

Electronic Portfolios for Faculty Development

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ABSTRACT

This article examines the conceptual process of creating an electronic professional portfolio. The characteristics of electronic professional portfolios are discussed as well as the benefits of electronic portfolio development. Additional topics include collection and selection of portfolio contents, reflection on portfolio pieces, presentation formats, requisite technology skills, and portfolio applications. The authors themselves developed electronic professional portfolios as part of a faculty technology leadership initiative and used their portfolios as part of their annual evaluation instruments.

Electronic Portfolios for Faculty Development

Introduction

Those of us in education are always looking for ways to better measure our students' knowledge and progress. We read articles and conduct research on assessment. We advise students of the professional knowledge and skills recommended by professional organizations. Increasingly, we encourage or require our students to develop portfolios. Rarely do we think of assessment on a personal level, however, until it is time for our annual evaluation. Then we dust off our vita and hurriedly compile a notebook of articles, conference presentations, student evaluations, and service commendations to get us through another year. There is a better way, and that is development of a professional portfolio. A professional portfolio is "an organized collection of complex, performance-based evidence that indicates one's growth, goals, and current knowledge and skills needed to be competent in a role or area of expertise" (Campbell, Melenyzer, Nettles, & Wyman, 2000, p. 151). As such, a professional portfolio provides a coherent means of documenting successful teaching and accomplishments for tenure, promotions, grantsmanship, publication, consultancies, and other areas of professional activity. It also provides a powerful tool for entering or re-entering the job market. A professional portfolio can provide a dynamic picture of professional growth and change, and it can document mastery and accomplishment of professional knowledge and skills (Campbell, Cignetti, Melenyzer, Nettles, & Wyman, 1997). A professional portfolio presents evidence of expertise and development, and because items are self-selected for inclusion, it is also a unique record of abilities and accomplishments. This aspect of the professional

portfolio makes a powerful statement of who we are as professionals. Not only do we select items to include in our professional portfolio, but also we reflect on those selections. The act of reflection – a critical element of portfolio content – further defines the professional portfolio as our own. Additionally, reflection on why individual items were selected for the portfolio reveals their value to us as we continue to grow professionally (Barrett, 2000b). Finally, professional portfolios allow us to examine “the complexities of professional practice in ways that no other approach can” (Wolf, 1996, p. 34). When we have the opportunity to reflect on our practice, it is likely to improve. Using portfolios not only serves as a documentation tool, but also helps foster “critical skills such as reflection and self-evaluation which are fundamental to excellence in any walk of life” (Danielson & Abrutyn, 1997). Creating and maintaining a professional portfolio, then, helps us grow professionally and serves as a record of that growth.

Electronic Portfolios

Choosing to develop a professional portfolio is the first step. The next is deciding to develop it in electronic format. An electronic portfolio “includes the use of electronic technologies that allow the portfolio developer to collect and organize artifacts in many formats (audio, video, graphics, and text). . . . [It] is not a haphazard collection of artifacts (i.e., a digital scrapbook or multimedia presentation) but rather a reflective tool that demonstrates growth over time” (Barrett, 2000a). The authors made the decision to develop electronic professional portfolios as participants in a faculty technology leadership initiative at our institution. After attending conference workshops on electronic portfolio development and discussions with our dean, we determined that electronic professional portfolio development would be a project that would benefit our colleagues, our students, and ourselves. Many programs in the college currently require students to develop portfolios, and electronic portfolio development is seen as the next logical step. One of the goals of the authors’ project was to model electronic professional portfolios for our colleagues and our students in an effort to move closer to electronic portfolio development by students. Therefore, we wanted our portfolios to be professional, and we wanted them to be used for assessment, similar to the professional portfolios that we require of students. Since portfolios should be designed to serve a specific purpose, we decided to use our university’s annual evaluation instrument as the framework for our portfolios. This decision was beneficial in several ways. It provided us with a specific framework and an audience for our portfolios. We knew, from university guidelines, what types of documents and artifacts to include in our professional portfolios and how they should be organized. We also knew that our primary audience would be our department chairperson and our dean. We also found that, once they are developed, electronic portfolios are easier to maintain, edit, and update than paper documents. Much of what we create and produce for our teaching, research, and service begins in electronic format – either as word-processed documents or as audio and/or video presentations – and so it is a relatively simple matter to leave them in electronic form rather than convert them to printed documents. In addition, much of what we do as educators cannot be adequately conveyed by the printed word; paper and ink do not convey the vitality and human interactions present in our work. Multimedia provides a flexible structure by which documents and artifacts can be presented in ways that are the most appropriate and effective. Thus, freed from the confines of paper, we were able to create dynamic

electronic professional portfolios that display our work in a variety of formats. Finally, the development of electronic professional portfolios affords us with the opportunity to showcase our technology skills. As technology becomes integral to the practice of teaching, educators will enhance their skills and increasingly integrate them into their practice. Electronic portfolios, which can be geared to varying levels of technology prowess, are an appropriate medium to display those skills.

Portfolio Contents

Selecting the materials to include in the electronic professional portfolio is a two-step process (Barrett, 2000b). The first step of the process is to collect artifacts that might possibly be included in the final product. Ideally, this initial working portfolio should be an ongoing collection of any and all materials that are pertinent to the purpose and framework of the professional portfolio. From this collection, the portfolio developer selects which materials will be included in the professional portfolio. Criteria for selection should reflect the objectives of the portfolio. Generally, only documents and artifacts that display the developer's best work and achievements should be considered for inclusion. These two steps, collection and selection, address the question, "What did I do?" (Van Wageningen & Hibbard, 1998). Selection of materials to include in the professional portfolio is only the beginning, however. A critical element of successful portfolios is reflective responses to each piece in the portfolio. Reflection allows the developer to place the portfolio piece in context; to explain how it relates to specific goals, objectives, or standards; and to articulate what the piece says about the developer's strengths and growth as an educator (Campbell, et al., 2000). Reflection also gives the developer the opportunity to plan ahead and to set specific goals for future growth. In other words, portfolio reflections should answer the questions, "What did I learn?" and "What will I do next?" (Van Wageningen & Hibbard, 1998). Answering these questions are the key to reflection, and the written reflections are what transform a collection of professional work into a professional portfolio. Electronic Portfolio Production

When portfolio materials are selected and reflections composed, it is time to organize them into an electronic presentation. Here again, the portfolio developer is faced with a choice: whether to learn new technology skills or whether to use skills already mastered to produce the electronic portfolio. If the portfolio developer has at least basic technology proficiency, this question is largely a matter of personal choice. Factors that should be considered include personal level of technology skill, objectives of the portfolio, and format of the portfolio contents. Acquiring additional technology skills, especially if technology proficiency is considered a requisite or even a desirable professional attribute, can greatly enhance the effectiveness of the professional portfolio.

Barrett (2000b) identifies levels of teacher skill and levels of electronic portfolio development that provide direction for portfolio developers. Table 1 is an adaptation of her guidelines that can help portfolio developers identify the activities and appropriate software tools that match their level of proficiency.

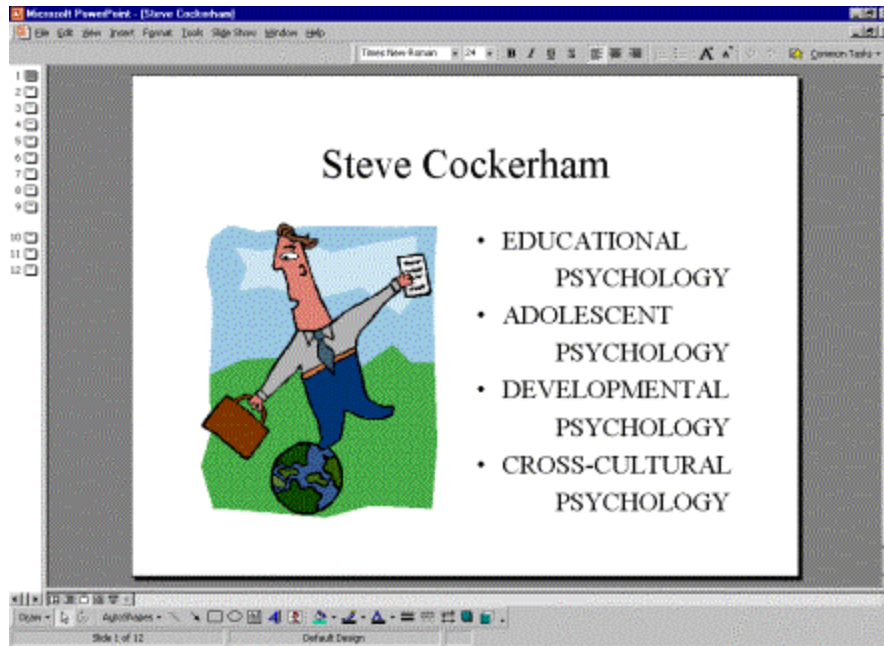
Table 1
Electronic Professional Portfolio Development.

Level of Teacher Skill	Stages of Electronic Portfolio Development
<p>Limited experience with desktop computer – able to use mouse, menus, run simple programs</p>	<p>Use appropriate software tools to collect artifacts and store them on a hard drive, a LAN server, or other storage device, such as a Zip drive. Set up electronic folders for the organizational element to organize the artifacts</p> <p style="text-align: center;">AND</p>
<p>Proficiency with a word processor, basic email and Internet browsing, enter data into a pre-designed database</p>	<p>Use a word processor, database, hypermedia software or slide show to articulate the organizational element to be demonstrated in the portfolio and to organize the artifacts</p> <p style="text-align: center;">OR</p>
<p>Able to build a simple hypertext document with hypertext links using a hypermedia program like HyperStudio, Adobe Acrobat Exchange, or an HTML editor</p>	<p>Use a word processor, database, hypermedia software or slide show to articulate the organizational element to be demonstrated in the portfolio and to associate the artifacts using hyperlinks</p> <p style="text-align: center;">OR</p>
<p>Able to record sounds, scan images, design an original database</p>	<p>Use an HTML editor to articulate the organizational element to be demonstrated in the portfolio and to organize the artifacts.</p> <p style="text-align: center;">OR</p>
<p>Multimedia programming or HTML authoring, create QuickTime movies, program a relational database</p>	<p>Use a multimedia authoring program to organize by the organizational element to be demonstrated in the portfolio</p>

It should be noted that several widely available software applications, such as Microsoft PowerPoint, Microsoft FrontPage, Microsoft Publisher, Netscape Composer, and Knowledge Adventure's HyperStudio, provide sufficient flexibility and sophistication to meet the needs of a wide variety of portfolio developers. Familiarity, availability, portfolio objectives and content, technology expertise, and presentation options are the primary criteria that guide selection of these or other software programs. The authors selected two software programs to publish their portfolios: Steve used Microsoft PowerPoint and Marilyn used Microsoft FrontPage. Choices were based primarily on levels of expertise, portfolio objectives and content, and presentation options. Steve decided to integrate his electronic professional portfolio with the traditional paper evaluation format. He selected PowerPoint to enhance his knowledge of that software and to create a simple electronic portfolio that functions as a table of contents to his paper

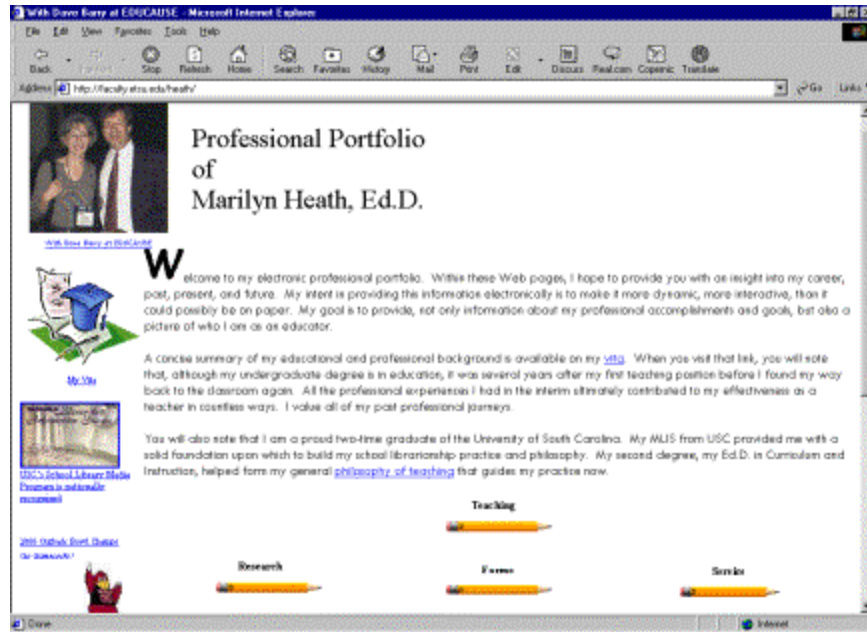
portfolio (Figure 1). His electronic portfolio has the benefits of being easy to create, maintain, and edit, and of being easily transmitted, either electronically or on a storage device such as a floppy or CD-R/W.

Figure 1. Steve's PowerPoint Portfolio.



Additionally, Steve's electronic portfolio is accessible only by himself and those he sends it to, an additional benefit for a portfolio used as an assessment tool. Marilyn chose Microsoft FrontPage for her electronic professional portfolio because she wanted to learn how to better use the software and because she wanted to publish her portfolio as a Web page (Figure2). Unlike Steve's approach, Marilyn's entire portfolio is included on the Web. The only exception is the mandatory evaluation forms which are on the site but are left blank for privacy reasons. Marilyn's portfolio has the benefit of accessibility; it is available to anyone who knows the URL. Administrators, colleagues, and students all have access to her professional portfolio. In addition, it makes ample use of hyperlinks and graphics to illustrate and enrich the content for each organizational element. Both professional portfolios were well received by administrators during the formal evaluation process, and because they are works in progress, they will be edited and updated during the current year.

Figure 2. Marilyn's FrontPage Portfolio.



Electronic Professional Portfolio Applications

In the final analysis, electronic professional portfolios serve many of the same functions as their paper counterparts. They can serve as evaluation instruments, credentialing tools, and resumes. They can enhance the prospects for advancement, tenure, or employment. All of these functions are important. But perhaps the most important function of an electronic professional portfolio is that it provides an authentic, dynamic portrayal of who we are as educators. It allows us to freely share our accomplishments with others as we showcase our technology skills. It enhances our image as innovators and professionals. In addition, it “enables us to do exactly what we ask our students to do: self-assess, self-evaluate, and self-regulate” (Van Wagenen & Hibbard, 1998, p. 29). Electronic professional portfolios allow us to examine and reflect upon our unique experiences as educators and ultimately, to grow beyond them.

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