

## Down the Yellow Chip Road

### *Hypertext Portfolios in Oz*<sup>1</sup>

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#### High Winds Predicted

I WAS NEVER QUITE SURE WHY I IDENTIFIED MY COLLEAGUE, BOB, FROM THE computer science department with the Tin Man from *The Wizard of Oz*. Sure, he often had his hands in a computer's innards just as his alloy counterpart seemed condemned to live inside that metal body. But Bob's head did not come to a point, he was certainly far from rusty when it came to teaching computer science, and this gentle professor was not lacking in heart. This identification only became clear when I received the notice from the academic dean announcing, "Professor Robert Adams will be available to assist with technology concerns for classes taught in the new Macintosh Classroom." This short memo whipped up the tornado that eventually would carry my creative writing students and me from our safe Paperland to the yellow chip road of electronic portfolios. In this chapter, you will skip down that road with Dorothy to examine writing produced by students in one college creative writing course and pick up the pebbles along the way, turning them over to discover how our experimentation with hypertextualizing portfolios resulted in collections far different from traditional print and word processed texts. Along the way, you will also meet a few witches, other travelers, and several guide figures, and you will receive both warning and advice about the journey.

Research on hypertext suggests that the software may be used in composition classes for student essay and research writing, and that novels like

Ulysses—read in hypertext—affect student learning in literature classes. Hypertext’s ability to allow readers to switch from a primary text to footnotes and annotations gives students background on literary allusions; it also allows student writers to include bits of research for readers desiring such data. But in considering its use for a creative writing class, I was intrigued most by McDaid’s prediction that in hypertext “we have an electronic medium that, in the hands of the poets, can be a precise and powerful technology that replaces passive viewing with active involvement, and that provides a means to achieve the connectivity and coherence leached from modern culture by the primitive hybrid fusion of print and electronics” (McDaid 1991, 217). How would “hypertextualizing” creative writing break through the boundaries imposed by sequential and essentially linear forms of writing and bring us into the process of composing and reading in associative ways? What would hyper-writing do to traditional genres and the roles of reader and writer? And finally, how would the unpredictability of hypertextualizing entire portfolios affect student empowerment? Now with my colleague’s technological expertise available, we were willing to risk leaving the farm—which had taken on a colorless and dusty appearance of late anyway.

### Down on the Farm

Our creative writing class, offered mainly to sophomores, juniors, and seniors, attracted a varied population of fifteen students, some dedicated writers searching for improvement and an audience, some education majors fulfilling a requirement, and some students “getting English outta the way.” During the first quarter of this semester-long course, students assembled traditional print portfolios showcasing their poetry, fiction, drama, and other writing along with their goals and metacognitive letters. Students drafted mainly in word processing, revised, printed, and assembled their writing in binders. Short fiction and drama selections were typically linear with beginnings, middles, and endings intact. Free verse and structured poetry varied but generally followed expected forms for the genre. Metacognitive “gateway” letters that introduced portfolio texts and reflected upon the writing process suggested that in some cases individual creations were arranged to syncopate short and long or serious and fanciful writings for the reader’s sake; other students sequenced pieces from fair to best. Most, however, ignored any particular order. Students submitted their portfolios and met with me to evaluate how well they had met my portfolio require-

ments (which included a page count and specifics like “at least two poems, one short fiction”) and how well they had accomplished their own writing goals. Together, we had safely minded the hogs and fed the chickens, but there was little doubt that ol’ conventionally-minded Auntie Em was still determining the rules of what makes up a short story, what the elements of poetry are, and where the fences around the sty and coop belong.

### Calm Before the Storm

Just after the midterm, I began removing the fence posts by introducing the hypertext portfolio project, explaining that while we would attempt to keep the writing foremost, we would use the technology as a means of encouraging more creative possibilities. Toto had indeed bitten Miss Gulch and Dorothy was on her way to Oz. Before Bob’s initial visit, the students and I analyzed what we had always done and taken for granted: writing and reading in the linear tradition. We would run away from Kansas, but before going, we would take note of the fences, the doors, and the demarcations that might lead us to wonder along with Frost, “What I was walling in or walling out.”

We examined how hyper-writing differed from word processing and how assembling hypertext portfolios would entail different concerns. Although Kerstin Severinson Eklundh noted that traditional texts are not really produced in strict linear fashion because of recursive composing and revising techniques, clearly the writer’s intent is that such writing be read in a certain order; the students’ prior writing supported this linearity in which there is a clear first page and a clear last. Print or word processed portfolios also anticipate that pieces will be read in their entirety and that all pieces will be read. 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. Finally, the goal of word processing is to produce a print document even though the writing may be read on screen. Hyper-writing, 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.

Hypertext writing can be printed, but this works about as well as printing out storyboards for television commercials; it may help us see the basics, the blueprint, but it is not hypertext, itself. Because of the multiple ways of moving from piece to piece, and because the screen's physical attributes are part of the creation, hypertext "exists and can exist only online in computer" (Slatin 1989, 870).

Beginning with hypermedia examples already familiar to most in the class, we discussed interactive museum exhibits where visitors make touch screen selections to get background on various artifacts or historical events. We considered CD-ROM encyclopedias that offer, for example, a click on a button to view a video clip of the Hindenburg explosion, another button to find out more about how the Hindenburg was built, and yet another button-linking to an "interview" with the inventor Ferdinand von Zeppelin. At any point, readers may also link to cross-referenced articles on famous inventors, German history, aerodynamics, fiction and poetry centering on air travel, famous historical explosions, or even hot air balloons. Some students were also aware of the hypermedia nature of the World Wide Web that allowed them to "surf" to various locations by clicking on "hot words" highlighted in the text.

Naturally, students asked what hypertext offers them as writers. And one of the most alluring answers is hypertext's siren call to free the writer and reader to imitate the associative connections natural to the workings of the human brain. "The purpose of computers," according to hypertext inventor Theodor Holm Nelson "is human freedom" (Nelson 1992, 44). In creating a term to describe this new writing, Nelson selected hyper because it "connotes extension and generality" (Nelson 1992, 49). I reminded students, too, that hypertext offered more choices to the reader as well as to the writer.

"The grammar of the screen" (Selfe 1989) is significantly different in hypertext than in word processing. The reader may manipulate screens to be scrolled or to be "flipped" to another screen by clicking the mouse on a linking space called a "button." Despite the multifarious nature of hypertext, however, only one screen appears visible on the monitor at a time. The button may actually appear as a rectangular button, as a picture, or as a "hot" (emboldened) word. This of course, contrasts with scrolling "pages" in word processing or turning paper pages, our orientations to writing prior to hypertext. Scrolling and page-turning encourage sequential movement through texts whereas hypertext's button-linking may support more varied, associative, and haphazard processes.

HyperCard 2.1 was the software that would whisk us into Oz. It allows the user to enter text on screens that take on the appearance of notebook pages, file folders, book pages, cards, or bordered windows. Like most hypertext tools, it also offers various other choices: pieces could be read backwards; they could be interrupted midroad allowing the reader to link to other pieces or to the metacognitive essay; different writings could be associatively linked by “hot” words; readers could select from a variety of endings; graphics and sound bits could augment text; and readers could be allowed to add their own writing to text fields. With multiple entryways into the yellow chip road and multiple ways home, we felt a sense of exhilaration. It was daunting, too, being faced with so many choices, truly what Johnson-Eilola called “a mix of vertigo and euphoria” (Johnson-Eilola 1994, 195) compared with the more stable and inflexible nature of print or word processing.

### Twister in Sight

Our first task was to establish the linking metaphors that would make the boundaries of space between pieces disappear (Goldberg 1986). I suggested envisioning metaphorical structures as analogous to the film version of *The Wizard of Oz*. Dorothy is lifted out of Kansas by a tornado, a button-link. We discover near the end of the film that the Wizard also came to Oz from Kansas but by a different button, a hot air balloon. Dorothy alighted in Munchkinland; the Wizard plopped down in Emerald City. And so hypertext readers may enter the same portfolio in various ways and in various places. Regardless of the way in, upon arriving in hypertext, the reader is likely to exclaim, “I have a feeling we are not in Kansas anymore, Toto.” Eventually, the road through hypertextualized pieces leads the reader to the crossroads where she is directed, “That way is very nice, or you could go this way. Of course, people do go both ways.” At any moment, a witch may pop in from a rooftop, or a scarecrow who suspiciously resembles the farmhand back home may appear. One might enter a field of poppies where the road disappears altogether or be flown via winged monkeys to a dungeon where Auntie Em from Kansas shows up in a crystal ball. To top it all off, Dorothy discovers that she can click her heels (mouse?) at any time, whisper “There’s no place like home,” and return to the farm (which in hypermedia is “Home,” the stack of origination).

After exhausting the metaphor, we invited Professor Adams into our class for his introduction to HyperCard seven weeks before the portfolios were

due. Bob spent three classes showing students how to create screens of text and buttons, how to incorporate graphics, scan in sound and visual bits, and import text from word processed files. As follow-up to these sessions, Bob stopped by weekly to answer student questions and made himself available during office hours; the Tin Man did indeed have heart.

### Following the Yellow Brick Road: Witches, Wing'd Monkeys, and Rust

During the last four weeks of the semester, students continued to work on creating pieces for their portfolios: drafting poems, short stories, scenes, and other writing as well as visiting one-to-one with me, with writing lab tutors, and with their writing groups to revise and develop voice, style, metaphor, variety and the like in their writing. We experienced the usual technological horrors. First, of course, we lost text only to find it playing hide-and-seek behind another part of the hypertext screen. Another time, one student's attempt to scan dog bark sounds into her exposé of the fire hydrant that bit dogs (after being possessed by the spirit of a dead mailman) sounded more like a duck than a dog. And when Anna's hot word button "Stomach" linked incorrectly to her poem about the gastronomic delights in a street scene of Mexico City, students ribbed her relentlessly, "Anna, how's that belly button?"<sup>2</sup>

Of far greater concern to me than the technological problems, however, was student persistence in working with the software linearly. Initial student reaction did not confirm Dryden's belief that the "implications of hypertext are more likely to perplex doggedly Gutenberg text-based scholars and teachers than to bother contemporary teenagers who have grown up with computerized choose-your-own-adventure video games" (Dryden 1994, 283-284). Indeed, students seemed stuck into old writing habits, much like the Tin Man appeared stock-still and rusted with his ax raised. Most began by creating button-links from piece to piece so that their portfolios would be nearly the same as if they were in print. By making these single buttons, student writers did not even allow their readers to return to the previous screen. In fact, using hypertext this way is even less flexible than print or word processing which at least allows readers to turn back to previous pages or to scroll back to earlier sections. I had not anticipated this allegiance to manipulating the text in intractable ways. Students seemed ensnared by what Bowden suggested are the limits of text-as-container in which writers corral their space and text, keeping out interference, as compared to text-

as-process. Only Josh, a computer science major, and Cara, an extroverted adventurer, began from the outset to use multiple links in their portfolios.

### Oil Can to the Rescue

Early in the process, Josh demonstrated his understanding of the need to employ underlying metaphors to assist the reader by creating a house metaphor linking his portfolio parts and selected appropriate writings. The "House Tour" button led to multiple ways of reading. Inside the "house" the reader discovered a floor plan allowing button-links to a bedroom, study, living room, hall, dining room, kitchen, garage, and even bathroom. The pieces available through each of these rooms fit his metaphor. The garage, for example, linked to three pieces: a poem, "The Sidewalk"; a haiku, "Garbage"; and another short piece, "Liver." The button "Metacognitive" took the reader to Josh's explanation that liver, in his opinion and in his poem, was just so much waste material and therefore deserved to be placed in the trash in the garage. He also explained that the "garage" writings attempted to satisfy his goal to write more concretely, and so he had put these texts in the "room" that had a concrete foundation. It would seem that in Josh's case, hypertextualizing his individual pieces brought him to "focus on connectedness," a trait Black et al. (1994b) say Carol Gilligan finds inherent in the female voice. The writing in Josh's earlier print portfolio had been less imaginative, much more literal, and without the connections and transitions to each other that were evident in his hyper-portfolio. Because of his computer science bent, he was immediately comfortable with HyperCard, more comfortable than he had been, perhaps, with the notion of writing "creatively." Josh's writing was liberated, it seems, by the technology. Using figurative language came easily once he realized the metaphorical structures necessary for supporting the technology. This is most evident in entering the "Hall" where we meet "The Accident," a short story that Josh explained is placed there because "the main character in the story is in a transitional phase of his life and must make choices just as a person must do when traveling down a hall faced with choices of which room to enter." In Josh's case, at least, hypertext made him capable of more abstract, complex thinking and composing which resulted in a more concrete, creative piece of writing.

Cara, recently returned from Japan and still under the spell of living abroad, used a journey motif to unite her portfolio pieces. As the reader enters the portfolio, she is handed a trip itinerary with open dates signaling

that the traveler-reader will select sequence. From the “airport,” we may fly to several locations. Multiple buttons also allow us to select an “in-flight movie,” a “newspaper,” or simply to relax with “headphones.” Flying to Toronto, we land in Cara’s poem, “Rain,” after being cautioned to take our umbrellas off the plane with us by one of many mask characters, presumably a flight attendant. By “mask characters” I mean those created by writers to move readers from piece to piece within portfolios, thus becoming part of a bantam fiction with the sole purpose of making transitions. Although we did not discuss beforehand such characters, several students created these masks out of their perceived reader need for an escort through the electronic portfolio. Most fascinating in Cara’s approach is the layers of fictions: the flight to Toronto is part of the airport fiction uniting portfolio pieces; this is overlaid by one of many mask characters cautioning us about our umbrellas. Under this is layered “Rain,” a poem in its own right, but also an extension of the made-world of rainy Toronto. “Rain” is followed by another screen through which the tour guide, another mask character whose voice is evident throughout the portfolio, asks, “How was Canada, eh? It’s a great place, even in the rain!” and then suggests we consider returning to the airport to catch the next flight to Rio De Janeiro or Sydney. The traveler-reader may view the in-flight movie on any of the flights; halfway through the “Exciting Adventures of Doug and Joanna,” however, the flight attendant interrupts to inform us, “Oh, sorry, passengers, but we have an unscheduled landing and will be unable to finish our feature film for today. Please fasten your seat belts and observe the captain’s warning lights.” Cara never allows the reader to come to closure on the “movie.” There is no ending. Her fiction violates the basic rules of the genre and so becomes, perhaps, more typical of postmodern writing and modern culture than the traditional forms of storytelling.

Yet, like successful disjunctive essays, Cara’s overall portfolio gives a sense of wholeness despite the lack of linear connectedness. Her use of circuitous routes and a flexible interchange of different voices and fictions, along with her focus on connectedness and willingness to share text choices with the reader seem to coordinate with feminist theory. Cara found that “the electronic portfolio allowed me greater freedom to explore breaking the rules, to play, but to play in a very creative and meaningful way with my writing.” In her student profile written the first day of class, Cara explained, “I’ve just returned from Japan. I’ve been out of school a year and I am really going to have problems buckling down to the structure. It is very difficult for me to be back in the states.” One of the bonuses of the hypertext portfolio



was that it encouraged the situated pedagogy suggested by Freire in which learning is placed in context with “students’ cultures—their literacy, their themes, their present cognitive and affective levels, their aspirations, their daily lives” (Shor 1987, 24). The flexibility of hypertext allowed Cara to indulge her wanderlust spirit and recent travels.

### On to the Emerald City: Searching for Brain, Heart, and Courage

As Josh and Cara shared their portfolios in process, they themselves served as button-links to the multitude of options writers might select; other students became dissatisfied with linear linking and came to see learning and writing as a social act (Yancey 1994c) and interaction. Jack decided to link his pieces by forming the portfolio into a rock and roll tour. Readers could join the rock group *Smashing Pumpkins* that linked to Jack’s poem, “Tornado,” or button-link *Nirvana* connecting to his idyllic pastoral poem, “Snow Capped Portrait.” The reader found Jack’s portfolio goals by clicking on “The Who,” and his metacognitive clip explained that “who, what, where, when, why, and how were all contained in the goals of the portfolio.” Although Jack’s portfolio, without mask characters and without as many button-links, may not be considered as multifaceted as Cara’s, it made use of his own culture: one rich in hypermedia with MTV videos and rock concerts embedded with light shows, screen projections, and singer-masks alongside the music itself.

Hypertext’s ability to act somewhat like footnotes do in print, allowing the reader to leap to explanatory material and adjacent texts, supported another student’s multicultural writing needs. Anna, a bilingual member of the class, inserted “hot” word buttons on Spanish phrases for readers who required English translation rather than “having to include the English on the same page that gives into the idea that English is the only important language in America and that I have to apologize somehow for writing in Spanish, even in this piece taking place in Mexico.” The English-only reader coming upon “Que Dios te bendiga” could find the translation without the text being corrupted.

A few weeks after landing in Oz and being exposed to the new “normalcy” of associative linking, students took greater risks experimenting with hypertext’s nonlinear capabilities, particularly those that required a heightened sense of reader. Tom’s short story stops before ending and directs the reader, “Go ahead! You decide the ending. Will everything work out? How? Do you want to introduce another character or perform *deus ex*

*machina* ? Write your own ending for this story in the empty field given on this page.” Again with a nod to postmodern and feminist sensibilities, Becka further blurred the lines between reader and writer by allowing the reader not only to jump randomly from piece to piece midstream in texts and at the end but also to go backwards. Like McDaid, she determined there would be no one right way to read the text. Buttons allowing returns to previous screens let “the reader get back if she missed something.” As an admitted recursive reader, Becka offered this flexibility. Her poem, “Alone in the Dark,” linked in ways permitting the reader to view stanzas in any order. “I hoped reading stanzas in haphazard order would allow for a more abstract reading. I wrote those stanzas so that two different readings could result—one that built in intensity, and one that came together only in reading the final stanza (regardless of which one that would be). I think it worked.”

Writers not only gave sequencing choices to their readers but also allowed readers to make shifts in tone and mood. Laurie’s portfolio opened to the journal entries of a clinically paranoid woman in “Four Days of Paranoid Delusions.” The entries bring the reader deeper and deeper into the mind of a seriously deranged character whose chantings grow increasingly dark along with her regressing mental state. “I knew that some of my portfolio was quite dark,” Laurie explained, “so I offered ‘save yourself’ buttons so readers could leap and get to humorous pieces.” Her buttons linked to “Deathscopes,” ludicrous horoscopes rendering dire predictions and various ways to “escape” through suicide. “I wrote the ‘Deathscopes,’” Laurie explained, “so the advice given was so bad that it would become grotesque, and the grotesque would actually lead to the absurd, and then it could be funny.” By allowing the reader to hop from the journal entries to the darkly humorous poems of “Deathscopes,” Laurie’s reader may select comic relief resulting in one sort of reading, or choose becoming more deeply embroiled in the paranoid woman character’s mental collapse without relief, resulting in an entirely different reading. Readers also could choose to jump back from “Deathscopes” into “Four Days” or to a poem, “Star Trekking,” which links arabesquely in content with the suicidal nature of the “Deathscopes” as the persona realizes his lifelong wish to become the “savior on the bridge, the Terminator of Tribbles.” Again, the reader may shift the tone by selecting button-links and thus become co-creator of the overall mood resulting from various readings of the text—how seriously, comically, or intensely it may come across.

Perhaps the greatest dissolution of boundaries between reader and writer occurs in Ellen’s writing, “Fragments,” where the reader may pick any of

several enticing file folders giving background information on characters, just as one might stumble upon personnel files for employees. The reader may either sneak through these folders before reading the short story or jump right into the story's action and pop out again at anytime to peek inside the character files and better understand what motivates "Meghan" and "Ally" and "Alex" to act as they do. Mixing together various kinds of creative writings in this way calls into consideration the concept of genre. Wendy Bishop suggests that genre "refers to the form a piece of writing takes and the underlying structure and rules that appear to make it 'one game' and not another. We expect certain forms to have certain general characteristics" (Bishop 1991, 223-24). However, in portfolios like Ellen's, genre is unpredictable—at times, juxtaposed but, more often, intermeshed; hypertextualizing often results in a new "blended genre" where each reading may change the brew. Part way through "Fragments," the reader may opt to finish reading the story in dramatic script format, to continue with the narrative, or to select a poem that relates the same tone and mood as the plot but that is not essentially plot driven. Other buttons also let readers shift point of view from Alex's first person to an objective third or to Meghan's perspective. Different readers obviously may encounter vastly different readings of "Fragments" depending on their own choices. In defining genre Bishop further points out that "we may easily abstract the underlying rules of poems, stories, and dramas. We can do this because our games and our rules are socially constructed, agreed upon by our community or by the communities we wish to join" (Bishop 1991, 224). In hypertext, however, the social construction is at once so complete and so individualized by each new reader and each new situation that predictability vanishes (Jon Olson, personal communication, June 9, 1995). Every reading will result in a different blended genre. It seems that reader-response is inherent in hypertextualized portfolios.

### Beyond the Poppy Fields

Hypertextualizing the portfolio makes writers far more aware of audience than they usually are because they are constantly faced with what choices to offer their readers and how far to go in releasing their ownership of their writing. Often during the process of entering their work into HyperCard, students remarked, "I don't want to offer a button there because I want the reader to go directly to the next piece," or "I want to make sure the

reader has several options at this point.” Hypertext writing makes writers acutely aware of Elbow’s call to accommodate the reader’s needs. Students’ concerns about audience surfaced dramatically in our follow-up interviews. Their comments suggest that hypertext writing leads students to recognize naturally the importance of isolating and illustrating parts of the text for the sake of the reader (Romano 1994) and to appreciate the overall need to carefully organize work even though it may appear to come in hodgepodge nodes and chunks. They also became aware that the smaller frame intensified the impact of their texts (Landow 1992a). Although readers are more empowered by choices, student writers were acutely aware of their ability to offer those choices:

Teacher: Tell me about some of the choices you made in regard to your readers when processing your portfolios hypertextually.

Jack: I asked a lot of people from the class to read parts of mine to see if it “worked” before I ever handed it in. I wanted to test drive the buttons but also to see how others reacted to the writing and the choices I gave them.

Becka: In some pieces I allowed scrolling which I thought was a smoother way to read. But others were meant to come in smaller chunks of meaning, so I separated them onto separate screens. On “The Bus Drive” I had the readers scroll to a certain point where I wanted more of a break in their reading. Then they’d find a button which would require them to flip the page.

Laurie: I think readers who scroll have a tendency to read quickly because they want to read with the same rhythm at which they scroll. When I wanted to slow them down, I spread out the text with button-links.

Cara: I was always aware of how the reader could get bored sitting at a computer screen, so I tried to use graphics and tour guides who would interrupt now and again, sort of calling readers back to attention.

Ellen: When I didn’t want the reader to have a choice, I didn’t give him one. The choices I gave were the ones I’d have liked to give readers anyway but are often not possible in print or in word processing unless I expect him to flip back and forth with a bunch of paper.

Becka: I kept mine wide open so readers could get to anything from any place. Different people have different tastes. If a reader preferred to skip out of a long piece to a shorter one, that was fine with me.

Laurie: In a magazine I don’t read every single article and if I begin a story and don’t want to finish it, I don’t. Magazines offer many of the same choices I tried to offer in my portfolio. The reader could go back and forth and flip around.

Teacher: How would you feel about readers reading only some of your pieces and then pronouncing the portfolio “poor” or “inadequate” or “unimaginative.”

Josh: Well that might bother me at first, but I’d get over it.

Tina: I wouldn’t like that. I’d want to shout at that reader, “Yeah, but that is your fault that the reading was so crummy. You left out half the good stuff.”

Ellen: I work at MusicLand and it’s sort of like living in hypertext. We’ll get the videotape of *The Lion King* at the store, and then the audio tapes and CDs of it pour in and sing-along tapes and big cardboard cutouts, and then over at the toy store in the mall they are selling *Lion King* animals and Walgreens will be selling *Lion King* T-shirts. The shopper or reader decides which elements she wants to buy or read. Who knows what makes it good or bad? It just is whatever assortment is put together at any given time.

Laurie: It would be OK with me. I mean it’s really no different than if someone reads only a few of the stories in a short story collection and then says it’s a lousy anthology. Is that a fair reading? I know there would be other readers making other choices deciding it was pretty good.

Teacher: Suppose we published our portfolios on the World Wide Web where hackers could get in and change your text or add whole new stanzas. And your name would be there on the by-line. How would you feel about authorship shared to this extent?

Becka: I don’t know if I want my writing that available. If a hacker gets into it and puts his name on the whole thing, then what? It would depend on who the reader-writer was. But if it was a serious writer, even one who completely changed the direction of my original piece, I think that would be interesting. If it was just someone who didn’t care, who was just typing away . . . well, I don’t know, but even then it could be really interesting. It would really take it out of my control, but that might not be a bad thing.

Laurie: I could really see doing that with a children’s story so the reader or audience could be very actively involved in creating it.

Tom: No way. Not if my name is still on it.

## Reining In A Horse of a Different Color

When the phrase “Surrender Dorothy” is replaced by surrendering some control over the text, who has responsibility for the trip through Oz? Miss Gulch, who threatened to have Toto put down for biting her, thus causing Dorothy to run away? Toto, who did the biting? The tornado that

carried the house? The window that blew in, clunking Dorothy on the head and perhaps sending her off to Oz dreamland? Or Dorothy, herself, through her own need to find a life more satisfying than the one Kansas countryside offered? I discovered that most students became quite relaxed about sharing authorship with readers and relinquishing the inflexibility of inviolable short stories or poems. Certainly, every reader's response to a set of texts differs given the reader's biases, experiences, and so forth. But in the hypertext produced by these students, readers actually make decisions about genre selection, point of view, sequence, shifts in tone, and voice. Realizing the reader's influence on the text means "that readers can no longer judge the text without judging their own contributions" (Bolter 1992, 34).

In addition to their raised consciousness about the evaporating line between reader and writer in hypertext, students also became more aware of the appearance of texts. Although they had read poems and stories from each other's screens earlier in the semester, hypertext could effectively be read only on screen, as noted earlier. In some cases, graphics available in HyperCard stirred them to create certain pieces: "When I saw that juggler icon, I just knew I wanted to do a piece about clowns," reported Judy. Occasionally, graphics led students to select certain pieces over others as did Molly: "When I saw that haywire computer, it made me think of including my poem, 'I Hate Computers.'" Many students spent hours scanning in photographs and drawings to augment their writing. In attending to what Paul Valery called "the presence of absence" (Grumbach 1994, 24), Becka noted, "I think the white background was important to some of my pieces. I chose the background that looked like a book page for the haiku because I wanted a certain amount of blank space around those words. The regular text field would not have given enough and the full-page screen would have given too much."

This student's concern with the visual also provided one of the oddest occurrences on our trip to the Emerald City. One afternoon in the Macintosh classroom I found two students printing out their entire hypertextualized portfolios, screen by screen. Both explained that they needed to proofread (HyperCard does not include a spellchecker), and both said they needed to see the entire set of screens laid out because in the computer they could only see one screen at a time. I found it curious that as nonlinear as hypertextualizing allows us to be, it still limits viewers to one screen at a time, and these students had found the paper printout to be more multidimensional than the software version itself, by presenting the viewer with all screens simultaneously.

## Melting the Wicked Witch

Finally, students submitted their portfolios with some trepidation. They were far less confident than they had been in turning in the paper portfolios in the first quarter, presumably because those were a known product. Their clinging to the security of print and linearity displayed itself in various ways. Several students included paper listings of the contents to ensure that as reader-evaluator, I read everything. Some entered only parts of their longer fiction in hypertext and submitted the rest in paper, apologizing “it was just too much stuff for someone to read off a screen.” A couple turned in the entire portfolio printed out screen by screen in hypertext, “just in case the disk doesn’t work.” Most disks were submitted with a stick’em note attached telling me which icon to click on to open the portfolios. The students didn’t quite trust that the yellow chip road could return them to Kansas. And I was a bit shaky myself because in Oz there seems to be more than simple north, south, east, and west to contend with.

My own journey through Oz similarly found me clutching the security blanket of practices I’d used to evaluate linear, paper portfolios in the past. I felt compelled to travel as many roads as possible through each of their portfolios to come away with the greatest number of readings available. Because writers intended adjacent paper submissions to be part of the total portfolio, I read them thoroughly along with each hypertext portfolio several times. Even the strictly linear portfolios (there were three of these) received multiple readings. I took notes on individual pieces (although I was unable to compartmentalize many writings that had been so thoroughly mixed) and on how they were linked. Broad’s question of “how might we account meaningfully for both consensus and diversity among our evaluations of student writing?” (Broad 1994, 263) when grading portfolios was sidestepped because the guidelines that had served well in grading paper portfolios did not work for hyper-portfolio assessment. Requirements like “Portfolios must include at least two poems, one short fiction, and one scene” had to be set aside because of the blended genre nature of the writing. Pieces were so intrinsically linked and interwoven that grading individual pieces was impossible and actually would have violated the nature of the medium. Additionally, there is no page-counting in hypertext. Furthermore, hypertextualizing the portfolios led to other unexpected creations: mask characters, linking mini-fictions, and extensive metaphorical transitions. How could these be assessed? Earlier in the process, students had asked me if I would be giving two grades, one for

writing and one for technology. This, also, was impossible, perhaps for the very same reasons Marshall McLuhan suggested “the medium is the message.” When multiple links promote metaphorical connections and influence meaning, style, and tone, the two cannot be separated once stirred together. I felt like Dorothy asking for the way home without knowing how the ruby slippers could be activated. I turned again to the students’ goals and metacognitive evaluations. I evaluated their own assessments and then met with them individually to negotiate the portfolio grade. In all cases but one (in which a student firmly believed that effort rather than outcome should be rewarded), students and I came to agreement. This was the ultimate example, quite by accident, of experiencing Freire’s liberating education in which teachers are unable to “measure fulfillment of predetermined objectives” (Wallerstein 1987, 41). Auntie Em was so unfamiliar with these new creatures that she had no fences or rubrics to contain them.

### “Pay No Attention to that Man Behind the Curtain!”

On the last day of class, students booted up their hyper-portfolios and we spent the hour playing “musical computers,” moving from monitor to monitor reading each other’s writing. I had not done as adequate a job preparing them to become hypertext readers as I had hypertext writers. Hypertext reading took far more time than I had anticipated because machines stalled, buttons occasionally failed to link, and readers needed time to make decisions. “Because it was the first time I’d read hypertexts, other than my own,” Ellen pointed out afterward, “I kept wondering as I read, ‘How’d she do that?’ I was so fascinated by the technology it was hard for me to concentrate on just reading.” Telling students to ignore the bells and whistles to focus on the writing was as effective as telling the Tin Man, Scarecrow, Lion, Toto, and Dorothy to “pay no attention to that man behind the curtain.” One of the unexpected benefits, however, was that many students felt “reading in hypertext, maybe because of the graphics and buttons and frequent choices offered, was not boring the way reading pages and pages off a word processed screen would be.” Technological failure also proved bothersome when “some of the buttons didn’t link. It was like pages being stuck in a book but worse because in hypertext you can’t slice through the paper and get to the next page.” Perhaps the greatest indication of both the success and failure of the portfolios is echoed by Becka’s perspective of the reading session. “I was disappointed in those portfolios which were linear. I found it frustrating and kept thinking ‘Why use hypertext for this?”



This would be better off in print.’” By becoming a hypertext writer, she had become a reader who would “demand control over text” (Bernhardt 1993, 173).

### The Next Trip to Oz

Overall, the project was successful but could be improved in several ways, not the least of which would be attending more carefully to circumstances stirring students’ affective responses. Because we spent so much time learning the technology near the end of the quarter, some students felt “all we ever did was look at computers all the time!” At the same time students also reported that although they favored the convenience of producing paper portfolios (“I could do it in my room anytime of the night.”), 80 percent preferred the results of the electronic portfolios for reasons as varied as “allowing me more flexibility” to “the portfolio appears more professional” to “hypertext gave me more ideas which shaped my writing.” Much of the frustration with technology and the feeling that creativity was being sublimated to HyperCard software might be lessened by introducing hypertext concepts and technology at the beginning of the semester. It may have been more palatable, too, to assign single pieces of writing to be hypertextualized and build up to hypertextualizing the whole portfolio although this is a rather linear way to deal with associative kinds of writing. In this way students would learn the software along with its capabilities earlier in the process and perhaps feel far less threatened by the removal of those restrictive but comfortable linear practices.

Although most students were comfortable with Professor Adams’s initial introduction to the software, students wanted printed step-by-step instructions. Fortunately, Bob not only proved he had a heart by extending office hours for consulting with students, and the courage of a lion by agreeing to teach HyperCard in a writing class, but he also revealed he had a brain by sequencing lessons in the software carefully and keeping the pace moderate. Given my own discomfort with technology, if I had taught the technological side of this project, students would never have left the Munchkins’ land: I don’t like it, but I’ll learn it so I can reach the Emerald City. As it was, Bob, a former music teacher with acute sensitivity to aesthetics, astutely perceived the need for technology to support rather than to unseat the creative writing process. This was a crucial part of the success of the project. Bob and I were comfortable piggybacking on each other’s teaching during class presentation to satisfy the demands of both writing and soft-

ware. Nonetheless, although technological know-how was accessible, the technology presented more of a problem.

From the beginning, I was concerned that access to technology not become yet another boundary replacing those we had eliminated by engaging in nonlinear writing. I gave students more in-class time to hypertextualize their work but assumed they would spend time out of class writing and revising. With firmer deadlines in other classes so near the end of the year, I assumed incorrectly. Campus computers loaded with HyperCard became less and less available as term end approached. Both problems could be relieved by introducing the technology earlier and by moving back the submission date for portfolios. Yet even with these adjustments, access remains a concern; some students have their own computers with hypertext software whereas others must depend on campus facilities already strained by growing demands on computers. With students who commute ninety miles or who are housebound with young children, access problems like those for materials on reserve in the campus library surface as obstacles. There are no easy solutions.

If only Dorothy had known that water could melt the Wicked Witch of the West rather than merely stumbling upon this by accident! And how these writers would have benefited also from being taught earlier how to read hypertextually. Because this was our first pilgrimage out of Linearland, examples of previous student hyper-portfolios were lacking. I learned about *Afternoon*, Michael Joyce's hypertext novel, and others of its kind too late to have copies available for students to view. But I would have been wary of using high tech, professionally produced hypertext disks anyway because students might have felt overwhelmed. The lack of examples had the advantage of freeing students to use the medium without models restricting their prospects. Overall, though, nonlinear reading and writing is so foreign to anyone schooled in more conventional print that the lack of models was more a drawback than a benefit. Neal Lerner (personal communication, May 25, 1995) suggested that students may come to a fuller understanding of how hypertext reading differs from sequential, nonrecursive reading by asking students to read hyper-portfolios aloud exercising "verbal protocols" (Flower et al. 1986). Not only reading aloud the text on the screen, but also remarking verbally upon the button-links available and those being selected would enable students to more completely understand the multifarious nature of associative writing. For first readings, the World Wide Web might offer simple button choices and could be easily accessed by students in a computer-assisted classroom. This might

also be achieved by modeling aloud hypertext reading while projecting a portfolio on an overhead, allowing students to see the variety of choices the reader makes and the variety of hypertexts one might encounter. Learning more fully about reading hypertext early in the process would inevitably lead to an even more heightened sense of reader, writer, and co-author. As mentioned earlier, because readers have the ability to co-create the text, I would encourage students to discuss their parts as readers. Realizing now how important audience is in completing the act of writing, particularly in hypertext, I would allow for one class preparing readers and at least two class periods for reading portfolios.

### There's No Place Like . . .

By hot air balloon, tornado, or ruby slippers, I will again journey to the Button-Linkland of hypertext with future classes. Although hypertext currently seems to be used more for literature classes reading texts like Hamlet (allowing students to see movie clips of the production or view other editions of Shakespeare's texts or scan a drawing of the Globe) or for writing classes (enabling students to more clearly organize and present their research when writing term papers), our experience suggests that it may serve as a powerful tool in the creative arts. With the blurring of lines between reader and writer, hypertext offers new dimensions to both. Because the software also encourages the use of metaphor, visual space and graphics, and multifarious ways of linking, it offers creative writers options not available in print or word processed writing. The greater emphasis on student empowerment at the cost of teacher authority that results from hypertextualizing the portfolio verifies Cynthia Selfe's belief that "what we lose, our students surely gain" (1994). The imaginative use of language stirred by thinking, writing, and reading associatively liberated in hypertext from many of the boundaries of linearity is enough to make me again click along with Dorothy saying, "There's no place like hypertext, there's no place like hypertext."

### Notes

1. Reprinted with permission of Ablex Publishing, from *Computers and Composition* Special Issue: Electronic Portfolios, v13.2:169-185.
2. Pseudonyms are used for all students referred to specifically in this article.