Introduction

Is ePortfolio a technology? In what ways? What are the features of an effective ePortfolio platform? What do successful campus ePortfolio initiatives do to select an effective platform? Or, to put it another way, how can ePortfolio technology make a difference in advancing student, faculty, and institutional learning?

Experienced ePortfolio practitioners know that, in general, "pedagogy drives technology" and that meaningful ePortfolio practices involve a complex interplay between teaching, learning, and technology. The technological aspect of ePortfolio, while not primary or singular in importance, can nonetheless play a critical role in supporting and enhancing, or in some cases, hindering such practices.

For example, sophisticated ePortfolio pedagogy asks students to document, reflect on, and integrate their learning. C2L teams report that the most effective ePortfolio technology helps their students to more easily connect, reflect on and share diverse elements of their learning, bringing together curricular, co-curricular and experiential learning across the breadth and depth of their academic experience.

Meanwhile, effective ePortfolio technology helps to make student learning visible, providing a vehicle to share this contextualized learning with students, faculty, and other authentic audiences. In this way, the right platform can help faculty, staff, and other institutional stakeholders connect to and focus on student learning. ePortfolio technology situates student learning in a more visible, holistic context. Helping to integrate such a focus into professional development and outcomes assessment -- and grounding these processes in authentic artifacts of student learning -- quality ePortfolio platforms can help deepen faculty, staff, and institutional learning.

Selecting an ePortfolio Platform

One of the most common questions at any ePortfolio-related conference is, “What platform do you use?” Select the “right” platform for your institution and your ePortfolio project will be better-positioned for growth and success. Selecting a platform that does not align with your institutional needs can create obstacles and roadblocks to a successful ePortfolio implementation. No existing platform is perfect, but there are considerable differences among the currently available softwares. Choosing an ePortfolio platform is a critical institutional decision that requires collaborative planning, goal setting, evaluation, and decision-making processes.

Collaboration: The process of selecting an ePortfolio platform requires collaboration among an array of campus stakeholders including key faculty and staff, assessment leaders, IT managers and other campus
The ePortfolio as a Technology: How Can Platforms Make a Difference?

Administrators. Technology stories from C2L campuses suggest that a collaborative process for selecting an ePortfolio platform helps this wide range of stakeholders to focus on student learning. Such a process can help deepen pedagogy, professional development, and outcomes assessment, creating stronger and more successful ePortfolio initiatives that can catalyze institutional change and learning.

At Pace University, for example, after experimenting with several different ePortfolio tools, the ePortfolio leadership team wanted to select a single platform to use across the institution. The ePortfolio team reports that they “formed an ePortfolio advisory board and under the guidance of our CIO, created a ‘bucket list’ of what we wanted our ePortfolio tool to do and look like…the advisory board consisted of about 25 faculty and staff from across the institution.”

Similarly, at Guttman Community College, where the platform was selected prior to opening the college, they “convened a task force including faculty and administrators to review and recommend ePortfolio platforms.” Other colleges with robust ePortfolio initiatives, such as Tunxis Community College and Virginia Tech, also used this collaborative platform selection process. The value of this process can go beyond the task of identifying an effective platform choice. It can spark a sustained and productive conversation about technology, pedagogy, and student learning among faculty, staff, and administrators. At its best, this process engages everyone involved in thinking about the role technology plays in supporting and enhancing pedagogy and student learning. Putting student learning at the center of technology-focused conversations can help campuses develop a learning-centered culture.

Goal Setting and Evaluation: In addition to having the right people at the table to participate in the decision-making process, it’s important to conduct a needs assessment and then prioritize essential and optional technology features. To advance this process, campuses create lists or rubrics, what Pace called a “bucket list.” For example, at Manhattanville College, ePortfolio leaders began the selection process by:

[D]eveloping a matrix of features that we thought were important and examin[ing]these features in the products of a number of different vendors. These features included: ability to support accreditation reporting, ADA compliance, cost and cost structure, compatibility with our Student Information System and existing LMS (Blackboard), assessment capabilities including rubrics and reports, ease of use, flexibility in the interface, portability capabilities, social networking/media integration, storage allotment, training and support for faculty and
students, the visual look and feel of the interface, and file management and organization capabilities. We then prioritized these features for Manhattanville.

Currently at IUPUI, they are searching for their next generation of learning technologies. And they are doing this with other campuses in the Indiana University (IU) system.

**IU 2013 Determination of ePortfolio Platform Requirements**

<table>
<thead>
<tr>
<th>Category: Collection (storage, management, and retrieval of digital artifacts)</th>
<th>Requirement</th>
<th>Must Have</th>
<th>Must Have</th>
<th>Should Have</th>
<th>Nice to Have</th>
<th>Not Needed</th>
<th>Avg Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Robust and user-friendly capabilities for uploading, storing, locating, managing, sharing, and viewing files (artifacts) in all common formats, including plain text, video, audio, graphics, databases, URLs to external resources, etc. in a personal online digital workspace/repository.</td>
<td>Y</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>3.88</td>
</tr>
<tr>
<td>1.01</td>
<td>Ability to control who has access to one's own intellectual property (artifacts) via permission settings which can be easily understood and changed.</td>
<td>Y</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>3.38</td>
</tr>
<tr>
<td>1.02</td>
<td>Ability for managers to configure storage quotas for specific users, groups, or programs.</td>
<td>N</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>2.71</td>
</tr>
<tr>
<td>1.03</td>
<td>Ability for portfolio authors to upload, transcode, edit, share, and view digital video and audio artifacts.</td>
<td>Y</td>
<td>3</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>3.38</td>
</tr>
<tr>
<td>1.04</td>
<td>Ability for portfolio authors to add metadata to individual portfolio artifacts.</td>
<td>Y</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>3.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category: Reflection</th>
<th>Requirement</th>
<th>Must Have</th>
<th>Must Have</th>
<th>Should Have</th>
<th>Nice to Have</th>
<th>Not Needed</th>
<th>Avg Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Robust and user-friendly capabilities for creating, editing, and sharing, and discussing reflections on any component (an artifact, group of artifacts, page, group of pages) of a portfolio or on the entire portfolio.</td>
<td>Y</td>
<td>6</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>3.75</td>
</tr>
<tr>
<td>2.01</td>
<td>Ability for instructors and facilitators to scaffold the process of writing reflections with prompts or custom forms.</td>
<td>Y</td>
<td>5</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3.63</td>
</tr>
</tbody>
</table>

Figure 1

An IU committee on ePortfolio Platform Review has worked to identify and prioritize ePortfolio technology needs and to identify candidates for close review. As one of the earliest and largest adopters of ePortfolios, IUPUI is heavily represented on this body, which is co-chaired by one of our C2L project directors. The group produced a detailed list of requirements, ranging from basic functionalities for document management to those that support social and reflection-based pedagogies and those that enable assessment management. Improved user experience and ability to integrate with other enterprise systems are also high priorities.
When conducting a needs assessment, an effective strategy is to align that assessment with the goals of the ePortfolio project. At Tunxis Community College, for example, a committee comprised of faculty and staff used their project goals as the driver in the selection process. They aligned those goals with their primary criteria for selection: "ease of use for faculty and students, flexibility, inclusion of a comprehensive assessment system, and system integration with Banner."

In addition to customization and cost, criteria for ePortfolio platforms must address issues of teaching and learning. Effective ePortfolio platforms help students to connect, reflect on, and share diverse elements of their learning. In addition, an effective platform helps faculty, staff, and other stakeholders examine ePortfolios and focus on student learning. Facilitating the integration of ePortfolios and related artifacts into both professional development and outcomes assessment processes, quality ePortfolio platforms help deepen faculty, staff, and institutional learning.

There is no perfect “one size fits all” ePortfolio platform; on C2L campuses where ePortfolio initiatives are thriving, these complex goals guide the selection and management of an ePortfolio. For example, ePortfolio leaders at San Francisco State report:

First [we] conducted a needs assessment, polling the Chairs of departments in 2006 to discern how widespread the use of portfolios for formative/summative assessment of student work was...We had a small committee comprised of 2 faculty, 1 department chair and academic technology manager who began experimenting with a variety of platforms.

Factors such as ease of use, customization, cost, vendor support, and assessment tools are some of the criteria used by campuses in the selection process. Knowing the goals of the ePortfolio project and the needs of the faculty, staff and student users allows teams to select the most appropriate platform for an institution.

**Connecting to the Field:** In addition to developing internal, campus-specific lists and criteria, there are external resources which can assist campuses in their evaluation of platforms. EPAC, the Electronic Portfolio Action Committee Community of Practice maintains an active list of ePortfolio-related Tools and Technologies.1

1. Sebastian-Coleman, Gambino, 2014
ePortfolio as a Technology: How Can Platforms Make a Difference?

In addition, during the 2011-2012 academic year, Association of Authentic, Experiential and Evidence-Based Learning (AAEEBL) hosted a webinar series titled, “Exploring ePortfolio Technologies” where ePortfolio providers and educators discussed current ePortfolio platforms.¹

While formal sites such as EPAC and AAEEBL are invaluable in the platform selection process, more informal resources can also be useful. ePortfolio teams also find it helpful to draw on the experiences and insights of other campuses. CUNY’s School of Professional Studies and Lehman College both worked with colleagues at another CUNY school, Bronx Community College when evaluating different platforms. Similarly, ePortfolio leaders at Northwest Community College report that they learned that two of their “sister community colleges in Connecticut were using Digication and seemed to be particularly pleased with the platform.” After a campus presentation from the vendor, they too, selected Digication for their campus.

Selecting an ePortfolio platform is a critical campus decision. An effective platform that aligns with project and institutional goals will help position an institution for success. A platform that is not a good fit creates frustration and undermines buy-in from students, faculty, and other stakeholders. C2L campus stories suggest that the best way to select an effective ePortfolio platform is an inclusive process involving stakeholders from across the institution. Working collaboratively, understanding campus needs, and learning from other campuses are key steps to selecting an ePortfolio platform that will align with institutional goals. These steps can also help generate buy-in and excitement about ePortfolio, which can, in turn, advance the growth of an ePortfolio initiative across a program, college, or institution.

Connective Technology Can Deepen Student Learning

Asking students to demonstrate their learning through activities, experiences, and assignments has long been an essential aspect of the college experience. Thoughtfully implemented, with a focus on pedagogy and students, ePortfolio technology can enhance the demonstration of learning. How does an ePortfolio platform better enable students to demonstrate a full range of contextualized learning experiences? And how can it help them take ownership of their learning, and develop richer conceptions of themselves as learners? In what ways can ePortfolio technology enhance and support reflective, integrative, and social pedagogies? In other words, what difference does the “e” make?

We propose that effective ePortfolio technologies situate student learning in a more visible, holistic context. Platform features can make it easier or harder for students to connect, reflect on, and share contextualized learning. Most traditional demonstrations of learning focus on isolated, course-level learning experiences. A student’s ePortfolio, on the other hand, has the potential to outlast a single course experience, spanning courses and semesters. It can create a space for students to link academic and life experience, and to shape new identities as learners. Having a sustained, holistic learning space makes it easier for students to see and make connections among diverse learning experiences, within and beyond the classroom. And students can trace their own learning and development -- the ways they have grown and changed over time as they progress through a program or degree. The most effective ePortfolio platforms facilitate these processes.
Catalyst for Learning: Technology

ePortfolio as a Technology: How Can Platforms Make a Difference?

Using ePortfolio as a means for students to see and understand their own learning has long been a major focus of LaGuardia’s ePortfolio initiative. As the LaGuardia C2L team tells us in their Technology Story:

For students, being able to see learning and the process of learning are key ingredients that can lead to change and success. At LaGuardia, students take pride in who they are, what they have learned, and who they want to be. Digication allows students the opportunity to learn, create, share, and own a roadmap for their success – academic, career, and personal.

The Catalyst essay “The Difference that ePortfolio Makes” discusses the values of students seeing their own learning and making reflective connections across courses, a major, or a degree program. The theme of creating an integrative experience for students appears in many C2L campus Technology Stories. C2L leaders from the University of Delaware note that “Having the portfolio in electronic format made the process more accessible for faculty and connected different parts of the program for students.” At IUPUI, students in a first year seminar create a personal development plan (ePDP):

The PDP was originally developed as a paper binder; one of the reasons for pursuing an alternate strategy was that students often perceived the plan as a series of discrete exercises, rather than a unified, coherent document, and were thus not particularly invested in the resulting plan.

Similarly at Guttman Community College, where “reflective pedagogy is central to student learning…the ePortfolio makes learning visible; students and faculty are able to see ‘change over time’ as students progress through their first year at the college and beyond.”

In addition to fostering an integrative experience where students see their own learning improve over time, effective ePortfolio platforms support ongoing reflection, revision, and change. ePortfolio leaders at Pace remind us that, in their opinion, “the most important reason for advocating for the electronic use of portfolios is that it can be continually reviewed and revised. A paper portfolio gives the impression of being complete once submitted, whereas an electronic portfolio is always ready to be enriched and changed.”

While enabling students to make reflective connections and integrate their learning experiences, effective ePortfolio platforms also support the use of social pedagogies, making learning visible to authentic audiences, including other students, family and friends, potential employers and transfer institutions. The most advanced platforms provide flexible, easy-to-use commenting features for both students and faculty; some ePortfolio platforms integrate with other social media applications, such as Twitter and YouTube. Faculty at LaGuardia Community College are bringing together social media technologies with ePortfolio. As their leaders tell us, “unlike a paper-based format, an ePortfolio allows students to connect social media with social pedagogy practices. Through this, students are equipped with the necessary knowledge and tools to make relevant connections between the learning that is happening in their academic, professional, and personal lives.”
ePortfolio as a Technology:
How Can Platforms Make a Difference?

C2L leaders from Norwalk Community College described the impact they observe that ePortfolio technology has on both reflective and social pedagogy:

   "The "e" factor of an ePortfolio is most significant in that it allows for multi-media, which, in turn, transforms pedagogy: faculty are now reporting that they think of assignments in different ways, asking how they might have students incorporate various media and how that might lead to stronger outcomes.  The "e" factor also compels more consistent reflection, which both deepens student learning and makes it more visible.  Finally, the "e" factor provides a wider and more authentic audience, one that goes beyond simply the teacher."

As this statement suggests, the "e" - the technology itself - does make a difference.  It provides the tools and space to enhance and support reflective, integrative, and social pedagogies.

Ownership and Customization: Some campuses approach ePortfolio technology as a means to help students take ownership of their learning.  With many ePortfolio platforms, students technically "own" their ePortfolio – they have rights to its content and can take it with them when they graduate or leave the campus.  But ownership has other, more subjective aspects.  Do students really feel that their ePortfolio is “theirs?” Does it really reflect and express their personality and how they see themselves?  Some platforms facilitate this, and others do not.

At Boston University, Tunxis, LaGuardia, Salt Lake Community College and other C2L campuses, students are encouraged to customize their ePortfolio using color, images and design to express their identities in visual form.  The capacity to customize a portfolio can be a meaningful consideration in platform selection.  Visual customization is important for students as it allows them to use color and images to express who they are as learners and as individuals.  It also encourages a sense of ownership, not just of the visual aspects of the ePortfolio, but of the content itself, and, in turn, the student’s entire learning experience.  As the IUPUI team explain:

   "One of the main reasons for digitizing the electronic Personal Development Plan (ePDP), the focus of our C2L project, was to support not only the literal ownership of a presentation-style portfolio, but more importantly to foster students’ sense of agency, self-authorship, and ownership of learning from the start of their undergraduate experience."

Customization, while it has advantages from the student ownership perspective, also poses challenges for campuses.  Customizable ePortfolios are often more difficult to manage than standardized, structured template ePortfolios.  Providing training and technical support also become more difficult with these additional affordances and features.  Campus teams often work to strike a balance between standardization and customization, balancing the ability to easily manage and maintain an ePortfolio system with student autonomy and ownership.

The ownership of an ePortfolio extends to the public/private duality of digital technology.  Most often, paper portfolios are shared only with an instructor.  Some ePortfolio platforms give students the ability to control which
sections of their portfolios will be public and which will remain private. Students can often create multiple portfolios for different “public” audiences as well. As Gail Matthews-DeNatale from Northeastern University states, “ePortfolios make it possible to share, but to share within limits. This combination of privacy and sharing could not be accomplished in a paper-only format.”

Selection of an ePortfolio platform must go beyond an examination of the technical. Campuses must also evaluate platforms in relation to their key pedagogical and learning priorities. No platform does everything well; the challenge is to find an ePortfolio platform that addresses and balances a range of priorities. Campuses with successful ePortfolio initiatives strike that balance in such a way that their ePortfolio initiatives deepen the student learning experience.

Supporting Student Technology Use – Peer Mentors and ePortfolio Labs
While ePortfolio platforms have become increasingly user friendly in recent years, teaching students how to use the platform still requires attention. Relatively few faculty want to spend significant class time teaching students the nuances of any given ePortfolio platform. Campuses have developed a range of strategies for addressing this issue.

Some C2L campuses, such as Pace, Manhattanville, and LaGuardia Community College address this issue with peer mentors who can run workshops and provide one-on-one guidance that helps students learn about and become more comfortable using their ePortfolio platforms. Peer mentors can not only support the technological elements of portfolio building, but also help students as they reflect on their experiences and develop future plans.

Tunxis Community College and other campuses also have dedicated ePortfolio labs where students can seek help creating and building their ePortfolios. Others, such as CUNY’s School for Professional Studies have created online tutorial materials and videos. Many schools, such as Salt Lake Community College (SLCC), tell us they combine these approaches. At SLCC, students have the option of choosing from multiple open source ePortfolio platforms. To support these choices the ePortfolio leadership team reports that they “have online tutorials for all three platforms. The second support structure consists of free introductory workshops for students...We’ve added a third support structure...two ePortfolio labs.”

Technology, Professional Development and Outcomes Assessment
At campuses with sophisticated ePortfolio initiatives, ePortfolio technology supports not only students but also faculty and institutional learning. Integrating ePortfolio into campus professional development and outcomes assessment practices can engage faculty and staff in thinking in new and different ways about pedagogy and student learning.

The role of ePortfolio in professional development starts with the necessary training around the capacities and intricacies of any given platform. Learning the ins and outs of a platform is important, however, it is only the
beginning. It is equally if not more valuable to support faculty as they learn about integrative social pedagogy and figure out how to incorporate reflective ePortfolio practices into their curriculum.

Some faculty developers see a tension between highlighting technology and exploring pedagogy. Others see the introduction of a new technology as an opportunity for faculty and staff learning. Engaging faculty in exploring the capacities of specific ePortfolio technology, they use that process to spark a conversation about pedagogy and purpose. A shift from “how do I do this” to “what am I doing in my class and why?” focuses faculty and staff on the ways ePortfolio can enhance the teaching and learning process.

At San Francisco State University, professional development that began as technology workshops evolved to focus increasingly on pedagogy and design:

Most of our professional development work is now focused on pedagogy. Through our grant program from 2006-2011 we grew to understand the extent to which we were asking faculty to transform their practice. In almost every case, faculty begin with the idea of learning how to use a technology tool to accomplish their goal. Through consultations, symposia, and support of travel to present at inter/national conferences, we worked to help them move beyond focusing on the technology to emphasize curriculum design, pedagogy, and assessment principles.

LaGuardia’s Center for Teaching and Learning (CTL) is nationally known for innovative professional development offerings. The LaGuardia CTL regularly offers year-long seminars such as Strengthening Core Learning, the Art of Advisement, and Connected Learning: ePortfolio and Integrative Pedagogy. The LaGuardia C2L team reports:

Our professional development and training activities offer faculty a highly integrated experience—meaning that these activities don’t just focus on ePortfolio or teaching and learning, but rather allow faculty, regardless of their experience with ePortfolio, to explore and learn about approaches in which ePortfolio can work “hand in glove” with pedagogical practices (i.e., relating to integrative and social pedagogy, reflection, advisement, etc.) that can add value to what is already being done in the classroom.

On some campuses, to model ePortfolio pedagogy, professional developers ask faculty and staff to create and maintain their own seminar ePortfolio. At CUNY’s School for Professional Studies, for example, leaders “created a workshop ePortfolio to house support materials and information….we also created a shared ePortfolio “sandbox” where each workshop participant completed a number of tasks…” Similarly at Guttman Community College,

ePortfolio leaders work to integrate ePortfolio into our professional development practices, using ePortfolio to “practice what we preach.” For example, we developed professional development ePortfolios for our “ePortfolio and the Arts” and “ePortfolio Peer Mentor/Grad
ePortfolio as a Technology: How Can Platforms Make a Difference?

Coordinator Bootcamp™ workshops. In addition to sharing materials, participants engage in social pedagogy, commenting and engaging with each other via the ePortfolio both before and during workshops.

ePortfolio technology also supports Outcomes Assessment practices on many C2L campuses. The most effective ePortfolio platforms help institutions to gather, save, and use artifacts of student work or entire ePortfolios for institutional assessment. Some platforms can also help generate a database of outcomes and rubrics. Artifacts of student work can be linked to those competencies and assessed by faculty and staff using those rubrics. To be most effective in this area, ePortfolio platforms also provide reporting tools to help aggregate and analyze assessment data.

For campuses that use ePortfolio for outcomes assessment, these features lead to a robust outcomes assessment process that engages the institution in a conversation about learning. As discussed in the Catalyst essay on Outcomes Assessment, using ePortfolio in inquiry-based assessment processes can provide an opportunity for rich faculty and staff conversations about learning. Examining the ePortfolio-based evidence of student learning and reflecting on ways to improve pedagogy and curriculum is a powerful process that leads to sustained faculty and staff learning and institutional change. When the use of ePortfolio in this process becomes part of the norms and practices of an institution, it leads to the strengthening of a learning culture.

Conclusion

Selecting an effective ePortfolio platform that meets the needs of students, faculty, and the broader institution is a critical factor in the success of a campus ePortfolio initiative. In C2L, many campuses with vibrant ePortfolio initiatives employed a collaborative selection process. Engaging faculty, staff, and key administrators in the process moves the conversation beyond technology to one that focuses on pedagogy and learning for students, faculty, and the institution. During that selection process, we see that it is critically important to conduct a needs assessment that aligns with an institution’s ePortfolio project goals. Identifying and implementing structures that support students in the use of ePortfolio as both a technology and pedagogy are additional factors that leads to successful ePortfolio initiatives. Finding a platform that balances student ownership and autonomy with ease of management and support helps ePortfolio leaders meet the needs of all institutional stakeholders.

And, integrating the use of ePortfolio into outcomes assessment processes and professional development at an institution helps shift the conversation from teaching to learning, facilitating a learning-centered culture.

The “e” can make a difference across the various layers of an institution – for students, faculty, staff, and administrators. Selecting the “right” platform will support an institution’s use of ePortfolio. Collective, deliberate thinking about the institutional goals and priorities for using ePortfolio will help campuses select a platform that will be most effective in supporting student learning and pedagogy, faculty and staff engagement, and institutional practices and processes.
Citation
Works Cited

i. Retrieved from: http://epac.pbworks.com/w/page/12559686/Evolving%2List%2A0of%2A0ePortfolio-related%2A0Tools
