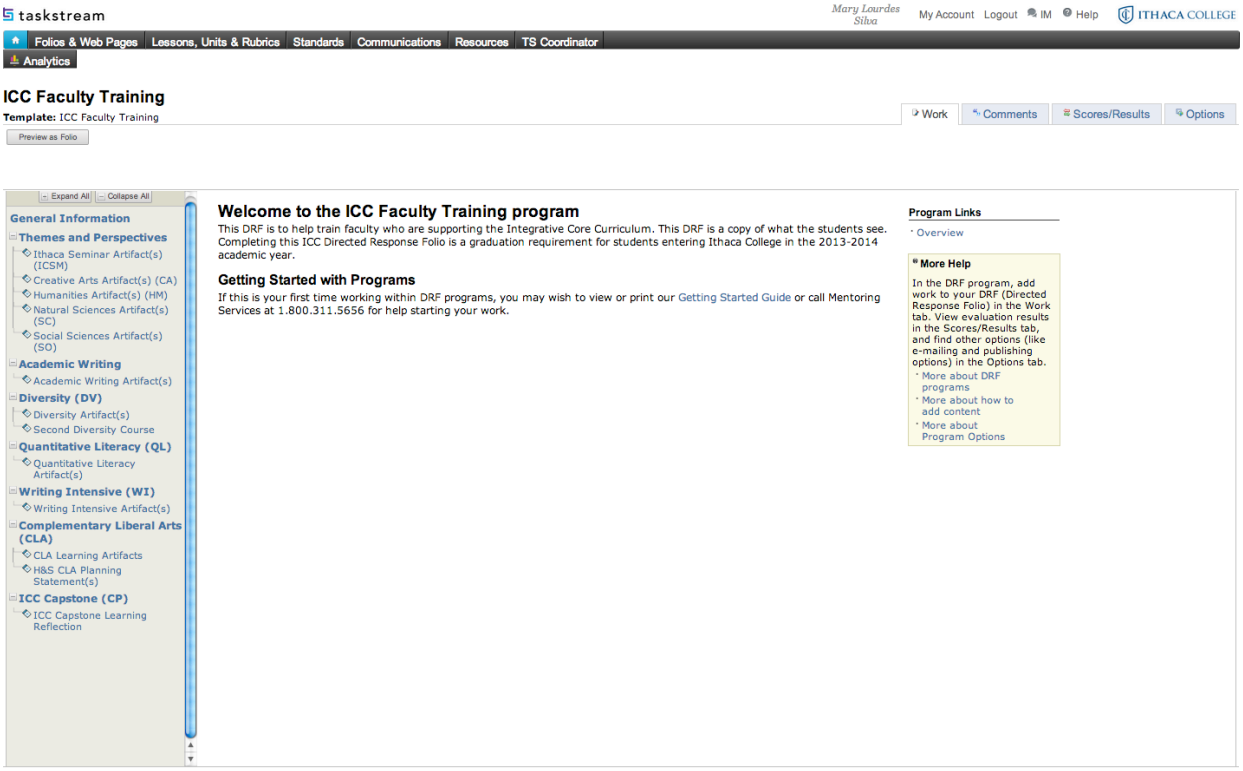
Silva presented this contradiction to the committee; however, members did not find it to be a problem because they believed that artifacts would inevitably improve from freshman to senior year. This learning narrative is based on the assumption that cognitive development follows a linear regression line, a narrative that has more to do with validating instructor-designed pedagogy and curriculum and less to do with understanding learning in real time across various academic and non-academic contexts. In reality, learning can be messy and recursive, sometimes moving two steps forward and three steps back. One technical solution to resolve these contradictory objectives is to embed interconnected systems within the ePortfolio software. Barrett (2007) recommended that the ePortfolio software include an archive of student work, program assessment, and authoring tools. In other words, it should include a space for students to develop product-based and process-based ePortfolios. A technical solution in this case, however, does not change who actually controls the grand narrative for student learning and achievement. In sum, when it comes to institutional assessment, there are irreconcilable differences between product-based and process-based portfolios.

As noted earlier, the new curriculum was developed relatively rapidly, creating confusion and uncertainty. What were the principal functions of the ePortfolio? How would it work? What options would programs and students have? While TaskStream is designed to accommodate both product and process-based portfolio models, what policies need to be put in place? What technology and support will be needed? These decisions have significant implications for the amount of freedom individual programs, faculty, and students will have in shaping the ePortfolio.

Student Implementation of Pilot ePortfolio

To help us consider these important concerns, we recruited four senior Writing majors to assist us in piloting the ePortfolio. While these students were part of the now-defunct general education system, their expertise, as advanced students, was invaluable.

Figure 1
TaskStream ICC DRF Webpage



Throughout the spring of 2013, supported by college grants, we worked together to review relevant research, interview faculty, and analyze rubrics. From this collaborative process, we were able to identify four typical ePortfolio design approaches: course-based, levels, SLO, and open-ended. In the course-based approach, students must submit artifacts from core courses in their major or program. The levels approach is similar, in that artifacts must be submitted from freshman, sophomore, junior, and senior courses. Slightly more open-ended is the SLO approach, which allows students to upload any artifact so long as they can articulate a rationale for how the artifacts meet the designated student learning outcomes. In the last design model, the open-ended approach, students determine for themselves the rhetorical objectives of the ePortfolio and determine which artifacts meet those objectives. The four Writing majors on our team each selected one of the ePortfolio design models and took several weeks to construct their individual ePortfolios.

As a group, we identified three key themes that emerged from the student narratives, as well as shared attitudes and responses to the four ePortfolio design models. First, each student's *identity* as a writer was foregrounded, in terms of both control over ePortfolio design and awareness of how work would be received by potential audiences. Second, students' rationales for the selection of portfolio artifacts emphasized *affect*, as students described their emotional relationships with the writing. Third, students' approaches to artifact selection tended to emphasize either a *holistic* or *cohesive narrative*; that is, they either assembled a range of artifacts that created a holistic account of their four years' work, or they selected artifacts that emphasized cohesion and integration among their courses. For this paper, three of the four chose to participate as co-authors and reflect on their experiences.

Identity

The question of identity figured prominently in students' articulations of why they selected a particular ePortfolio design. Ruth Jackson majored in Writing with a minor in Deaf Studies. A born storyteller, Jackson took courses in playwriting and poetry, in addition to performing with a signing choir on campus.

Her choice of the levels approach emphasizes the importance of her identity as a creative individual:

> Creativity is in my blood and runs through every endeavor and project I pursue. I've never been able to fit inside any mold an authority figure has set in front of me. Each one of us is unique and should be treated as such. This is the main reason why I chose the levels approach for my ePortfolio. We were given the opportunity to be flexible in putting however many artifacts in the ePortfolio. This approach gave me the ability to choose different types of writing as well as how many.

Jackson viewed the final, senior level as representing how the various threads of her identity came together in her senior project,

> a novel about the stereotypes of deafness and the hearing, because I was able to use everything that I learned and develop a story of my own choosing. Deaf culture fascinated me ever since I started learning American Sign Language in high school. I just knew that I would use my senior project to encompass both my passions, writing and Deaf culture.

Jolene Cochran majored in Writing with a concentration in Creative Writing and minored in Art, German Language Studies, and the Honors Program. Her reflection focused on the affordances of the open-ended approach:

> While I am theoretically a "digital native," I've never had the latest gadgets, known the best programs, or been privy to the kind of technological awareness that my classmates seemed to grasp intuitively. During high school, I began experimenting with blogging, because it is almost the proverbial destiny of an American teenager who "journals" to write a blog at some point or another. Sites such as Posterous and Blogger were ideal for a tech-neophyte like me: they gave enough guidance to be easily navigable but also provided a wide range of design and layout options so that I still felt as though I could impose my own identity upon the blog and control its tone. Though my confidence with technology has grown over the years and I no longer need that same type of hand-holding, the concept of the blog stuck with me. So when I began the ePortfolio process, a blog was what I imagined.

Echoing Yancey (2004), Cochran sought to create a digital space in which artifacts could be articulated, repurposed, and reflected upon:

> After reading Carpenter, Apostel, and Hyndman's (2012) "Developing a Model for ePortfolio Design: A Studio Approach," I was even more set on this kind of blog-like structure where written, visual, and aural elements could be intertwined to reflect a student's identity, skills, and knowledge. Though this study focused primarily on the importance of periodic peer and faculty review, it also stressed the idea of the ePortfolio as an art object where "multiple modes come together to form a powerful communication object" (p. 170). Based on this idea of multi-modality I knew I wanted to integrate design into my own portfolio, but also wanted the artifacts to reflect my experiences as a Writing major at Ithaca College.

Cory Olivares is a creative writer who completed a fantasy novel as his senior project. His reflection emphasized his identity as a highly focused transfer student:

> I did not necessarily go to college as a pathway to a set job, or riding the post-high school wave into what many refer to as the college experience. Being a transfer student, and wanting mainly to learn how to write in order to become a self-sufficient author, my creative works in the classroom were my most valued. The ePortfolio system gave me a way to easily organize my documents from my transfer school and IC into a cohesive package that I could take with me post-graduation. The course-based approach allowed me to choose which writing courses and artifacts I wanted to showcase. It also allows students to demonstrate their own personal identity, whether it be a love of writing fiction, creative nonfiction, or a certain theme like writing about nature.

Affect

Identity for the three student authors includes a passion for particular kinds of work, the deep emotional connection writers have with their own creative efforts. Emotional connection with individual pieces of writing played a key role in artifact selection, as students recalled the strong emotions from when they first developed that artifact. That is, they chose work that had been particularly meaningful or enjoyable at the time of creation. Jackson's first selection was an essay from Introduction to the Essay, the required gateway course for Writing majors, which shifted her understanding of what writing and creativity could be:

> This researched essay on beading granted me the opportunity to talk with a professional who owns a

> beading store. She shared with me the different crafts one can make and the types of beads that come from all over the world. Beading has been a part of my life since I was elementary age and continued to grow with me. Now, I spend time and money to make jewelry not only for myself but for others as well. I wrote this essay with passion and vigor for two reasons, one being the fact that I love the craft and two because I believe this is a form of art. I remember we had such a debate about whether or not beading should even be considered art.

For Cochran, too, the emphasis was on choosing artifacts that represented growth or challenge:

> Choosing the artifacts as well as categorizing them proved to be much more challenging than I had originally thought. I tried to choose pieces that would fulfill the criteria for both the ePortfolio rubrics while also choosing pieces I felt were essential to my growth as a writer. Many times the pieces I chose were ones that I can firmly say were *not* good pieces of writing, but instead demonstrated some failing that I had since rectified, such as my freshman essay in which my thesis completely got lost in the kerfuffle of description and prose. Still other artifacts were ones that I was particularly proud of, such as my pieces for the college's senior art show and my capstone project.

Olivares noted the tension between institutional expectations that are built into student learning objectives and students' own affective relationship with their scholarly and creative work:

> While I respect and understand the importance of the general education courses such as the science and history ones, I didn't really value the artifacts that came out of it for their quality and as they pertained to my overall goal for the ePortfolio. I also wanted to showcase a wide array of my own personal works that I loved. While the ePortfolio structure allowed you to submit any number of artifacts per category, trying to fit certain artifacts into sometimes restrictive guidelines (and vice versa) felt forced. I didn't like placing a story I really loved under simply "shows rhetorical literacy." I felt that this devalued my work and found myself trying to find artifacts that I might have otherwise not enjoyed, but that fit well into the given subject. Thus, after graduation I would have a portfolio that pleased the ICC guidelines, but was essentially alien to me.

Narrative

Olivares's concern highlights the students' desire to craft a narrative that would fully and truthfully represent themselves. Their approaches to artifact selection tended to emphasize either a *holistic* or *cohesive narrative*; that is, they either assembled a range of artifacts that created a holistic account of their four years' work, or they selected artifacts that emphasized cohesion and integration among their courses. Jackson, for example, noted how she overcame her initial reluctance to include early writing in the portfolio by considering the way the artifacts came together to demonstrate her development as a writer:

> I didn't particularly like to share my horrible writing from back then and on top of that, I was also self-conscious. I didn't feel confident in myself as a writer. As I progressed through this project, I found out that my writing wasn't awful if you look at it as a freshman piece. Seeing how one has grown is always a good thing. Through this, I saw my strengths and my weaknesses. No one really becomes a perfect writer. We all learn from each other and continue to strengthen our pieces.

Olivares acknowledged the potential value of crafting an ePortfolio that would enable him to define himself according to a body of work, rather than a transcript. While emphasizing his desire to create a cohesive narrative that effectively represented his identity, he expressed frustration with the ways in which an assessment-driven ePortfolio design undermines such efforts:

> One great benefit of ePortfolios is that they allow students to leave their institution with a set of organized works to present to employers and to keep for themselves. This is so important, because plenty of people can graduate with top grades and honors, but really what does that mean without substantial artifacts? I could have graduated without a single piece of my writing saved, cast out to the working world without a sole piece of craft, and I would have gotten the same degree as my peers. Especially as a writer, it is the writing and works that come from the past years that matter, not the grades.
>
> As a fantasy writer I of course need to draw on my life outside of the classroom, but honestly it seems obvious that I would want to stay as far from reality and my own life as possible. So then, where does that fit? Am I not to use an artifact because it does not resemble my own life at all? Also, the definitions for works did not meet what I wanted out of this whole ePortfolio process in the first

> place. They really took the sense of identity and personality out of the ePortfolio making process, leaving just this feeling of systemization and being a number.

Like Jackson, Cochran recognized the value of demonstrating her development as a writer. In selecting her artifacts and designing her own approach, she found she was able to construct a meaningful narrative that combined the holistic and cohesive schemes.

> My own college learning experience was a slog towards proficiency rather than a leap, a slow process in which I struggled to integrate what I'd learned into my writing and into my life. Thus, it seemed to make the most sense to present my portfolio in a developmental fashion by providing writing artifacts from each year so as to show my progression. Yet I also wanted to showcase other subjects which had influenced me throughout my four years in school, such as art, German, and creative writing. To achieve this cross-disciplinary structure, I opted to create my own DRF template, which is an aspect of the TaskStream site that essentially allowed me to create my own organizational structure as opposed to using a prearranged format. Though this was probably the more complicated choice in the end, being unfamiliar with the technology, it seemed like the best option at the time.

Like Olivares, Cochran struggled with the assessment-oriented structure of the ePortfolio, noting the challenge in locating artifacts that effectively represented connections across educational experiences, but found that in the process of struggling to identify those connections, she was able to design a framework that satisfied both her own concerns and those of the institution:

> Though I was able to scrounge up some old essays and lab reports, I wouldn't say that I was pleased with the finds, mostly because there was no way to show any sort of thought progression since there were no later pieces to which the reader could compare. Despite the fact that these pieces were supposed to show my integration into other areas of academia, the artifacts often felt out of place and not at all integrated into my other work, and so I decided to separate them into their own section. But this turned out to be a happy accident, for as soon as I had stuffed away those unsatisfying pieces into their own category, the other categories followed, and I was left with a design that adequately encompassed the breadth of my experience at college: Creative Arts, Analytical and Expository Writing, Integrative Writing, Outside Fields, and Reflections.

All of the students struggled with the institutionally driven SLOs, particularly the emphasis on thesis-driven writing that seems to pervade even the Writing Department's goals for its majors. As Cochran observed,

> Yet even though I had managed to create categories that made sense of the flow of my college career, I still felt as though I was stretching to make some pieces fulfill the Writing Department's requirements. Most of the department's rubrics for what constitutes an exemplary piece of writing (and thus the kind of writing that should be in the ePortfolio) are catered to academic writing, but these rubrics often don't translate well to other genres, like personal essay or science fiction and fantasy. While these genres certainly have a driving idea behind them, you'd be hard-pressed to find a thesis and supporting evidence in a short story about displaced space jellyfish. This is ultimately why I decided to create my own ePortfolio structure; while the Writing major rubric covered a range of SLOs that certainly are necessary for a senior writing student, I didn't feel as if a portfolio structured around these SLOs fully encompassed the cross-disciplinary nature of *my* experience in college.

Reflection

The complex concerns raised by our coauthors as they piloted the ePortfolio are echoed by faculty on our campus, as Susan Adams Delaney learned during her time as chair of the Committee on College-wide Requirements (CCR), the college-wide faculty committee charged with developing procedures and reviewing policies and courses under the new Integrative Core Curriculum. While significant design and SLO decisions had been made by the time Delaney joined CCR (by CCR and by ad hoc committees such as those Silva served on), faculty continue to raise concerns as full ICC implementation completes its second year. Many share our co-researchers' concerns regarding the conflicting goals for and ownership of the ePortfolio. As Olivares queried,

> Who is this really for? Is it simply a reflection on the *institution* for them to demonstrate their own worth and study how students learn and grow? Or is it for *students* to use to organize artifacts for themselves and potential employers?

Faculty likewise have raised questions about the multiple purposes for the ePortfolio, demonstrating a need for continuing conversation among all stakeholders.

In addition, our co-researchers shared concerns raised by faculty at IC and across the country regarding the impact of outcomes-based assessment on teaching and learning. Students were frustrated by the limiting nature of SLOs, which—at least as written and understood at this stage—constrain the kinds of artifacts that are valued in the ePortfolio. That is, SLOs appear to directly challenge student ownership of their learning by dictating priorities. That challenge to individual autonomy is felt by some faculty in relation to the development of courses and assignments. Faculty are, by definition, the curricular experts of any institution of higher education, charged with determining what is to be taught and how. While the emphasis on outcomes may be intended to make these decisions transparent and allow various bodies to determine whether the goals we set are being achieved and the interests of students and institutions served, many worry that outcomes-based assessment permits intrusive oversight by administrators.

Faculty, in fact, may be experiencing some of the same frustrations students express regarding assessment: that a single paper or test can never fully capture the complex process of learning. For, as faculty, drawing on their disciplinary and pedagogical expertise, design experiences that will facilitate learning, they must also craft assignments to serve as indicators of that learning—assessments. That is, faculty must craft assessable activities that will facilitate student learning *and* make that learning somehow visible. Yet, as the literature we review above makes clear, the complex messiness of learning is, at times, antithetical to the need for generalizable data. The assignments we create and which must serve as ePortfolio artifacts never fully capture the learning, serving at best as good-enough snapshots of a moment in time. Furthermore, an emphasis on assessable assignments may work to inhibit teaching and learning by shifting students' and teachers' attention away from authentic engagement to the assessments themselves.

In terms of successful ePortfolio implementation, such a shift risks turning the ePortfolio into another bureaucratic hoop to jump through, one that will be resented by students and faculty alike. As Cochran concludes, the ePortfolio should be more than "just a means of satisfying yet another checklist of requirements sent down from on-high, but a tool for analyzing your own self as a student and member of the critical world, for learning to be a discerning individual who can not only grasp scholarly ideas but implement them." As our co-researchers make clear, including students in the process of designing ePortfolio systems—sharing the relevant literature and listening to their feedback—will only serve to ensure such systems' relevance and viability.

Recommendations

Of course, the development of any assessment agenda in higher education is constrained by accreditation requirements and government policy. This is an essential point, because all rhetoric about student involvement and empowerment is imbricated in larger historical, political, and economic systems that mediate higher education. Despite these constraints, student involvement in large-scale assessment is possible and can occur at different stages and levels. Moreover, the extent of that involvement will vary across institutions depending on the institution's demographics and the political infrastructures that represent student needs and voices. The following recommendations are based on the different stages of ePortfolio implementation.

In the development of assessment-based standards, Driscoll and Wood (2007) contended, "students of all ages have important ideas about their own learning and are essential sources of learning outcomes" (p. 58). The authors reported that at CSU Monterey Bay (CSUMB), students were involved "at varied levels of developing outcomes, criteria, and standards" (Driscoll & Wood, 2007, p. 58). Consequently, students learned about outcomes by developing them and understood better the connections between curriculum, pedagogy, and assessment at the macro-level, across programs and departments, and at the micro-level, within individual courses. Student involvement also increased student buy-in of assessment-based standards. At CSUMB, students were invited to the table, figuratively speaking, to construct outcomes; however, students did not have the power to reject the idea of assessment-based standards outright, any more than faculty.

During the design phase of ePortfolio implementation, faculty and experienced students could create an advisory board to work as consultants. In our case, the ePortfolio committee was assigned a technician from TaskStream, who customized the ePortfolio template (the DRF) based on our institutional needs. Although Silva sought to represent student perspectives, a student advisory board would allow students to negotiate changes to the DRF. Regular use of polls or focus groups would be another option for gathering student input on design choices.

Once the ePortfolio is ready to be implemented, faculty and students can develop innovative ways to assign leadership roles to students. At Virginia Tech, Zaldivar et al. (2013) described how students developed a Student Management team that facilitated the selection process of artifacts for a Dietetics Education program. The students developed a list of options for

peers to consider while selecting artifacts that meet one of the six learning criteria. Moreover, unlike the standardized binders used with paper-based portfolios, students focused on the design of their web portfolios to market their hard work to external audiences. Students later presented at conferences and published their findings. Zaldivar et al. (2013) also stated how students introduced a sustainable model by developing a peer-mentoring program to offer guidance and technological support to those who have not started or completed their portfolios. At Virginia Tech, when the English department learned that students did not care about program assessment, they created a Student ePortfolio Leadership team that was charged with recommending what English majors would need to build successful ePortfolios. In effect, the conversation is steered from program evaluation to student needs.

In addition to student-led programs and support by students and faculty, student involvement could be codified by program administrators in the form of internships, assistantships, and independent studies. As interns or research assistants, students could review the latest learning theories in ePortfolio design and pedagogy, conduct focus groups or interviews with faculty and students, conduct surveys, develop resources or tutorials, or utilize social media to interact with peers. A paid or credit-bearing position legitimizes student involvement, allowing students to facilitate folio thinking for themselves and for their peers. Whatever avenues faculty or administrators choose in order to involve students, the process must be public, transparent, and meaningful.

Conclusion

As noted previously, Joyes et al. (2010) described student ownership of the ePortfolio as a threshold concept for faculty and administrators, following Meyer and Land (2006), who defined threshold concepts as *portals*, or ways of seeing that are essential to entering particular disciplinary communities. Such portals are necessarily challenging, since they disrupt previous ways of knowing, and often represent *troublesome knowledge*, a term Meyer and Land borrowed from Perkins (1999) to describe the resistance learners may feel to counterintuitive notions. Adler-Kassner, Majewski, and Koshnick (2012) contended that identifying threshold concepts within their respective disciplines enables instructors to scaffold student learning and encourage transfer across disciplinary contexts. However, faculty should not only identify and articulate threshold concepts for the purpose of student learning, but should also identify their own threshold concepts as educators and challenge their assumptions about student involvement in institutional assessment.

For some educators and administrators, the idea of undergraduates playing an active role in policy and pedagogy is troublesome. But why? One explanation is based on Lave and Wenger's (1990) theory of situated learning. Within academia, faculty and staff are expert practitioners within this community, and students participate as novice members in the periphery. As novices become more active within the community, they move toward the center. This makes sense in non-academic contexts in which novices move up the ranks through promotions or elections. In academia, the cultural expectation is for students to leave the community to participate as experts (or novices once again) in new communities. Thus, the idea of students making administrative or curricular decisions alongside experts of the community is unsettling to many. In paternalistic terms, the gut reaction for faculty is, "I know what's best for my students." And our intentions are genuine as we work to create learning environments that foster innovation, creativity, and student-centered learning. We demonstrate our concern for student perspectives as we poll, interview, and survey students. However, student voice-as-data versus student voice-as-active-participant represent two very different methodological approaches to student involvement. We argue that faculty and administrators should question any discomfort or reluctance to assign more authority to students in decisions related to assessment methods, policy, and pedagogy. When we take the time to include students fully in the conversation, we all benefit.

References

Adler-Kassner, L., Majewski, J., & Koshnick, D. (2012). The value of troublesome knowledge: Transfer and threshold concepts in writing and history. *Composition Forum*, *26*. Retrieved from http://compositionforum.com/issue/26/troublesome-knowledge-threshold.php

Balaban, I., Mu, E., & Divjaka, B. (2013). Development of an electronic Portfolio system success model: An information systems approach. *Computers & Education*, *60*, 396-411. doi:10.1016/j.compedu.2012.06.013

Barrett, H. C. (2007). Researching electronic portfolios and learner engagement: The REFLECT initiative. *Journal of Adolescent & Adult Literacy, 50*(6), 438-449. doi:10.1598/JAAL.50.6.2

Barrett, H., & Wilkerson, J. (2004). *Conflicting paradigms in electronic portfolio approaches*. Retrieved from http://electronicportfolios.org/systems/paradigms.html

Benezet, L. T. (1981). Governance. In A. W.

(Ed.), *The modern American college: Responding to the new realities of diverse students and a changing society* (pp. 706-720). San Francisco, CA: Jossey-Bass.

Boland, J. A. (2005). Student participation in shared governance: A means of advancing democratic values? *Tertiary Education and Management, 11*, 199-217. doi:10.1080/13583883.2005.9967147

Cambridge, D., Cambridge, B., & Yancey, K. B. (2009). *Electronic portfolios 2.0: Emergent research on implementation.* Sterling, VA: Stylus.

Carpenter, R., Apostel, S., & Hyndman, J. O. (2012). Developing a model for ePortfolio design: A studio approach. *International Journal of ePortfolio, 2*(2), 163-172. Retrieved from http://www.theijep.com/pdf/ijep66.pdf

Catalyst for Learning. (n.d.). *Homepage.* Retrieved from http://c2l.mcnrc.org/

Chen, H. L., & Mazow, C. (2002). *Electronic learning portfolios in student affairs*. Retrieved from http://www.montgomerycollege.edu/Departments/studevgt/onlinsts/Resources/Eportfolios%20in%20Student%20Affairs.pdf

Danielewicz, J., & Elbow, P. (2009). A unilateral grading contract to improve learning and teaching. *College Composition and Communication, 61*(2), 244-268.

Driscoll, A., & Wood, S. (2007). *Developing outcomes-based assessment for learner-centered education: A faculty introduction*. Sterling, VA: Stylus.

European Institute for E-learning (2015). *Europortfolio*. Retrieved from http://www.eife-l.org/about/europortfolio

Eynon, B., Gambino, L., & Török, J. (2014). What difference can ePortfolio make? A field report from the Connect to Learning Project. *International Journal of ePortfolio, 4*(1), 95-114. Retrieved from http://www.theijep.com/pdf/IJEP127.pdf

Hains-Wesson, R., Wakeling, L., & Aldred, P. (2014). A university-wide ePortfolio initiative at Federation University Australia: Software analysis, test-to-production, and evaluation phases. *International Journal of ePortfolio*, *4*(2), 143-156. Retrieved from http://www.theijep.com/pdf/IJEP147.pdf

Hawes, L. C., & Trux, H. R. (1974). Student participation in the university decision-making process. *Journal of Higher Education, 45*(2), 123-134. doi:10.2307/1980557

Huot, B., & Williamson, M. M. (1997). Rethinking portfolios for evaluating writing: Issues of assessment and power. In K. B. Yancey & I. Weiser (Ed.), *Situating portfolios: Four perspectives* (pp. 43-56). Logan, UT: Utah State University Press.

Inoue, A. (2005). Community-based assessment pedagogy. *Assessing Writing, 9*(3), 208-239. doi:10.1016/j.asw.2004.12.001

Ithaca College. (n.d.). *What is integrative learning?* Retrieved from http://www.ithaca.edu/icc/what_is_it/

Jensen, K. (2010). The panoptic portfolio: Reassessing power in process-oriented writing instruction. *Journal of Advanced Composition, 30*(1-2), 95-141.

Joyes, G., Gray, L., & Hartnell-Young, E. (2010). Effective practice with e-portfolios: How can the UK experience inform implementation. *Australasian Journal of Educational Technology, 26*(1), 15-27.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. New York, NY: Cambridge University Press.

Light, T. P., Chen, H. L., & Ittelson, J. C. (2011). *Documenting learning with ePortfolios: A guide for college instructors.* Hoboken, NJ: John Wiley & Sons.

Light, T. P., Sproule, B., & Lithgow, K. (2009). Connecting contexts and communication: Using ePortfolios for integrative learning. In D. Cambridge, B. L. Cambridge, & K. Yancey (Eds.), *Electronic portfolios 2.0: Emergent research on implementation and impact* (pp. 69-80). Sterling, VA: Stylus.

Liu, L., Bridgeman, B., & Adler, R. M. (2012). Measuring learning outcomes in higher education: Motivation matters. *Educational Researcher, 41*(9), 352-362.

Lizzio, A., & Wilson, K. (2013). First-year students' appraisal of assessment tasks: Implications for efficacy, engagement and performance. *Assessment & Evaluation in Higher Education*, *38*(3), 389-406. doi:10.1080/02602938.2011.637156

Massey, D. D. (2009). Self-regulated comprehension. In S. E. Israel & G. G. Duffy (Eds.), *Handbook of research on reading comprehension* (pp. 389-399). New York, NY: Routledge.

Menon, M. E. (2003). Student involvement in university governance: A need for negotiated educational aims? *Tertiary Education and Management, 9*(3), 233-246.

Menon, M. E. (2005). Students' views regarding their participation in university governance: Implications for distributed leadership in higher education. *Tertiary Education and Management, 11*(2), 167-182.

McGrath, E. (1970). *Should students share the power? A study of their role in college and university governance.* Philadelphia, PA: Temple University Press.

Meyer, J., & Land, R. (2006). Threshold concepts and troublesome knowledge: An introduction, In J. Meyer & R. Land (Eds.), *Overcoming barriers to student understanding: Threshold concepts and troublesome knowledge* (pp. 3-18). London, UK: Routledge.

Paulson, F.L., & Paulson, P.R. (1994, April). Assessing portfolios using the constructivist paradigm. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA. (ERIC Document Reproduction Service No. ED376209).

Perkins, D. (1999). The many faces of constructivism. *Educational Leadership*, *57*(3), 6-11.

Rickards, W. H., Diez, M. E., Ehley, L., Guilbault, L. F., Loacker, G., Hart, J. R., & Smith, P. C. (2008). Learning, reflection, and electronic portfolios: Stepping toward an assessment practice. *Journal of General Education*, *57*(1), 31-50.

Tchudi, S. (Ed.). (1997). *Alternatives to grading student writing*. Urbana, IL: NCTE.

University of Delaware. (2013). *Growing our TLA ePortfolio initiative.* Retrieved from http://ud.mcnrc.org/scaling-story/

Virginia Tech. (2013). *ePortfolios at Virginia Tech: Our scaling up story*. Retrieved from http://vt.mcnrc.org/scaling-story/

Wilhelm, L., Puckett, K., Beisser, S., Wishart, W., Merideth, E., & Sivakumaran, T. (2006). Lesson learned from the implementation of electronic portfolios at three universities. *TechTrends, 50*(4), 62-71. doi:10.1007/s11528-006-0062-9

Yancey, K. B. (2004). Postmodernism, palimpsest, and portfolios: Theoretical issues in the representation of student work. *College Composition and Communication*, *55*(4), 738-761.

Yancey, K. B. (2011). Portfolios, learning, and agency: Promises, perceptions, possibilities. *Journal of Advanced Composition, 31*(3-4), 95-141.

Zaldivar, M., Summers, T., & Watson, C. E. (2013). Balancing learning and assessment: A study of Virginia Tech's use of ePortfolios. In K. V. Wills & R. Rich (Eds.), *Perspectives on writing* (pp. 221-239). Anderson, SC: WAC Clearinghouse and Parlor Press.

Zeichner, K., & Wray, S. (2001). The teaching portfolio in US teacher education programs: What we know and what we need to know. *Teaching and Teacher Education*, *17*, 613-621. doi:10.1016/S0742-051X(01)00017-8

Zuo, B., & Ratsoy, E. W. (1999). Student participation in university governance. *Canadian Journal of Higher Education, 29*(1), 1-26.

MARY LOURDES SILVA is an Assistant Professor of Writing at Ithaca College, where she serves as Director of First-Year Composition. Her research focuses on transforming what it means to learn to write in the twenty-first century and to design learning environments that allow students to participate and collectively construct new knowledge to solve or re-imagine problems. She is continuing to research implementation of institutional ePortfolio assessment, in addition to studying the online navigational behaviors of college writing students throughout the research/revision process and pedagogical uses of multimodal and multimedia technologies in the classroom.

SUSAN ADAMS DELANEY is an Assistant Professor of Writing at Ithaca College. With a strong background in liberal arts, she seeks to build connections among faculty across disciplines to develop an institutional culture that values the role of writing in integrative learning. She is currently collaborating with an undergraduate to gather student and faculty input in revising the goals for the Writing Major, developing a model for other campuses for the inclusion of student voices in making key decisions.

CORY OLIVARES graduated from Ithaca College with a B.A. in Writing, having completed a fantasy novel as his senior project. He is currently pursuing his writing career while working full time as a sales representative.

RUTH JACKSON graduated from Ithaca College with a B.A. in Writing and a minor in Deaf Studies. In addition to writing poetry and fiction, Jackson is Outreach Assistant at the Aspen Camp of the Deaf and Hard of Hearing in Colorado.

JOLENE COCHRAN graduated from Ithaca College with a B.A. in Writing and minors in Art, German Language Studies, and Honors. In addition to writing fiction, Cochran works as a freelance writer and editor.