Mary E. Hocks

Understanding Visual Rhetoric in Digital Writing Environments

This essay illustrates key features of visual rhetoric as they operate in two professional academic hypertexts and student work designed for the World Wide Web. By looking at features like audience stance, transparency, and hybridity, writing teachers can teach visual rhetoric as a transformative process of design. Critiquing and producing writing in digital environments offers a welcome return to rhetorical principles and an important pedagogy of writing as design.

Scholarship in rhetoric and composition has begun to emphasize the central role of visual rhetoric for writers, especially those working in digital writing environments. Visual rhetoric, or visual strategies used for meaning and persuasion, is hardly new, but its importance has been amplified by the visual and interactive nature of native hypertext and multimedia writing. The early developers of hypertextual writing as well as the scholars who study the effect technologies have on readers and writers in various settings have all influenced our understanding of how multimedia technologies use visual rhetoric. Since the appearance of hypertext and other interactive new media, these digital writing environments make it difficult to separate words from visuals or privilege one over the other.[1] Interactive digital texts can blend words and visuals,

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talk and text, and authors and audiences in ways that are recognizably postmodern.[2] Hypertext theorists and software designers Jay Bolter and Michael Joyce emphasized this visual and experimental character of digital hypertextual writing when they created the hypertext writing program *Storyspace*. Richard Lanham emphasized the rhetorical nature of digital writing, defining a "digital rhetoric" that recaptures the rhetorical paideia by making explicit oral and visual rhetorical concerns that were buried in the last two centuries of print culture and conventions (30). More recent scholarly work outlines the rhetorical practices possible with hypertext and multimedia, from Gary Heba's delineation of how html authoring mirrors rhetorical processes for composition to Patricia Sullivan's arguments that expand our definitions of electronic writing to include graphics, screen design, and other media forms. While professional writers rarely complete an entire interface or graphic design, early work in professional and technical communication by James Porter and Patricia Sullivan, Edward Tufte, and Barbara Mirel all demonstrated how rhetorical decisions impact the visual design of an online document or system: this work helped alert composition scholars to the visual nature of digital writing practices.[3] And as Anne Wysocki demonstrates in "Impossibly Distinct," computer-based interactive media can now blend text and images so thoroughly that they are indistinguishable on the screen (210). By using careful rhetorical analysis that is sensitive to audience, situation, and cultural contexts, Wysocki demonstrates how new media requires a complex relationship between verbal and visual meanings. This important line of rhetorical criticism tells us that new technologies simply require new definitions of what we consider writing.

Persuaded by these arguments, many teachers of writing who were trained in print-based rhetorics now want to articulate principles of visual rhetoric for our students. We sometimes borrow elements of visual rhetoric from moving image studies and design fields as well as draw more upon the fully visual culture within which our students work, live, and learn.[4] Whenever students look at artifacts such as online games or Web sites, we can begin by teaching them to "read" critically assumptions about gender, age, nationality, or other identity categories. Visual communication theories, however, tend to draw too easy a parallel between visual grammar and verbal grammar or to posit visual literacy as easier or more holistic than verbal literacy.[5] We need to recognize that these new media and the literacies they require are hybrid forms. Historical studies of writing technologies have demonstrated how all writing is hy-

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brid—it is at once verbal, spatial, and visual.[6] Acknowledging this hybridity means that the relationships among word and image, verbal texts and visual texts, "visual culture" and "print culture" are all dialogic relationships rather than binary opposites.[7] Recognizing the hybrid literacies our students now bring to our classrooms, we need a better understanding of the increasingly visual and interactive rhetorical features of digital documents. As writing technologies change, they require changes in our understanding of writing and rhetoric and, ultimately, in our writing pedagogy.

With access to digital technologies increasing (or simply assumed) in our college writing courses, interactive digital media have increasingly become part of what we analyze and teach when we teach writing. Writers now engage in what Porter calls "internetworked writing"—writing that involves the intertwining of production, interaction, and publication in the online classroom or professional workplace as well as advocating for one's online audiences (12). Those of us who teach writing online find that we must help our students pay attention to the rhetorical features of these highly visual digital environments. I want to highlight the visual nature of these rhetorical acts and, conversely, the rhetorical nature of these visual acts as hybrid forms of reading and authoring in the digital medium of the World Wide Web. To explain visual rhetoric online to our students, we can begin by carefully articulating the rhetorical features we see in various interactive digital media. In our classrooms, we can also begin to break down the processes for creating successful digital documents, first by simply looking at the computers around us and analyzing them as intensely visual artifacts. The screen itself is a tablet that combines words, interfaces, icons, and pictures that invoke other modalities like touch and sound. But because modern information technologies construct meaning as simultaneously verbal, visual, and interactive hybrids, digital rhetoric *simply assumes* the use of visual rhetoric as well as other modalities.

This essay defines and illustrates some key features of visual rhetoric as they operate in two interactive digital documents designed for the World Wide Web. I first analyze features from two examples of academic hypertextual essays to demonstrate how visual and verbal elements work together to serve the rhetorical purposes and occasions for these publications. I then turn to how writing teachers can teach visual rhetoric by discussing work created by

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students and the strategies they used to create a visually persuasive and rhetorically effective Web site for Shakespeare studies. These examples demonstrate how analyzing interactive digital media can help students develop rhetorical abilities and become more reflective authors. I believe that teaching digital rhetoric requires profound changes in how all of us think about both writing and pedagogy: Critiquing and producing writing in digital environments actually offers a welcome return to rhetorical principles and an important new pedagogy of writing as design.

A visual digital rhetoric

Any rhetorical theory works as a dynamic system of strategies employed for creating, reacting to, and receiving meaning. An individual author typically operates within multiple social and cultural contexts and, hopefully, advocates ethically for his or her audiences. Thus, digital rhetoric describes a system of ongoing dialogue and negotiations among writers, audiences, and institutional contexts, but it focuses on the multiple modalities available for making meaning using new communication and information technologies. I want to introduce some key features of digital rhetoric by analyzing two scholarly hypertexts by Anne Wysocki and Christine Boese. The following terms help us describe how visual rhetoric operates in digital writing environments:

> **Audience Stance:** The ways in which the audience is invited to participate in online documents and the ways in which the author creates an *ethos* that requires, encourages, or even discourages different kinds of interactivity for that audience.

> **Transparency:** The ways in which online documents relate to established conventions like those of print, graphic design, film, and Web pages. The more the online document borrows from familiar conventions, the more transparent it is to the audience.

> **Hybridity:** The ways in which online documents combine and construct visual and verbal designs. Hybridity also encourages both authors and audiences to recognize and construct multifaceted identities as a kind of pleasure.

Wysocki's and Boese's texts were published on the World Wide Web in 1998. The last decade marked a time when academic institutions and forms of

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writing began to change dramatically in their relationships to technology. Bolter called this period the "late age of print" in 1992 to describe how hypertext and multimedia technologies had brought us into an era where both print and digital forms are important to readers (10). When these two texts appeared during 1998, academics had been increasingly exposed to hypertexts (especially on the Web) as the publication opportunities and other institutional support grew for online academic work. Wysocki and Boese each had an interested readership and online community for their work, but each also clearly used the opportunities to educate a wider audience of academics and fans about the strategies important for design on the Web. Readers encountering this work brought with them the similarly postmodern hybridity of their own reading experiences, including experiences with linear print texts, changing scholarly conventions, online communities, and a growing familiarity with online texts. The authors of these documents met these readers' needs by using rhetorical features appropriate to a digital reading and writing environment, while also making concessions to the needs of their readers in a time of transition.

Although my analysis focuses on Web sites in relation to our changing academic conventions during a particular time period, I believe that these terms can help us develop an understanding of most interactive digital media as they change or reproduce more familiar forms. The kinds of features and categories I offer here focus on native hypertextual writing and reading processes, but they are hardly exhaustive categories. In these two works, the authors also bring up the subjects of changing literacies and the medium of the Web explicitly. Perhaps because these two authors have some experience (though no formal training) with digital graphic design and have taught visual communication, they offer both an execution of visual strategies and a self-conscious commentary that is inherently instructive for a visual rhetoric—what *Tristam Shandy* as experimental narrative was for early narrative theory. Each example uses these visual and interactive strategies in ways that are appropriate to the rhetorical situation and the hypertextual medium, but they go beyond formal innovation to help audiences take more conscious responsibility for making meaning out of the text. Audiences can experience the pleasures of agency and an awareness of themselves as constructed identities in a heterogeneous medium. How that agency gets played out, however, depends on the purpose and situation for the text in relation to the audience's need for linearity and other familiar forms.

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http://english.ttu.edu/kairos/3.2/index_f.html

Published in the online journal *Kairos* <http://english.ttu.edu/kairos/> in fall 1998, Wysocki's "Monitoring Order" is intended for teachers of writing in online environments who are experienced with Web-based hypertexts but are not as familiar with histories of design, the subject of her essay. This essay provides an important overview of the continuities between book design and Web page design, persuading us to be sensitive to the historical and cultural specificity of our current conventions for all designs, both book pages and Web browsers. Wysocki discusses how the order of designs and the contexts for reading all come from culturally framed experiences with literacy. We all "encounter designs individually, based on our particular bodily histories and presents" ("Monitoring Order"). She explains that, because the Web inherits book page design, it embeds the cultural assumptions about order on a page that come from our history with print texts: "[V]isual designs can (as is most evident in what I've written about books) be expressions of and means for reproducing cultural and political structures, and . . . such visual orderings are likely to be those that are repeated. . . ." ("Monitoring Order"). The history of typography demonstrates that, because book design strives to be transparent, we don't necessarily think of it as designed or discuss the embedded assumptions about reading. Two-dimensional graphic design offers some guidance for designing Web pages but is also limited in its formalism. Ultimately, Wysocki wants readers to ask themselves "what the arrangement of images and words on a web

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page asks us to desire: what order is reinforced by a design, and what designs give us chances to re-order?" ("Monitoring Order"). The Web, while borrowing from both print and graphics design traditions, lends itself to looking again at the digital texts and pages whose structures and margins can change. Wysocki's argument and visual strategies work together to motivate readers and change their ways of seeing design.

Audience stance describes how the work visually gives readers a sense of agency and possibilities for interactive involvement. Wysocki's essay works visually by enacting in the interface the concepts about design and desire that it discusses while constructing the screen as page. The *ethos* created by Wysocki addresses the expected academic conventions for linear argument and also challenges those expectations. Wysocki, an experienced designer of interactive media, originally delivered this piece at the Computers and Writing Conference, and she kept it within the linear format when designing this talk into an essay for *Kairos*.[8] When "Monitoring Order" appeared in September 1998, *Kairos* as a whole averaged 137,000 hits with 7,500 unique visitors per month, while today it averages 240,000 hits and 10,000 unique visitors per month.[9] Most direct involvement between this audience and the author in 1998 occurred in forms prescribed by the journal—the linear Web-text structure, the "Contact the author" e-mail link, and the discussion forum included in another section of the journal. But Wysocki uses the interface and the tone of her essay to create arguments using pages of texts and illustrations readers are familiar with, while subtly making readers construct a reading and a way of seeing the essay. She thus fulfills, and also plays with, the desire for ordered readings, using the essay itself to challenge the audience while also giving them the linearity they might want or even need.

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The essay is divided into sections, or nodes, and the length of text in each node varies, but tiles in the upper frame allow readers to access the nodes, which are subsections of the argument, in any order. Each node can be read autonomously but also works to develop the overall argument of the essay. Some screens require scrolling to find all the examples; some screens are short, emphatic transitional and summary paragraphs. The final tile brings up the anticipated list of sources. The shape of each section thus develops and stresses points of the argument for readers familiar with academic arguments but also familiar with basic Web conventions like scrolling and clicking on buttons. If one clicks on a tile to navigate through the piece, subtle changes on the screen

indicate movement through the document and reinforce the audience's sense of agency and interaction. The design of the essay invites readers to think beyond the familiar linear structure, to playfully reflect on the self-consciously linear structure. Readers are offered the pleasure of consciously "monitoring order" themselves by clicking on tiles and pursuing different orders as they read or re-read the essay. By creating this kind of interactive and reflective stance, Wysocki reminds readers of themselves as active readers and helps them be attentive to the features of design on the page. For readers with the ability to access its graphics and frames, the essay offers an interactive experience where color, shape, and text cannot be separated. The interface leaves these readers with a renewed sense of how design choices become contextualized in arguments, in this case about the changes in page and book designs throughout history.

Transparency refers to how the writer designs a document in ways familiar and clear to readers. Wysocki demonstrates how screen design of any new media document might use strategies borrowed from historically specific approaches to page design, graphic design, and the changing conventions (such as frames) for Web pages. "Monitoring Order" uses forms, color, and a familiar page layout to create a fairly transparent interface that quickly teaches a novice reader how to navigate it, relying primarily on repeated forms and colors as visual tools of organization:

Wysocki provides navigation through the text with the sequence of color tiles in the top frame. The tiles are different colors that correspond to the sections of the essay—blues for the sections on book design, reds for the sections on graphic design, and greens for the introduction and conclusion. These colors are repeated in the opening figure of the quill feather, an appropriately antiquated image of writing's material history represented on the computer screen. The quotations, subheadings, and reading instructions appear in slightly different colored text that stands out typographically. The feather and the graphic representing the subsection—here, a single green tile for the first node—appear at the top left of the main frame to orient the reader as if on a printed page. The bottom of this first page instructs us to click on the tiles to move through the paper. In this same location on subsequent pages, the tiles are repeated as a set of lines at the bottom of each screen so that we can visually identify the end of a section by its corresponding tiles. The tiles provide a navigational device and a kind of footprint of each screen. The forms on the screen are thus decorative and interactive, painterly, and significant representations for information. The screen is visually coherent primarily through the strategy of repetition—here, the use of repeated colors and forms. On the surface, this coherence provides a calm sense of modernist order that is simultaneously visual and navigational. Order reassures readers that they won't get lost and that the text has a structure that can be tracked visually as well as verbally.

The **hybridity** of the Web medium refers to the interplay between the visual and the verbal in one constructed, heterogeneous semiotic space. Wysocki's site takes advantage of this hybridity to combine pictures and text in thoughtful and unconventional ways. The sections of text incorporate quotes and pictures and reproductions of texts as evidence for the arguments about visual design and its historical specificity. This strategy uses the juxtaposition of pictures, words, and unconventional margins to transform our understanding of the visual through the reading experience. For example, in the following screen, Wysocki plays with the conventional relationships between texts and pictures on pages: the margins expand outward slightly on the left, reminding readers of how the digital page is not fixed but mutable. The illustration, a pictorial history book, is a startling example of how the production of such books served as an excuse for political oppression by conquerors who valued only verbal texts. Finally, the illustration is placed within the sentence without figure captions in the same way that verbal evidence supporting an argument might be:

Here is page design being asked to order our attitude towards others. I follow with an earlier example of how the design of books orders us towards certain desires and expectations, desires and expectations developed through the repetition of people seeing page after page of western design: Walter D. Mignolo, in "Literacy and the Colonization of Memory," describes that when the Spaniards colonized Mexico they were so steeped in the culture of their alphabet that they could not see that the Mexica had any sense of history; the Mexica recorded their pasts not with letters and words but rather in certain kinds of paintings (which they often bound together into book-like objects)—

"The Codex Vindobonensis I, also known as the Codex Vienna. This picture is of a 1974 facsimile, published by Akademische Druck-u. Verlagsanstalt. The text is approximately twenty-two centimeters wide and thirteen meters long, created from strips of deerskin, and is folded into an accordion-like screenfold, with a wooden board attached on both ends. Here, the codex is opened to pages 20 and 19 of the mythological story that covers the entire 52 pages obverse." (King, 103)

—and the Spaniards consequently considered the Mexica to be barbarians (97) and destroyed so many of their "books" that only twenty remain (King, 102). Here is another example: Constance Classen, in **Worlds of Sense: Exploring the Senses in History and Across Cultures**, describes an incident in the Spanish colonization of the Inca, whose cosmology relied on hearing:

...the Spanish priest accompanying the expedition gave a brief summary of Christian doctrine, denounced Inca religion as invented by the Devil, and demanded that Atahualpa [the Inca leader] become the vassal of the Holy Roman Emperor. While giving his address the priest held a book, either the Bible or a breviary, in one hand. Atahualpa, deeply offended by this speech, ... demanded of the priest by what authority he made these claims. The friar held up the book to him. Atahualpa examined it, but as it said nothing to him he dropped it to the ground. This rejection of the essence of European civilization was the excuse the Spanish needed to begin their massacre. (110)

Because of Wysocki's skillful use of examples like these to visually challenge the reader's sense of order and design, the readers of this journal leave this essay having actually experienced a new way of seeing what was previously invisible. An early example of what has become a hallmark of Wysocki's work, "Monitoring Order" uses colors, visual metaphors, and graphical repetitions to guide us through a meditation about our own perceptions, expectations, and attitudes regarding the visual in relation to text. In response, readers can imagine themselves as more thoughtful about designs or even as capable designers themselves.

http://www.nutball.com/dissertation/index.htm

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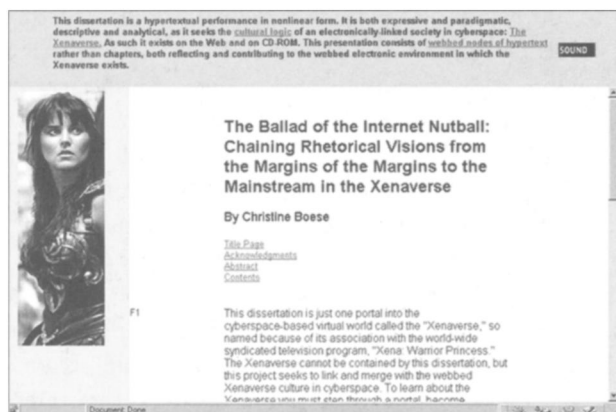
Self-published and updated since 1998, Christine Boese's "The Ballad of the Internet Nutball" was the first hypertextual dissertation accepted by Rensselear Polytechnic University. Boese's project is a participant/observer ethnography and analysis of the fans and online culture surrounding the popular fantasy television show, *Xena: Warrior Princess*. The original audiences for this site included the dissertation committee members and the *Xena* fans. Boese explains the goal in her dissertation is to

> explore the constellations of social forces in cyberspace, which have led to the success of a noncommercial, highly trafficked, dynamic culture or what is sometimes, called a "community." . . . This research examines how the rhetorical visions of this culture are used to write the narratives of its ongoing existence, in a way that is increasingly independent of the dominant narratives of the television program itself.

Boese's ethnographic project analyzes show episodes, photographs, fanauthored fantasy narratives about the implicit lesbian subplot between Xena and her warrior-poet sidekick Gabrielle, surveys, and more than 1,100 Web sites devoted to the show and its fans online, and face-to-face interactions at fan conventions. This comprehensive study of a fan culture, or fandom, offers fresh definitions of both online community and hypertextual structure.

The **audience stance** is established on the opening screen as music, images, text, and hypertextual structure all set the stage for a highly interactive experience. With the freedom to design her own interface and the support of committee members to explore new techniques for hypertextual structure, Boese created a complex collage of visual and navigational strategies. Similarly, the kinds of agency presented to readers are complex and multifaceted, allowing many choices for interaction, including several ways to read the document. The *ethos* Boese creates is at once that of engaged insider, co-participant, and scholarly investigator, one that assumes an engaged online audience of fans. She emphasizes these multiple stances by providing equal amounts of narrative, analysis, personal reflection, and interaction. The familiar academic contexts for a dissertation, including title page and acknowledgments, are included as links from this first screen, as well as a traditional table of contents. But this document actively invites participation from those whom Boese calls in her acknowledgements "my co-authors" of the study, the fan audience for the site. These

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co-participants not only completed the expected surveys and interviews, but they have added online materials and interpretations to the site over time. Boese thus creates an experience of open-ended possibility with these proliferating texts and interpretations. When it first appeared on the Web, the site saw about 500 visits a month by these fans, but it continues to get a growing amount of traffic—up to 22,200 hits and 6,155 unique visitors a month at the time of this study. Its audience has apparently grown as academics and online journals have referenced Boese's study as a cult fan site and a course resource.[10]

Like Wysocki's visual strategies, Boese's are integral to her argument, in this case to motivate and engage readers in the complex web of texts and interactions that make up the online culture called the Xenaverse. Boese's interface design is not very **transparent**, offering instead an unfamiliar, multidimensional structure that includes complex linking and several forms of navigation:
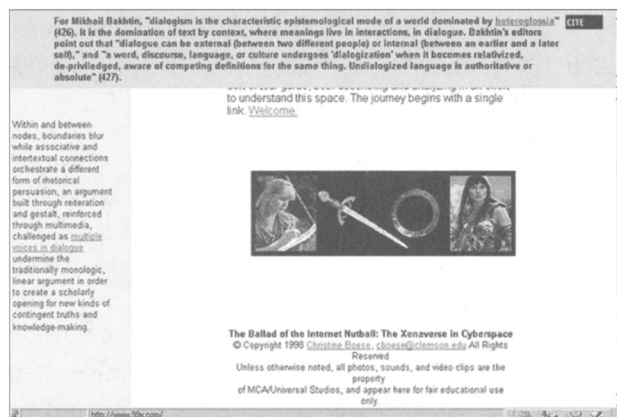
Boese's interface takes full advantage of nonlinear hypertextual form by using multiple frames, linking strategies, and multiple media in ways that draw attention to the constructed interface. Boese provides three frames, four navigational paths, and an image map to accommodate many kinds of readers. The use of three simultaneous frames in the screens gives an experience of nonhierarchical depth and multidimensionality to the screen space. Each frame is marked by a different color—blue at the top, pink at the side, and white in the middle—and the screen is assembled as a collage of contrasting colors,

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photographs, and links within the text and at the right margins of texts. Text appears organized by its graphical and spatial presentation in all frames. These texts also interact with one another to a great degree. Hypertextual links, when clicked, bring up explanations and citations in the other frames or in additional pop-up windows. Thus, one experiences many changes taking place through this cross-linking on what appears to be one level of information, creating what Janet Murray refers to as an experience of immersion that leads to increased agency (162).
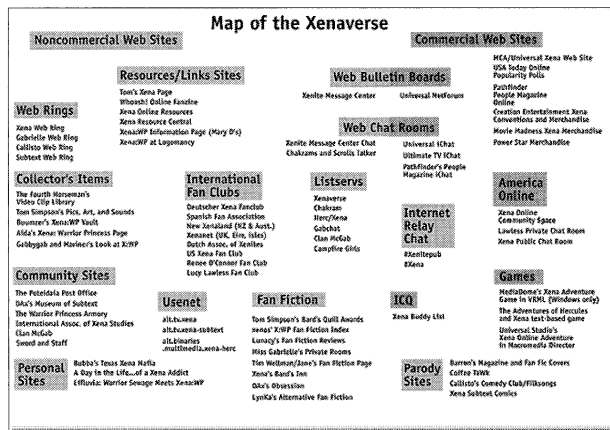
To enhance that agency and also offer concessions to more linear readers, Boese uses several methods of navigation that provide multiple paths through the text. The picture of Gabrielle, the poet, leads to a narrative reading of the text. The sword, one of Xena's weapons, moves one to the argumentative theoretical portion of the text, while Xena's other weapon, the disc-shaped Shockrum, leads to a pop-up window that provides the image map—a clickable collage of photos offering a nonlinear path through the document. Finally, the picture of Xena leads to a discussion of interconnecting themes in the study. At every turn, then, readers are offered multiple choices, allowing them to construct very different readings of the text. At the same time, readers experience a dissonance between this text and other familiar forms (like linear fantasy narratives or academic arguments) that defamiliarizes their experiences with print narrative, argumentative forms, and even with other, simpler hypertexts. This process of awareness is what Bolter and Grusin call "hypermediation," because the historical relationship of media forms becomes apparent in the structure. In fact, Boese's aim, as she explains in her section on design, is to create what Joyce called "constructive hypertext," thereby encouraging audiences to actively construct their own readings and meanings (42–43). Boese's readers are highly aware of the interface as a Web-based, experimental structure that bears little resemblance to print forms.

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The **hybridity** of the Web interface allows Boese to swap different kinds of media—texts, pictures, sounds, links, data sources, and citations—in and out of the various sections of the screen and pop up windows. She juxtaposes textual explanations with purely visual arguments. For example, this visual representation of the Xenaverse—

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Map of the Xenaverse

Noncommercial Web Sites   Commercial Web Sites

MCA/Universal Xena Web Site
USA Today Online
Popularity Polls

Resources/Links Sites   Web Bulletin Boards   Pathfinder
People Magazine
Online
Tom's Xena Page   Xenite Message Center   Universal NetForum   Creation Entertainment Xena
Whoosh! Online Fanzine   Conventions and Merchandise
Xena Online Resources   Movie Madness Xena Merchandise
Web Rings   Xena Resource Central   Web Chat Rooms   Power Star Merchandise
XenaWP Information Page (Mary D's)
Xena Web Ring   XenaWP at Logomancy   Xenite Message Center Chat   Universal iChat
Gabrielle Web Ring   Chakrams and Scrolls Talker   Ultimate TV iChat
Callisto Web Ring   Pathfinder's People
Subtext Web Ring   Magazine iChat   America
Online

Collector's Items   International   Listservs   Xena Online
Fan Clubs   Xenaverse   Community Space
The Fourth Horsemen's   Chakran   Internet   Lawless Private Chat Room
Video Clip Library   Deutscher Xena Fanclub   Herc/Xena   Relay   Xena Public Chat Room
Bourner's XenaWP Vault   Spanish Fan Association   Gabchat   Chat
Tom Simpson's Pics, Art, and Sounds   New Xenaland (NZ & Aust.)   Clan McGab
Aida's Xena: Warrior Princess Page   Xenanet (UK, Eire, Isles)   Campfire Girls   #Xenitepub
Gabbygab and Maxine's Look at X:WP   Dutch Assoc. of Xenites   #Xena
US Xena Fan Club
Renee O'Connor Fan Club
Community Sites   Lucy Lawless Fan Club   Games

The Poteidaia Post Office   MediaDome's Xena Adventure
DA's Museum of Subtext   Usenet   Fan Fiction   ICQ   Game in VRML (Windows only)
The Warrior Princess Armory   The Adventures of Hercules
International Assoc. of Xena Studies   alt.tv.xena   Tom Simpson's Bard's Quill Awards   Xena Buddy List   and Xena text-based game
Clan McGab   alt.tv.xena-subtext   Xenas' X:WP Fan Fiction Index   Universal Studio's
Sword and Staff   alt.binaries   Lunacy's Fan Fiction Reviews   Xena Online Adventure
.multimedia.xena-herc   Miss Gabrielle's Private Rooms   in Macromedia Director
Tim Wellman/Jane's Fan Fiction Page   Barron's Magazine and Fan Fic Covers
Personal   Bubba's Texas Xena Mafia   Xena's Bard's Inn   Parody   Coffee TaWk
Sites   A Day in the Life...of a Xena Addict   DA's Obsession   Sites   Callisto's Comedy Club/Filksongs
Effluvia: Warrior Sewage Meets XenaWP   LynKa's Alternative Fan Fiction   Xena Subtext Comics

—uses what Tufte would call an "information-rich" interface to present a large amount of data on a single level, with colors distinguishing the data (blue for noncommercial on the left, yellow for commercial on the right) and boxes and columns regularizing the data. While displaying many formal characteristics common to any two-dimensional design (alignment and clustering of similar data, highlighted headings, use of white space), the page asks readers to appreciate the depth and breadth of the online communities and to observe that noncommercial sites coded blue outnumbered commercial sites in yellow almost two to one. Readers, by grasping the scope of the Xenaverse and immersing themselves in the many sites and media included in the project, can help create the fan culture and construct themselves as fans, critics, or storytellers as they see fit.

Several important rhetorical features emerge from looking at both of these documents. First, each piece establishes an **audience stance** by offering readers different forms of interactivity and agency. This stance results largely from the author creating an *ethos* and a connection with readers that encourages different kinds of audience participation. Each author thus uses the interactive and performative potential of the hypertextual medium, encouraging the audience to explore the space created by the digital document and to reflectively participate in their own exploration and construction of the text. Secondly, each piece uses formal structures that mix old and new forms of reading and viewing conventions to create the audience's perception of **transparency**. The document's historical relationship to familiar conventions helps create a sense of familiar structure and allows the audience to recognize desired infor-

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mation quickly. Transparency is also created by defamiliarizing the audience's experiences with reading and writing conventions by drawing explicit and sometimes playful attention to both the discontinuities and the continuities between older and newer forms of reading, writing, and viewing information. This process can allow the audience to experience the pleasure of constructing their own readings and playing with form. In the two examples, both documents make concession to and also disrupt the expectations of academic readers accustomed to traditional print and other media forms, but in quite different ways appropriate to the rhetorical context. Finally, each author uses the **hybridity** of the digital medium to capitalize on its constructed nature and also to encourage readers to be aware of their own hybrid identities. In a space where multifaceted identities can be constructed, experienced, and even performed, this experience of hybridity works to the audience's advantage by increasing the experience of pleasure through identification and multiplicity.

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Although they obviously overlap, these categories provide a starting point for talking about the rhetorical and visual features of Web-based digital documents together, the contexts for designing these documents as visual arguments, and the potential impact of these designs on audiences, particularly through the use of interface designs and interactivity. Both essays use hypertextual form to underscore reflexively the arguments they make about conventions and about cultures. Both authors use the visual interactive medium to persuade their audiences to participate in and be changed by the reading experience. "Monitoring Order" uses academic readers' expectations about linearity and visual page design in a traditional "page" format and then subtly challenges those conventions using page designs and pictures as self-explanatory pieces of evidence to embody Wysocki's arguments about the historical specificity of all designs. Boese's dissertation immerses readers in a multidimensional structure that disrupts expectations about linearity up front but still provides many choices that lead to a linear path. The invitations to participate and be transformed by the online Xena cultures abound, driven by the agency offered to readers throughout the document. Analyzing professional models like these helps us demonstrate good techniques for how multimedia writing can then be taught as visual and verbal rhetorical practice.

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Teaching visual digital rhetoric

When we bring an understanding of digital rhetoric to our electronic class-
rooms, we need to expand our approach not only to rhetorical criticism but
also to text production. Digital technologies can encourage what the New Lon-
don School theorists call a multimodal approach to literacy, where using com-
munication technologies engages students in a multisensory experience and
active construction of knowledge. To use multimedia technologies effectively,
writers have to use practices that are not just verbal but visual, spatial, aural,
and gestural to make meaning (Cope and Kalantzis 26; Kress, "Multimodality"
182). These theorists make a powerful case for redefining literacy practice and
attending to the political and social impact made possible by technologies as
complex artifacts that can help transform our lived experience. Their approach
to pedagogy suggests that students can work from within their diverse cul-
tures and multiple identities using their own languages as well as their every-
day lived experiences to design new kinds of knowledge. This definition of
literacy and its implications for teaching echo what Cynthia Selfe has called
"critical technological literacy" in its recognition of the political implications
of technological literacies and its commitment to diversity. This approach to
literacy education reinforces the value of teaching students to think of them-
selves not just as critics but as designers of knowledge. Gunther Kress distin-
guishes how critique and design are two knowledge-making processes that

> We must offer students experiences both
> in the analytic process of critique, which
> scrutinizes conventional expectations
> and power relations, and in the transfor-
> mative process of design, which can
> change power relations by creating a
> new vision of knowledge.

manifest different social environments and epis-
temologies. Critique occurs when "existing
forms, and the social relations of which they are
manifestations, are subjected to a distanced,
analytical scrutiny to reveal the rules of their
constitution . . . . In periods of relative social
stability critique has the function of introduc-
ing a dynamic into the system" ("'English' at" 87).
Design becomes essential in times of intense
social change: "While critique looks at the present through the means of past
production, Design shapes the future through deliberate deployment of repre-
sentational resources in the designer's interest" (77). In other words, design
moves us from rhetorical criticism to invention and production. The "shap-
ing" of resources gives students' work social and political impact and allows
them to learn how to represent new forms of knowledge. To establish a bal-
anced rhetorical approach, then, we must offer students experiences both in
the analytic process of critique, which scrutinizes conventional expectations

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and power relations, and in the transformative process of design, which can change power relations by creating a new vision of knowledge.

In terms of visual rhetoric, students need to learn the "distanced" process of how to critique the saturated visual and technological landscape that surrounds them as something structured and written in a set of deliberate rhetorical moves. They then need to enact those visual moves on their own. Kress's notion of multimodal design helps to underscore how helpful design projects can be for learning visual rhetoric. If we can teach students to critique the rhetorical and visual features of professional hypertexts—the audience stance, presentations of *ethos*, transparency of the interface for readers, and the hybridity of forms and identities—we can also teach them to design their own technological artifacts that use these strategies but are more speculative or activist in nature. This approach to pedagogy asks teachers not only to incorporate new kinds of texts into our classrooms but new kinds of multimodal compositional processes that ask students to envision and create something that perhaps does not yet exist.
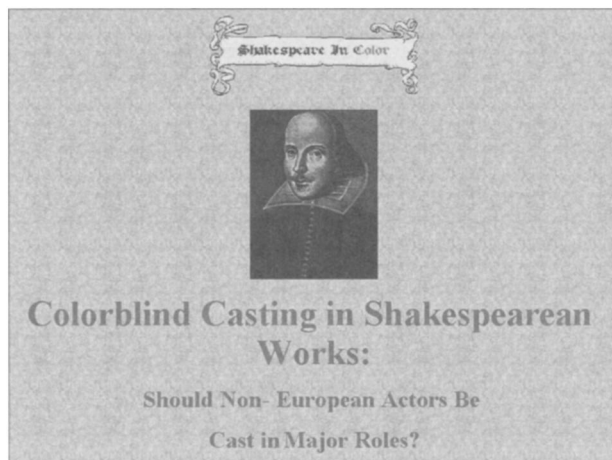
http://www.wcenter.spelman.edu/ENG310_F98proj/Shake.html

To illustrate the transformative process of design, I want to turn to a student online project from a Shakespeare course at Spelman College, also self-published in 1998 when many students were designing their first Web-based docu-

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ments.[11] The project focused on collecting professional and student opinions on colorblind casting in Shakespeare performances. The class Web site became an ongoing collaboration and a new experience for the English professor and the students. The professor explains that she hoped that students would "test their own ideas against those of a wide variety of people concerned with the study of Shakespeare" and "express their opinions to persons outside of their own school environment" (McDermott 2). She gave students the topic of colorblind casting, used by theaters to create more diversity in traditional theater, and cited the controversies regarding these casting practices. Students then identified key arguments about race and collected professional opinions online to create the first Web site that explicitly addresses race and casting practices in Shakespearean studies. They constructed an activist stance, using their identities as individual Black women and as a Spelman College community. Furthermore, publishing their work online highlighted the students' perceived impact on audiences and underscored the rhetorical ethics of internetworked writing emphasized by Porter. Students became designers of knowledge about Shakespeare by weaving together and visually representing their own perspectives and the perspectives of others on the Web. On the page, these voices become enacted as a visual a mix of colored text, commercial and homemade visuals, seriousness and fun, as the students explain the occasion for their site and the controversies surrounding their topic, asking, "Should Non-European Actors Be Cast in Major Roles?"

> Students became designers of knowledge about Shakespeare by weaving together and visually representing their own perspectives and the perspectives of others on the Web.

To construct the project, the students used **audience stance** to offer an engaging site with a layout and tone that would appeal to other students studying Shakespeare while also being responsible to the professionals with whom they had been communicating. The site includes interactive and inviting features that students designed specifically for other students. For example, the "guestbook" link visually marks a place where the students invite other students to respond to this controversial topic. Quotes in the guestbook compliment the students' work on the site, including a supporting quote by actor Raul Julia on his Shakespearean role. A student from another school wrote a deliberately informal note of recognition: "well i think that casting blacks and other colors into Shakespeare's work is very essential. as a student studying his arts i enjoyed acting out the parts that would of been issued to a white person. colorblindness is a great approach because then all can feel into the theme and not left out. thank for your time and god bless." While few in number,

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these responses enhanced the class's sense of audience and purpose for designing the site.[12]

Another way students designed interactivity was to create a space where they could publish the ideas they collected from surveys. Students used the playful feature of a "thought bubble," an inherently visual/verbal semiotic space borrowed from comic book traditions, to represent their audience of professionals and their opinions culled from the surveys. Each thought bubble offers an opinion in its own unique color and a sense of incompleteness is suggested in the title's ellipsis:
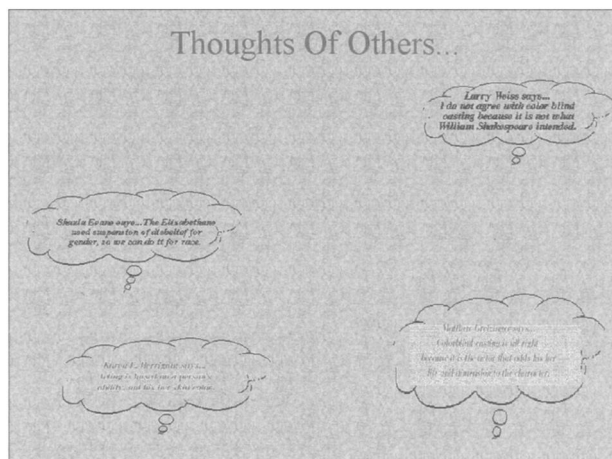
Students use these familiar forms to represent meaning for other students and professionals. The Spelman site works rhetorically to draw students into a dialogue about Shakespeare and race though its simple but engaging interface while also presenting research on the topic of Shakespeare to fulfill their responsibilities as researchers. By keeping these audience representations relatively separate, students hoped to persuade both audiences of the impact of colorblind casting. The students create an *ethos* of the collective voice of their class community that strikes a balance between professional academic discourse and authoritative self-identification, what Stephen Knadler, writing about online projects by students from the same college, calls a *"felt re-em-*

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bodiment online"(238). For example, on the next screen, the students describe the "unanswered questions" they have and cite Errol Hill, a noted Caribbean scholar, as an authority, before they announce the purpose of their project. The clash between personal voice and professional discourse in this site exhibits the same kind of "double-consciousness" that Knadler saw in his students' portfolios and that teachers often find in students working to assimilate personal voices with distanced and objective academic discourse:
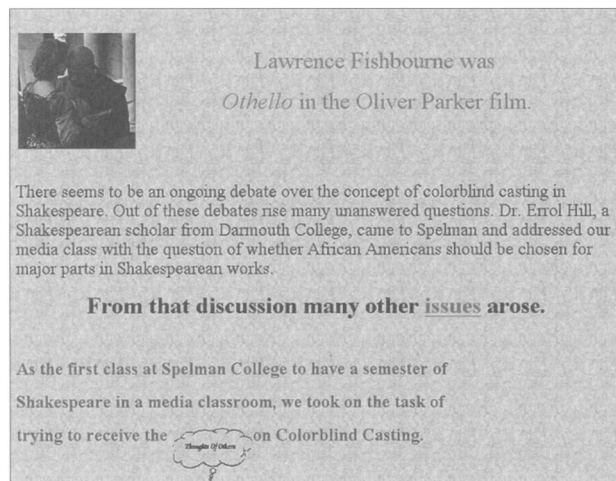
Students used a variety of familiar techniques to create a **transparent** interface appropriate for their rhetorical situation and for the audience. Keeping the site simple and straightforward for multiple audiences was a primary goal for the class as they were learning Web design. They use basic and familiar conventions for the Web at that time—linear arrangements and horizontal rules on pages, traditional book-style layout of pictures alongside text, and short nodes of explanatory text to help keep readers oriented. Students avoided using frames or other more complex hypertextual linking, opting instead for a few conventional in-text links. The pages use these familiar conventions but still take some advantage of the digital medium to go beyond traditional print-page format. Prompted by the idea of color, the students use multicolored text to provide a visual pun and argument to remind audiences that color is indeed visible. Students also playfully invite readers to explore the thoughts of others with the thought bubbles. The page is deceptively simple: It has a depth of

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resources offered through the few hypertextual links here, including the survey results linked to the "Thoughts of Others" box, a link to other Shakespeare sites, and a link to a class bulletin board with pictures, news, and reviews of ongoing productions.

While these pages appears "messy" in that they have less design continuity, onscreen spatial structure, and interface features than the professional examples, they illustrate the process of students learning to bring visual and verbal arguments together. The text on this page aims to balance opinions objectively, using black text for the opening summary and green text for their explicit purpose in making the site, thus establishing a firm sense of the class community as the occasion for this design. At the same time, commercial pictures with captions alongside

While these pages appears "messy" in that they have less design continuity, onscreen spatial structure, and interface features than the professional examples, they illustrate the process of students learning to bring visual and verbal arguments together.

them open the page and emphasize depictions of familiar Black actors cast in recent productions. Blue links lead to other issues from the class and opinions on the topic. The students thus build a visual argument about the track record of successful casting practices through the pictures as they introduce the controversy. They then work to balance perspectives and research about the topic. The **hybridity** of the medium thus lets students use texts, pictures, and other illustrations interchangeably to illustrate their learning and also to encourage engagement and responses from their dual audiences of students and theater professionals. Students can take on the role of offering professional perspectives and still be students.

If we understand this site as epistemic rhetoric (see James Berlin), it demonstrates how students can make their ongoing work and learning purposeful by directing it toward this particular situation and their audience of both professionals and students. By publishing it online as public discourse and new knowledge in the field, students have an immediate sense of their impact on audiences. The "Shakespeare in Color" Web site "makes an actual contribution to Shakespeare studies" while teaching students "investigative technique, analytical skills, and something about the process of publishing and taking responsibility for one's scholarly work" (McDermott 4). It thus becomes an authentic learning experience that has brought students in touch with a new experience of literature, of performance, and of theater culture through contact with their broader audience of professionals. Students themselves recognized the value of these activities and described their projects as "extremely

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creative," and including "alternate ways" of representing their understanding
of the course material. Most importantly, students were extremely proud of
their accomplishments, saw themselves as talented, and appreciated the
"hands-on learning" and the opportunity to
present their work in a public forum for an
actual audience.[13] Design projects such as this
not only bring the concept of multiliteracy
squarely into the middle of the composition
process but also help students design an ac-
tivist academic project that represents new
knowledge for a real audience.

> **Design projects such as this not only bring the concept of multiliteracy squarely into the middle of the composition process but also help students design an activist academic project that represents new knowledge for a real audience.**

How do we begin to help students enact their understanding of visual
and digital rhetoric? Teachers must first develop assignments and projects that
complement the goals of their courses. In this case, the professor wanted a
multimodal experience of literary texts, interactions with professionals, and
collaborative active learning experiences using multimedia technology. After
these students looked critically at the visual elements of Web sites and other
media, they then planned out their project together and designed the site for
their two audiences. Students created a Web site and a PowerPoint project in
this course and presented their preliminary designs in an oral presentation to
other students and faculty from the department. When teaching design, I also
begin by analyzing media and encouraging students to think broadly about
visual elements and interactivity. I show them published new media titles and
ask them to look for the rhetorical features like audience stance, *ethos*, trans-
parency of the interface, and hybridity. They come to understand these fea-
tures by analyzing the visual details: the use of elements like color, space,
linearity; the use of conventions from film, print, advertisements, and typical
Web sites; and the use of forms of agency for audiences. Students then draw
conclusions about visual arguments and the purposes of interactivity. I have
them sketch out or illustrate "borrowed" features they'd like to include in their
projects. I do this so they will not limit their designs to their own production
skills or to the technologies available at any one time in our classrooms. My
students conduct research by starting with their own understandings of visual
representations and their own perspectives as users of familiar and not-so-
familiar technologies. This process of speculative design encourages students
to think both creatively and rhetorically about everything from cell phones to
online games, while paradoxically not limiting them to the time and place of
particular software programs.

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The next step is to teach students to map out or storyboard their projects. Storyboarding is a visual technique borrowed from documentary video production where every shot is planned out to correspond to a narrative script. In multimedia productions, storyboarding refers to planning and sketching out each screen of the digital production. To teach students the storyboarding process, I give them sheets of paper and ask them to draw every media element, each navigational link, and all text that appears on the screen. They also note the colors and any other graphics that will be used on each screen. This process makes them pay careful attention to visual arguments, to spatial placement on the screen, and to the consistency of the interface. It also forces them to narrow the scope of their projects in collaboration with one another and their audience. They think carefully about what the audience will see and how audience members will interact with the information in their projects. When students learn to storyboard a sequence of screens, they learn to think carefully about how visual information gets structured as part of the design. Their design and drawing skills can be minimal because storyboarding teaches students to *think through* the elements of design and navigation that meet the audience's needs. The speculative design process can be accomplished in a couple of weeks, and students don't need any specific technical skills to complete the assignments. I sometimes go on and teach students to use a scanner and an image software program that allows them to alter an already existing still image and change its meaning. If time permits, students can then create their own graphics and import them into a Web authoring program to be combined with links and other interactive features. This authoring of the project can take more weeks to accomplish, but it is well worth the time and effort if the ultimate goal is to have students publish a permanent Web site. Students in the Shakespeare class benefited from interacting with the target audience online and in oral presentations to other students as they decided how to design the content of the site. The oral critique of the site by other students is a very important part of the process—not only did students feel compelled to impress their audience of peers, but they also had the opportunity to revise their site before making it accessible online.

While this discussion offers only a starting point for teaching design, it shows how valuable all stages of design projects can be for students. Design projects require writers to look at successful models, to think deeply about audience, to design visual and verbal arguments together, and to actively con-

When students learn to storyboard a sequence of screens, they learn to think carefully about how visual information gets structured as part of the design.

struct new knowledge. Because the process of design is fundamentally visual and multimodal, it can be challenging, but it leads students to a new under-

> **When designing digital documents and also seeing how people use and interpret them, our students can then see themselves as active producers of knowledge in their discipline.**

standing of how designed spaces and artifacts impact audiences. Teaching design allowed these students to try to shape the social and cultural environment in which they found themselves by bringing together research and their own perspectives online to define a concept of English Studies. Nancy Kaplan ("Literacy and Technology"), Craig Stroupe ("Visualizing English") and Randy Bass ("Story and Archive") have all demonstrated that the design of artifacts is an essential part of literacy and of enacting disciplinary knowledge in English studies because those artifacts will ultimately determine how knowledge is received and perpetuated for our field. When designing digital documents and also seeing how people use and interpret them, our students can then see themselves as active producers of knowledge in their discipline.

Acknowledgments

Notes

1. At the time that the hypertext theorists developed theories about electronic writing in the 1980s, they were primarily referring to elements of early hypertextual systems and the interactions in online communication before widespread use of graphical browsers on the World Wide Web. The early hypertext theorists focused immediately on both the visual and spatial character of electronic writing. For example, Jay Bolter defined the new writing technologies as "the visual writing space" (11) and outlined how they require a new visual literacy. Nancy Kaplan explained that "hypertextual writing systems [could] provide a graphic representation of textual structures, a dynamic map of the textual system in play" that "remain dynamic pictures of an evolving text." ("E-Literacies"). Michael Joyce highlighted Bolter's description of hypertext as "topographic writing" that implied its visual quality (47) and stated eloquently: "hypertext is, before anything else, a visual form" (19).

2. See, for example, Lester Faigley on the postmodern composing online self, George Landow on the connections between hypertext and postmodern literary theory, and Nancy Baym on the conversational features of online discourse. See Steward Moulthrop and Peter Elbow on the postmodern forms of rhizome and collage for hypertext and for home pages. Hypertext seems to embody postmodern forms of writing, as Jane Yellowlees Douglass states: "The beauty of hypertext is . . . that it propels us from the straightened 'either/or' world that print has come to represent and into a universe where the 'and/and/and' is always possible" (146).

3. James Porter and Patricia Sullivan's early collaborative essay ends with a renewed emphasis on the visual challenges of electronic text (422). Barbara Mirel has demonstrated how database design has become an essential part of communication in the workplace and includes a "visual rhetoric" for effective data design (95). Similarly, Edward Tufte describes a successful computer interface as having a well-crafted parallelism and clustering of images that allows "visual reasoning" by the user. In two practical guides for authors, Domenic Stansberry points out in his guidelines for writers that designing content for new media focuses mostly on interactive design—the structure and flow of information pathways (17), while Karen Schriver includes chapters on interactive document design.

4. Not surprisingly, useful connections have been made between teaching writing and the visual arts as mutually reinforcing literacies in the classroom (e.g., Childers, Hobson, and Mullin). Theories for analyzing visual communication and visual culture have been highlighted in cross-disciplinary studies of culture and design, for example, the collections *The Visual Culture Reader* and *Design Discourse*. Industrial design discourse has been shown by Richard Buchanan as having a fully demonstrative rhetoric, drawing on the past and showing possibilities for the future in everyday objects (107). Hanno Ehses analyzes the visual rhetoric of performance posters, pointing out how the design medium of the poster collapses "visual and verbal" representation as the "structure itself becomes semiotic, since each of the two forms contains information over and above that pertaining to its own set" (193). The collection *Page to Screen* (Snyder) is a good example of cross-disciplinary scholarship that looks at the design processes involved in digital linguistic acts.

5. For examples of these parallels, see Michael Gibson and Donis Dondis. For critiques of these approaches to visual literacy and visual communication, see Mary Hocks, "Toward," and Anne Wysocki, "Seriously Visible."

6. See for example, Jay Bolter, Richard Lanham, Christina Hass, and Michael Joyce.

7. See Mary Hocks and Michelle Kendrick for a complete discussion of hybridity in the history of visual and verbal language systems.

8. Personal communication with the author.

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9. Personal communication with Doug Eyman, co-editor of *Kairos*. As Eyman explains it, the approximations of unique visitors, while more accurate than numbers of visits or hits, are probably underestimated due to technological constraints.

10. Personal communication with the author. As Christine Boese explains it, the increased traffic seems to correspond to moments when the site has been listed in articles or resources on cult fandoms. She adds that number of hits does indicate that some people might be reading fairly deep the thirty or so main screens and other pop-up data windows in the site.

11. I did not teach this course, but as director of a faculty development program in communication across the curriculum I worked with a group of teachers from many disciplines who integrated multimedia design projects into their courses (see Mary Hocks and Daniele Bascelli). Faculty used an intensive summer workshop to develop online instructional resources like this site for their courses and to design writing-intensive assignments for their students that capitalized on the resources in the multimedia-equipped classroom.

12. I was unable to obtain data on visits to the Spelman College Writing Center site.

13. Results from an anonymous focus group of students, Spelman College, Atlanta, GA, May 2, 1992.

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Mary E. Hocks

Mary E. Hocks is assistant professor of English at Georgia State University, where she teaches writing and digital rhetoric courses and also directs the writing across the curriculum program. She has published articles in *Computers and Composition*, *Writing Program Administrator*, and *Works and Days* on hypertext, gender and technology, and multimedia writing and pedagogy. Her coauthored volume *Eloquent Images: Word and Image in the Age of New Media* appeared in 2003 from MIT University Press.