Establishing the Culture and Realizing the Promise of Webfolios in Education

ABSTRACT - Webfolio systems can support teaching, learning, assessment, evaluation, and reporting simultaneously. The promise webfolios hold for a richer educational experience can be realized when the educational institution's culture shifts to include the use of webfolios. This paradigm shift can be facilitated by an implementation process involving five levels of maturation, moving from student "scrapbooks" to challenging the mystique and authority of standardized tests which seem to be the guiding force behind education today.

By Paul Gathercoal, Douglas O. Love, and Gerry McKean

Introduction

Webfolios, tightly integrated collections of web-based multimedia documents that include curricular standards, course assignments, student artifacts in response to course assignments, and reviewer feedback on students' work, promise great advances in teaching and learning, assessment and reporting. However, these enhancements in education often fail to materialize.

The promise that webfolios hold for a richer educational experience falls short of its full potential for many reasons. Some institutions simply lack the **infrastructure** or hardware to realize the promise. Some maintain **old school paradigms** of curriculum development and delivery based on authoritarian control of information management and the coerced manufacture of the knowledge-base; these old school paradigms displace the promise webfolios hold for establishing and maintaining strong student/mentor relationships that render constructivist learning theory into practice. Other institutions simply avoid the promise embedded in the webfolio process through **poor support** from administration, faculty, students, or prospective employers. Still others simply **lack the vision** to realize the promise webfolios hold for challenging high stakes testing with *authentic evidence as the authoritative evidence* for assessment, evaluation, and reporting.

Options:

This article details specific strategies and practices that educational institutions can use to establish and maintain a culture that values and utilizes webfolios at their highest levels of maturation. It helps the reader to imagine logical sequences of strategies and strategic patterns of implementation for taking webfolios from Maturation Level 1, *Scrapbook* to Maturation Level 5, *Authentic Evidence as the Authoritative Evidence* for assessment, evaluation, and reporting (Love, McKean & Gathercoal, 2004).

The ProfPort Webfolio System, used as an example in this article, is a server-based tool that integrates aspects of assessment, evaluation, and reporting into one web-based portal. It facilitates formative and summative assessment and provides information that can be used for program evaluation and needs assessment. As well, students can provide access to everyone in the world, via the World-Wide Web, using the system as a vehicle for reporting academic achievement and accomplishments. The ProfPort Webfolio System is a technological tool that can bridge the gap between standards-based accountability and authentic assessment.

Implementation:

Maturation Level 1.

The lowest level of webfolio implementation is *Scrapbook*. While this level needs no organization or institutional support, it can be facilitated by simply generating a web-based portal where students can house competed assignments, awards, and recognition received while living and learning at the educational institution. With minimal support, the *Scrapbook* level can be an uncomplicated foundation for introducing the concept of webfolios to students, faculty, and administration.

The cost is minimal in terms of infrastruc-

ture and educational change. Chances are the educational institution is already connected to the Internet and has access to or makes use of the World-Wide Web. So, the infrastructure and hardware and software are in place as soon as the educational institution places Webfolio System software on their server for student use. It is also highly probable that students already have a scrapbook of completed assignments and personal recognitions awarded them in higher education. So, the culture of collecting and displaying accomplishments is in place, as far as the students are concerned. All they need is a web-based portal where they can keep those artifacts and share them with significant others on the WWW. One part-time computer savvy individual can administer the webfolio system. That person will act as registrar and system administrator of the ProfPort Webfolio System.

The system administrator/registrar is responsible for providing students with an ID and password for logging into the system. Students are registered only once in the system and they can have access for life.
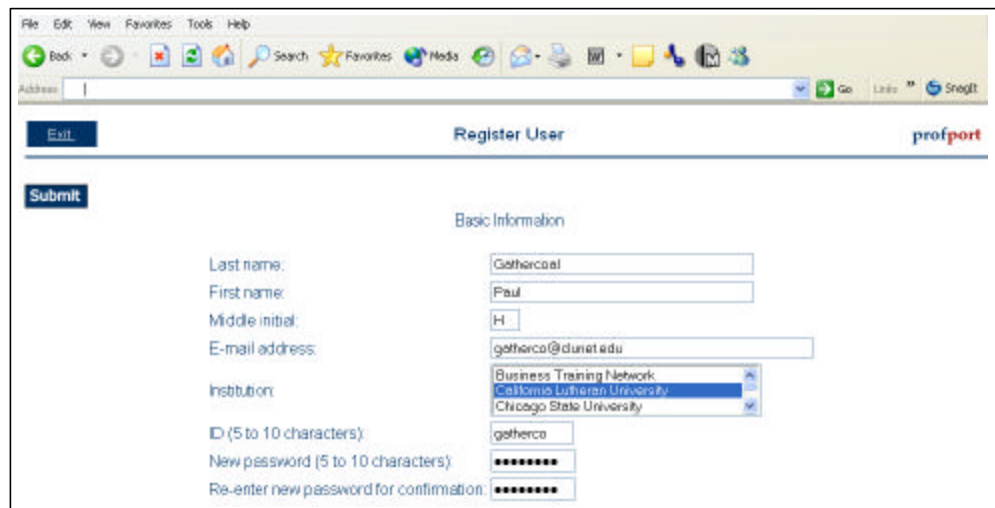

Figure 1.

Figure 1 displays the webpage accessed by the registrar to register students in the ProfPort Webfolio System.

Once registered, the ID and password are emailed to the student. The email provides information about how to navigate to the webfolio portal on the WWW and what to do after logging into the system for the first time.

The system administrator/registrar must also set up the "Scrapbook" portal for students. This is simply done with the administrative tools built into the system.

Figure 2.

Figure 2 shows how the system administrator can click on the "Maintain" button which opens a webpage with a list of "Maintenance Groups" containing administrative tools.
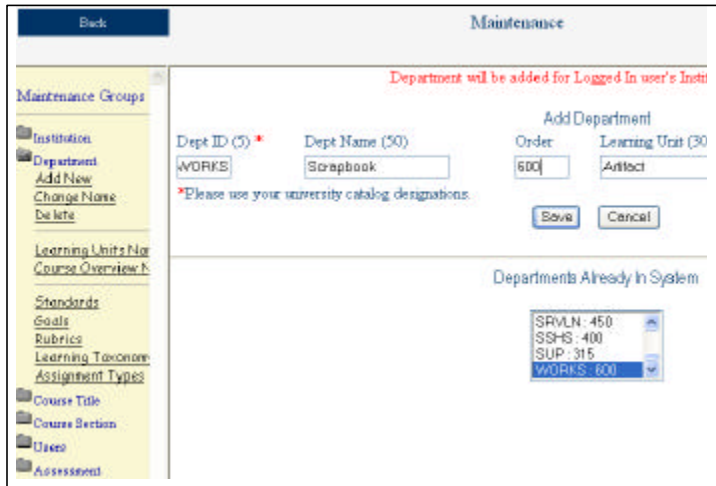
Figure 3.

Figure 3 shows the "Maintenance Groups" where the administrator/registrar adds a new "WORKS" Department to the system that will house the "My Scrapbook" portal for students.

Then, using the same administrative tools but a different "Maintenance Group," the administrator adds a course to the system titled, "My Scrapbook."
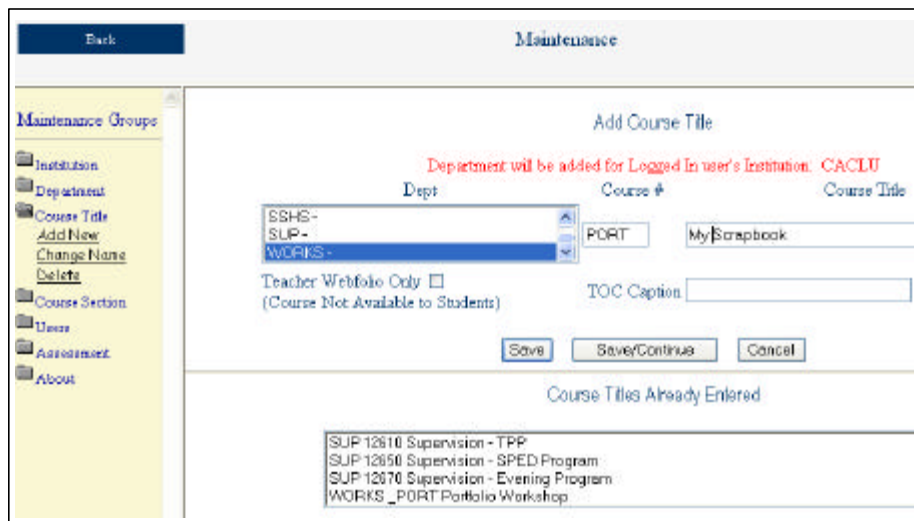

Figure 4.

Figure 4 exhibits the protocols for generating a new "My Scrapbook" course.

Finally, the system administrator/registrar generates a "My Scrapbook" course on the "faculty-side" of the system that allows students to generate their own captions which will describe and house competed assignments, awards, and recognition received at the educational institution.

Figure 5.

Figure 5 demonstrates the administrator/registrar's ability to generate the course that allows students the ability to create their own captions within the "My Scrapbook" portal.

Students then follow the directions in the email from the system administrator and login to the webfolio system. They add the "Scrapbook" to their webfolio and then add new captions to their scrapbook to display their achievements in the various portals.

Figure 6.

Figure 6 shows a student adding a caption to her scrapbook.

As soon as the student has generated a caption for her work, she can place the work sample or artifact right into the "edit box" by copying and pasting from her word processed document. Note that the student can continue to edit the text, add graphics, and add hyperlinks to the resume' by using the "edit box" tools.
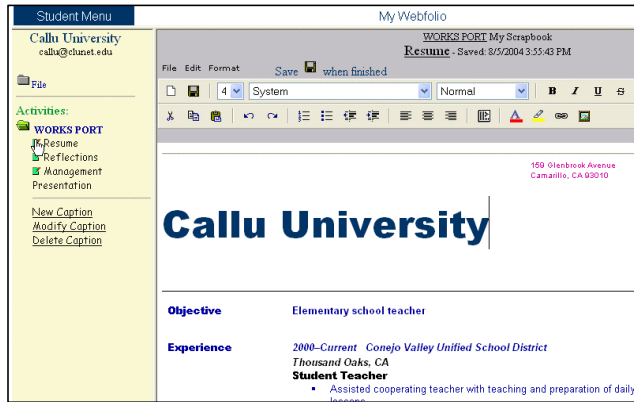
Figure 7.

Figure 7 illustrates how a student has placed a resume' in the "edit box" by copying and pasting from a word processed document.

As the scrapbook items are ready for presentation and viewing, the student can give access to different groups of people, including everyone in the world.
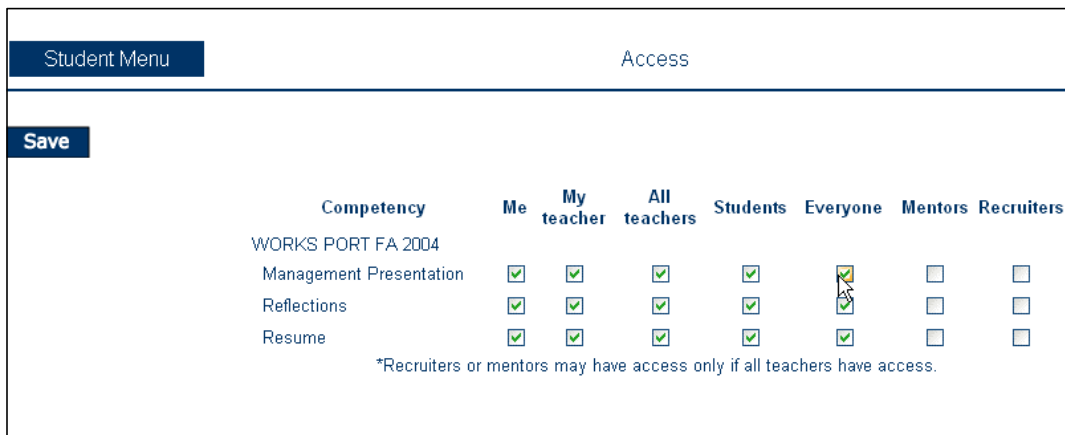

Figure 8.

Figure 8 demonstrates how the student can give access to "Everyone" in the world.

If the student gives access to "Everyone" the designated items are viewable on the WWW. Anyone may view the student's scrapbook by clicking on the student's own personal URL which can be embedded in emails to those who are interested in the student's academic and student life achievements.
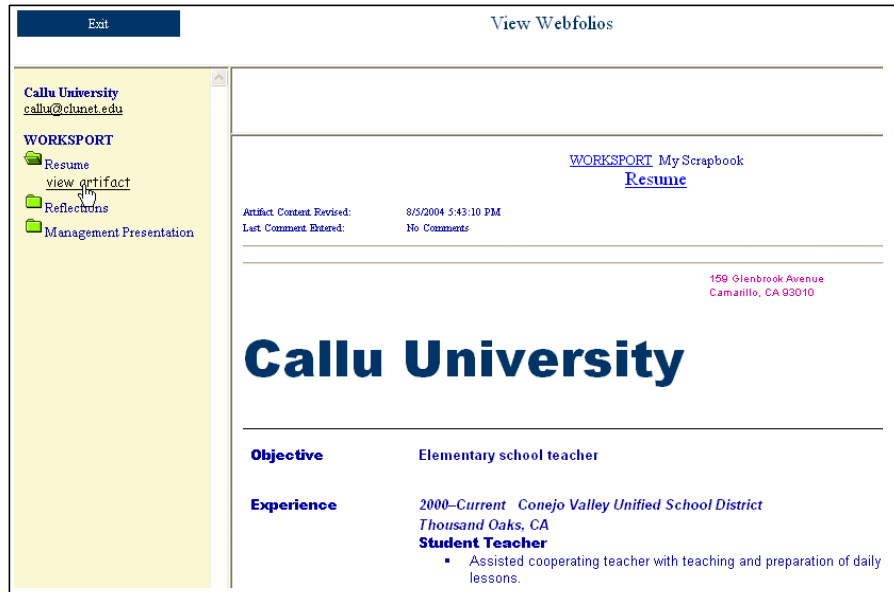
Figure 9.

Figure 9 displays the look of the student's webfolio when it is published on the WWW and the URL is emailed to other interested parties.

Maturation Level 2.

Maturation Level 2 implementation is a natural extension of the *Scrapbook*. Student work is guided and arranged by educator-, department- or institution-determined curriculum requirements or standards and institution-wide "student life" contributions. This level usually requires faculty or administration to organize some framework or template for students to complete. For example, a department may require students to prepare a portfolio including an introductory letter, a resume', a service-learning project, essential student-life activities that demonstrate leadership and cooperation, and academic work that makes obvious how the student has met or exceeded all elements of the educational mission. Instructions are usually provided the student on what work samples or artifacts would be appropriate for each part of the webfolio and the student simply places the work samples or artifacts in the webfolio portal provided by the educational institution.

At level 2 faculty are again technologically bypassed. The webfolio system is again set up by the system administrator, who also completes the student registrations and notifications as described at level 1 implementation. This time, however, instead of just generating a scrapbook portal for students, a new "course" is generated inside the appropriate department, e.g., EDTP Teacher Preparation, and the "competencies" are defined for the student by the faculty, department, or institution. All the student does is fill the competency portals with work samples or artifacts and grant access to the appropriate group, e.g., "All Faculty."

Figure 10.

Figure 10 displays a student's webfolio that holds final documentation of his or her completion of a professional program in education; it is ostensibly the student's *Curriculum Vitae* developed while attending the educational institution and completing the educational program.

The system administrator simply copies the information provided by faculty who decided and approved departmental requirements, or links online documents within the webfolio system.
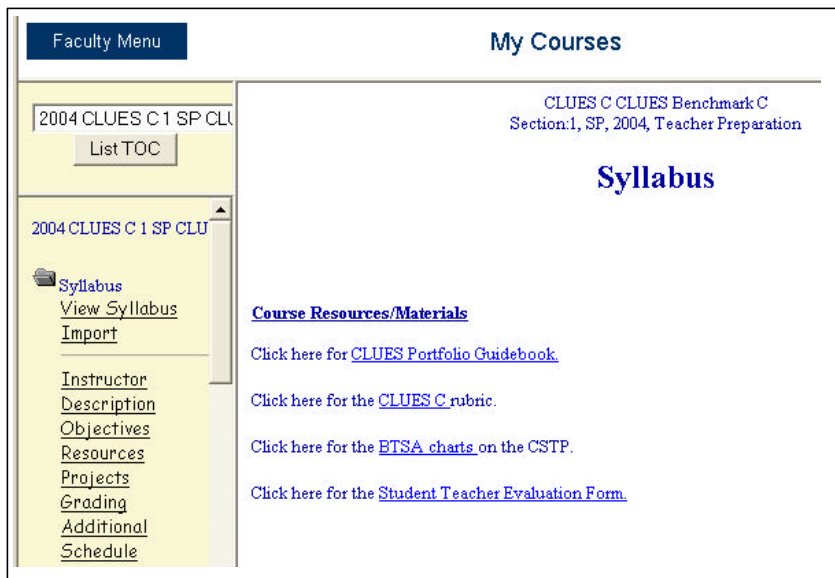
Figure 11.

Figure 11 displays the descriptive information about the requirements for the webfolio as placed in the system by the system administrator.

Next, the system administrator develops the "captions" and "competencies" where students will place their work samples or artifacts.
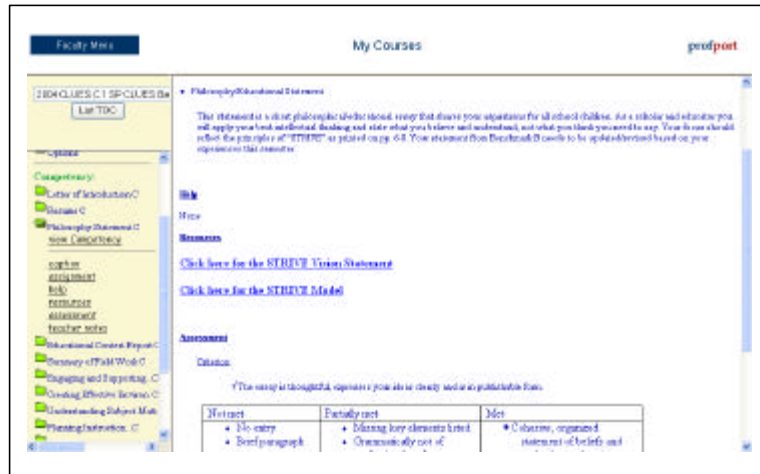
Figure 12.

Figure 12 shows how the administrator can copy and paste from faculty approved documentation to describe the assignment, provide help and resources, and even indicate a rubric for assessment.

Maturation Level 3.

Implementation at Maturation Level 3 actively involves the faculty. For the first time in developing and maintaining the structure and composition of the system, faculty must display their syllabi and assignments. Students can add "captions" to the webfolio structure as they did at level 1.

To differentiate between faculty assigned competencies and student generated "captions," student generated folders are displayed as blue folders in the webfolio system and the ones generated by faculty are displayed as green folders. That way when students share their Level 3 Webfolios with other faculty, students, or prospective employers, there will be a visible difference between the student-generated captions and the faculty captions.
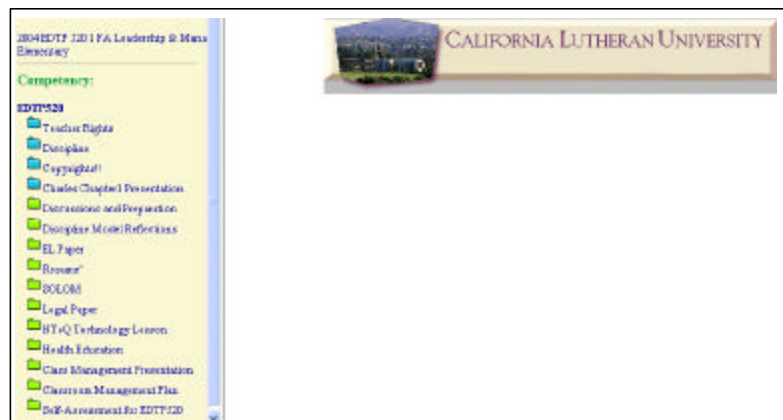

Figure 13.

Figure 13 displays a Maturation Level 3 webfolio with blue (student generated) and green (faculty generated) folders.

Faculty members are registered as faculty by the system administrator. They then generate the green folders which serve a double purpose for managing their courses and for students to house assignments. These "competencies" usually emerge from the course syllabus as the required assignments. Faculty can simply copy and paste from their word processed syllabus right into the webfolio html "edit box," hyperlinks and all.
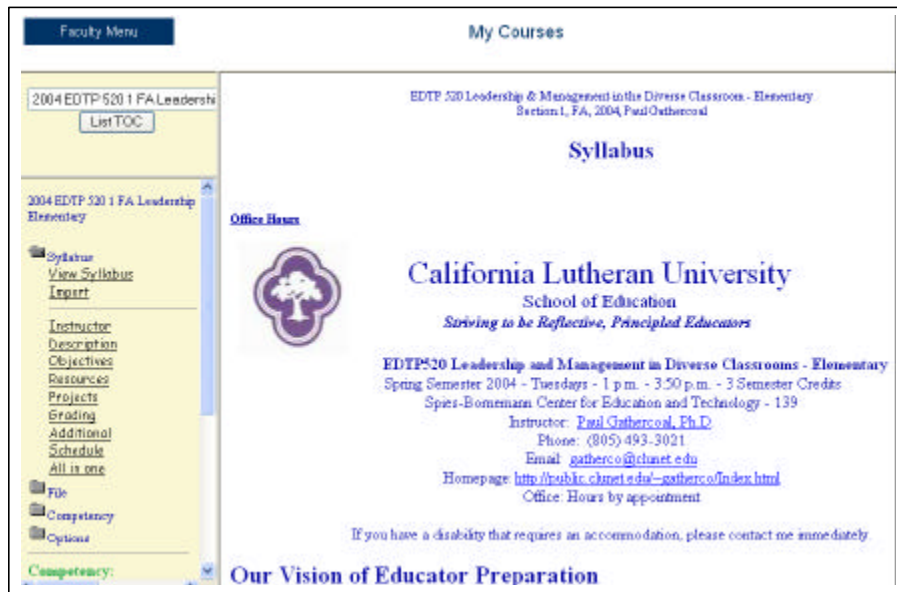
Figure 14.

Figure 14 shows how faculty develop their courses and display their syllabi in the system for their students.
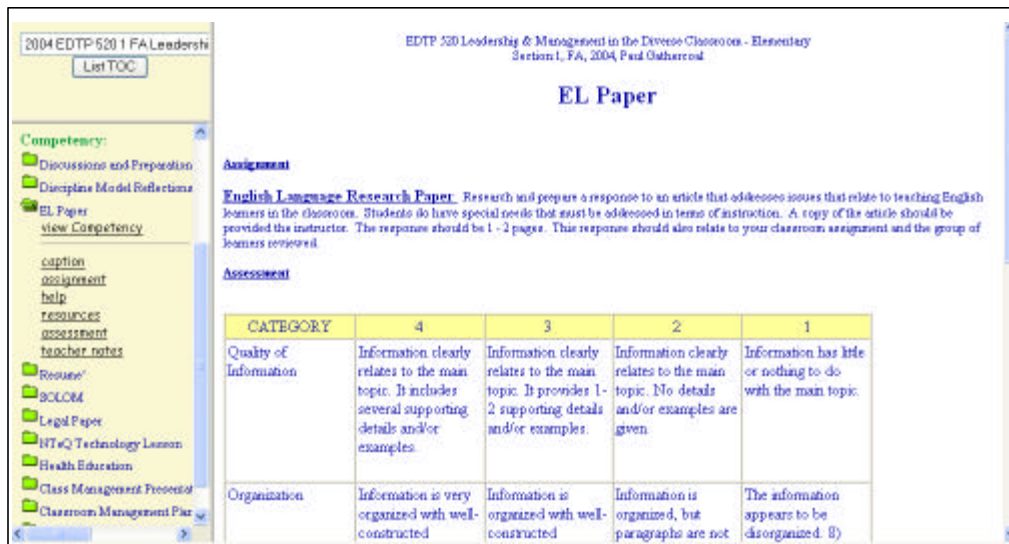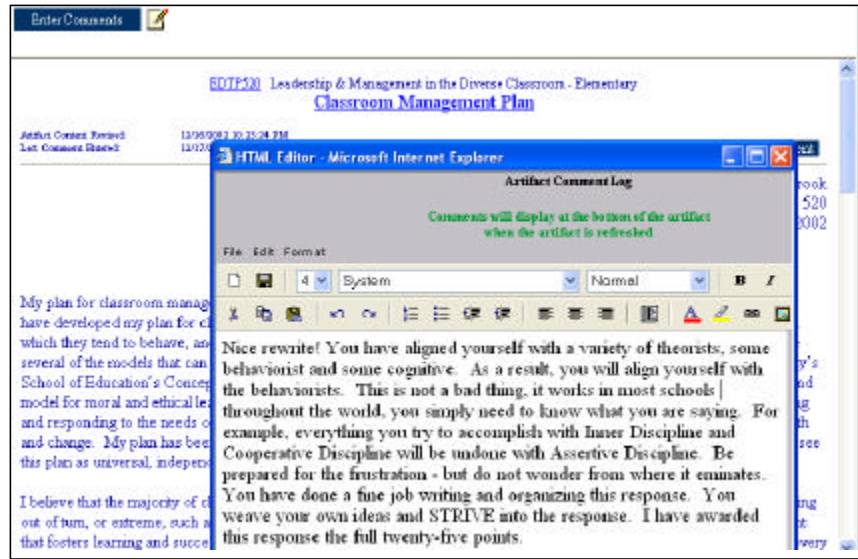

Figure 15.

Figure 15 shows the student view of a faculty generated "caption" in a green folder that includes the assignment description, help, resources, and assessment rubrics.

Maturation Level 4.

At Maturation Level 4, faculty, mentors, and others involved with the student's academic and student life development provide feedback to the student within the webfolio system and this feedback is kept as a time stamped and dated log. Faculty can paste the assignment rubric in the blank edit box and adjust the numbers in the rubric to provide numeric feedback to students. They can also provide qualitative feedback and even copy and paste from the student's work into the Comment Edit Box.

Figure 16.

Figure 16 displays how faculty can click on the "Enter Comments" button and a new window opens with a blank html "edit box."
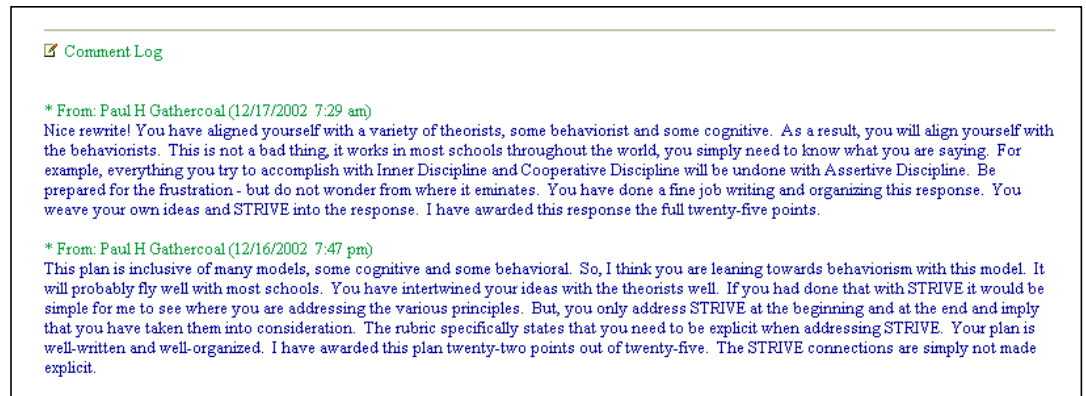
Figure 17.

Figure 17 shows that the faculty feedback is time stamped and dated – this is a great way to keep track of feedback to students over time.
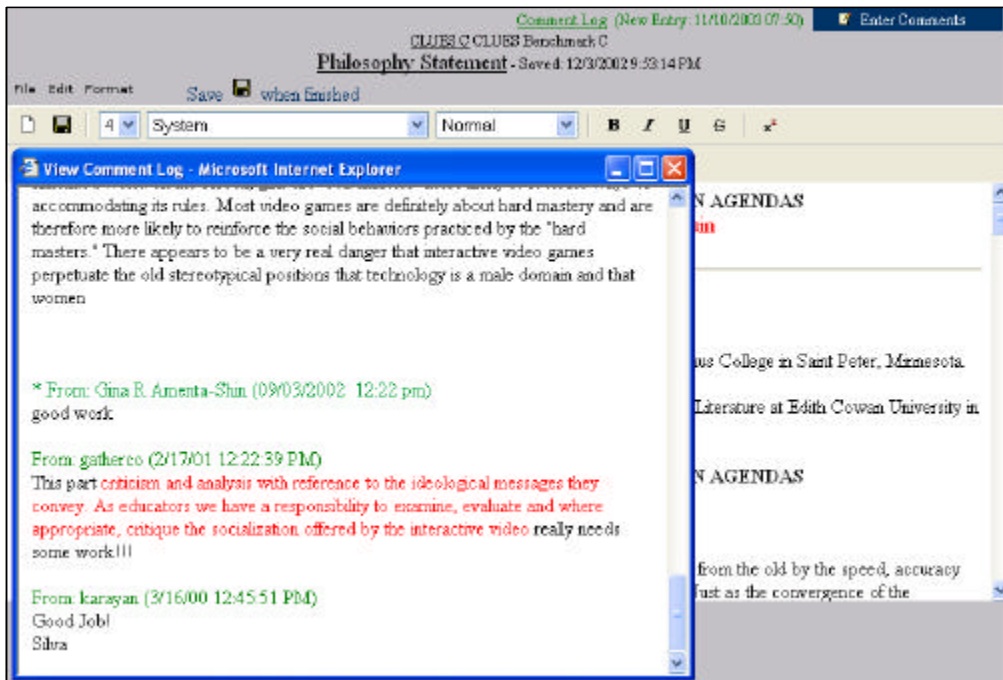
Figure 18.

Figure 18 shows how students enter the html "edit box" for a particular assignment or competency and click on the "New Comments" link to display the faculty feedback.

Students are able to add to the comment log, too, by clicking on the "Enter Comments" button to the right of the "New Comments" link.
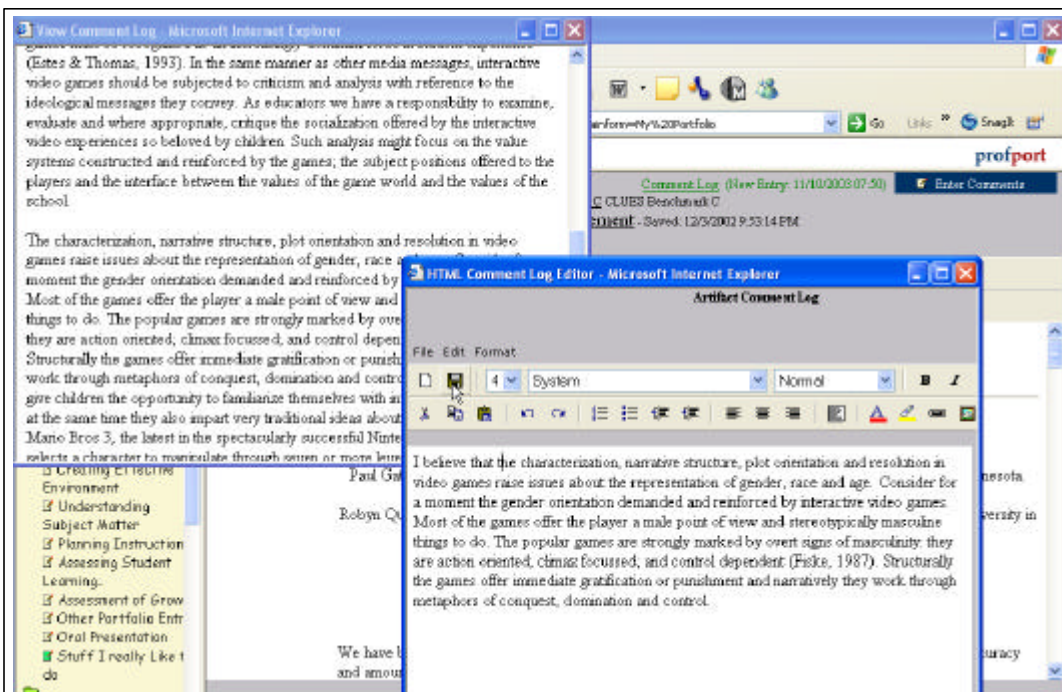

Figure 19.

Figure 19 demonstrates how students can contribute to the discussion surrounding their academic achievement by justifying, defending, and explaining their metacognitive processes while developing the work sample or artifact in the webfolio system.

At Maturation Level 4, much of the training for students and faculty is done via web-based tutorials for students and CD-based tutorial movies for faculty.
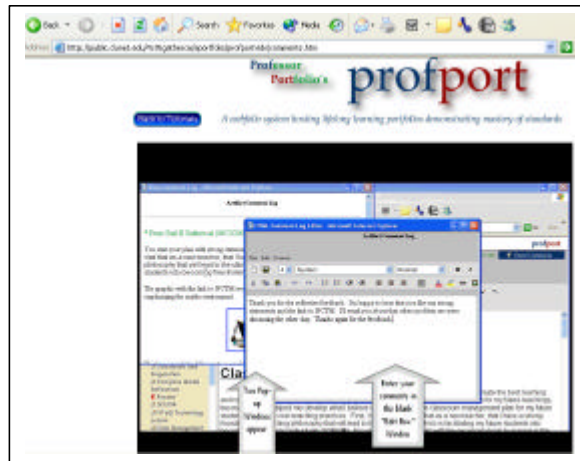

Figure 20.

Figure 20 displays a student tutorial "animated gif" movie that demonstrates how to find faculty feedback and how to respond to that feedback inside the ProfPort Webfolio System.

Maturation Level 5.

Implementation at Maturation Level 5 involves the system administrator setting up two things with the administrative tools. First, an assessment rubric that faculty will apply to the student work must be cooperatively developed and displayed in the system.
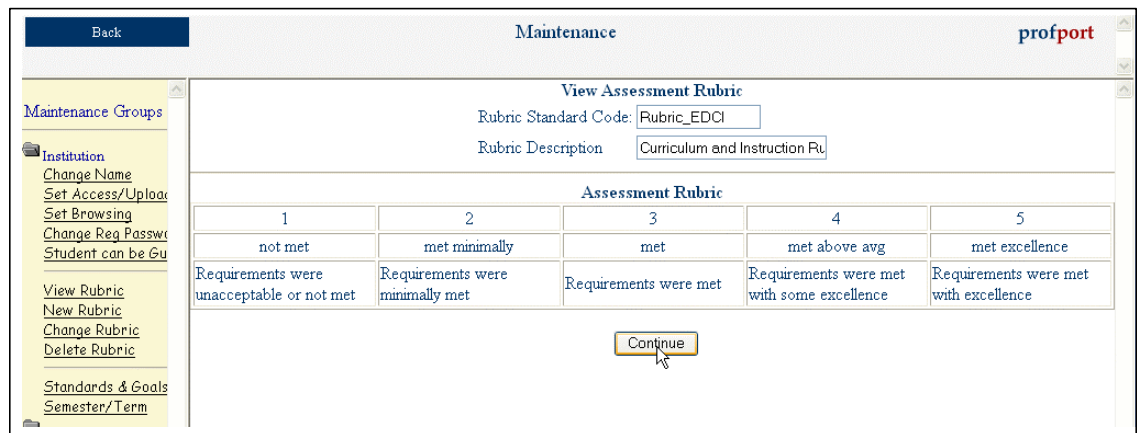

Figure 21.

Figure 21 shows the system administrator preparing the rubric that will be assigned to a specific department for summative assessment of student work.

Second, standards and goal sets for the various departments must be generated and displayed in the system.

Standard List

Set: STRIVEACTION, Name: School of Education STRIVE and ACTION Standards

Grade Code	Number	Description	Order
	1	Serve as mentors and models for moral and ethical leadership	1
	2	Think critically to connect theory with practice	2
	3	Respect all individuals	3
	4	Include and respond to the needs of all learners	4
	5	Value diversity	5
	6	Empower individuals to participate in educational growth	6
	7	Active Learning	7
	8	Collaboration and connections	8
	9	Technology supported learning	9
	10	Inquiry and critical examination	10
	11	Ongoing reflection and development	11
	12	Nexus of theory, research and practice	12

Figure 22.

Figure 22 displays the standards set used by California Lutheran University's School of Education as developed inside the ProfPort Webfolio System by the system administrator.

Faculty will be involved, too; first, they must assign metadata to each assignment. That means for each caption, faculty must assign the standards and goals from the standards and goals sets generated and displayed by the system administrator, e.g., #3 Respect all individuals and #7 Active Learning.
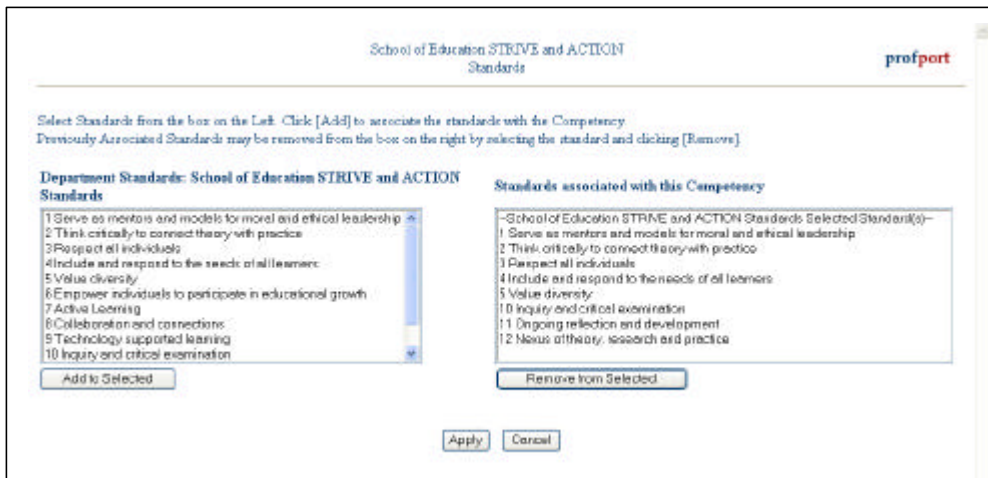
Figure 23.

Figure 23 illustrates how faculty assign Educational Standards to assignments inside the ProfPort Webfolio System.

Secondly, faculty need to provide a summative assessment for student work displayed in the webfolio system. That summative assessment is automatically linked to the standards and goals faculty assigned to the competency when they set up the assignment. This is a summative assessment and it will be downloaded by the system administrator at strategic times for analysis and evaluation purposes.
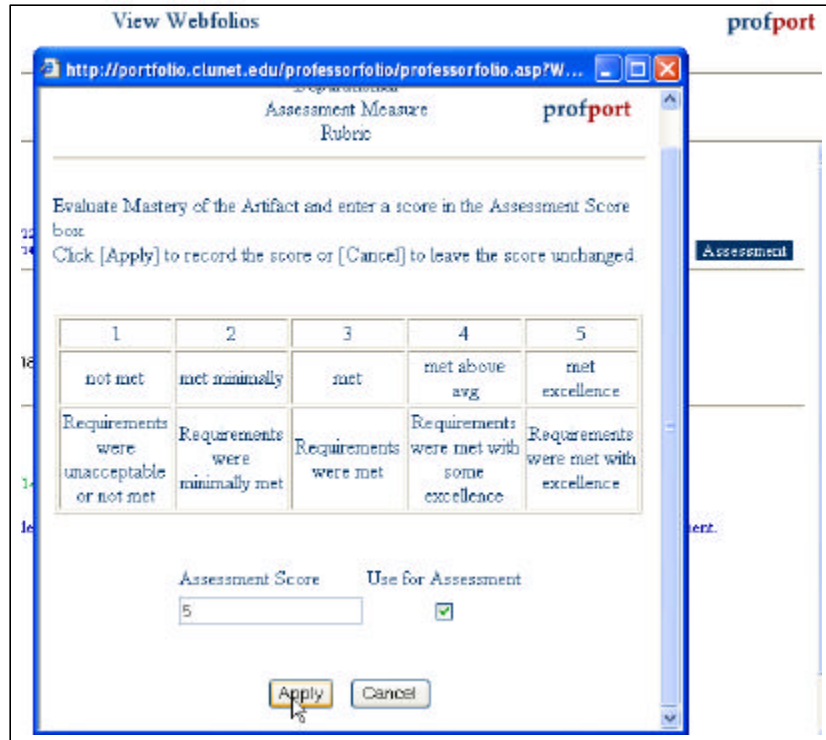
Figure 24.

Figure 24 shows how faculty click on the "Assessment" button when viewing student work and the departmental rubric appears where they award the number earned on that assignment.

At strategic times, usually the end of each semester, the system administrator downloads the metadata linked to goals and standards from the webfolio system.

Figure 25.

Figure 25 displays the metadata being extracted from the ProfPort Webfolio System by the system administrator, who will then import the data into Excel or SPSS for further analysis by faculty and program directors.

Finally, the assessment and evaluation data extracted from the webfolio system can be synthesized for reporting on departmental needs and achievements.
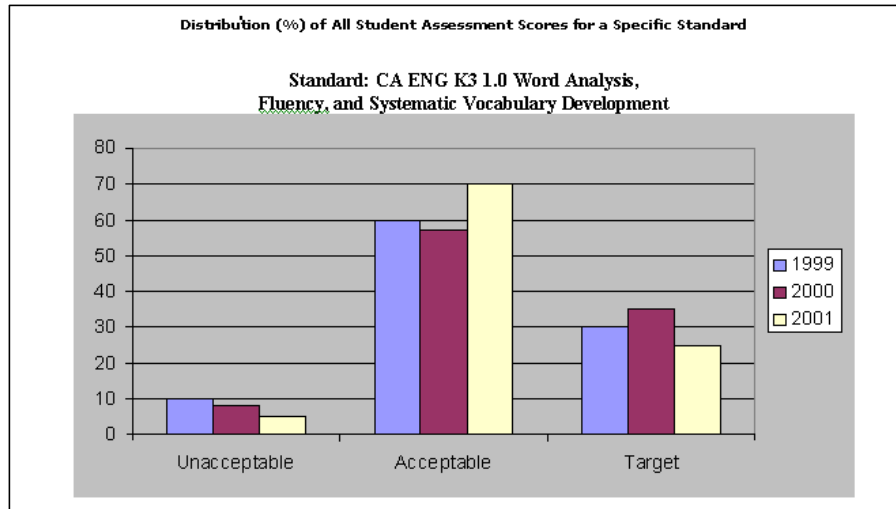
Figure 26.

Figure 26 displays a graph showing how students have achieved acceptable, unacceptable, or target scores over a three-year period for a specific standard.

Result:

At marginal cost in terms of money and educational climate, implementing webfolios at the *Scrapbook*, Maturation Level 1, sets in motion opportunities for progressing to higher levels of webfolio implementation. If you don't have the technology in place, you will never get to the higher levels of maturation, and generally, the infrastructure to support this initial level of implementation is not a problem for most educational institutions.

Implementation at Maturation Level 2, *Curriculum Vitae*, is a natural extension of the Maturation Level 1, *Scrapbook* implementation. Students are already familiar with how to add courses, as they would already have their own *Scrapbook* in the webfolio system. Since the directions are provided for students regarding each competency, all students need to do is enter the required work samples or artifacts into the system. The only additional pieces needed for Maturation Level 2 implementation are determined curriculum requirements or standards. A system administrator can set up the system with the program requirements developed by faculty using a copy and paste technique from institutional documentation.

Getting from Maturation Level 2 to Maturation Level 3 is a more complex leap than the move from Maturation Level 1 to Maturation Level 2. Since faculty members are actively involved in developing and maintaining the webfolio content and structure, philosophical concerns must be addressed and overcome first, before faculty will actively contribute to the process by placing their syllabi and assignments online. As a result, faculty will need to be convinced that webfolio technology can be used to realize the promise for a richer educational experience for all.

When faculty members participate in the webfolio process there are only two other resources needed for webfolio implementation at Maturation Level 3. First, the system administrator must generate departments and courses that faculty can add to "their side" of the system. Second, there must be training for faculty on how to add their courses to the webfolio system and how to copy and paste their syllabi and assignments into the system. The good news is that this is probably the last major expense.

Implementation at Maturation Level 4 involves a variety of interested parties who provide reflective feedback to the student on work samples or artifacts allowing students multiple opportunities to redeem their work in light of the feedback. The online and CD-based tutorials help students and faculty to know how to engage in grand

conversations surrounding the student's academic achievement. Faculty and students should naturally embrace level 4 as the logical next step in the maturation process. When students are allowed to redeem their work inside the webfolio system and experience the promise of Maturation Level 4, *Mentoring Leading to Mastery* implementation, the educational institution is moving closer to enriching the teaching and learning experience for all students.

At Maturation Level 5, the promise webfolios hold for a richer educational experience is realized. At this level, faculty members are involved in summative assessments of students' work and those summative assessments are linked to standards associated with the assignments. Students have had multiple opportunities to master the content and are now being held accountable for their work in relation to the educational standards set by faculty and accrediting bodies.

Recommendations:

The ProfPort Webfolio System can realize the promise of a richer educational experience as it integrates both formative and summative assessment practices and provides students with multiple opportunities to master content and process. However, using webfolio systems require faculty, students, administration and prospective employers to make a paradigm shift from traditional portfolio assessment to webfolio assessment, evaluation, and reporting. Only in educational communities where authentic assessment is valued and promoted will webfolio systems flourish. Until webfolios are simply viewed as another part of the educational culture, educators will always find some excuse not to use them, e.g., they take too much time or there is no time to learn to use the technology. Webfolios can support teaching, learning, and assessment simultaneously. Thus, the time and effort needed to produce, monitor, support, and assess student webfolios becomes a natural extension of the teaching and learning process. The promise is great when the institutional culture shifts to include the use of webfolios, as webfolios can challenge the mystique and authority of standardized tests which seem to be a guiding force behind education today.

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