CHAPTER 1.

POSTMODERNISM, PALIMPSEST, AND PORTFOLIOS: THEORETICAL ISSUES IN THE REPRESENTATION OF STUDENT WORK

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What we ask students to do is who we ask them to be. With this as a defining proposition, I make three claims: (1) print portfolios offer fundamentally different intellectual and affective opportunities than electronic portfolios do; (2) looking at some student portfolios in both media begins to tell us something about what intellectual work is possible within a portfolio; and (3) assuming that each portfolio is itself a composition, we need to consider which kind of portfolio-ascomposition we want to invite from students, and why.

I was of three minds, Like a tree In which there are three blackbirds

—Wallace Stevens

To begin at the beginning ...

One beginning for thinking about the representation of student work is located in the context of our own research. When someone talks about representation of student work, what's often being discussed is a mediated representation, that is, *our representation of that work*—typically presented as part.

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A number of issues locate this meaning of representation, many scholars and organizations—among them the CCCC—addressing them.

Backing up, we might consider an earlier beginning: the representations of students that we as teachers invite or permit. These representations, regardless of the form that they take (essay test, PowerPoint project, or portfolio), simultaneously invite certain constructions and (yet) provide the texts that we assess. Put differently, what we ask students to do is who we ask them to be. As important, these representations con-

As in a file cabinet, information is organized into categories (file drawers), subcategories (file folders), and elements (pieces of information in the file folders) the information resides in the owner's portfolio, providing easy access to all the data needed to support a lifetime of formative and summative evaluations (my italics).

—Truer and Jensen (2003, p. 27)

stitute a rhetorical situation, precisely (1) because they are immediate, direct, and substantive—composing, as they do, the material of our teaching lives and those of our students'—and (2) because they perform a double function—providing grist for the twin mills of identity and assessment.

(Yet) Another beginning is both professional and personal, the practices we've developed with and through the portfolios that began populating writing classrooms and programs over two decades ago. For many, portfolios played a major role in the quest for a better way of representing student achievement—qua grades—than summing their grades on individual essays. As a selected body of plural performances narrated by the writer in a reflective text and located at a particular point in time, portfolios seemed (and still seem) a representation preferable to incremental measures that seem, by contrast, to represent our successes as teachers at least as much as a student's successes as a writer.¹

In other words, any representation is situated in multiple contexts. And: a single representation, regardless of how innocent it may seem, can also serve multiple intents and can also work to unintended effects. So here a small post-modern beginning—in the sense that I have abandoned a master narrative about representation of student work, calling instead upon what Richard Freed describes as a "proliferation of little narratives" or, in Clifford Geertz's terms, a "dialogue of local interpretations." Each interpretation presented above—

- 1. representation of student work by faculty;
- 2. representation by students of their own work in response to faculty;
- 3. representation of students by faculty in the currency of grades
- —is located within its own context, its own narrative. Making sense of an issue—in this case, representation of student work—requires multiple contexts,

fluidity, plurality. Or: in a postmodern world, what in earlier times might have regarded as fragmentation, indeterminacy, and heterogeneity are understood today as necessary virtues.

How we organize and represent the world: that too is the palimpsest of my title. In The Practice of Everyday Life, Michel de Certeau presents palimpsest as another kind of representation, focusing in his illustration on the map as type. Mapmaking itself, he says, is exemplar par excellence of representation: typically, maps seek through various representational devices to stabilize a fluid and dynamic space, which (admittedly) is a useful practice for those needing the direction maps provide. At the same time, of course, what goes unnoticed is that such a stable representation achieves this stability precisely through misrepresentation: a map fundamentally misrepresents the thing represented. Moreover, such representations, as the example of the Mercator map attests, are ubiquitous, and we are impervious. Seeking a radical design practice that would permit representation of multiplicity in maps of various kinds—located in perspectives oriented to territory, socioeconomic distribution, political conflicts, identifying symbolism, and the like—de Certeau found in palimpsest a new semiotic, a new means of showing the "imbricated strata" inherent in any space a map might mark. The space itself, according to de Certeau, is a palimpsest,

which only becomes obvious if and when the means of representation are likewise multiple.

Taking a cue from de Certeau, Ben Barton and Marthalee Barton have discussed layering as one "palimpsest" method for accomplishing a fuller representation. As they suggest, we might think in terms of multiply layered maps of the world through which we achieve a representation.2 As important, whenever we seek to "map" materially or metaphorically, we might go "multiple," as in the case of using x-rays—taken from various vantage points—to represent and thus assist in constructing a more accurate diagnosis.³ And of course, we might use such multiple mapping to represent student development and achievement. Recently, literary theorist Michael Davidson has talked about a

CHAPTER ONE I AM BORN

Whether I shall turn out to be the hero of my own life, or whether that station will be held by anybody else, these pages must show.

CHAPTER LXIII A VISITOR

[The Penultimate Chapter] What I have purposed to record is nearly finished; but there is yet an incident conspicuous in my memory, on which it often rests with delight, and without which one thread in the web I have spun would have a raveled end.

—David Copperfield Charles Dickens related concept, what he calls the role of *palimtext*—a specifically verbal application of palimpsest—in understanding any given work of an artist. He claims:

The palimtext is neither a genre nor an object, but a writing-in-process that may make use of any number of textual sources. As its name implies the palimtext retains vestiges of prior writings out of which it emerges. Or more accurately, it is the still-visible record of its responses to those earlier writings. (Davidson, 1995, p. 78)

According to Davidson, reading a text *in its own developmental context*—that is, reading it as a palimtext, much as we read the final draft of a student text in the context of earlier drafts of that essay or a portfolio of finished texts in the light of earlier work, including notes and peer reviews and teacher commentary—is a best way of reading precisely because of the contextual framework it privileges. As important, both of these—palimpsest and palimtext—speak to the shifting relationships between context and text: to make meaning, they both include context as a central element of text.

Context is what allows us to understand, to interpret, to make meaning. It allows us to answer the question, "Relative to what?" "Relative to the multiple contexts from which the writing emerged, to the contexts made visible and made an explicit part of the reading," we reply. Related to teaching and learning, the idea of context allows us to interpret, to represent, in many ways, simultaneously. As teachers we do this as part of daily practice, often tacitly: interpret what we intend in the context of past experiences, relative to what we hope. Students likewise:

In a first instance (perhaps a default instance), a student represents learning within the *context of time past and present*: her past, for instance, explaining what knowledge she has brought with her from previous experiences to current time as she explores what she seeks to know now.

Concurrently, in a second instance, she represents what she is learning within the *context of space*: learning in multiple contexts concurrently, she notes what she learns in one setting, a class or service learning setting, for example, at the same time that she includes what she is learning in another class.

And in a third instance, she can do both in the *context of the subordinate* (the context of what might be), while she "translates" what she is learning into the context of the future, one where she may explore questions she cannot answer now or, alternatively, in a context more focused, that of her professional aspirations.

The inclusion of these contexts in our teaching and learning as a kind of palimpsest makes meaning more complex, more sophisticated (if not always more immediately coherent) as it makes it more specific, less anonymous.

Never more so than when we ask students to represent their work and, thus of course, their selves when we ask them to compose portfolios.

These claims—among them that an assessment (like a portfolio) constructs that which it purports to measure—aren't new. What is new, at least in terms of portfolios, is the medium in which they are created. Print portfolios, in classrooms and programs, have enriched writing programs for nearly two decades (Belanoff & Dickson, 1991; Yancey & Weiser, 1997); electronic portfolios, as the recent *American Association for Higher Education* publication *Electronic Portfolios* (Cambridge) suggests, aim for analogous changes both in what and in how we learn and teach.

The student represented in each portfolio—print and digital—is not coidentical, however, principally because these spaces that students are invited to make their own offer fundamentally different intellectual and affective opportunities: that's my first claim.

Looking at some student portfolios in both media begins to tell us something about what intellectual work is possible within a portfolio: that's my second claim.

And if it's so that the intellectual work made possible differs according to medium, then a question we need to consider when we design our courses isn't so much, portfolios or not, but which kind of portfolio, which kind of composition, and why? That's my third claim.

There are several ways to think about the resemblances between and differences characterizing print portfolios and digital portfolios; as a focus, I want to consider briefly the arrangement permitted within each and as context for that, the rhetoric of ancient Greece. As we know, when preparing a speech, ancient rhetors were advised to think in terms of the five canons of rhetoric: invention, arrangement, style, memory, and delivery. When speech was the primary text for rhetoric, delivery received the attention we might expect: a rhetor's intonation, physical gestures, and general demeanor were understood to influence both construction and reception of text. When medium became pluralized to the *media* of speech and writing, however, delivery changed, maintaining viability in oral contexts, largely disappearing from those of print. For those interested in writing, delivery became (as did memory) an invisible canon. As Richard Lanham points out, however, with the addition of the digital to the set of media, delivery takes on a critical role. More specifically, it brings invention and arrangement into a new relationship with each other: *what you arrange*—

which becomes a function of the medium you choose—*is who you invent*. And: who you invent is who you represent. Or:

If arrangement constrains and shapes what we invent, and if what we invent leads to what it is that we represent, then what arrangements do we require, request, or recommend?

And how do we invite and review these arrangements?

Within this rhetorical context, I want to begin (again) by thinking about how we arrange materials in print portfolios. Typically, we have three options: (1) in a genre-based way, according to the documents of the course (essay one, argument two, and so forth); (2) in an outcomes-based way, according to what a student knows and can do (showing evidence of conceptual understanding and applications of concepts); and (3) in an intellectual framework, according to major questions or key terms of the course (using work samples to answer questions like "what is rhetoric?"). A fourth option is possible, as well: some hybrid combination of the earlier possibilities. Most often, students are asked to use a document- or genre-based approach that mirrors the sequence of assignments; the tendency is for students in their portfolio arrangement to replicate the (linear) curriculum and their always-forward processes of development almost hand-in-hand. In addition, the notebook often encasing the portfolio underscores this sense of development in its linear representation of materials. And while it is possible to read such a portfolio hypertextually (Allen, Frick, Sommers, & Yancey, 1997), the medium makes such a hypertextual reading process more difficult, not less, and as important, the design of the notebook itself acts to frame what appears as a linear development of the student. (And it's worth noting that this forward-progress development is precisely what we teachers hope for, so it too matches neatly with our desires.)

Likewise, digital portfolios can take one of three principal arrangements, and in this case, since the three offer very different rhetorical opportunities, it's worth pausing a moment to define them. The first, what we might call an *online assessment system*, is a portfolio-qua-collection housed in a digital environment where students store preselected pieces of work in a commercially or institutionally designed template. Florida State University's Career Center, for instance, offers such a portfolio template that is keyed to nine attributes, such as creativity and communication, organized into a matrix allowing students both to analyze their development as they progress through school and to represent their accomplishments. Each portfolio in the Florida State career model opens with the same interface and offers basically the same navigational path.

More ambitious (and disconcerting) in its own way is the OpenSource University of Minnesota "cradle-to-grave" model of electronic portfolio, created for employees and students at all UM campuses. This portfolio model offers the user the ability to "store and selectively share information in that portfolio with anyone, anywhere, at any time," a feature the designers call a "virtual identity" (Truer & Jensen, 2003, p. 34). To add "self-reported information" into the portfolio, much as in the Florida State model, the "UM Electronic Portfolio owner fills out text fields in a template that corresponds to a portfolio element" (Truer & Jensen, 2003, p. 35). There are (as of this printing) sixty-five such elements, each one of which (name of institution attended, degrees earned, and so on) permits the user to attach a file or link to a URL. Portfolio owners can also "create new elements to meet specific needs" (Truer & Jensen, 2003, p. 35). As the careful reader will note, however, not all information in this portfolio model is "self-reported." The UM "administrative system," through the software PeopleSoft, automatically displays system information in each owner's portfolio. This includes the user's name, university ID photo, contact information, demographic information, and education records. An essential part of the UM Electronic Portfolio design is that system information is displayed dynami-

cally. This means, first, that an owner cannot modify system-entered information, and, second, the portfolio always displays the most up-to-date information (Truer & Jensen, 2003, p. 36).

The opportunities for assessment in such a model are numerous, including advisors using it to help students in "place-

Whatever else learning may be, it is clearly a *disposition to form* structures.

—Berthoff qtd. in Tinberg, 2002, p. 5

ment and course selection"; instructors assessing "learning achievement"; and even the parents of students, with permission, checking to see how their student-children are progressing. (Interestingly, the parents are apparently checking their children's performance in the *single* course requirement represented in the prototypic model: *composition*.) The online assessment electronic portfolio, then, is portfolio-like in its capacity to collect exhibits and in its inclusion of opportunities for reflection. An online assessment system, however, is very un-portfolio-like, as we in composition studies have understood portfolios, in several ways, most notably in that each portfolio has *two* composers, (1) a student and (2) the system, with the system's override capability exerting greater authority.

A second model of digital portfolio, what we might call "print uploaded," is a version of portfolio that is identical in form to the print but that is distributed electronically. In this model, the reviewer typically links from an item on the

opening page to a second item—and back, much as one does in the online version of university phone books. This model is particularly useful for students morphing into the digital from the print. Lizette Piccello, a teacher at Virginia Beach City Schools, uses this approach to help students move from one medium (print) to the next (digital), advising students, first, to create a Table of Contents, and, second, to link each entry in the table to the appropriate exhibit—and back (L. Piccello, personal communication, July 22, 2003). While such a model doesn't fully exploit what digital environments make possible (the inclusion of images and pictures, links to other sites, and audio, color and photographs), such a portfolio is very like the print model in its collection, selection, and reflection and, at the same time, like the digital in its use of technology to cre-

[In designing my digital portfolio] I do realize that it seems strange for me to include a section entitled "Visual Communication" I decided ... for the following reasons. First, I eventually want to add more work from my Visual Communication course to the website. Much of the work I'd like to include is being finished up toward the end of the semester. I hope to eventually include it in the site. Second, I avoided the title of "Rhetoric" and used "Other" instead because I would like to leave space in that section available to include coursework I complete down the road in other classes.

—Cate Heatly

ate connections. To use another metaphor, it's a bit like the interlanguage that a speaker of a new language creates between the home language (print) and the target language (digital), including elements of each in a hybrid design.

A third digital portfolio, the one I'll focus on here, is what we might call "Web sensible," one that through text boxes, hyperlinking, visuals, audio texts, and design elements not only inhabits the digital space and is distributed electronically but also exploits the medium. In other words, this model may include print texts, but it will include as well images and visuals, internal links from one text to another, external links that provide multiple contexts, and commentary and connections to the world outside the immediate portfolio. For example, in

In some exhibits, you see the progression of a painting: a sketch, a study, another study, then a canvas partially painted ... re/ iterations until what appears as the culminating version.

a portfolio composed inside a course, a student might include links to process pieces as well as to completed drafts; links to a streaming video that welcomes the portfolio reader and narrates the opening; links to the class blog as well as to a group PowerPoint presentation. An audio file may narrate the PowerPoint presentation, and the PowerPoint may

also link to several Web pages that provide context for the concepts presented in the PowerPoint as well as links to an explanation of the kinds of links that are being used. The portfolio may also link to texts composed in other classes, some of which have separate reflections. The medium, then, is *media*; the links numerous and varied, connecting to multiple kinds of exhibits. Typically, as I have argued elsewhere (Yancey, 2004), the "Web-sensible" model offers at least two navigational paths, and it's not uncommon for a portfolio composer to suggest explicitly to readers ways to chart those paths. In this sense, the portfolio composer sounds much like the "Dear Reader" narrator of the Victorian, novel, each instructing the reader both how to *read* and how to *understand* the new genre:

Once you do get into this site, here are a few tips to help you with browsing. This site is divided into three parts: computers I work with, the hobbies I enjoy ... and my reputation. There are three ways to navigate this site. This homepage has all the links, with a short description of each neatly planned out. If you get

lost, or want to jump to something, use the side frames. But first you should go to the reflective essay. It describes all the works in this portfolio and has links to them inside of it. If you want to see something else, simply come back to the homepage.

Only final because nothing came afterward.

-Myka Vielstimmig

The most important part of this website is for you to leave it. You don't have to leave now, but there are some <u>really cool</u> <u>sites</u> out there.

* * *

-Matthew Yancey

The Web-sensible digital portfolio, then, offers a new kind of space for student work.

All of which allows me to suggest that these portfolios—the familiar model of print and the Web-sensible digital—are different in kind rather than degree and that their differences speak to the possibilities for student invention and representation.

As Jay Bolter and Richard Grusin explain in *Remediation*, and as Marshall McLuhan suggested before that, nearly every medium is re/mediated on another medium. In other words, consciously or otherwise, we create the new in

the context of the old and based on the model of the old. Television is commonly understood to be remediated on film, for example, and the Web is commonly understood to be remediated on magazines. Remediation can be back-ended as well, as we see in the most recent CNN interface on TV, which is quite explicitly remediated on the Web. In early September 2003, The Miami Herald announced its remediated iteration, also intentionally based on the Web (S. Apostle, e-mail, September 15, 2003). As Bolter and Grusin observe, "Whenever one medium seems to have convinced viewers of its immediacy, other media try to appropriate that convention" (Bolter & Grusin, 2000, p. 9). The new, then, repeats what came before, while at the same time remaking that which it models.⁶

Because the web portfolio is a newer medium, criteria for evaluating them will emerge as the medium itself matures. Generally, excellent web portfolios will be characterized by the extent of the web, the creativity of the links, the meaningful coherence of the whole, the quality of the individual sites, the clarity of the overall design (its logic), the degree to which the rationale for particular links is explicit and sensible, the critical judgment apparent in the selection of external sites, and the overall aesthetic quality of the portfolio. http//www.stolaf.edu/depts.cis

Portfolios are exercises in remediation. Like new media themselves, portfolios "emerge from within cultural contexts, and they re-fashion other media, which are embedded in the same or similar contexts" (Bolter & Grusin, p. 19). From this perspective, a print portfolio seems remediated on a book. Typically, it opens with a letter or table of contents, then proceeds in a linear fashion from beginning to end. It privileges a single story, typically an argument, or a narrative that argues; it highlights the story of development told by the writer; it culminates in a narrative of accomplishment. Like chapters in a book, the entries in the portfolio testify to this story line. Although the reader may move through the portfolio hypertextually, the linear arrangement of the book argues for a beginning-to-end reading. The reader of the portfolio is, more often than not, singular: the teacher. The portfolio is typically read in isolation, silently.⁷ The portfolio, in other words, is public in the small sense: within the classroom. Because of the print medium, which outside of a school culture culminates in a publication that is only revised if the number of copies sold is sufficient, the argument is frozen in a particular spot of time: a print portfolio is, typically, published only once. And once published, the story opens, progresses, and most importantly, concludes. In sum, the arrangement of the portfolio, modeled on a book, provides for the invention of a particular kind of student: one who can state a claim, synthesize material, lead a reader through a tale of progress and achievement, and conclude.

Still, a print portfolio *is* a re-mediation: as such, it offers more and other than a book. A book itself, for instance, is the product of many processes, most of which are invisible: what we tend to see in the finished product is the trace of the processes that produced it. In contrast, a print portfolio, particularly a classroom print portfolio, can intend to show process, proposes to show the pulleys and galleys that went into the final publication as well as the final publication itself. Much like Coosje Van Bruggen's *Frank O. Gehry's Guggenheim Museum Bilbao*, which records in reiterative detail the museum's "conception through design and construction" (1997), a print portfolio often shows us the *how* of development as well as the achievements of it. In the terms of literary theorist Davidson, what a print portfolio offers, in this way of process and product, is a palimtext, the *still-visible record of its responses to earlier writings* (1992, p. 78).

As students compose the print portfolio, showing both the making and the made, they engage in activities that the authors of The Myth of the Paperless Office identify as knowledge making. The product of research into the activities of "knowledge workers," The Myth of the Paperless Office outlines the myriad processes of gathering, storing, and sorting of documents that writers use to "construct and organize thoughts" (Sellen & Harper, 2001, p. 61), processes that, the authors claim, rely quite explicitly on the presences and arrangement of print documents. Writers, for example, keep information available as "contextual cues to remind them of where they were in the space of ideas" (Sellen & Harper, 2001, p. 61, emphasis added). The "laying out of the paper reports," and the "time bringing together and organizing reports for themselves or other people" are two critical activities for making knowledge. Another is the following: "... act of flicking through these documents, bringing to mind what was important to them and why they were important. The main implication of all this is that paper is important because it makes information accessible and tangible and gives it a persistent presence." (Sellen & Harper, 2001, p. 63) The collection of the documents and the arrangement of them, as with portfolios, permit the creation of knowledge needed in an information age. And the pattern, Abigail Sellen and Richard Harper claim, is consistent across a diversity of workplaces:

Since the time of our study, we have noticed that when we look at most workplaces, it is easy to see who is engaged in intensive knowledge work: it is the person whose desk is strewn with paper. Find a desk littered with stacks of reports, written notes, and every inch of space used up, and you will find someone creating a document, planning work, or doing some other sort of deeply reflective activity. (Sellen &

Harper, 2001, p. 72)

Portfolios, of course, are exercises in *deeply reflective activity*. More generally, print portfolios, by virtue of the medium, ask students to engage in processes leading to knowledge and processes associated with reflective thinking.

Not least, the coherence achieved in the print portfolio is a verbal coherence, as is the means of representation. Put in terms of Howard Gardner's multiple intelligences, print portfolios are more singular than plural (1993).⁸ Digital portfolios, like their print cousins, are exercises in re-mediation; they can remediate in one of two ways. As we saw earlier, some electronic portfolios, even though they are created in a digital environment, remediate a print model. This portfolio is the academic analogue to the print catalogue, a genre that is written for the page, not the screen, and whose digitality serves two purposes: easier storage, quicker dissemination. As noted elsewhere, it is one version of print uploaded (Wickliffe & Yancey, 2001). Its arrangement is identical to that of a print model: regardless of the fact that it is housed in the digital environment, it does not participate in the environment, and the student resembles her print cousin. She is the invention of print.

But other digital portfolios enact another re-mediation, this one less print portfolio than digital gallery. Like a gallery, a digital portfolio has a central entry point, which for portfolios is typically called a portal. Like a gallery, the digital portfolio includes verbal text and image and audio text, using the one modality to explain and juxtapose the others. Like a gallery, the digital portfolio makes multiple contexts a part of the display, which in the case of portfolios means linking internally to the student's own work, linking externally to multiple worlds outside the student's own purview to show multiple and complex relationships. The readership for a digital portfolio is, likewise, multiple, as are the ways of processing the portfolio. Often, there is an implied linear path, but that may be interrupted by peripheral links that themselves take one to the nooks and crannies of the digital portfolio gallery. In the terms of linguistics, digital portfolios can right branch, and they right branch again; they left branch, and they left branch again. Cumulatively and literally, the right and left branches produce a textured literacy that is different in kind than the thesis-and-support literacy of the print model. Depth of thought is created and demonstrated through multiple contexts: evoked verbally, evoked visually, evoked through internal links, evoked through external links. The arrangement of *this* portfolio, modeled on the gallery, thus provides for the invention of a different particular kind of student: one who can make multiple connections and who creates depth through multiplicity and elaboration, who can work in visual and verbal and aural modalities, who can offer a reader multiple narratives extending ever

outward. It is the electronic text described by Richard Lanham in *The Electronic Word*: "No 'final cut' means no conventional endings, or beginnings or middles either. Interactive literary texts will ... require some basic non-Aristotelian adjustments" (Lanham, 1993, p. 7).

If, then, the print portfolio is Aristotelian, the digital is post-Aristotelian. The digital portfolio seems gallery-like both within a single course, as student portfolios span temporal, spatial, and intellectual contexts, and beyond the single course, as students develop portfolios that span courses, that chart development over longer time, that from semester to semester provide a continuing place for students to compose. Indeed, the digital portfolio, located in multiple and multiple kinds of relationships, is a digital composition: a single, unified text through which various fragments rational and intuitive are related to each other, directly, associatively. Moreover, as students move from one curricular experience to another—from first-year composition to service learning assignment to the introduction to the major to the internship to the junior seminar to the capstone—they find in the portfolio a continuing site where experiences can be planned, articulated, interrogated, reflected upon, made sense of. Much as we see in a gallery, in the digital portfolio students continue a re/iteration project. Students create multiple iterations of the portfolio, returning to the original, carrying forward some prose and reworking it, creating new images, raising new questions. Located both within the curriculum writ large and yet outside and between it—a key distinction I'll return to—the digital portfolio is the gallery canvas on which the student composes identity between, as it were, electronic drafts. And much as in a gallery, the various drafts are explained, interpreted, represented chronologically and juxtapositionally more than in a master narrative of progress uninterrupted; that is, a student may well plot a linear narrative of progress within this medium, but the medium itself invites other narratives, other arrangements, and thus other selves.

Like a print portfolio, the digital includes traces of earlier thinking: palimtext and palimpsest both. The palimpsest of multiple representations occurs through linking, which itself functions to provide multiple layers. Digital portfolios, because they are "spatial," inhabit three dimensions. They are quite literally and materially another *space of ideas*. Like maps, each link takes the viewer to something not quite captured-and thus the value of multiple layering.

Because you can link externally as well as internally and because those links are material, you have more contexts you can link to, more strata you can layer, more you to invent,

more invention to represent.

Digital portfolios, then, precisely because they are digital, privilege perspective and multiplicity and a representation of palimpsest. Or: that is the hope.

Which is not always realized, of course. As in the case of print, students may weave a narrative that is not supported by the "textual evidence." Students may not write well for either page or screen, and digital tends to require both. Students may produce links that literally don't link, or that don't create a substantial or significant relationship between the linked items. (And in fact, the linking may be the point on which the digital hinges: who decides if a link "works"? Or why?) The task of design may be overwhelming.

More generally, however, what this list of concerns demonstrates is that the medium is suggestive rather than deterministic. The virtues of the digital outlined here are more potential than realized, but this articulation demonstrates potential for a new identity, one not fully determined by medium, but possible within and through it.

Finally, I want to borrow from humanist geography to think in another way about digital portfolios. The concept of weaving is instructive here. The word itself derives from the Latin *texere*, meaning "to weave," which came to mean the thing woven (textile) and the feel of the weave (texture). But it also refers to a "weave" of an organized arrangement of words or other intangible things (context). A textile is created by bringing together many threads and, as such, represents ordered complexity. Language, too, is ordered complexity, and when we understand a word by its context we are discerning a pattern and filling in a gap, sewing together what is torn, extracting meaning not only from what is said but from the relationships this act of saying sets up with other statements, conditions, events, and situations (Adams, Hoelscher, & Till, 2001, p. viii).

Knowledge, in this metaphor, is created through relationships, which provide the center of the digital portfolio, the pattern of the intellectual weave. We see such complexity valued in models like that at St. Olaf College, where students create digital portfolios to represent their individual majors. It's knowledge as a function of the weaving of *ordered complexity*.

Multiple modes of coherence are possible: verbal, contextual, visual. Like the print portfolio, the digital is produced through the processes outlined in *Myths of the Paperless Office*, but those processes may be managed quite differently: how so (as story boarding, or as organic development of ideas) is an open question. They include design, of course: who will teach design and how, and how might this change what we do in the teaching of writing? Not least, what is the relationship of (this kind of) digital composition to the more familiar print composition that has defined the field for the last fifty years?

And from yet another vantage point, there are curricular issues associated with the digital that haven't surfaced with print portfolios or other forms of progressive pedagogy. As Lanham points out in *The Electronic Word*, the electronic medium provides a new place for students to work:

Electronic text creates not only a new writing space but a new educational space as well. Not only the humanities curriculum, but school and university structures, administrative and physical, are affected at every point, as of course is the whole cultural repository and information system we call a library. (Lanham, 1993, p. xii)

Perhaps so, but if so, this new medium of portfolio may need to find a new curricular place within—but probably not inside of—the curriculum. The distinction is critical. Inside the curriculum is the place where students stay inside. In the aggregate, inside the curriculum is inside each of the disparate courses that compose a student's course of study. Inside the curriculum is the minimal portfolio submission. Because of institution's exigency, because of an exit requirement, let's say, or a rising junior hurdle, students put a portfolio together, submit it, and hope it suffices. Digitally, this portfolio takes the form of a "dynamically delivered, web-interfaced" system; like a standardized test, it asks that students fill up the predigested slots and comment reflectively on how satisfying it felt. The new place cited by Lanham is the digital portfolio created within and beyond the curriculum, and this place is likewise a new curricular place. If the curriculum is one text and the extracurriculum another, this portfolio is intertextually curricular, itself an exercise in palimpsest. It asks students to write for the screen as well as for the page; to create relationships between and among linked material, as between and among experiences; to update it as a habit of mind; and to represent learning in part by exploring the connections the digital environment invites.

Or: so digital portfolios are developing at several places across the country. As they do, it behooves us to be intentional, to understand that these portfolios, like their print cousins, bring with them opportunities and challenges.

Among them:

Where will students do this work—and why? Will they, like students at LaGuardia Community College, complete portfolio assignments in several "portfolio courses" as part of their graduation requirements? Will students periodically work on their digital portfolios as part of the advising process, as at Alverno College? Will students complete portfolios as a capstone experience in a self-designed major, as at St. Olaf? Will students do all of the above?

As program portfolios are developed, will they be "thematized" as artifacts of local culture? The LaGuardia model, for instance, invites students to represent both their home culture as well as their school culture, which makes particular sense given that a majority of students (and of faculty as well) are immigrants; they speak in two cultures already; the portfolio model welcomes that. The Clemson general education model may well include the theme of the "higher seminary of learning," given that this is part of its mission, and other initiatives (like an orientation reading program) are being built around that idea, too.

Will students work on their portfolios in some new physical space, a studio of some kind, as at Clemson University?⁹

What effects will these portfolios exert? Embedded in an interdisciplinary yearlong first-year seminar at Portland State, digital portfolios are cited as one reason the retention rate, from first year to second, has more than doubled in the last four years, from 30+% to 67%: is the power of connecting, within the intimate context of a yearlong themed seminar, this powerful?¹⁰

What are the exhibits that will most help students? Are they the same as we see in print? Different? What is the role that the concept and processes of composition will play in these portfolios, especially if we define the digital portfolio not as a templated drag-and-drop online assessment, *but as a new kind of composition*?

What is the relationship between intellectual connections and digital linking? Does the *kind* of linking matter? There are many ways to categorize links, from the simple dichotomy of internal and external to the kinds of classification offered by Scott DeWitt and Kip Strasma and by Emily Golson. Does one kind of link lead to greater learning? Does one set of links, either of one special type or of a certain mix, characterize more sophisticated learning?

What will students tell us about the learning in digital portfolios?¹¹

What will teachers need to learn in order to teach the digital portfolio? How can this learning be supported?

If digital portfolios call for a new definition of composition, how will that affect graduate programs? How will that affect the labor of composition, both in terms of our "work" and in terms of the qualifications for those who teach composition?

How will we read digital portfolios? As we navigate these texts, at what point is the arrangement we-as-readers plot sufficiently different one person to the next that we are creating different texts? When (if ever)/ Is such difference a problem?¹²

What are the values associated with digital portfolios? Will the values we associate with print portfolio suffice, will we need new criteria, or will the criteria themselves be remediated?

How/Will the digital portfolio change teaching, learning, and the academy itself? Will we continue to move to a visual rhetoric only, or will we, in mainstream composition classes, begin to incorporate media, not for the sake of teaching writing but for the sake of teaching media? As important, what role, if any, will we teachers of composition play?

The answer to the previous question depends in part on the answer to this: who is the digital composer, and where inside/outside the curriculum does she or he learn this composing?

Digital portfolios operate on the "felt edge" (R. Bass, personal communication, June 7, 1997) between technology and portfolio, in a space that could be productive, that, alternatively, could be Foucaultian, given the impulse of the portfolio to collect, the impulse of technology to collect and systematize. How do we navigate this felt edge without harming others, without getting hurt ourselves?

When the blackbird flew out of sight It marked the edge Of one of many circles

Wallace Stevens' poem "Thirteen Ways of Looking at a Blackbird," a highly associative poem, speaks to what and how we know. The blackbird's mark[ing] the edge/ Of one of many circles suggests a plurality of possibility. "Each sense of the blackbird defines an intelligible circle, the 'meaning' of which exists only until the blackbird crosses its horizon" (Leggett, 2000). In other words, the existence of the world isn't in question, only an existence outside the perspective of the perceiver. Digital portfolios seek to represent exactly this-the perspective of the perceiver-over time, in space, aesthetically, intuitively, intellectually. These representations are themselves practices, which, as Todd May reminds us, are constitutive in ways we don't always appreciate. Much like Donald Schon and Lee Schulman, May suggests that what we know and what we hold dear are created through practice. He also understands practice as social and thus ethical. Like the rhetoricians of ancient Greece, May looks to language—to that ordered complexity—for the means of helping people move beyond information to understanding, possibly to wisdom. Through practice, we compose identity, task by rhetorical task, moment by reflective moment.

Identity is itself a composition. The relationship between identity and the digital portfolio is reciprocal, hence the importance of both print and digital. Enabling different arrangements, they permit different inventions, invite different representations. We understand fairly well the value of the one, print, but we are only beginning to chart the potential of the digital. For those of us who

teach and learn composition, charting this potential may define us even more than it will define our students, and for all of us, we should, in Cindy Selfe's terms, pay attention.

Our future will be shaped as we do.

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NOTES

- 1. Of course, as I suggest later in the chapter, a digital portfolio doesn't guarantee that this won't happen, either.
- 2. It's interesting that the syntax cues us as to the issue: is a fuller representation achieved, or do we achieve a fuller representation?
- 3. As the example of the x-rays for diagnosis makes clear, the issue of how we represent is not merely a theoretical point.
- 4. For a discussion of this point regarding delivery, see Martin Jacobi's "Delivery: A Definition and History," in Kathleen Blake Yancey (Ed.) (2006), *Delivering College Composition*, Heinemann.
- 5. My argument here is similar to Richard Lanham's in that I see the potential of digital technology to radically alter the delivery of education as well as its substance. As I explain later, the digital portfolio is one specific site for such education.
- 6. The idea that we refashion what came before is not, of course, limited to technology: see, for example, Harold Bloom's *The Anxiety of Influence* (1985), which traces the influence of earlier canonical poets on later ones, as well as the recent historical scholarship on Adams and Jefferson. Interestingly, as I suggest regarding technology, this influence often back-ends as well, so that it's more in the nature of a dialogue than patriarchal influence. See, for example, the recent MOMA exhibit on Picasso and Matisse, which argues a kind of call-and-response relationship between the two artists, much as was the case with Adams and Jefferson.

- 7. Often portfolios are read communally, for programmatic purposes, in the case of high-stakes assessment, and occasionally for other purposes, i.e., principally for formal and summative assessment. This is different than having a portfolio on the Web that invites responses outside of the sphere of the classroom and the teacher and that is intended to speak to a myriad of readers, as Joe Harris suggested in his interview for "New Media Live" (Taylor & Halbritter, 2003).
- 8. As Bill Condon notes, the verbal coherence, (merely) a single intelligence in Howard Gardner's term, is an intelligence worth exercising.
- 9. Clemson's Class of 1941 Studio for Student Communication (http://www.clemson.edu/1941studio) provides a single curricular and physical space for work in communication across the curriculum, including continuing and cumulative portfolio work.
- 10. T. Rhodes, personal communication, June 2003.
- 11. At least two studies across the country have explored student reaction to the creation of digital portfolios, one produced by the University of Washington, which tracked what students learned in freshman interest groups in fall 2002; and another produced by Clemson University in 2002, which interviewed students about what they had learned across the curriculum and what they saw as the value of a digital portfolio.
- 12. As Bill Condon suggested when he reviewed this manuscript in July 2003, all readings are different: "I'd raise the specter of Fish and ask when two readers are not experiencing different texts." Point taken, and one I've addressed about print in print (e.g., Reflection in the Writing Classroom). At the same time, it seems to me, but certainly remains to be documented, that readings of print portfolios tend to differ by degree, while those of the Web-sensible can (and will) differ by kind, given the variety of navigational possibilities they offer. Just as the arrangement possible for a writer provides for invention of self, so too the arrangement of texts provides for the invention of the digital composition.

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