

Using Blackboard for Student Electronic Portfolios

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Background

In 1998 as part of its strategic planning process, faculty at Presbyterian College identified the need to both assess and emphasize students' communication skills as a key aspect of educational programming. By 2000, a task force had been established to assist in the development of a mechanism to showcase such student accomplishments. This led to the creation of the Student Portfolio to document skills in "communicating across the curriculum." This portfolio is expected to be in place for all students entering the college in 2004.

In 2001, faculty approved a formal proposal for curriculum changes that included specific content about the proposed portfolio approach. According to this proposal, "Writing, speaking, and information technology should be integrated across the curriculum, beginning with general education in the freshman year and culminating in the Senior Capstone course and discipline specific projects...It is through the aforementioned portfolio that the student will demonstrate the development of these proficiencies." (Presbyterian College, *Proposal to implement general education objectives in the strategic plan*, 2000). What was not included in this proposal was just how the portfolio was to be developed, although the time frame for its use remained with the 2004 entering class.

In the fall of 2001 a small group representing various constituencies at Presbyterian College began to meet to conceptualize just how such a portfolio could be created. Various models of portfolios and their intent were reviewed (for a good resource, see Huba and Freed, 2000). Web sites, such as <http://aahe.ital.utexas.edu/electronicportfolios/TOC.html> and <http://www.electricteacher.com/onlineportfolio/index.htm>, provided valuable ideas about both the content and processes of establishing student portfolios. It was decided fairly early in the process that the portfolios would be electronic rather than paper and pencil. This was consistent with the college's goal of being a leader in helping integrate technology into its curriculum. Of particular importance was the development or identification of software or programs to support the electronic portfolio plan.

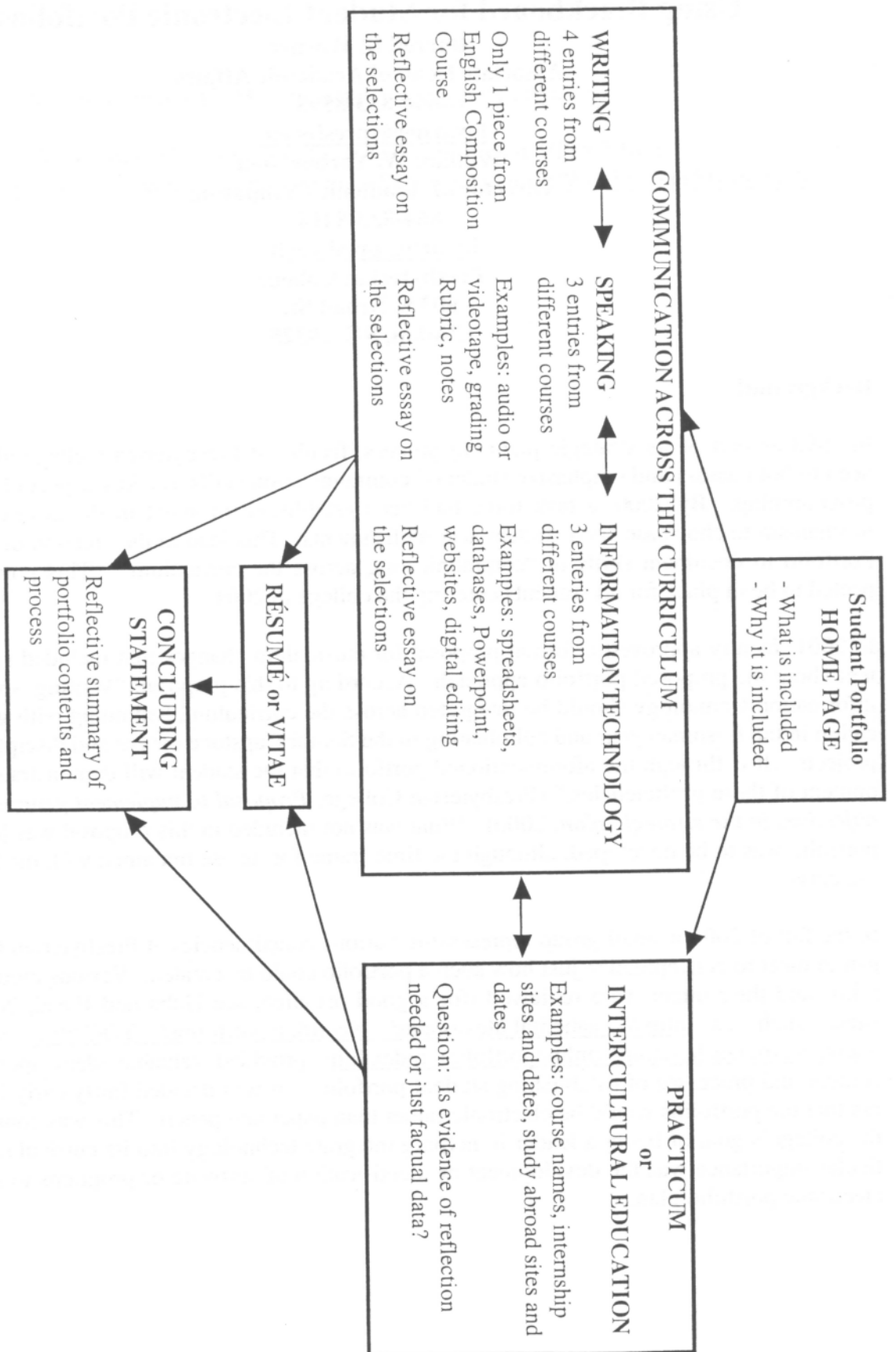


Diagram 1: Requirements for Presbyterian College student portfolios.

Portfolio Considerations

One of the first tasks of this planning group was to articulate what would be included in a student's portfolio. Using the idea of communicating across the curriculum as a guide, a template of the portfolio was developed. Writing skills would be demonstrated by a minimum of four entries in the portfolio, speaking skills by three entries, and information technology skills by three entries. Entries would come from a variety of courses, and would include work from general education, major, and elective hours. While the writing entries were fairly straightforward in explanation, further thought was given to the other two categories. Speaking skills were further defined as audio or videotapes of presentations or notes or grading rubrics for such presentations. Information technology skills were defined as skills in developing spreadsheets, PowerPoint, web site development, and other similar skills. It was further decided that each section would require a reflective essay on why the particular examples were included in the portfolio (see Diagram 1). An additional section of the portfolio could be used to document the student's involvement in intercultural education, internships, or practicums, another curriculum initiative.

An important consideration of the portfolio was how to determine which selections a student should include. To address this, a two-phase process was suggested. First, students would need an authentication form from the faculty member involved in an assignment that the student wanted to include in the portfolio. The faculty member would complete the form that a work was of sufficient quality to include in a portfolio, and that form would be scanned into digital format for inclusion along with the actual portfolio entry. It was thought that students could save more works than would actually go into the final portfolio. The second process would occur when the student made final decisions about which works to include in the official portfolio.

Evaluating the portfolio was another concern, but this was more easily addressed. Since every entry into the portfolio had already been evaluated and authenticated by a faculty member, the only remaining task was to ensure that the student had actually entered the required number of items in each area of the portfolio. It was decided that one of the roles of the faculty member in the various senior capstone courses would serve that role. What to do if a student failed to meet the minimum requirements is an issue yet to be resolved.

The Technology Challenge

The work which established the general requirements for our student portfolios and the approval process for submissions also established a number of desirable features that an electronic portfolio should have:

- easily managed by the student
- fully accessible to the student's advisor
- the option to allow others controlled access
- flexible enough to store and deliver a wide variety of types of documents
- accessible over the web

We briefly considered attempting to produce such a system from scratch ourselves, but soon realized that we already had a way to address most of these requirements in place. Like many colleges, Presbyterian College had decided to commit to a Course Management System (CMS) –

Blackboard 5.5 at that time. A small group of faculty had been trained in its use and were already training others. The use of Blackboard was growing at a rapid pace, and exceeded usage projections. The advantage of using Blackboard (as would be true of most other CMSs as well) is that it automatically provides a hierarchy of user types with varying levels of access to its courses, is accessible via the web, and is designed to allow instructors to store and organize a wide variety of course materials and to control who has access to them. In other words, the very characteristics that make a CMS useful for a faculty member to organize and present materials to students could also be useful to students in organizing and maintaining an electronic portfolio. The fact that many students and faculty were already somewhat familiar was an added advantage.

The version of Blackboard that Presbyterian College was using initially did not allow much flexibility in terms of labeling buttons or sections. Despite this limitation, a template of the e-portfolio was designed using the Blackboard software. Surprisingly, with some modest adaptation, Blackboard appeared to be a very suitable platform for the e-portfolio. It was easy to distinguish for students what they should add to the portfolio, where it should be added, and what should be left alone within the template design. With some modest refinement, a first draft of the portfolio template was ready for field-testing.

We started the development of our Bb-based electronic portfolios in the fall of 2001, with the first “pre-pilot” use taking place in the spring semester of 2002 by ten upper-class English Writing Center student assistants who volunteered for this activity. These were all known to be “good” students, but with no particular technology skills, making this a fair test of the function and usability of the approach we had chosen. The response from this group was unanimously positive. In the fall of 2002 and spring of 2003, electronic portfolios were made available to approximately 40 freshmen in the college’s pilot of the “Introduction to Inquiry” course. While the initial response was enthusiastic, few students have actually tried to use the portfolio. It would appear that without the requirement of its use, the portfolio would not be utilized as we had hoped.

The Approach

Our approach to creating electronic portfolios was strongly guided by our earlier decisions about the nature of student portfolios in general. A P.C. student’s e-portfolio is intended to serve three distinct purposes: documentation of completion of some specific requirements, a learning process which includes reflection, and a way for the student’s work to be made accessible to others (such as parents, potential employers, and graduate schools). In particular, we had decided to control the structure of the portfolios fairly closely, as opposed to allowing students ‘free rein’ over what to include and how to present it. Note that this decision was guided by institutional pedagogical interests, not by the technology. Our primary task was to find an appropriate way to use our available technology to implement this type of portfolio program.

The first step was to design a “template” course to establish the required structure of the portfolio. It also includes some descriptive background information about the electronic portfolio program at Presbyterian College and its goals and basic instructions to students concerning the types of materials which should be submitted.

In the CMS template the number of “Areas” is reduced to only five: *Welcome*, *About P.C. E-Portfolios*, *Personal Information*, *Portfolio Documents*, and *Guest Access Materials*. (These areas were initially named Announcements, Information, Staff Information, Projects, and Documents, but with the upgrade to Blackboard 6.0 in the Spring of 2003 it became possible to name them more appropriately.) All other areas of the CMS were disabled for this application. The diagram below (Blackboard’s *Course Map* for the template site) illustrates this structure:

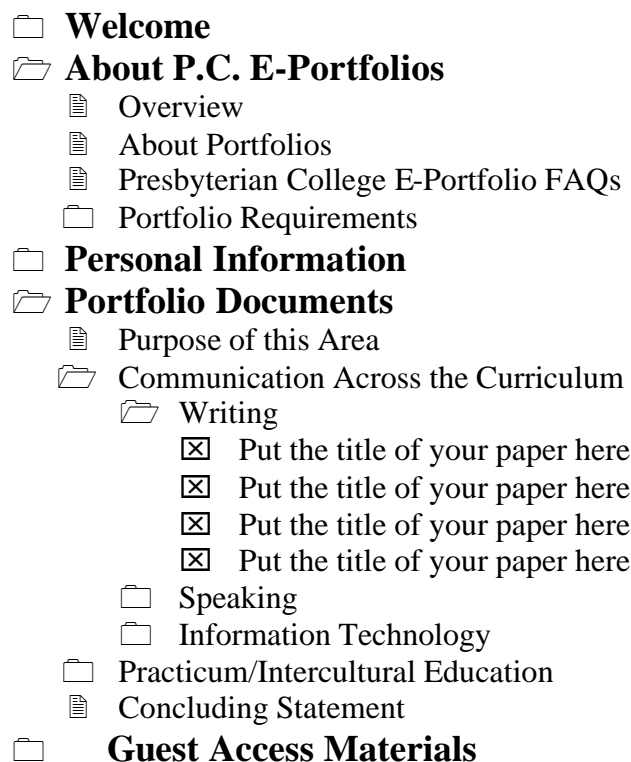


Diagram 2: *Course Map for the P.C. E-Portfolio Blackboard template, showing both the structure and some of the initial content.*

The **Welcome** area provides a place for an opening message along with any other initial announcements about the portfolio. It will ordinarily include the student’s name and contact information along with any other introductory comments the student wishes to add. More detailed personal information is placed in the Personal Information area.

The **About P.C. E-Portfolios** area provides background materials on the concepts and philosophy of Presbyterian College E-Portfolios as well as descriptions of the requirements. It is intended to be useful both to students and visitors, and its content should not be changed by the student. This presents a minor dilemma: How do you keep students from changing such content while giving them the control they need over other content? We took a “low-tech” approach. If the title of an item is originally in blue, it is not to be changed.

Within the Portfolio Requirements section of the About P.C. E-Portfolios the issue of authentica-

tion is addressed. We had decided in the initial planning stages that only documents which have been approved by a faculty member can be included in a student's portfolio. This requirement presented some technological challenges which we have addressed by providing a PDF file of an "Authentication Form" here. Students are directed to have the faculty member complete and sign a form for each submission, and then the student (perhaps with help in a computer lab or the Media Center) is to scan the completed form and add it at the appropriate location in the e-portfolio. This is admittedly somewhat awkward and we may consider other approaches as the number of active e-portfolios increases.

The **Personal Information** area gives a student a place to provide more detailed personal information, including a photograph if desired. Students are instructed to think of this area as being like an electronic cover letter. It also allows for a link to an external web page which may be used as a more flexible and creative on-line résumé.

The **Portfolio Documents** area is the primary part of the e-portfolio. It will ultimately contain the final versions of all of the official portfolio items along with the scanned authentication forms. It may also contain additional materials, depending on the nature of the submission. In the template, folders (with blue titles!) are provided for each of the types of materials which are required: writing, speaking, information technology, and a practicum or intercultural education. There is also a place for the student's concluding statement, which is to be a reflective summary of the portfolio content and process. Within each blue-titled folder are the appropriate number of placeholders which are to be replaced by the student's submissions as they are completed. In the Course Map above, the Writing folder has been opened to show the four placeholder folders which will be required. Similar placeholder folders are also already in place in the Speaking and Information Technology folders.

The **Guest Access Materials** area of the e-portfolio serves several purposes. As the title suggests, documents placed in this area are viewable by guests (i.e., individuals other than the portfolio's owner and advisor). Its structure is more flexible, allowing the student to be more creative if desired. It may contain the same documents which are in the Portfolio Documents area, but that is not required. In particular, authentication forms and perhaps other supporting materials may be omitted. Also, materials which are not included in the official portfolio may be stored here. The upgrade to Blackboard 6.0 significantly simplified this process by allowing a document to be uploaded only once and then reference from multiple places.

A copy of the e-portfolio template is then used to create a Blackboard course site for each student. The student is enrolled in the site as a Course Builder – a designation within Blackboard which allows the student to add/remove/edit content (i.e., documents of various types) as well as perform other basic administrative functions. The student's advisor is enrolled in the course as the Course Instructor, thereby giving the advisor complete access to the site as well.

Access to a student's portfolio site by individuals other than the student and the student's advisor must be carefully considered. There are several ways in which access can be controlled. The course site is initially created as "unavailable," meaning that only the course instructor and course builder (i.e., the student and the advisor) can even tell that it exists. Guest Access is initially turned off, so even if the site is made "available" it can't be accessed by anyone who

doesn't have a P.C. Blackboard username and password and is not intentionally enrolled in it. (Blackboard 6.0's new Observer role might prove useful.) And if the student decides to turn Guest Access on, guests are initially restricted to certain areas of the course; in particular, they cannot see the Portfolio Documents area. It is worth noting that, as Course Builders, students can change the guest access settings for their site, but they are cautioned about the effects of doing so. In the presentation at the conference both the template and a partially complete sample e-portfolio will be shown.

Future issues

The future of the electronic portfolio at Presbyterian College depends upon several things. At present, the faculty is re-evaluating the direction of curricular reform and innovation. If the proposed first-year seminar program were to be eliminated, then introducing the portfolio would become dependent upon some other course doing so. While Freshmen English might be an acceptable location, it could then appear that the portfolio is an English requirement rather than a college-wide requirement. One of the portfolio's current strengths is that it is a shared responsibility of the faculty and not the burden of any single department. Similarly, the capstone courses in the various majors need to be willing to take on a certification role that attests to the rest of the campus that the portfolio is complete. Finally, additional resources, particularly in hardware such as scanners and electronic storage, will be needed to serve the entire student body when everyone is developing a portfolio.

Other questions yet to be answered address longer term issues. How long should the portfolio be retained by the college? Who should have access to it long-term? How long should access to the portfolio be available for graduates? For others who leave before graduation? What happens if a student does not meet the portfolio requirements? What if student and professor disagree over whether something should be included in the portfolio? These and similar issues need to be carefully examined and resolved, hopefully prior to implementing the portfolio requirement prior to Fall 2004.

Update

Since we started this portfolio project in 2001, a number of new options have become available. Two of the most interesting are iWebfolio™, a commercial electronic portfolio management system by NuVentive (<http://www.iwebfolio.com>) and the Open Source Portfolio Initiative, established in January 2003 by the University of Minnesota and the University of Delaware (<http://www.theospi.org>). Both are very flexible and have good online demonstrations and samples available. The two major distinctions between these two products and our Blackboard-based e-portfolio are that these products provide a much more polished looking portfolio (they are designed specifically for that one purpose), and that it would be difficult to configure either to strictly enforce the structure we have chosen for our portfolios. The NuVentive product is reportedly available in a format which can be integrated into Blackboard and perhaps other CMSs.

Reference

Huba, Mary and Freed, James. *Learner-centered assessment on college campuses*. Allyn & Bacon, 2000.