Beyond the "Bells and Whistles": Toward a Visual Rhetoric for Teachers' Digital Portfolios

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In short, the portfolio would be not simply a means to assess growth and reflection but a vehicle for that growth and reflection.

—Robert Yagelski (1997, p. 23)

When asked to create a portfolio as a culminating activity in my master's degree program in the summer of 2000, I wondered what this process would entail: What types of thinking and writing was I being asked to do and why? Would this process really help me look back on my teaching and coursework in generative ways unavailable to those who don't author portfolios? What new skills, knowledge or beliefs might I need to develop? What would I need to consider as I constructed an identify for myself as a reader, writer, and teacher when designing the portfolio? Moreover, since I was already employed as a middle school teacher and wasn't involved in a job search, I wondered why anyone would ever look at my portfolio after my advisor gave it her stamp of approval. This concern was not unfounded: It arose from previous experience as an undergraduate, when I created a portfolio that served an important purpose during my job search, but since then had been tucked away on my bookshelf—unchanged since my graduation and initial certification.

I understood the process of constructing the portfolio as an opportunity to be reflective about my preparation for teaching and to be creative in expressing that preparation. In my current situation, however, I felt as though I were being invited to simply fill up space with a certain number of documents, all of which were aligned with a particular set of programmatic standards. With these reservations in mind, I decided that I had to *do something* with this portfolio that would be new, engaging and, I hoped, professionally

valuable. Coupling that desire with my budding interest in creating web pages, I began the process of building a digital portfolio[1], in my case, a document that would serve as both a storehouse for the many artifacts I had produced and as a showcase for the final synthesis paper from my master's program[2].

In creating my digital portfolio, I chose to organize my work around the teacher education standards from my program. Like Barrett (2000), who argued that standards should be a guiding focus for a teacher's digital portfolio, I felt that creating major sub-pages of the portfolio centered on standards would provide me with an organizing force—a means to ground my work and potentially offer a framework to add documents later on. Also, given the programmatic requirements I had to meet, I felt it would be easier for a portfolio viewer, namely my advisor, to review the materials in light of these standards. Each sub-page provided a major overview of the standard being highlighted with links to my documents and reflections, thus organizing my work in ways that would allow my advisor to avoid excessive searching for evidence that I had met program requirements. My organizational strategy seemed to work, and my evidence was more than adequate: I graduated from the master's program, leaving my portfolio untouched after my initial categorizing, planning, and posting from that summer.

Since this first experience with digital portfolios, I have moved into a new role as an English educator and digital portfolios have been a part of my experience in a number of ways. During the first semester of teaching a content area literacy course for juniors in the fall of 2002, for instance, I invited (and in later semesters required) students to create digital portfolios that highlighted their emerging understanding of the program's teacher education standards.[5] These portfolios were developed, like my own, around programmatic standards and major sub-pages thus included such titles as "knowing subject matter" and "working with students." Every assignment we completed in class was supposed to align with one of these standards, culminating in a well-rounded preliminary attempt at a portfolio that would be both easy-to-update and public—a document that would form the foundation for the work in their senior and internship years.

Yet, it was in my attempts to be programmatic and standards-based with my own students that I began to question some of the major assumptions I held about the organizing potential of standards themselves; I knew there was something more to the construction of a portfolio than simply collecting materials and classifying them by standards. While I knew that reflection should be a part of this process (Barrett, 2000; Yancey & Weiser, 1997), I also knew that reflection alone wouldn't necessarily make the stan-

dards more pertinent to my students nor would it address larger rhetorical concerns involved in creating and placing a portfolio online. In particular, I became concerned with the fact that these portfolios no longer stayed idle on a bookshelf after a professor or, perhaps, an interview committee reviewed them. My students were designing documents that were published web pages, accessible to many viewers. These digital portfolios became a series of representational texts comprised of words and images from the lives of preservice teachers—documents that had been created under the auspices of assessment in a college classroom, now available to any future employer, student, or parent in a very public way.

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Once I began viewing these portfolios as texts that represented teachers' lives in a larger, unrestricted manner, I was no longer able to see creating a digital portfolio as being about a class assignment or part of an interesting unit on integrating technology into teacher education. The more I thought about the nature of constructing a digital portfolio and the process of publishing it openly, the more I began to realize the complex rhetorical task in which I had placed myself and my students. As an English educator, I began to question how this focus on standards in the portfolio construction process and the technological situation of creating a web page combined to create a unique assessment scenario for teachers. I began to question what sorts of materials I should and *could* ask my preservice teachers to include in these multimedia documents: Sample lesson plans? Narrative reflections? Pictures of them teaching? Videos of them teaching? Interactive webquests for students to do as homework? Reviewing standards and analyzing the types of documents required wasn't enough to answer these questions for me. Because of the various tasks we as teacher educators ask of our students in assignments and assessments, both preservice and inservice, there are multiple definitions of what a digital portfolio could be. Thus, students' portfolios should look very different depending on where they are in their program, what they are doing in the classroom, and how they see themselves as teachers. In other words, the core questions I wrestled with became these: What do we want teachers to conceive and create when they hear us ask about digital portfolios? For what purposes? To which audiences?

At this point, I turned my attention to thinking about what digital portfolios are, how they are being constructed now (both from programmatic

and technical senses), and, most importantly, what they could be. With these questions in mind, in this essay I seek to broaden the notion of what we as English educators consider digital portfolios to be and the rhetorical purposes they serve. I provide a brief background analysis of current trends characterizing digital portfolios and then offer a heuristic that broadens the ways in which we define digital portfolios for our preservice students and practicing teachers and offers questions about the ways in which these beginning and experienced teachers construct themselves as writers in the digital and visual world of hypertextual writing.

Digital Portfolios: Standards-Based and Tech-Savvy

To understand the current context of and purposes for digital portfolios, it is important to understand their place in the scope of teacher education, especially in relation to assessment and technology integration. I am not attempting to redefine the genre of digital portfolios here; rather I want to highlight two specific ways in which they are characterized as standards-based documents (Barrett, 2001) that should "seamlessly integrate multimedia" (Kilbane & Milman, 2003) into their design. These characteristics are at once both generative and limiting, offering us a basis to evaluate the results of constructing a digital portfolio while also closing off other parts of the conversation that leads up to that point.

First, standards offer teachers a guiding principle for any kind of portfolio—digital or otherwise—a benchmark by which to measure the quality of their teaching. Given the ubiquitous nature of standards, these are an obvious means by which to organize a portfolio; in fact, they were the organizational principle for my own portfolio, my students' portfolios, and those of a countless number of students in teacher education programs across the country. Given that the National Council for Accreditation of Teacher Education (NCATE; 2004b) currently accredits 588 institutions and that "[t]he number of candidates for accreditation has almost tripled in the past five years, due to the growing demand for accountability from states and the public," NCATE's influence on teacher education policies is clear. Along with other professional organizations who use standards to guide the ways in which teachers work—such as the National Board for Professional Teaching Standards (NBPTS) and our own parent organization, the National Council of Teachers of English (NCTE)—the voice of standards as a part of teacher education governance has become universal. As Barrett (2001) notes,

> A standards-based approach can potentially be productive. Without standards as the organizing basis for a portfolio, the collection becomes just

that . . . a collection, haphazard and without structure; the purpose is lost in the noise, glitz and hype. ("5. Electronic Portfolios and Standards")

Yet, problems can arise from concentrating too much on standards as a categorizing tool for teachers. Given the time in which to describe, plan, and create a digital portfolio over the course of a semester or school year, we would (and do) ideally guide our students through the rich, recursive process of "collection, selection, reflection, projection and presentation" (Barrett, 2000). Even when guided through standards in this way, however, there are still potential problems with this kind of focus: First, standards alone can quickly become the driving force in the portfolio's design without the analysis of growth through reflection that Yagelski (1997) argues for; and, secondly, the audience for digital portfolios is essentially comprised of the teacher education faculty. Thus, students can get mired in creating a collection of materials to satisfy the assessment criteria rather than creating a meaning-rich portfolio for their own professional growth. Moreover, even though standards offer one way to view progress and growth in one's teaching, there are other means by which a portfolio could be organized: Kilbane and Milman (2003), for instance, offer themes and guiding questions as an organizing framework. Yancey (2001, as cited in Zubizaretta, 2004) suggest a rhetorical focus, one addressing questions such as:

> Who wants to create an electronic portfolio, and why?

> Why electronic? What about electronic is central to the model? And is sufficient infrastructure (resources, knowledge, commitment) available for the electronic portfolio?

> What processes are entailed? What resources are presumed?

Questioning, especially rhetorical inquiry, offers a potential alternative to the standards-based approach. By keeping the focus on the process and not the end product alone, much like good composition instruction does for writing, a digital portfolio can remain a place for growth and change and not just a storehouse for exemplary artifacts alone.

Along with a strict standards-based approach, a second problem that Barrett hints at—and with which I agree—is that no teacher educators want to have their students create digital portfolios as part of a meaningless exercise in technology integration or as something that won't yield fruit in their classrooms. However, many students often perceive the value of the process in purely technical and not pedagogical terms (Bartlett, 2002; Willis & Davies, 2002). Given the many critiques of current uses of technology in America's schools (e.g., Cuban, 2001), bringing technology into teacher education is

clearly a smart move for us as English educators to make. Increasing one's comfort level with technology—especially for inservice teachers who are often criticized for not integrating computers effectively into classroom practice—appears to be an important goal of teacher education and professional development (e.g., Zhao, Pugh, Sheldon, & Byers, 2002; Willis & Davis, 2002).

Beyond a skills-based approach, however, some authors are encouraging teacher educators to think about what it means to represent work digitally (Kilbane & Milman, 2003; Kimball, 2002). Getting the document completed and using some technology along the way to do it isn't the purpose of creating a portfolio. As Yagelski (1997) concluded, "The portfolio should encourage on-going reflection and not simply document the students' work" (p. 230). In portfolio construction, the point of the journey is not necessarily to arrive, but to make the most of getting there. Building on the work of Schön (1987), portfolio advocates cite reflection as a key component for creating portfolios—a task in which students can identify growth and change over time. Collecting artifacts and then simply digitizing them does not, in and of itself, guarantee that a teacher will reflect on his or her practice. There must be an active stance towards teacher inquiry that our students take in this process, a stance that begins with the way the portfolio task is framed and how technology is integrated into portfolio production.

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Furthermore, being tech-savvy or digitally literate as a teacher is about more than just having a set of digital competencies; it involves the ability to view, read, and interact with new media texts as well as to compose, design, and author them (Selfe, 2004, p. 44). Beyond the act of collecting and organizing materials, the construction of digital portfolios takes places in a medium of constant change—the web—with hypertext as an authoring tool familiar to students as web readers, but not necessarily as web writers. And writing in hypertext situates our preservice students and inservice teachers in a complex rhetorical scenario.

With traditional portfolios, we ask students to create a print-based portfolio that can be updated with the click of a binder and shared only with audiences of the author's choosing. With digital portfolios, we ask students to hyperlink documents, form a cohesive design and navigation system, and embed images and other multimedia—all while anticipating or actually making their work public during the process. Fischer (1997) noted the following dilemmas with hypertextual portfolio production:

Although writers may make connections between pieces in print portfolios and enhance individual creations by doing so, links between pieces are not intrinsically dictated by the medium; portfolio pieces may be considered separately and often have little to do with each other. . . . Hyperwriting, on the other hand, may refrain from giving the reader a beginning or an ending. If the writer allows, the reader may access texts in various sequences. Hypertext may also present the reader with options to leap midtext or to avoid selections altogether. Hypertextualizing portfolio pieces, furthermore, requires that the writer provide metaphorical ways of moving from piece to piece because there are no paper pages to turn and because scrolling alone is not the norm. (p. 340)

In other words, moving from paper to web, from print to screen, is not a small shift in writing style; rather, what hypertext asks students to do as writers both encompasses the idea of having "marketable skills" and "seamlessly integrating multimedia" while also providing metaphorical ways of understanding their teaching in a document that has no finite beginning or ending.

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Blair and Takayoshi (1997) noted that using hypertext to create a digital portfolio is a very specific rhetorical act that teachers, as writers, must participate in with all the knowledge and tact of a professional educator and as a writer-turned-public speaker on the web. As Handa (2004) argued, even those people with "a high degree of technological skill may see the value in knowing how to create a document using the latest digital tool but not understand the importance of thinking carefully about rhetorical questions" (p. 3). Merely saying that one has used tools such as digital cameras, scanners, and software to make websites can become a simple checklist of technical skills if not taken in the context of creating rhetorically-savvy digital portfolio writers.

Consequently, what the discussion above highlights is that ultimately the ways in which many authors and many teacher educators categorize digital portfolios—as standards-based documents that can increase teachers' technology skills—fall short of the rich, situated types of thinking that we desire for both new and practicing teachers, especially for those who will transfer their knowledge of digital portfolios and multiple literacies to their own work with students. I suggest we shift our thinking to a more nuanced way to construct portfolios, a shift from seeing teachers who are creating portfolios merely as collectors of and reflectors upon their teaching using technology along the way to imagining teachers as writers of complex, rhe-

torically-situated digital documents that requires reflection from the standpoint of an author, not just a collector. This shift in thinking about how we frame digital portfolios means that we must examine portfolios heuristically in a manner that:

1. moves beyond standards alone and takes teachers' own questions about their practice as a place to begin; and

2. sees technology integration as more than just a skills-oriented goal and involves digital and visual rhetoric as a means to design the portfolio.

Understanding Visual Rhetoric in Teachers' Digital Portfolios

In their seminal essay on multiliteracies, the New London Group (1996) contended that "[i]n a profound sense, all meaning-making is multimodal. All written text is also visually designed" (p. 81). Digital rhetoric seeks to examine issues related to the composition of multimodal, multimedia texts—from social and ethical concerns to logistics about a document's design and intended purpose(s). DeVoss (2004) described digital rhetoric as "the dynamics of digital reading and writing" embodying the "rhetorical, social, cultural, political, educational, and ethical dimensions of digital texts" as well as issues of "identity (including gender, race, class, and more), subjectivity, and representation in digital spaces" ("Course Goals," para. 2). All of these factors demand that teachers understand the ways in which they represent their work, especially in the public space of the internet.

Digital portfolios—as a form of text that is, indeed, multimodal, visual, and identifying—then demand that their writers think clearly about how their readers will make meaning. Writing a digital portfolio demands the use of different modes (e.g., hypertext and still images), aims at multiple audiences (e.g., students, employers, and teacher education professors), and serves various purposes for the author (e.g., to fulfill course requirements, to communicate with others, and to earn a job). Layer in the complexities of the writing situation, which includes digital literacy, identity concerns, and representing one's curriculum and classroom visually and clearly, and it becomes clear that the creation of a digital portfolio is not just about simple technical competencies, but is rather a quite complicated decision-making process for a teacher. Beyond focusing on standards to organize or adding "bells and whistles," creating a digital portfolio becomes an exercise in representing one's teaching and learning in a medium that—while not completely alien to the generation of preservice teachers with whom we are

now working (Tapscott, 1998)—presents a daunting rhetorical task for any author, let alone a teacher without a background in digital rhetoric.

In addition to this, constructing a digital portfolio will require some understanding of visual rhetoric as well. Building on a large body of knowledge from art history, photography, film, advertising, and popular culture studies, in recent years both composition and English education theory have begun to revive the visual as a key component to understanding our increasingly media-rich culture. Far from calling for an end to traditional text literacy as we know it, Stroupe (2004) described the "dialogically constitutive relations between words and images" that "can function as a singly intended, if double-voiced, rhetoric" (p. 15). This approach—one that recognizes the power of words and images as meaning-making devices—fits well with the best-intended conceptions of how and why digital portfolios should be designed. For instance, combining a narrative reflection on a lesson with photographs of a teacher taken during that lesson, a portfolio writer could create the visual argument that she works well with students. In her written response, she could describe how tasks progressed among the groups and highlight specific interactions with students. This would then be augmented by photos that show her smiling and laughing with students, engaged in collaborative discussions. The portfolio writer aims to produce a cohesive document, one that involves text and image, rhetoric and design, standards and creativity; this type of analysis, connection, and synthesis moves closer to the types of deep reflection and critical thinking that portfolio advocates argue for.

More importantly, questions of visual rhetoric are not merely aesthetic issues; they relate to key concerns about power and ownership. While I do not intend to take up fully issues of power, surveillance, and governance of the mind and body here, the point that I do want to make clear is that digital portfolios—when created in the public space of the Internet—pose both opportunities and challenges to the authority of their writers. As an opportunity, these documents are always available to future employers, teacher education professors, and any number of other potential audiences, including a teacher's students. As a challenge, however, these documents are *always* available to future employers, teacher education professors, and any number of other potential audiences, too. Suddenly, the opportunity of being seen online might not be so appealing; teachers who might have been willing to share work in progress or divulge reflective thinking in a more private print-based portfolio are open to the scrutiny of anyone with an internet connection.

In light of these issues of power and surveillance, the seemingly simple

technological competence of placing a picture in a digital portfolio to meet a standard becomes—whether the writer overtly intends for it to be or not—a political and rhetorical act. To ask students to create a hypertext document and/or multimedia project that could meet teacher education standards in any number of ways is, at best, an intimidating rhetorical exercise. For instance, if a candidate is asked to "demonstrate a respect for the worth and contributions of all learners" (National Council for Accreditation of Teacher Education, 2004, p. 7 in PDF), there are many ways to go about this. Perhaps she might decide to present a brief narrative, revised from one of her journals, about a particular incident in her teaching. Or she could take a picture of a group of students working collaboratively. Or maybe she could have a video camera taping groups and combine chunks of the video as an iMovie. In each case, the visual rhetoric that each artifact would present builds towards the argument that she "demonstrates respect" for learners in slightly, but significantly, different ways. For a reader quickly scanning the portfolio, the visual impact of a narrative is, most likely, not as striking as a photo and clearly a movie clip can offer a variety of images and sounds that text or image alone can not. By all accounts, digital portfolios place teachers—traditionally the target of much criticism from the government, media, and general public—under the microscope of scrutiny when they represent their work online.

Given these complex dynamics that digital and visual rhetoric offer, I return to the shift in thinking I offered above: How might we change our thinking about how to work with teachers as they construct digital portfolios? How might we move from a focus primarily on standards or on increasing technological competence to a focus that explores the rhetorical act that portfolios are situated within?

Before moving on, I recognize that two major governance practices could be implicated from this shift that I want to dispel quickly. One is that I am issuing a call for the end of standards here—and although I do have questions about their use as management tools for teacher education, I have argued above that, for better or worse, they have been and will continue to be the backbone of many teacher education programs. The trick is to build a proactive approach to using them in portfolios rather than a reductive one. Second, and along the same lines, I recognize that my proposal to focus on digital and visual rhetoric could be seen as another layer of control in portfolio construction. Instead, I will argue that we move to a deeper, more nuanced approach to guiding our teachers through the entire process from collection to presentation by using digital and visual rhetoric as a heuristic for portfolio construction, not a be-all, end-all answer to building them.

By viewing digital portfolios through the complementary lenses of digital and visual rhetoric, I feel that teacher educators can meet the above-named concerns head on in order to: 1) move from a collection of artifacts that are perfunctorily standards-meeting to the rich, reflective analyses of complex teaching practice that Barrett, Yagelski, and others ultimately call for, and 2) reach beyond the "bells and whistles" of digital portfolio construction for merely technical reasons and focus also on the rhetorical act of writing hypertext for professional growth and change. To make this shift, in the next section I describe how looking at the tools that digital and visual rhetoric have to offer can help address these issues.

Toward a Visual Rhetoric for Teachers' Digital Portfolios

Visual rhetoric of portfolios matters because the "appearance of [digital portfolio] documents can make a big impact on how readers perceive the content and the author" (Kimball, 2002, p. 26). Basic components of visual rhetoric and design offer teachers a jumping-off point for the construction of their digital portfolios. In keeping with Bernhardt's (2004) notion of "visual gestalt," a focus on visual rhetoric in digital portfolios also assists readers' meaning-making; that is, the design of the portfolio is intricately interwoven with the meaning that the writer intends to convey with it. To that end, Kimball (2002) described the visual rhetoric of portfolios as having the following components:

- › Subtlety: Avoiding use of "bells and whistles";
- › Consistency in maintaining color, font, graphics and layout;
- › Clear navigation;
- › Straightforward page layout;
- › Legibility and ease of reading;
- › Thoughtful use of emphasis;
- › Careful use of color. (pp. 27-36)

Taken in sum, these criteria offer teacher educators a solid set of basic design principles to consider as we ask our students to create digital portfolios.

Furthermore, visual rhetoric decisions offer opportunities for critical reflection. Hearkening back to Yagelski's ideal that the portfolio fosters growth and the hypothetical case described above, think about the different types of reflection that might occur by writing a narrative, looking at a picture, or viewing a film of one's teaching. In what ways could a combination

of the three be better than any single one approach? Could they be com-
bined at all? As Yancey notes, pondering rhetorical questions like these as a
writer can be a critical part of the digital portfolio construction process, and
I would like to build on those suggestions with some more specifics from
visual rhetoric as a means to do it.

With that in mind, I turn to Van't Hul, who offered a memorable heu-
ristic for approaching the rhetorical context of any writing task (as described
in Stock, 1983, pp. 333-4). Known by the acronym MAPS, Van't Hul suggested
that writers look at four factors when beginning a writing task:

1. Mode (genre and medium of the writing);

2. Audience (to whom the writing is addressed);

3. Purpose (for what reason the writing was created—to persuade or
   entertain, for instance); and

4. Situation (writing conditions and timelines, including—in the case
   of a digital portfolio—the use of hypertext and multimedia).

These four lenses offer writers a means for analyzing and planning the best
tack suited for any given writing task. They could serve as well as a place to
start conversations with teachers in our courses about digital and visual
rhetoric and, in turn, become points to reflect on during the process of de-
signing and writing portfolios.

Mode

When composing digital portfolios, teachers are presented with some simi-
lar genre and media as when working only in print. Certainly, these print
portfolios include text, pictures, and samples of student work and, in fact,
may be supplemented by a video tape of the candidate teaching a lesson.
Digital media, however, offers portfolio writers the opportunity to combine
these texts in hypertextual and multimodal ways that paper alone cannot
provide. For instance, a teacher may write a narrative about her teaching
experience that contains photographs of her teaching, but can then offer
immediate hyperlinks to samples of student work, a video of her teaching,
or a reflection on the lesson. The digital environment clearly offers the port-
folio writer many more options about how to connect her artifacts in a com-
plex and interwoven manner.

To that end, a visual rhetoric analysis of mode would be particularly
interested in the ways in which the digital portfolio takes advantage of the
medium. As outlined by Kimball above, many of the principles of good web

design come into play here, including consistent design and coloring, easy navigation, and a thoughtful use of images and multimedia to achieve rhetorical effects such as persuading or informing. These issues of representation are not addressed directly in the standards, but do play a major role in whether the viewer of the portfolio can really synthesize content, especially visual arguments. For example, what does it *look* like to work with diverse learners? To *display* one's pedagogical content knowledge? A digital portfolio that successfully utilizes the digital/visual medium would then contain elements of good design, coupled with the content that the teacher has appropriately chosen to accentuate points about her teaching style based on standards. The writing and design fit hand in glove as a part of the portfolio construction process.

At this point in this section, as well as in the next three sections, I will offer a beginning list of questions for teacher educators and teachers to consider when constructing digital portfolios.

Mode questions for English educators include:

› What characteristics of digital portfolios, in particular, interest you as a mode for assessment? Is it their accessibility? Updatability? Tech-richness?

› In what ways are you prepared to help your pre- and inservice students create hypertext and multimedia documents? At your institution, whom could you ask for adequate support and resources in this process?

› What standards are you asking students to meet in your course and what artifacts do you want your students to represent digitally? In other words, what counts for evidence of meeting a standard in a digital format?

› How will they be asked to share their artifacts? Via HTML? PDF? Multimedia? What are the benefits and drawbacks to each mode?

› What types of permissions from their students will you need to encourage your students to seek for a web-based document that a paper-based one wouldn't necessarily require? (See Kilbane & Milman, 2003, pp. 152-3 for examples of such documents.)

› How do you plan to support your students as they require more complex understandings of digital and visual literacy, for example, creating iMovies or Flash animation when adding video artifacts to their digital portfolios?

> In coming to these understandings, what will be an appropriate way to talk about representing standards? Do they need to be labeled clearly in the document? Will it be intuitive or obvious to a viewer that a teacher has met a certain standard?

Mode questions for teachers include:

> What aspects of creating hypertexts and multimedia are you comfortable with (e.g., making a webpage, scanning documents)? Which ones are you unsure about?

> What do you know about document design in terms of colors, typography, graphics, alignment, and other design principles? Where can you learn more about this?

> Describe the basic architecture for a website. Do you understand the ways in which you create a website (e.g., with or without frames, with or without graphics) and the advantages and disadvantages to them?

> Given the fact that you will have to create consistent navigation, in what ways might you think about the overall structure and organization of your digital portfolio that could help you easily maintain and update it?

> What challenges and opportunities in relation to technology present themselves for you as you create a digital portfolio? How might your experience creating a website become something you can teach to your own students?

> What types of teaching artifacts are appropriate for a web-based digital portfolio? Are there certain items that lend themselves to being online? Are there certain ways in which some artifacts might work better than others (for instance, using a digital picture as compared to writing a narrative description)?

> Given the above questions about the mode of digital portfolios, what specifically will you have to do to integrate teaching standards into the overall framework of your web site? How explicit/implicit to you want to be about putting standards into your portfolio?

Audience

In print, the audience for a teacher's portfolio usually has consisted of her teacher education professor and, perhaps, a potential employer. Online, as I

have argued above, the concerns of audience are much, much broader. A teacher who conceptualizes her work as fulfilling the requirements of a teacher education program or to earn a job will probably maintain a narrow focus on only the most exemplary material. Her portfolio will not, most likely, appeal to students, parents, or colleagues as a resource for exploration and discovery or to herself as a point for future teacher research projects. If, as many of the standards seem to argue, the goal for the portfolio is to be a repository of critical thinking and artifacts to support a teacher's growth as a professional, then it must be a place for work in progress; this could include lessons that have failed with reflections about why that happened or working drafts of unit plans or assessments. I contend that if teachers are to model their learning processes for students, share their classroom activity with parents, and work collaboratively with colleagues, then a collection of only static, model-quality material will not allow for the types of discussions that will help this teacher become a professional.

A digital portfolio, by its very nature and in contrast to a paper-based one, invites change, updating, and revision. The public space of the internet forces the portfolio writer to consider these multiple audiences and, in turn, design a portfolio that can meet all of their needs in some fashion. For instance, a teacher may include: 1) a resume for principals and interested parents; 2) a syllabus for students and parents and, as a model, for colleagues; and 3) a collection of pictures that depict students working, presenting, and discussing in the classroom. Rather than just focusing on the needs of her teacher education professor and standards, the teacher could use these as a starting point to consider the broader audiences for her work and think about ways to integrate them into a cohesive whole. Knowing that each audience would want different information from the portfolio—and considering how best to visually design it to meet those demands—would be a primary reason for analyzing audience considerations.

Audience questions for English educators include:

› To whom are you asking your pre- and inservice students to address this portfolio? Primarily you? Primarily a future employer? Someone else? How will you address the issue that your students' portfolios will always be accessible to internet users?

› For whomever the intended audience is, how do you want your students to address standards? If so, should they place standards at the forefront of every document or integrated into the narrative section of it?

> Depending on the primary audience you have selected, are there ways in which you can help your students see what they could do to appeal to multiple audiences?

> Who is the ultimate arbiter of what goes into these portfolios—you, your department, or the students themselves? In what ways can these tensions be negotiated? What artifacts have credibility for assessment purposes and which ones don't (e.g., is a narrative as rhetorically effective or suitable as an iMovie)?

> For preservice teachers, given the fact they will eventually be representing themselves online for multiple audiences, how could you incorporate discussions of their needs into your course?

> What will evidence of meeting a standard look like? For instance, is it adequate to share a picture of a teacher working with a group of minority children to meet a standard about diversity? Is it enough to scan a letter from the testing company that shows the passing score from a subject area test to show content knowledge?

> If the digital portfolio isn't going online, in what ways will distribution to different audiences (CD-ROM, DVD, email, etc.) be addressed? How will this change the ways in which your students prepare their work?

Audience questions for teachers include:

> Whom do you want to see your digital portfolio? If it is put online, who are others that might see it incidentally? What kind of impression do you want them to have of you once they view this document?

> Noting your primary and secondary audiences from the above question, what artifacts (texts, pictures, videos) and design are appropriate, especially if you are attempting to earn a grade for this work? To use the cliché, is a picture worth a thousand words? Are there times when it isn't?

> Can you meet the needs of all potential audiences through one portfolio? If so, how? If not, how might you create multiple sites within the larger portfolio for them?

> How might an audience of your peers be able to respond to your portfolio in constructive ways? In what ways might they interpret the standards you are attempting to meet and will they agree or disagree with your analysis and artifacts?

> ❯ As you think about your future teaching career, what additional audiences might you want to consider when you expand your portfolio to include a classroom/course webpage as a part of it?

Purpose

In close conjunction with the audience consideration above, the print portfolio generally served two purposes: to complete certification requirements and to enable candidacy on the job search. A digital portfolio, in contrast, only begins at the end of a preservice teacher's schooling and should continue to offer that teacher a place to think, grow, and change her pedagogy. Rather than being only an exercise in meeting the standards set forth by her program, constructing a portfolio should reveal multiple purposes: to meet initial certification standards, to share classroom inquiry, to demonstrate professional growth, and to examine student work in light of continual instructional change. These goals, like the digital media they can be represented in, are not static.

With a digital portfolio, a teacher could begin thinking about the different ways in which reflection upon, collaboration with, and public viewing of her work by students, parents, and colleagues, could inform and revise pedagogy. Using the digital mode as a basis for continual updating—in conjunction with the ability to access the portfolio through the internet 24/7—then would be a clear advantage. Moreover, in looking at the purpose through the lens of visual rhetoric, a teacher could continue to think about what is being represented and how the visual aspects of the work could enhance and support these artifacts.

Purpose questions for English educators include:

> ❯ For what specific purposes are you asking your pre-and inservice students to create this portfolio? Is it for standards-based assessment? To get them prepared for the job market? To show teacher inquiry?

> ❯ Considering your answer to the first question, in what ways might you want to broaden the purposes for this document? Is it advisable for your students to meet the purposes that multiple audiences would require?

> ❯ What are the most effective modes for meeting the purposes you have described? For example, does a picture serve the same purpose as a video? Will you have certain requirements for design (e.g., subpages addressing specific standards)?

> How can you be explicit and deliberate about the purposes for having your students construct portfolios? That is, how will the process of constructing the portfolio fit into the overall discussion about standards in your course and be a space for reflection and growth for your students?

> In what ways might you provide different purposes (and audiences) for your students to address their portfolios to? (For instance, as the beginning of a classroom inquiry project rather than as a job search document?)

Purpose questions for teachers include:

> Why, besides the requirements of this course and your teacher education program, are you constructing this portfolio? What personal and professional purposes does it serve?

> Knowing that teachers are being asked to be increasingly technologically competent, how might the construction of this portfolio help you think about what you will do in your future classroom?

> Are there applications of digital portfolios that could be used with the students with whom you will work? The subject matter? In other words, what digital and visual skills are you learning now that could be used with your own students in the future?

> What standards do you feel are most important to address in terms of overall real estate in the web site (e.g., number of sub-pages, amount of space on those pages)?

> How do you see the maintenance of a digital portfolio as a part of your professional life or reflection? For professional development?

> What other purposes could your portfolio serve as a part of your classroom planning and organization?

Situation

In considering the many situational contexts currently surrounding portfolios, the deadlines and working conditions for the teacher are usually tied to external controls (e.g., program completion, an interview, or recertification). The use of a print portfolio does allow for a finished product to be shared in these occasions, but also confines the reader to what can be held within a binder. And, as described above, multimedia cannot be (nor is designed to be) held within two covers. If the nature of digital media shifts the

situation slightly and becomes a more writer-centered and personally engaging experience, then a teacher is potentially likely to spend more time, energy, and emotion in constructing it.

Visually, what one might expect to see is that the small details about the digital portfolio and the ways in which documents, images, and videos are shown will be carefully situated in a larger, thematic approach to creating the portfolio. With standards as a guiding force now, portfolios can be disjointed when moving from one standard to the next. Organizing around a theme or question, as noted above, can be one way around that. Also, a digital portfolio requires hyperlinks and multimedia as a part of the medium and revision is an expected part of the writing situation. Thus, the opportunities for continued reflection and growth are ever-present.

Situation questions for English educators include:

› How much time do you plan to give your pre- and inservice students to construct their portfolios? That is, are the tasks you ask them to perform on day one and throughout the semester building up to the portfolio or will they be working on this only at the end of the course?

› How much time will you allow in class specifically for the planning and construction of the digital portfolios? How many class sessions might be spent in a computer/technology lab?

› How will you frame the discussion of standards in your course so students can think about what constitutes evidence in meeting them?

› When will the digital portfolios be premiered? Will your students receive response from you and their peers along the way or will it just be turned in at the end of the semester?

› How might you use the occasion of sharing the portfolios as a way for all of your students to think critically about the digital and visual aspects of them and what they say about the writer?

› When do your students work best on their portfolios? In class? At home? How will you support them (e.g., with handouts or a how-to website)?

Situation questions for teachers include:

› What do you know about the construction of web pages and multimedia? What will you have to learn on your own outside of class?

> ❯ Think of your own experience with media and the web—what might you need to remind yourself of or understand better about digital and visual rhetoric when composing a portfolio?

> ❯ How much time will you have to allow for this project each week over the course of the semester? Over the course of your entire teacher education program?

> ❯ How will you collect artifacts that meet the standards-based criteria for evidence? In what ways might different media provide a different means for meeting the standards (e.g., would a video be more appropriate than a photo)?

> ❯ In what ways can you add artifacts and documents to your portfolio that will be timely and easy for you?

> ❯ What other aspects of this situation concern you (e.g., posting your work in a public forum? Sharing your personal reflections with others besides your professor?)

These lists of questions are meant neither to be exhaustive nor complete; rather, they offer teachers and teacher educators a place to begin a rhetorical discussion about the use of digital portfolios in their work.

Towards a Rhetoric: Conclusions and Implications

Analyzing the creation of a digital portfolio from a digital and visual rhetorical stance rather than from a standards-based or technical competency position affords a teacher many more opportunities to think critically about her work, understand the choices she is making in representing that work online to diverse audiences, and continually reflect upon and revise that work through a naturally malleable medium. Knowing that standards for teacher education or those demanded by NCLB's "highly qualified teachers" provision will not go away soon, it is a viable option for teachers to have a standards-based, technically-competent, *and* rhetorically sophisticated digital portfolio as a part of their teaching repertoire.

Clearly, digital portfolios have begun to transform the ways in which English educators

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think about, reflect with, and assess teachers. Hawisher and Selfe (1997) discussed the ways in which digital teaching portfolios

> provide an additional challenge. It is not enough for teachers to work to keep current of the latest software and hardware uses, but they must also develop the necessary theoretical and critical perspectives to accompany their new knowledge. When technology, as an artifact of our culture, is employed by teachers who lack a critical understanding of its nature or a conscious plan for its use, and when these teachers must function within an educational system that is itself an artifact of the political, social, and economic forces shaping our culture, the natural tendency of instruction is to support the status quo. (pp. 317-8)

In other words, portfolios—like many other aspects of our educational system—require a constant vigilance by teacher educators to keep them critical, reflective spaces for growth and change. Broadening notions of portfolios from an assessment tool of teachers to one that documents a life of classroom inquiry and professional development remains a reasonable goal. Incorporating a rhetorical stance that views the digital and visual aspects of portfolios could, as Hawisher and Selfe hoped, move our current standardized views of digital portfolios beyond "the status quo" and into "the necessary theoretical and critical perspectives to accompany [teachers'] new knowledge" about their own teaching and learning (p. 318).

Political contexts will continue to change and technologies will evolve. As we strive to better understand the contextual, day-to-day practices of portfolio use and we engage in more research about the function of portfolios, the questions laid out above will offer a heuristic to think about digital portfolio implementation. What I hope is that this discussion will lead to future research on how digital and visual rhetoric can inform teachers as portfolio writers. Through reflection and conscientious design, teachers will be able to make informed choices about how to meet teacher education standards and will critically use technology to create a portfolio that is both intellectually solid and aesthetically pleasing for themselves, their instructors, and the many audiences that they will encounter in their future teaching careers.

Author's Note

Notes

1. Although much discussion about how to name (webfolio or e-portfolio being two other options), create, save, and share digital portfolios exists, for the purposes of this essay, I am referring to digital portfolios as documents primarily produced as web pages in HTML, saved in public web space, and accessible to anyone with an internet connection. A discussion of alternative formats and their practical/theoretical advantages and disadvantages are beyond the scope of this essay.

2. See <www.msu.edu/user/hickstro/MACT_Portfolio> for my original portfolio.

3. See <http://www.msu.edu/user/hickstro/te301/te301_portfolios.htm> for links to some of my students' work.

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