E-Portfolios as Creative and Reflective Assessment for Online Students

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Abstract

Electronic portfolios provide some benefits not available with paper-based portfolios. While standardization for assessment and accountability may be one of these benefits, it may limit opportunities for students to demonstrate creativity in their portfolios. Clear guidelines, on-going instructor support, and a flexible approach to portfolio development allow graduate students in our instructional technology program the opportunity to create portfolios that demonstrate their proficiency in the field, promote their self-reflection on growth during the program, and assist them in identifying directions for professional goal setting. The use of Adobe Acrobat supports our emphasis on the portfolio as both meeting specific requirements and providing a vehicle for students to demonstrate their proficiency and creativity.
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Whether a portfolio is paper-based or electronic, it is meant to serve as a record of a person’s achievement and reflections on learning and activities in a field of study or practice. With the focus on assessment of student work, a portfolio can be described as a “purposeful collection of student work that exhibits the student’s efforts, progress, and achievements. The collection must include student participation in selecting contents, the criteria for selection, the criteria for judging merit, and evidence of student self-reflection” (Paulson, Paulson, & Meyer, 1991, p. 60). The past decade has seen a change in the format used for presentation of portfolios, from paper-based or contained within notebooks and other binders to software-based and displayable on computer (Milone, 1995; Niguidula, 1997). This trend reflects benefits afforded by the multimedia and computer-based features of electronic portfolios. These benefits include the ability to present a wide variety of artifacts, a large storage capacity, multiple ways of navigating within the portfolio and as well as linking to standards for assessment, the ability to address multiple intelligences through a variety of media, easy inclusion of authentic activities, evidence of skills and knowledge in multimedia production, and packaging of the portfolio in an easily portable form such as a CD.

Students in the M.Ed. program in Instructional Technology at Valdosta State University produce electronic portfolios as an integral part of their learning experience. From the first course they take in the program, our students start working on their e-portfolios. While taking courses and engaging in professional activities, these students select artifacts to demonstrate their knowledge, skills, and dispositions. They also create captions and other reflective and support documents to add to their portfolios. At the end
of their program, the students submit their portfolios for summative assessment by the departmental instructors.

An important aspect of this e-portfolio development process is the opportunity, as well as the responsibility, given the students to use their knowledge, skills, and creativity when producing the portfolio. This orientation towards considerable student decision-making in structuring and developing their portfolio contrasts with the procedure used in some teacher-education programs. Increasingly, the format for portfolio development in higher education in the United States is standardized for insertion into templates or for inclusion in online databases. Such an approach provides teacher-education programs with a greater degree of control for purposes of assessment and accountability. However, this standardized kind of portfolio also may limit students’ abilities to express in a personal way both their growth as teachers and their skills with the technology (Barrett & Knezek, 2003). One faculty member involved in creating a program-wide electronic portfolio system for her university’s teacher education program described the advantages of a student-centered approach this way: “In the traditional three-ring-binder format, a student writes a reflection and then compiles supporting documents and artifacts in predefined sections. The efolio allows students to create their own sense of the interconnections of those artifacts while arriving, we hope, at a much richer understanding of themselves and the standards against which they are being measured” (Norton-Meier, 2003, p. 516).

The purpose of this paper is to describe the advantages of having students produce e-portfolios by following guidelines and using a development tool, Adobe Acrobat, that support the creativity and reflection that students can bring to the process of producing a
portfolio. Important aspects of the portfolio design and production process can be explained by reference to the metaphors Mary Diez (1996) used to describe portfolios: sonnet, mirror, and map. As a sonnet, the portfolio provides a framework for a personal and creative approach to demonstrating proficiency and gains made. A portfolio also serves as a mirror to promote student self-reflection on growth during the program through examination of the collected artifacts and explanations. As a map, the portfolio can assist the student in identifying directions for professional goal setting.

**Portfolio as Sonnet**

Students in our program demonstrate their competencies—create their sonnet—by choosing artifacts, expanding on a framework for their portfolio design, and using Adobe Acrobat to develop the portfolio. To include artifacts in the portfolio, students choose from among the products they submitted as assignments in the M.Ed. program. Products from professional experiences outside the program may also be included. These artifacts should demonstrate a range and scope of proficiency in the knowledge and practices of the field of Instructional Technology (IT).

To provide evidence that the artifacts included are representative of work in their field, students are required to describe how each artifact connects to one or more domains of the field of IT. The domains of instructional technology—design, development, utilization, management, and evaluation—identify and describe major areas of professional focus and competency in the field (Seels & Richey, 1994).

Designing the portfolio involves students in both following a basic framework and expanding on that framework in a creative way. Guidelines outline the required framework with major components of the portfolio arranged in this order: introduction,
table of contents, professional goals statement, resume, captioned artifacts (6), and reflective final paper. Formatting of the portfolio as a PDF file authored using Adobe Acrobat allows bookmarks to indicate an outline-style structure. Bookmarking provides a user-friendly hierarchical organization. Navigation by opening top-level bookmarks reveals components for each artifact: caption, artifact, and any division of the artifact into sections.

Both the organization of the portfolio beyond the basic required framework and the visual design of the portfolio are the responsibility of the student. Creativity and purpose in the design are expected and are included as criteria in the summative evaluation of the student’s portfolio. Use of Adobe Acrobat for development of the portfolio allows a wide range of formats and types of components to be included. Any product that can be displayed on the computer screen can be converted to a PDF document, which is a type of PostScript print file, and inserted into or linked to the portfolio file for display in the portfolio. The “true-to-original” PostScript file that is created for a PDF document has another advantage. Students may print paper copies of their portfolios. These printed copies will be like screen dumps of their electronic versions of the portfolio. They may be presented to interested persons who may not have computer access or who may wish to peruse a printed version. The types of products that can be converted to PDF format include scanned papers, word-processed documents, photos, other graphic images, digitized video, sound files, and Web pages. Word documents and Web sites can be imported with retention of links and creation of bookmarks for the sections of a document and the pages of a Web site. PDF files can be viewed on both PC and Macintosh platforms using the free, downloadable Acrobat
Reader. Adobe Acrobat, the authoring version of the software, is available at student discount for both PC and Mac.

**Portfolio as Mirror**

Self-reflection on growth in the field during the program—the portfolio as mirror—is promoted through the student’s organization of the portfolio, creation of captions for artifacts, and writing of a reflective final paper. Some students organize their portfolios chronologically to indicate their growth in competency. Or they may place their best work near the end of the portfolio to demonstrate progress made. Each artifact in the portfolio must be accompanied by a caption in which the student briefly describes the artifact, elaborates on demonstrated competencies, states why the artifact was included, connects the work with the professional goals statement, and reflects on what was learned from the experience represented by the artifact. Another important feature of the caption is description of how the work relates to and illustrates competence in one or more of the five domains of the field of I.T.

The reflective final paper is where the student reflects on the overall experience during the degree program, as illustrated in the portfolio. In this paper, the student identifies the competencies gained in the program as well as other professional experiences during that time and explains how they address all five of the domains of instructional technology. This final paper also includes description of growth in the profession.

**Portfolio as Map**

The charting of professional goals—using the portfolio as a map—is supported by the student’s explanation of career plans in the professional goals statement as well as the
captions and the reflective final paper. The professional goals statement is a narrative in which the student describes both short-term and long-term goals in the program of study and in professional experience during the period of study. Plans for future professional work and development are also included. In artifact captions, the student may describe the significance of work, as shown in the artifacts, to furthering professional goals. The final reflective paper provides an opportunity for the student to provide, as part of a description of experiences in the program, a summative explanation of the influence the program has had on professional goals.

**Conclusion**

Guidelines for the portfolio development, presentation, and assessment process are provided to our students early in their program. They can also access these guidelines from the departmental Web site,

http://coefaculty.valdosta.edu/info/cait/it_site/portfolio.htm. In addition, in their I.T. foundations class, students produce a portfolio similar to the program-wide portfolio. As a requirement for each class in our program, the student selects an artifact for possible inclusion in the portfolio and creates a caption for that artifact. In this way, the production of the portfolio becomes an ongoing process initiated in the first class taken in the program. We also make available at our Web site a tutorial on use of Adobe Acrobat for creation of the portfolio,

http://coefaculty.valdosta.edu/info/cait/it_site/studentguide.doc. By establishing a basic set of guidelines, supporting the portfolio design and development process throughout the program of study, and facilitating the use of flexible authoring software such Adobe Acrobat, a program may provide both the direction and creative freedom that enables
students to use the portfolio experience as a way to demonstrate their competencies and to grow in their profession.
References


