

MONDAY, JANUARY 14, 2013

# Using an Electronic Portfolio as a Capstone Project: The Rationale, Logistics and Reflections (Part 1)

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A persistent challenge that academic programs face is developing and implementing methods of summative assessment that are simultaneously rigorous, meaningful and valuable for the students, especially when the assessment is a capstone project completed just before the awarding of a degree. Additionally, summative assessments should, ideally, inform program administrators about how well their students are picking up the breadth of subject knowledge required as they progress through the program. When carefully designed and administered, portfolio assessment can be a beneficial tool to assess both the individual student's learning and the effectiveness of an academic program.

The School of Library and Information Science (SLIS) at San Jose State University has been using a self-reflective electronic portfolio, or "e-Portfolio," as a culminating project option for the Master's in Library and Information Science (MLIS) degree since 2006. The e-Portfolio is offered as an alternative to the thesis, and the vast majority of students (~98 percent) consistently choose the e-Portfolio. While the thesis provides students the oppor-



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Rather than completing a thesis, which forces students to focus on a single element of their program area, e-Portfolios provide a pathway to reflect on the entirety of their academic program. By extension, it allows students to more accurately display their competencies in the field.

tunity to delve into a single research question, the e-Portfolio provides students the opportunity to reflect on the breadth of their coursework, including areas that they do not intend to pursue professionally but are, nevertheless, a part of our professional foundations.

In striving to develop something that served our program's purpose as a capstone academic project and that was both appropriately challenging and beneficial to students, we turned to documents published by our professional organizations, the American Library Association (ALA) and the Special

Library Association (SLA), regarding the skills and knowledge incoming library and information professionals should possess. The SLIS faculty distilled these documents into 15 competencies, and then began the process of building our curriculum around these competencies, which are later assessed in the e-Portfolios.

Our program's unique status as a fully online master's program — and as the largest ALA-accredited library and information science program in the world — has provided simultaneous challenges and op-

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opportunities that we have addressed since 2006 when we introduced the e-Portfolio. Our experience with shepherding hundreds of students — scattered all over the country and even across the globe — through this project each semester has provided ample opportunity for us to encounter and manage technical, curricular and administrative challenges.

### Structure and content of the e-Portfolio

The e-Portfolio has five main parts: an introduction, a statement of professional philosophy, 14 competency essays, a conclusion and an affirmation statement.

The introduction is a brief overview and orientation to the whole e-Portfolio, with an explanation of the site's organization and a summary of the process the student undertook in completing the e-Portfolio.

In the statement of professional philosophy, the student explains his or her professional goals vis-à-vis the courses taken in the MLIS program. Additionally, the student integrates the final competency (Competency O) into the professional philosophy, explaining how he or she intends to “contribute to the cultural, economic, educational, and social well-being” of the community.

For each of the 14 remaining competencies, the student explicates the competency statement system-

atically and thoroughly in a concise essay. There is an artifacts section where the student links to three artifacts and explains how each one illustrates competence in the area being discussed. These artifacts can take any form — Word documents, videos, web pages, images and others; typically, they are drawn from the student's coursework, but they may come from work experience, internships or other parts of the student's life. Finally, there is a short conclusion to each essay in which the student explains how he or she is going to apply this knowledge in settings outside of school.

After the 14 competency essays, the student adds a conclusion to the e-Portfolio. This conclusion includes reflections on the MLIS program, a discussion of the student's strengths and a professional growth plan.

The last component is the affirmation statement, which asserts the student's academic integrity and confirms the student has made every effort to protect the privacy of other students and institutions.

By the end, students have produced about 75 pages of polished, original text, in addition to the roughly 45 artifacts of varying lengths and formats that they have put forth as evidence of their competencies.

*Check back next week for the second part of this series, where we will explain the technologies employed in the e-Portfolio.*



### **AUTHOR PROFILE**

#### ***Current Position and Past Experiences***

Michelle Simmons is a Lecturer in the School of Library and Information Science at San Jose State University, a position she has held since 2007. Prior to that, Simmons was the Consulting Librarian for the Arts and Humanities at Cornell College.

#### ***Education, Honors and Achievements***

Simmons earned her BA in English from the College of Saint Benedict in 1993. In 1995 she earned her MAT from Minnesota State University, Mankato. She then earned her MA in 2000 from the University of Iowa, and completed her PhD at the same institution in 2007. She is a three-time recipient of the WISE (Web-based Information Science Education) Excellence in Online Teaching Award, and she was awarded the Ilene F. Rockman Publication of the Year for her article “Librarians as Disciplinary Discourse Mediators: Using Genre Theory to Move Toward Critical Information Literacy,” which appeared in portal: Libraries and the Academy.

**MONDAY, JANUARY 21, 2013**

# Using an Electronic Portfolio as a Capstone Project: The Rationale, Logistics and Reflections (Part 2)

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In the first part of this series on the use of e-Portfolios as a capstone project for the Master of Library and Information Science degree in the School of Library and Information Science at San Jose State University, we provided an overview of the purposes, structure and content of the e-Portfolio. In the next two parts of the series, we will explain the range of technologies we have used since implementing the e-Portfolio as a requirement for our students in 2006. Today, we will discuss e-Portfolios that are presented within two different proprietary learning management systems, ANGEL and Desire 2 Learn (D2L). Next week, we will describe e-Portfolios designed and presented in two publicly available web tools, GoogleSites and WordPress. To illustrate these technologies, we have included screenshots from the completed e-Portfolios of four of our graduates: Donna Zick, Alejandra Saldana-Nann, Sylvie Rusay and Genna Buhr.

Because of changing technologies, the e-Portfolio process has to be flexible enough to work with a range of learning management systems, web plat-

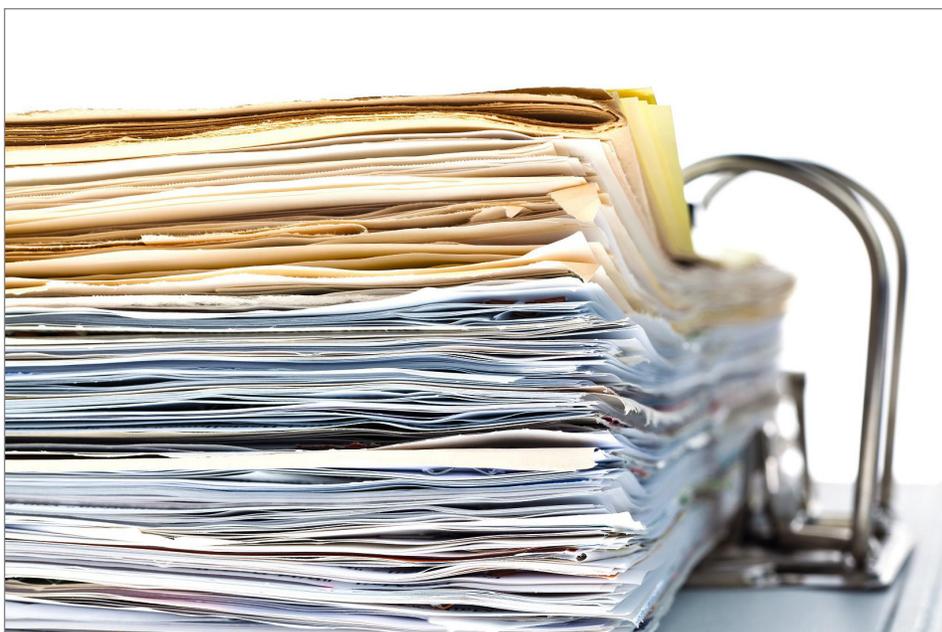


PHOTO BY GINA SANDERS

Both ANGEL and Desire 2 Learn have developed e-Portfolio technologies. While each with distinct advantages and drawbacks, they both improve on the paper-based approach to communicating experiences.

forms and other tools. When we first began the e-Portfolio, we used Plone, a data management tool, that wasn't integrated with our learning management system, which, at the time, was Blackboard. When we moved to ANGEL as our learning management system in 2009, we used the fully-integrated ANGEL module for the e-Portfolio so students could save documents into their ANGEL repository throughout their program. In 2011, the university moved to D2L, so we migrated again. We feel strongly that our students benefit from learning new technologies; thus, even though these transitions have created additional work for us in developing new training materials for

faculty and students, we feel that our ability to transfer the e-Portfolio process to multiple technologies is one of our program's strengths.

## **e-Portfolio in ANGEL**

Donna Zick created her e-Portfolio in ANGEL. In this interface, students saved their files in folders within ANGEL and entered text in an html text editor (see Figure 1.1). Then, the matrix with the competency statements, competency essays and the artifacts was displayed as an html table with three cells across and 14 cells down (see Figure 1.2). Our IT department set

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up the table as a template into which students inserted their documents. Each of the competencies appeared in the first column, each listed in a separate cell. In the second column, students attached a Word document with their competency essay and, in the third column, students attached their artifacts as Word documents, PDFs, image files or other media forms. If students wanted to include a web address, they could integrate the URL into their competency essay as a link within the Word document. For multimedia files, students could upload files to our school's multimedia server, Amazon, or they could use an external commercial server such as Dropbox. In addition to the matrix with the competencies, students added text above the table for their introduction and below the table for their conclusion and affirmation. They attached their professional philosophy as a Word document before the matrix and below the introduction.

### Advantages of ANGEL

The ANGEL interface was relatively straightforward and it was easy to

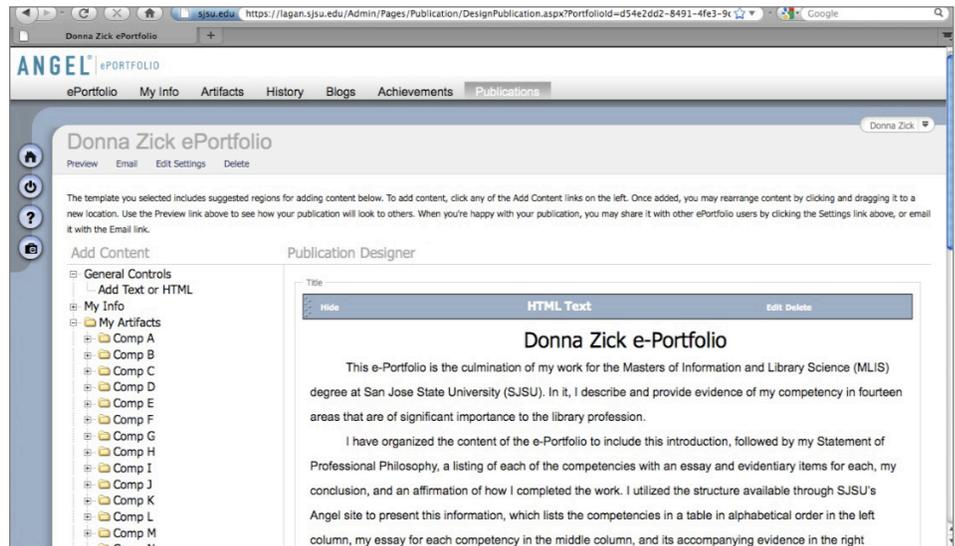


Figure 1.1: Donna Zick's e-Portfolio work area in ANGEL

gauge a student's progress by glancing at the matrix. Students felt a sense of accomplishment as they populated the matrix with their competency essays and artifacts. Allowing the competency essays to be attached as Word documents meant that students and their advisors were able to take advantage of Word features such as spellcheck, making typos easy to catch.

### Disadvantages of ANGEL

While ANGEL functioned adequately for our e-Portfolio process, it had more than a few limitations and annoyances. The publication's appearance could not be customized so students' e-Portfolios looked largely the same. Additionally, the process of creating the publication using the matrix was rather convoluted and didn't teach students transferable skills. Also, as is evident in Figure 1.1, ANGEL didn't have the appearance of a website; it was more like a repository for attachments. We also discovered that ANGEL was finicky and quirky in many ways. For example, when students uploaded their three or four artifacts for each competency, these attachments couldn't be intentionally ordered; they appeared in random order. Thus, file-naming conventions were especially important in the ANGEL interface so it would be clear which artifact went with which section of the competency essay. Finally, students weren't able to export their e-Portfolio from ANGEL, meaning they lost access to them six months after graduation because of server space issues.

Each graduate of the Master of Library and Information Science program is able to . . .

	Statement of Competency	Evidence (Maximum 4)
Competency A: articulate the ethics, values, and foundational principles of library and information professionals and their role in the promotion of intellectual freedom;	Statement of competency— <a href="#">comp A</a>	Final-LIBR234.pdf Intellectual-freedom-essay-LIBR234.pdf USA-PATRIOT-Act-LIBR200.pdf
Competency B: describe and compare the organizational settings in which library and information professionals practice;	Statement of competency— <a href="#">comp B</a>	Public-library-interview-LIBR200.pdf Reference-observation-LIBR210.pdf Prison-library-tour-LIBR282.pdf

Figure 1.2: The e-Portfolio display in ANGEL

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### e-Portfolio in D2L

Alejandra Saldana-Nann created her e-Portfolio in D2L. The D2L interface resembles a contemporary webpage much more than the ANGEL interface did (see Figures 2.1 and 2.2). D2L provides more than 20 pre-designed themes for students to choose from, each one giving the student's e-Portfolio pages a consistent look and feel. The navigation is consistent on each page, with the list of competencies, introduction, professional philosophy and conclusion along the left margin. On the competency pages, students copy and paste the competency statement at the top of the page, followed by the text of the competency essay, with the artifacts typically attached at the bottom of the page.

### Advantages of D2L

There are numerous advantages of the D2L interface for the e-Portfolio. The pre-designed themes are clean and attractive. The process of creating the publication is more straightforward than with ANGEL, and the process is similar to applying a style sheet to a website, which is a transferable skill. An additional advantage is that D2L integrates Turn-It-In, a plagiarism detection tool we are considering implementing. Finally, the e-Portfolio module is integrated into the learning management system, allowing students to deposit artifacts into a D2L folder for their e-Portfolio throughout the course of their program.

### Disadvantages of D2L

The main disadvantage of D2L is its inability to be exported or saved in a platform outside of D2L. Because of server space issues, students don't have guaranteed, continued access to their e-Portfolios after they graduate, since it's likely our university will change learning management systems at some point. Of course, students can

save each file individually, but they wouldn't be able to save the whole publication as a package. Additionally, while D2L does provide more than 20 themes, students are limited to choosing one of the pre-designed themes. For students who are artistic or who have website design experience, this setting might feel constraining to them. Finally, because the text in a D2L e-Portfolio is part of a webpage, we lose the helpful proofreading features of Word.

Next week, Michelle Holschuh Simmons will discuss how to create e-Portfolios using two publicly available web tools, GoogleSites and WordPress.

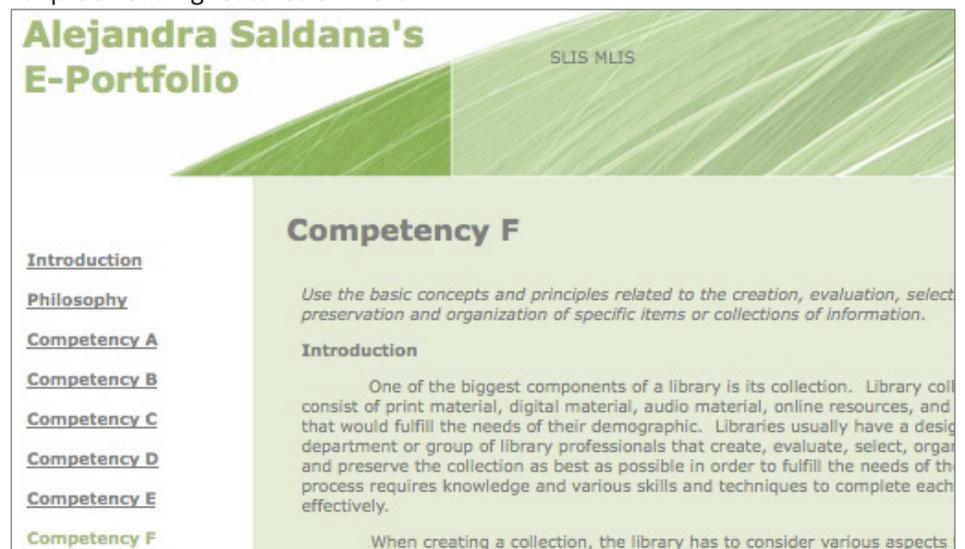


Figure 2.1: Alejandra Saldana-Nann's e-portfolio in D2L: The top of a competency page



Figure 2.2: The e-portfolio interface in D2L: The bottom of a competency page (attached artifacts)

**MONDAY, JANUARY 28, 2013**

# Using an Electronic Portfolio as a Capstone Project: The Rationale, Logistics and Reflections (Part 3)

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In the first part of this series, we explained the context and purpose of the e-Portfolio as an authentic assessment for the Master of Library and Information Science program at San Jose State University. Last week, we described how to create e-Portfolios using two learning management systems, ANGEL and D2L, complete with examples from student work. In this part of the series, we will show two examples of students' e-Portfolios created on two freely-available web platforms, Google Sites and WordPress.

## **e-Portfolio as a Website**

If students elect not to use D2L to display their e-Portfolios, they often use Google Sites, Weebly, WordPress or a similar tool; alternatively, they can hand-code their site. If students choose to use an interface not supported by the School of Library and Information Science (SLIS) for

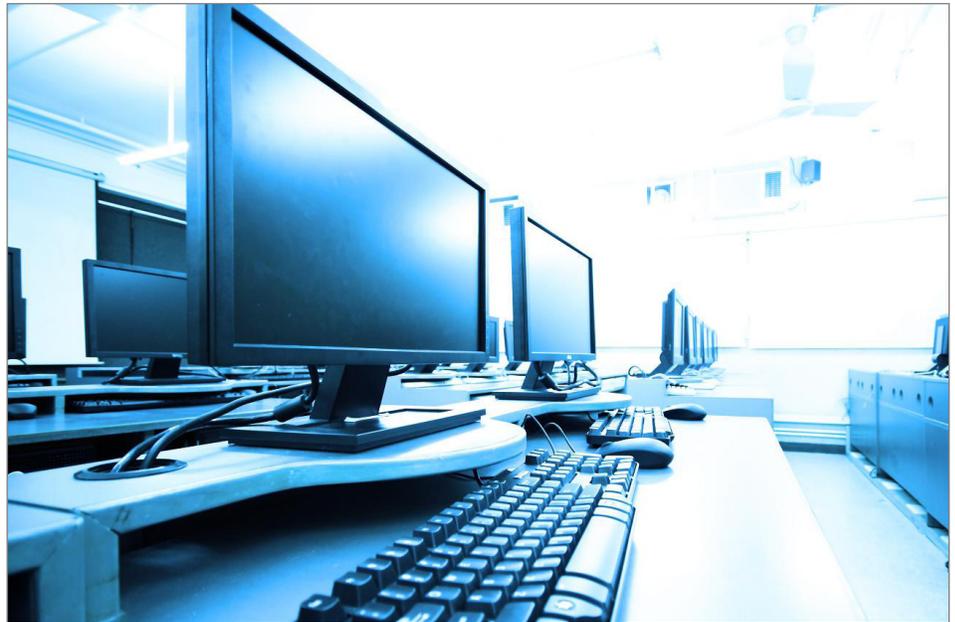


PHOTO BY COZYTA

Creating an e-Portfolio on a website can give a student more control over their work and provides them access after graduation. However, by using a website to store e-Portfolio content, the institution cannot provide any technical support.

their e-Portfolio, they need to have their selection approved by their advisor. Generally, an advisor applies the following criteria in deciding whether a student's chosen platform is acceptable:

- Navigation
  - Can the user easily move from one part of the e-Portfolio to the next?
  - Is the navigation intuitive and clear?
- Functionality
  - Does the interface allow for a range of file formats to be attached and/or integrated?

- Security
  - Is the site password protected? (SLIS requires that the e-Portfolio be password protected.)
  - Can the contents of the e-Portfolio be found through a search engine? (SLIS does not allow for e-Portfolio contents to be indexed by search engines.)

If the advisor deems the interface acceptable based on these criteria, the student is allowed to use the selected interface.

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Sylvie Rusay and Genna Buhr both selected an alternate interface for their e-Portfolios. As is evident in Figure 3.1, Sylvie used the freely available Google Sites, and she restricted access by making the site private and only accessible to her e-Portfolio advisor through the Google permissions features. Thus, she did not need to password protect her site. Her navigation bar, with links to each competency essay, the introduction, professional philosophy and conclusion is along the left margin, similar to the organization in D2L. As can be seen in Figure 3.2, Genna used WordPress to present her e-Portfolio. She created a password to protect the e-Portfolio by using WordPress features, giving access only to her e-Portfolio advisor. She created her navigation along the horizontal bar at the top of the page, with each of the competencies as links coming from the drop-down menu under the link labeled “Areas of Competency.”

## Advantages of a website

Students who want more control over the design of their e-Portfolio, and continued access to it after graduation, are likely best served by selecting an interface that is not supported by SLIS. For some students, being able to create their own site is a skill they want to cultivate, and so they forego the potential for technical support to work independently.

## Disadvantages of a website

The main disadvantage of creating an e-Portfolio as a website is that

we in SLIS do not provide technical support. Thus, students need to be quite independent if they choose this route. They need to have not only the know-how, but also the time to devote, to designing a website, even though they will be graded on its content, not its design.

Additionally, students must secure a server on which to host their site, and this, of course, can cost money.



Figure 3.1: Sylvie Rusay's e-Portfolio in Google Sites.

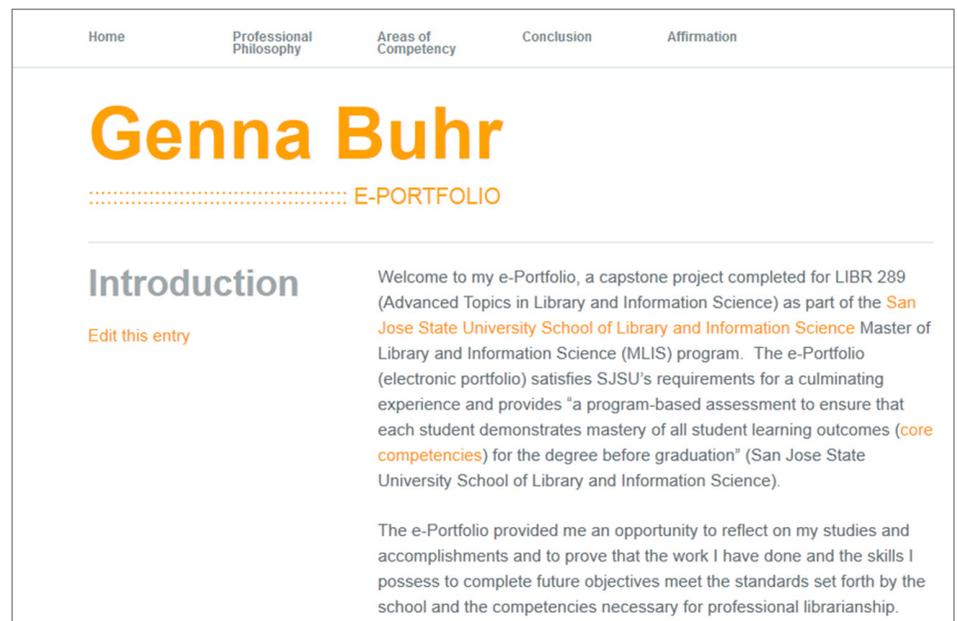


Figure 3.2: Genna Buhr's e-Portfolio in WordPress.

**MONDAY, FEBRUARY 4, 2013**

# Using an Electronic Portfolio as a Capstone Project: The Rationale, Logistics and Reflections (Part 4)

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In the first of this series of short articles about the use of e-Portfolios as a capstone project for the Master of Library and Information Science degree in the School of Library and Information Science at San Jose State University, we provided an overview of the purposes, the structure and the content of the e-Portfolio. In the second and third parts of the series, we showed the range of technologies we have used since we implemented the e-Portfolio as a requirement for our students in 2006.

In this final part in the series, we will explain the challenges and successes we have experienced in the six years since we implemented this assessment tool in our program.

## **Challenges**

While the e-Portfolio process has been overwhelmingly positive for



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While there were some challenges in implementing an e-Portfolio approach to capstone projects, the successes for the program were overwhelming.

our school, we have encountered a range of challenges that we continue to try to resolve.

## **Privacy**

One of our main challenges is privacy. Our students complete a wide range of assignments in our program, including analyses of existing programs and services. Additionally, most of our classes include some type of collaborative work and, so, some of the artifacts students submit are assignments they completed with a partner or a group. We need to be sure that

no matter which interface our students use, they protect the privacy of any individuals or institutions included in their artifacts, and the privacy of any SLIS students or instructors with whom they might have worked. Thus, we require that all students include the affirmation statement at the end of their e-Portfolio indicating they have password-protected their site and made a good-faith effort to protect the privacy of other individuals and institutions. We take privacy issues very seriously, and even though we work hard to deal with them, they

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# Using an Electronic Portfolio as a Capstone Project: The Rationale, Logistics and Reflections (Part 4)

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remain a challenge that we are always dealing with.

## Academic integrity

A second challenge is the issue of academic integrity. We work with many students every semester, and it is difficult to be absolutely sure all students' work is their own original creation. We manage this challenge in a few ways, albeit imperfectly. First, the affirmation statement includes a statement indicating the student was the original author of all work included, except when it is stated that there was collaboration. Secondly, as advisors, we get to know students' writing quite well because we read so much of their work throughout the semester, both in the competency essays and in the artifacts. If one person's writing style were to change dramatically from one document to the next, most of the advisors would likely notice and question the student. Finally, as previously mentioned, there is the option in Desire 2 Learn of using the anti-plagiarism software Turn-It-In. We are exploring the possibility of making use of this tool for our e-Portfolio submissions.

## Digital storage

A third challenge we face with the e-Portfolio is simply storage of the students' digital assets. With 14 competency essays and three or four artifacts for each, these e-Portfolios can consume a lot of server space. Additionally, many students' e-Portfolios include huge multimedia files that consume even more

server space. We are very explicit from the start of the program that we don't have the server space to keep students' e-Portfolios indefinitely and that they should make alternate hosting plans. Because we are teaching people who will become information professionals, we feel it is actually a good opportunity for students to think about the challenges of digital archiving in a very real way as they think about the storage of their own e-Portfolio.

## Consistency in assessment

Another challenge we face as a school is that we have about 28 different, full-time faculty members who are e-Portfolio advisors. Managing the balance between consistency throughout the program and academic freedom is challenging. As a way to temper this variability, we have developed Competency Statement Rubrics that guide the advisors in their assessments to ensure a degree of consistency ([http://slisweb.sjsu.edu/downloads/289\\_compRubrics.pdf](http://slisweb.sjsu.edu/downloads/289_compRubrics.pdf)). Additionally, the e-Portfolio coordinator oversees the whole program and works with each of the advisors to ensure there aren't widely-differing expectations and procedures for students who are assigned to one advisor instead of another.

We also have guidelines all advisors are expected to follow, for example, that the advisor must provide feedback to a student within five days after a submission of a competency essay. Some of the e-Portfolio advisors manage the workload in different ways, with some allowing students to submit competency essays at any point throughout the

term and others allowing submissions only on a few set deadlines throughout the term. Because students are randomly assigned to advisors, these differences in approach can be understandably frustrating to students.

## Successes

Now that we are several years into the e-Portfolio process, we can proudly say it has been a great success, both for our program as well as for our students. The e-Portfolio provides data every semester that we can aggregate for our program assessment, both for our university's accreditation through the Western Association of Schools and Colleges (WASC) and for our program's accreditation through the American Library Association (ALA). In addition to program assessment, we feel that building around the 15 competencies is helping us to have a more consistent and comprehensive curriculum.

The e-Portfolio as a capstone project has been overwhelmingly positive for our program. It is an immense amount of work for both students and advisors, but it provides a true culminating experience that prepares students for entering the profession of library and information science. As one graduate of our program expressed, "Completing the e-Portfolio was like having a three month-long job interview!"