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What should be an unforgettable face…

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Abstract

The history of interface development has led to a limited focus on the surface of the computer screen, and has asked us not to see how the design of what is on screen shapes the actions and thinking we can do while engaged with interfaces. In this article, we look back to arguments in *Computers and Composition* from the 1980s and early 1990s, arguments that tried to broaden our views so that we could see how interfaces are thoroughly rhetorical. We show how, then, and unfortunately, these arguments appear to have been forgotten: In handbooks and guides intended to help students in writing classes design and develop web sites, students are asked to think of interfaces—and hence audiences—only in terms of technical function and ease of use. The interfaces developed from such help can only then see audiences reductively. We offer suggestions of strategies teachers can use to help students develop reflexive and more generous interfaces.

Keywords: Composition; Interface; Page design; Screen design; Visual rhetoric; Web design

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We are crowded by the invisible.

Yes, at first they are quite unseeable.
But see, they return. They've always been loose.
They sleep with us. They set our tables.

They cannot be contained by bars or cables.

from "Go Ask Rachel Whiteread." Kevin Gallagher.

We hope in this writing to make visible two different—but related—kinds of forgetting. The first forgetting happens because computer interface designs encourage us to see forgetfully. The second is disciplinary: In preparing this writing to celebrate 20 years of *Computers and Composition*, we have seen that a robust and pedagogically rich understanding of interfaces—active until approximately 10 years ago and capable of countering the first forgetting—has itself been forgotten.

A continuing and ongoing tension with and about graphical computer interfaces is visibility.[1] We are, at one and the same time, to see only them but then also to forget them, to not see them at all:

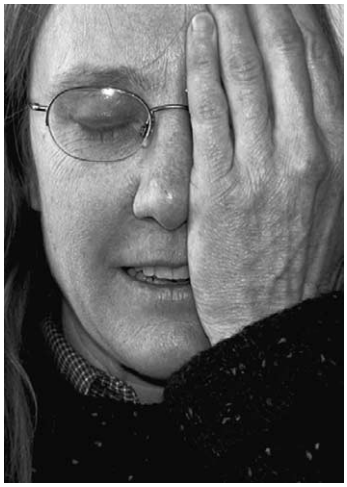
> …interfaces (or the part of the program exposed to the user) … (Sullivan, 1989, p. 142)

> This book focuses on user interface design, so it emphasizes interactive visual communications.… Good user interfaces are invisible. (Cooper, 1995, p. 24, p. 135)

> We hear often that one program is better than another because its interface is more "intuitive" or that its processes are more "transparent." These terms are closely related in computer-speak. In this jargon they have acquired different meanings than those they possess in conventional English. We certainly do not look through the monitor at the circuit boards behind! Nor do we look through the graphical user interface (GUI) at the code from which it is built…. "Transparent" means that the computer interface fades into the experiential background… (Penny, 1995, p. 55)

[1] Our discussion privileges sight because the immediate sense most of us have of interfaces—and what is so much emphasized in our handbooks and guides about designing for computer screens—is visual. And, as we will be arguing, the kind of seeing that computer interfaces most often ask of us encourages us to forget who might be excluded from the interfaces we have… so please forgive us here for not attending to interfaces that are attentive to the needs of those who cannot see or who for other reasons cannot use the screen-mouse-cursor-windows interface.

> The way that you accomplish tasks with a product—what you do and how it responds—that's the interface.… What users want is convenience and results. But all that they see is the interface. As far as the customer is concerned, the interface is the product. (Raskin, 2000, p. 3, p. 5)



In these quotations, "seeing" and "visibility" are used as metaphorically as they are almost anytime they—like other words that originate linguistically and conceptually in the processes of sight—appear in writing. As Martin Jay (1993) argued, our knowledge systems "can be shown to be deeply dependent on occluded visual metaphors" (p. 2). That is, how we construct understandings through any of our senses is very often mediated through words quietly derived from the processes of seeing,[2] and so in the quotations above "seeing" and "visibility" are just as much about how we take in what is around us and work to comprehend it as they are about eyes.

We start with these observations for two reasons. First, although in what follows we do focus on the visual design of computer screens, because that is where so much writing and classroom practice are now focused, what we write should also be applied to digital artifacts that designedly engage touch and/or hearing in addition to sight: Think *Furby*™, for example, or the LEGO *MindStorms*™ sets, or your cell phone, or any other interface that does not privilege sight. And it is the usual exclusion of such interfaces from most books on interface design, and from handbooks about design intended for writing classes, that leads us to our second reason for these words about sight: We are concerned here precisely with how sight—and hence the metaphors for knowledge-building and comprehension that are linguistically tied to sight—is always just as much about what we don't see as about what we do, always about where attentions are not directed as much as about where they are. In this writing, then, we are concerned with the matter and material of comprehension, and with how (because we understand interfaces so much through metaphors of sight) our interface-shaped attentions are drawn toward some objects, structures, processes, and relations—and away from others. We therefore ask:

What do interfaces—and our teachings about how we and people in our classes should both shape and read them—encourage or allow us to see, and then, just as often, to forget to see?

In what follows, we first discuss how writing teachers in the pages of *Computers and Composition* have asked us to open our eyes to interfaces; we then discuss how current writing handbooks that address web design ask us to see interfaces forgetfully.

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[2] In a footnote to his opening paragraph, Jay wrote

> There are some twenty-one visual metaphors in [the preceding] paragraph, many of them embedded in words that no longer seem directly dependent on them. Thus, for example, *vigilant* is derived from the Latin *vigilare*, to watch, which in its French form *veiller* is the root of *surveillance*. *Demonstrate* comes from the Latin *monstrare*, to show. *Inspect*, *prospect*, and *introspect* (and other words like *aspect* or *circumspect*) all derive from the Latin *specere*, to look at or observe. *Speculate* has the same root… (1993, p. 1).

how writing teachers have seen interfaces

Interface: A shared boundary where two or more systems meet; or the means by which communication is achieved at this boundary. An interface can be between hardware and hardware (such as sockets and plugs, or electrical signals), hardware and software, software and software, human and computer (such as mouse or keyboard and display screen). ("ComputerUser," n.p.)

The above definition does several things. First, it quickly encapsulates the history of the development of the layered senses of interface in the computer world, as the attentions of digital developers expanded from the original and bulky computer hardware of the 1940s to software and then, finally, to humans. Second, the definition indicates how, in the technological discussions of interfaces, the focus is on the boundary between systems and on the systems immediately on either side of the boundary, with humans given equal weight—and equal abstraction—as software and hardware. It is this narrowed view of who and what is involved at the interface, we admit with the bias of those who prefer to see humans perceived as more complex, messy, and diverse than computers,[3] that motivates and worries the arguments that follow.

But the above definition also does a third thing in addition to the two we've listed: The definition locates the place within interface work where we writing teachers generally believe we can have some effect, in the subset of the human-computer interface that is the screen. The screen is a small bit out of all that can be considered interface, but—because it is a visual communication space, sharing much with the printed page in its arrangements—we do know much that can be usefully brought to it. We can certainly bring our knowledge about ordering words to achieve particular ends with particular audiences, but we can also bring our understanding about how composition practices entwine with so much else. And that is precisely what a set of writing teachers did, when they wrote about interfaces in *Computers and Composition* in the 1980s and early 1990s.

One way to understand how these teachers wrote about interfaces is through an emphasis on the effects of what is often dismissed simply as "form" instead of "content": The writing of these teachers was all about trying to get us to see that not being attentive to interfaces—allowing interfaces to be as invisible as they are designed to be—is to overlook how they shape not only what we see on a computer

[3] This question of the differences and similarities between humans and computers is another direction we could have taken in examining interfaces. Although it is unlikely that the developers and users of the earliest computers thought of those piles of glass, metal, and cords as approaching human, changes in the interface—especially once screens became an expected part of computers—have encouraged computer users toward that kind of thinking. For example, an article from 1995 whose conclusion—based on empirical research—is that "humans are susceptible to flattery from computers in the same way that humans are susceptible to flattery from other humans" (Fogg & Nass, 1997, p. 560) began with laying out the "Computers are Social Actors" (CASA) paradigm: This paradigm "demonstrates that the social rules and dynamics guiding human-human interaction apply equally well to human-computer interaction" (p. 552). That is, "individuals can be induced to behave as if computers warranted human consideration, even though users *know* that the machines do not warrant this attention," and so, for example, "people apply politeness norms to computers," "use the notion of 'self' and 'other' when evaluating computers," and "respond to computer personalities in the same way they respond to human personalities" (Fogg & Nass, 1997, p. 552).

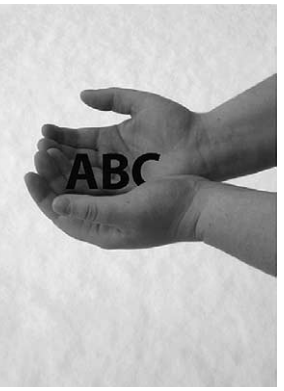
screen but also anyone who sits down to work at that screen. These teachers and researchers thus also broaden for us even now the notion of what we might consider to be the process of giving "form" to an interface: The process concerns not only the decisions we might make about the arrangement of visual and interactive elements on a particular screen in a particular piece of software, but also concerns who makes these decisions and where and in what contexts, as well as what sort of audience is called into shape by all these decisions and factors. These teachers emphasize that **interfaces are thoroughly rhetorical**: Interfaces are about the relations we construct with each other—how we perceive and try to shape each other—through the artifacts we make for each other. Unfortunately, this expansive understanding of seeing—of what we ought to be attentive to as we design interfaces for each other—seems to have been forgotten as we have moved into working with the Web in our classrooms… but we will come back to that forgetting, after we describe for you how these writing teachers and researchers worked to get us to see more openly.

The increasing appearance of less expensive and less physically formidable computers on college campuses in the 1970s and, eventually, in homes in the 1980s encouraged writing teachers to develop (or at least critique) software designed specically to support writing. As these teachers developed and/or wrote about such software, they brought to the tasks the ideas then developing and growing in composition research. Surrounded by the growing process, social constructionist, and critical literacy approaches, they brought awareness of how communication is not a neutral task taking place in a vacuum but is, rather, always complexly socially situated. Those from the composition community who early on wrote about computer interfaces knew that the teaching of writing meant not only helping students learn grammatical and stylistic conventions; these writers relied on a less autonomous and more ideological notion of literacy (to use Brian Street's [1984] terms), and they knew that effective teaching also meant helping students negotiate both the varied physical spaces in which they worked and learned[4] as well as the social positioning and power they received or could shape as a result of their upbringing, class, gender, physical abilities, and (eventually) sexual orientation.

This awareness thus shows up in recommendations writing teachers made in the pages of *Computers and Composition* about how to design and evaluate software. In 1986, for example, Thomas Barker, in discussing "Issues in Software Development in Composition," asked teacher-developers to consider the practical issues of whether they would make design decisions based on the market or on their curriculum, how they would find technical support and test their software, and how they would distribute what they made—but Barker also asked teachers to consider carefully the broader contexts in which their software would be functioning, such as the pedagogical theories that informed their development work; whether the software would be used in a lab or dorm room, and whether by individuals or groups; and just how the software would (or would not), for example, "involve the instructor in a collaborative

[4] This has led to a considerable range of writing that considers the design—the "interface" if you will—of computer labs for writing instruction. See, for example, Cynthia Selfe (1987); Stephen Bernhardt (1989); or, more recently, Todd Taylor (1998) or Daniel Anderson et al (2002).

environment with a student" (p. 64). Paul LeBlanc (1990) added to the broad teacherly view by comparing two writing-aid programs to demonstrate how software can adhere to a current-traditional or instrumental view of writing or how it can work to show the "positive value in egalitarian participation in social discourse" (p. 12); his comparisons supported his arguments that



> software programs are not neutral. Any CAC [computer-assisted composition] program operates with an implicit ideology, one that values or devalues certain writing behaviors and ultimately demands adherence to a given view of the writing process.… We must take care that the CAC tools both our students and we will use do not possess an ideological foundation we would prefer to keep out of our classrooms. (p. 8, p. 11)

Several years later, Paul Taylor (1992) continued these efforts to make visible what our attitudes toward interfaces can often hide by asking teachers to keep a wide range of criteria in mind as they evaluate software: He argued that "a computer program should constitute a coherent text within a consistent theoretical framework," but also that "content alone does not constitute the program's theoretical stance. Each program manages the user's actions by establishing possible and recommended actions" (p. 45). That is, even though Taylor asked teachers to consider whether students can quickly and easily understand how to use the software being evaluated, the purpose of this ease of use isn't so that the software can "disappear" in order that users can simply get on to the more important task of writing; instead, Taylor argued that

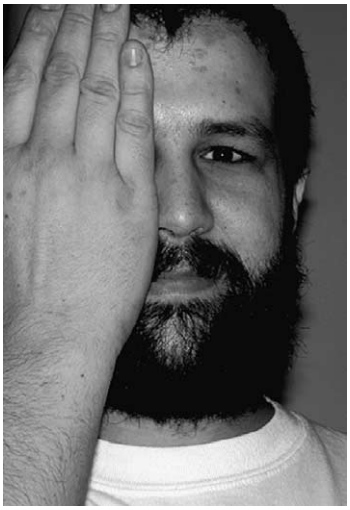
> any program can easily fall into the trap of passive presentation at some point. Particularly problematic are software designs that force the user to follow a prescribed sequence. Such sequences range from the merely aggravating (title screens with sound or animations that cannot be interrupted) to the genuinely misguided (tutorials that lock the user into a linear series of screens). Not only do these passive presentations make relatively poor use of the computer's capabilities but they also imply that the user is not very bright and has nothing better to do. (p. 46)

These writers thus ask teachers to look not only at what is on the screen, but at where the screen is and who is (and how many are) in front of the screen, and at who is "behind"; these writers ask us to try to see the already existing values and relationships that shape how designers and users approach computers and software, and they also ask us to see how software, in its turn and through its formal designs, shapes actions, thinking, and attitudes.

We want to emphasize that last point here, because it raises the matter of where and how agency exists or is constructed—or taken away—as we engage with computer interfaces. Taylor's (1992) words

ask to imagine **an individual who perhaps recognizes, but perhaps not, that as she sits at a computer using software she is being seen by the software—by the software's makers as they are embodied in their design decisions—as being dull and uninventive; the software therefore only allows her the actions that a dull and uninventive person can be expected to take, and hence—if she approaches the software without abilities or background or desire or encouragement to distance herself from it—she must be that dull and uninventive person, at least for the minutes or hours she uses the software.**

The design of software is thus also the design of users



—but, as the writing from *Computers and Composition* we are about to cite argues, building on the wide view of the writers we have just cited, the design of users cannot be finally and determinately fixed because the contexts in which we use software are so large and unfixed. The "form" of the screen is important but so are other aspects of computer design and functioning that—as with screens—we are asked not to see.

It is perhaps because it calls attention only to the most obviously visible formal structures of screen interface that Marcia Peoples Halio's 1990 article from *Academic Computing*, "Student Writing: Can the Machine Maim the Message?," was so widely criticized. Halio used classroom observations, together with data generated by a software tool for writing analysis, to claim that people who wrote with PCs produce more serious and thoughtful writing than people who wrote with Macintoshes; she suggested that the visual nature of the Macintosh screen, with its icons and choices of typefaces, was "too easy, too playful" and hence kept writers "at a less mature stage of development" (p. 19). Nancy Kaplan and Stuart Moulthrop (1990) responded by arguing that Halio's observations were simply too narrow for her to make those claims: They described how she could have designed a study to take into account what most might consider a standard part of the hardware interface—the size of the screen on which students were writing—but they also argued that, for Halio's claims to have any weight, her methods of inquiry would have to take into account how students chose the platform on which they wrote, since "any differences in writing may …. reflect differences in their attitudes and backgrounds"; her methods would have to take into account how "teachers' attitudes and biases" and "classroom culture" shape any student writing (n.p.). Similarly, Steven Youra (1990), in "Computers and Student Writing," criticized the narrowness and inadequacy of Halio's methods, but he also made Kaplan and Moulthrop's critiques concrete by demonstrating how different teacher attitudes could lead to different responses to the then-novel Macintosh graphical user interface (GUI): A teacher who values play, and who believes it sometimes useful for students to write freely, will encourage students to see and use the playful aspects of Macintosh interface, such as the different typefaces—but the teacher can then also, as Youra described, encourage students to use the Macintosh's multiple and scrollable windows (remember that this article was written before the PC world thoroughly acknowledged that windowed GUI interfaces were more easily useful to U.S. residents) to ease the processes of multiple drafting that lead to a final, polished, paper. Finally, in the article "Computer Teachers respond to Halio" (1990), 20 teachers argued that the computer instruction students had received at Halio's (as at any) institution would shape their comfort with computers and hence their comfort and fluency in writing on the computers, and so should have been considered in any claims about what affected the writing students produced; they also argued that Halio's study was flawed because it did not consider the students' "racial, ethnic, and class affiliations, [or] their gender" as those qualities shaped how the students approached and used and were affected by the computers (n.p.).

All these writers argued that we have to see interfaces as not just what is on screen but also what is beyond and around the screen if we want to understand how interfaces fit into and support the varied and entwined sets of practices that shape us. Drill-and-practice grammar software, for example, might be a quick game for a confident teacher, but it might be dishearteningly drill-and-kill for an 11th grader expected to spend his daily hour in a poorly painted remedial classroom doing nothing but filling in those blanks—precisely because the design of the software reproduces the multiple, external, and low expectations that shape such a life; in discussions about our varied educational backgrounds, a young man in a class Anne taught in South Central Los Angeles in the early 1990s described exactly this sense of being regarded by the software he was asked to use in a language arts class (as well as by the crumbling facilities, out-dated textbooks, and often-sleeping teachers of the high school he had dropped out of).

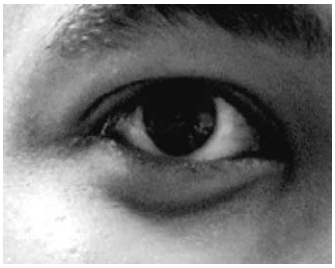
Networked synchronous discussion software, for another example, might be an interface that causes more open and equal discussion in classrooms because with such software it seems impossible to see the raced, gendered, and classed attributes of other writers, as so many hoped in the 1980s; it might also be software that silences speakers precisely because their differences do not result simply from others seeing them, as Susan Romano argued in a 1993 *Computers and Composition* article. In the article, Romano quoted from online exchanges among students discussing a text that concerns racial stereotyping in a Mexican-American community; Romano described how, in the students' online talk, the

> class-produced textualization of Mexican-Americans pushes [Mexican-American students] to the periphery, to a rim from which self-representation, "speaking as" Mexican-Americans, is made difficult because the complex category "Mexican-American" is filled up with uneducated, pitiable illegals who sleep in barns, work in fields, stand on street corners, are poor, and don't belong. (p. 16)

The Mexican-American people in Romano's class, responding to ideas of limited and limiting Mexican-Americans identity generated by their Anglo classmates, did not identify themselves online—were silenced—as Mexican-American. Romano did not therefore dismiss the possibility that synchronous discussion software could be useful (she wrote that "we should use networking technology as best we can to incubate and nurture even the most temporary equitable relationships" [p. 27]), but she emphasized how in a networked classroom it is not only the software but also, crucially, the expectations of teachers using the software that shape what happens in the class:

> The freedom, then, to speak politically or to construct an ethnic subject position necessarily includes the freedom to do neither. The expectations some composition teachers and researchers hold regarding behavior of "the marginalized" mark only those teachers and researchers' own politics, their own interests.… Marking out categories for students and assuming that their speech acts fill up those categories only identify our own hegemonies, our own interested expectations. (p. 11)

If we see networked synchronous discussion software as liberating in a classroom, that is, it is because the software apparently fits into the shapes of *our* existing expectations; we don't see that others might come with differing expectations and understandings. Similarly, Cynthia Selfe and Richard Selfe, in an article in *College Composition and Communication* in 1994, asked us to attend to the visual interface of the Macintosh, as Halio had earlier, but they asked us to see that interface as a design meant to fit into and reinforce larger practices that already empower or disempower; Selfe and Selfe argued that the



design of computer screens—when they are used as unconsciously or uncritically or comfortably as the notion of transparent design intends them to be used—can confront computers users with

> grand narratives which foreground a value of middle-class, corporate culture; capitalism and the commodification of information; Standard English; and rationalistic ways of representing knowledge. These values simultaneously do violence to and encourage the rejection of the languages of non-dominant cultural and gender groups. When students from these groups enter the linguistic borderlands of the interface, in other words, they often learn that they must abandon their own culture or gender and acknowledge the dominance of other groups. (p. 494)

Or, as Sean Cubitt (1998) has written more recently, the "interface of the Mac and Windows [is] a culturally specific and, in the event, interculturally normative visual vocabulary as powerful as colonial English" (p. 2).[5]

In these varied words from writing teachers and researchers, then, we hope you can see how

- **when we are encouraged not to see the interface as taking part in shaping how we use computers,**
- **when we are encouraged to look through form (as though it is arhetorical and ought to be invisible) to content,**

we miss—we are able to forget—how complexly and how strongly interfaces take part in the wide ranging, and certainly not always positive, effects that computers have in our practices, lives, and relations with others.

What these writers argue is that we are, more often than not, given reduced views of each other through our interfaces.

but just forget about it: how writing handbooks (don't) see interfaces

> One seeming oversight in web discussions is the general lack of attention to user-interface design of the web. User interfaces for the web both benefit and suffer from the freedom of developers to design novel forms without consistency across the web. Much of the industry seems oblivious to the relevance of traditional or "classical" GUIs of the 1980s and 90s. (Marcus, 1997, p. 535)

In terms of how students in our classes are now learning about designing for the Web, we too would like to go back to the 1980s and 1990s—but we want to go back to instruction that draws on the concerns of the writing teachers and researchers we have just cited, not (for reasons we hope are clear) to "traditional or 'classical' GUIs." The teachers and writers we quoted were writing about application and operating system software, and perhaps such software seems more technically involved or in some way significantly different from web pages, or perhaps designing for the Web doesn't seem like designing interfaces, but—in the shift from the 1980s until now, a shift that takes us from teachers designing and

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[5] See also these words of researcher and designer Brenda Laurel, who has argued that the

> interfaces that we have have disenfranchised a very large number of people, because they are based around a set of cognitive abilities and learned skills that many of us aren't good at…. For instance, the day is coming quickly, if it hasn't already arrived, where people in cultures that don't use folders and desks will have computers. Every metaphor that we come up with empowers some people and disenfranchises others. (quoted in McCarthy, 1993, p. 42)

evaluating software to teachers teaching students how to design and produce web pages—the broad view of what shapes interfaces and what interfaces shape in turn has been forgotten.

We have examined handbooks and guides that many writing teachers use, books that so frequently now include sections for helping students design web pages, and—instead of instruction that helps students attain a broad and mindful view of interfaces—**we see instruction that often constructs the technical as neutrally arhetorical; emphasizes getting work done—the values of efficiency, ease of use, and transparency—over other possible human activities and relations; and separates content from form, as though form contributes nothing to how others respond to and are shaped by the texts we make for each other.**

In what follows, we draw on observations of 14 books: Eight are handbooks, the kinds of texts that aim to give students an all-inclusive view of the writing process, ranging from spelling, grammar, and punctuation to research and argumentation and, now, document and web design; the remaining six books are composed specially to introduce students to online research and writing. We recognize and appreciate the usefulness of these handbooks and guides to students and to teachers, and we also recognize the constraints under which they are written—the sheer size and scope of many of them require that how they cover any topic will be limited—and so it may seem unfair for us to critique these textbooks, as we are about to do, for what they do not contain when they already strain to contain so much. But throughout North America's educational history, textbooks have always contributed to shaping the trajectory of the discipline, and in times of great educational change, this shaping force has been especially strong (see Conners, 1986)—even though scholarship on textbook development indicates that textbooks tend to be conservative, reproducing with only slight variation the same educational goals as their predecessors (see Faigley, 1992; Gale & Gale, 1999; Rose, 1981).[6]

Given the new modes of communication we are asking students to produce in networked environments, we argue that we are now at a time of educational change, which means the values that handbooks and guides place on the construction of interfaces now will likely be the values that continue to be built upon in the future.

It is those values we now consider.

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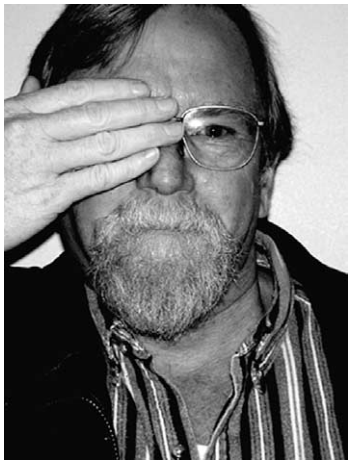
[6] Publishers, editors, reviewers, consultants, writing program administrators, teachers, and students are all stakeholders in the production of such texts, and all contribute, in some way, to the reproduction of textbooks that do little to disrupt the status quo. Libby Miles argued (2000) that textbooks are often products of *de*production, which involves their removal "from the material conditions of their production, free floating in effect—decontextualized, dematerialized, dehistoricized" (p. 31). In a study designed to clarify the decision-making process within the textbook industry, Miles concluded that the pressures for authors to remain conservative are much stronger than we might imagine. This trend toward conservatism is often exemplified in the responses authors receive from reviewers. In the passage below, Miles characterized two editor's sense of the field as a whole, based on typical reviewer responses:

> Adele's first reaction when I asked her to characterize the field of composition was that it is "not as diverse as people would like to think it is, it's more traditional-slash-conservative than people like to think it is." … Another editor at Babco registered her disappointment that "wherever the market is, I think that it's several times more conservative at any moment than what I'm imagining it is." (p. 43)

Given this conservative climate, handbooks cannot help but disappoint on some level.

The neutral arhetoricality of the technical



A large amount of space allotted to web design in the handbooks and guides is dedicated to technical considerations, which should not be surprising, given both the prevalence of attention to the technical found in discussions of interfaces historically and the need many students and teachers have for technical assistance. The earliest guides to writing on the Web in our set of texts are reminiscent of the discussions we've read of the earliest computers, discussions that emphasize tubes and resistors and joints and wires (see, for example, Brainerd & Sharpless, 1948/1999; "ENIAC," 2002; Goldschmidt & Akera, 2001; Patterson & Hennessy, 1994); the only difference is that the handbooks and guides we examined emphasize the commands needed to use the Internet instead of the hardware. *Writing Online: A Student's Guide to the Internet and World Wide Web*, published in 1998, is all about helping students access archives and databases and use FTP and graphical browser software; the section for helping students build a web page is an introduction to HTML tags and coding and to UNIX commands, and contains important discussion of intellectual property rights issues—but there is nothing that asks students to think in any way rhetorically about the web pages they build. On the other hand, *Connections: A Guide to On-Line Writing*, also from 1998, begins with a rich discussion of rhetoric and argumentation and works to weave rhetorical considerations throughout its discussions—but although the first chapter on web design is called "Laying Conceptual Foundations," the chapter subheadings are titled "Understanding Hypertext Markup Language," "HTML Basics," "Tags, Images, and Links," "HTML Exceptions," "HTML Browsers and Editors," and "Source Files" (pp. 216-223): "Laying conceptual foundations" does not mean first attending to the rhetorical considerations of building an interface, and there is nothing in the chapter to suggest that the technical work of developing web pages has anything rhetorical about it or that students' technical decisions might be constrained by the technology in any way and, in turn, might shape possible audience response.

With the development of graphical HTML editors such as Netscape COMPOSER, Adobe GOLIVE, and Macromedia DREAMWEAVER, it might seem that the writers of most handbooks would be able to move away from lengthy explanations of HTML code. Only three out of the eight general handbooks we examined, however, (*The Writer's Harbrace Handbook, The Longman Handbook for Writers and Readers*, and *A Writer's Reference*) give no instruction whatsoever in coding or the use of editors. Of the remaining five handbooks in the set we considered, the proportion of pages giving direct technical instruction in coding and software, out of the total number of pages that help students design for the web, ranges from 25% to 62%; in the guides explicitly aimed at helping students research and write online, the proportion ranges from 9% to 80% (see the Appendix). All this instruction coolly describes HTML tags, for example, or how to get a digitized photograph to appear on a web page; all this instruction presents the technical aspects of developing interfaces as neutral work that requires no intellectual or rhetorical engagement.

The prominence of this kind of technical information in the handbooks shows that the technical particularities of interfaces tend to be given more weight than how production takes place or what

the production might imply for those involved. This prominence doesn't address, for example, access to technology or who can be reached by the screens students create; it doesn't address what ways of meaning-making and understanding are privileged in online spaces and therefore what ways lose currency and why. If we are going to ask students to design interfaces, they *do* need to know HTML (or the applications that produce it for them)—but this emphasis on the technical asks us to forget those other considerations, considerations that we (like the writers we earlier quoted) think we should attend to as we produce communication for each other.

Getting work done: The easy functionality of interfaces, audiences, and composers

Do we want our interfaces to shape us as people who care only about getting things done quickly and easily? Or do we want interfaces to look at us as people who value generosity or patience or careful critical and interpretative thinking or…?

We have argued above that interfaces alone cannot determine who we are but that they instead work in concert with other practices as we are interpellated into our actions and behaviors. The writing in the handbooks and guides we've examined certainly can be counted among those wider practices, telling students how to design interfaces at the same time they shape for students a sense of what it is we should be valuing in the texts we make for each other—and what it is we should therefore be valuing in each other. Here is a representative sampling of descriptions of how the aspects of visual interfaces (on both page and screen) are to function for audiences:

> When you design your web site, lay out your ideas clearly and logically. Because your home page is the first thing readers will encounter, it should be clear and easy to follow. If it is not, readers will lose interest and move on to some other site. (*The Holt Handbook,* 2002, p. 774)

> In thinking about your audience, consider the following questions:
> - Is the text so dense that it is difficult to read onscreen?
> - Will the text be interesting to readers?
> - Are there too many graphics?
> - Does the site allow readers to skim and read selectively?
> - Are there enough navigational tools?
> - Will the page hold readers' attentions? (*The New Century Handbook*, 2002, p. 475)

> This chapter contains information on presenting your writing so that it is as readable as possible. As the volume of information grows, so does the importance of its delivery—the visual design that gives readers the cues that lead them to the information they require and that enable them to read it efficiently. (*The Writer's Harbrace Handbook*, 2001, p. 117)

> If you have browsed the World Wide Web, you may have noticed that the most effective sites are the simplest ones—those that give you quick and easy access to what you're looking for. (*A Writer's Reference*, 1999, p. 320)

> You can optimize your document for legibility on various computers and web browsers by following basic onscreen design principles. (*The Allyn and Bacon Handbook*, 2003, p. 758)

> Moving around your web site must be easy and intuitive. Make sure your viewers know how to find something in your site and how to get back to where they started. (*The Scribner Handbook for Writers*, 2001, p. 826)

In these passages, interfaces are strictly functional, serving to get readers to information quickly and easily; they are not to call attention to themselves but to be invisible. Notice that in these passages **ease and efficiency trump any other purposes a designer might have**: A student who wants her audience to look slowly and thoughtfully at causes of famine in Ethiopia and Eritrea is still being asked to think of her designs only in terms of their efficiency and legibility; she is asked to regard her audience only in terms of their quick and impatient greed for information. We don't think ease and efficiency are always and everywhere bad; it is rather that these passages do not encourage designers to think of their audiences—and hence themselves—in any other way. The resulting interfaces can only ask their audiences to behave in these manners while they are engaged with the interfaces.

Some of the handbooks and guides do, in places, ask students to think more awarely about how they construct themselves in and through their interfaces:

> Your page should reflect your tastes, values, and viewpoints. It should also establish you as a credible source for information and interpretation. The viewers of your page are likely to want to know what gives you the authority to compose and publish this particular web page. (*The Scribner Handbook*, 2001, p. 826-27)

In *The Scribner Handbook*, however, web page composers are asked to think of ethos only in terms of the technical: Authority comes from knowing to have more than "cool links" to other web sites and knowing not to have pages with too many or slow-loading graphics. Here is the advice from two other handbooks that direct students to consider how their audiences will see them:

> By following the design conventions of different communities of writers and readers, you show your readers that you understand their expectations and concerns. By putting complicated information in visual form, and by highlighting key statements in complicated explanations or arguments, you project an image of yourself as someone who cares about communicating ideas in ways that readers can understand easily. (*The Longman Handbook*, 2003, p. 173)

> If you look at various web sites, you will notice that they convey distinctive impressions. Some are whimsical and humorous, while others are professional and serious. As you consider your own web site, think about how you want to portray yourself.
>
> - What kind of background would be most suitable for the site?
> - What colors would be appropriate?
> - Which images would enhance the site?
> - What text would reflect best on you as an author? (*The New Century Handbook*, 2002, p. 475)

These passages, like those from the first handbook above, do importantly encourage students to understand that building interfaces includes building identities and relations with others, but notice, again, the limits of the encouragement. Students are asked, on the one hand, to construct an ethos that shows they care about the time and effort audiences put into reading, and no more; on the other, they are asked to consider suitability and appropriateness—but with no specific examples to help them understand and make use of the complex range of possibilities open to them.

There is another issue for us with how these handbooks and guides generally ask students to think about how they construct themselves and their audiences through their interface designing, and this comes in the manner in which design guidelines and principles are given to students:

> A web page should normally not exceed a couple of screens of carefully spaced information surrounded by meaningful white space—space that is not occupied by either text or images. To achieve that goal, group related points and provide space between groups. (*The Writer's Harbrace Handbook*, 2001, pp. 129–130)

> There are a few basic design principles that you can adopt to create the most accessible web pages possible:
> *Color and contrast are the key.*
> - Use high contrast between your type and your background colors. People can read best when type is in a dark color set against a light background. Books have been printed with black ink on white pages for hundreds of years for a good reason!
> - Keep your content on a solid-color background. It is difficult to read text when there are images in the background competing for attention.
> - Pick a link color that is sufficiently different from your normal text color so that readers can easily see the hyperlinks in your text. (*The Allyn and Bacon Handbook*, 2003, pp. 764–765)

> Checklist 21.2: Typical Onscreen Documents
> - Make sure your audience has the right software to view the document format you're using.
> - Short, single-spaced block paragraphs are most common for onscreen documents.
> - Use sans serif typefaces and avoid long stretches of bold, underlined, or italicized text.
> - If you have hypertext links, test them to make sure they work. (*The Scott, Foresman Handbook for Writers*, 2002, p. 384)

It is necessarily in the nature of handbooks to give quick and shortened advice to students, but notice in the above passages how the advice is prescriptive, and how—if reasons for the prescriptions are given at all—the advice is presented in terms of ease of function for audiences. It is not only as though interface design is not rhetorical, it is as though students cannot be trusted to consider and understand the reasons why they might make different choices. It is important to note here, however, that there are texts that give students the respect and responsibility for seeing and making choices based on their rhetorical purposes—

> Thoughtful document design involves much more than adding visual flash to your document. Ask how your readers will react to specific design decisions, such as type size, colors, and the formats of tables and charts. (*The Bedford Researcher*, 2003, p. 247)

> Individually or with a partner, find two sites on the Internet and compare them according to the criteria discussed thus far…. How does each site's design relate to its content and audience in each of these areas? For example, if the design isn't very subtle, is that because the design merits it and the audience expects something loud, or did the designers make poor design choices? What would you have done instead? (T*he Web Portfolio Guide*, 2003, p. 37)

> Your document design choices are affected by the same fundamental considerations that define your writing task: Audience, purpose, and context. On the basis of your topic and focus, your understanding of your reader(s), and other considerations such as time and equipment, you must make thoughtful choices about the kind of document you will produce. (*The Longman Handbook*, 2003, p. 173)

—but even in these texts students are often given specific advice about interfaces (about type or headers, for example) with no context other than the functional for helping them make their choices.

Students are thus most often constructed by the handbooks as people who should care only about function and who compose for audiences who care only about ease. How can students construct anything but interfaces that ask us to work within these limited views of human possibility?

The separation of form from content

Given the emphasis on the technical that comes with interface design, there is good reason in the approach that many of the handbooks and guides take when they describe designing for the Web: They make the designing sound exactly like writing for paper:

> Basically, composing a web page is still composing, and you should approach it as you would any writing. (*The Scribner Handbook*, 2001, p. 828).

> When you plan a web page, you make the same kinds of rhetorical choices that you make when you plan an essay or term paper… (*The Writer's Harbrace Handbook*, 2001, p. 128)

> The kinds of writing decisions you must make in determining a rhetorical stance for your web site are similar to those you confront in writing a paper. (*The New Century Handbook*, 2002, p. 474)

Some of these handbooks, like others from the group we examined, do indicate how web pages require or allow different technical and argumentative considerations than do pages on paper (see, for example, *The New Century Handbook, The Scribner Handbook, The Allyn and Bacon Handbook, The Bedford Researcher, writing@online.edu, Connections, The New Century Handbook*),[7] but almost all try to put teachers and students at ease in this relatively new medium by asking them to look at the composition of web pages as overlapping considerably with the composition of any other page.

By approaching web interface design this way, however, many of the assumptions about the visual presentation of paper-based texts can't help but be transferred to the screen. The assumption about visual presentation we think most damaging when it is transferred to screen design, because it is the umbrella assumption shaping all we have written so far, is that print pages have no interface: The design of print pages has been made as invisible as possible so that it seems only the disembodied meaning of the words shines forth.

This assumption is only possible when we see form separate from content, with form having no rhetorical function.

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[7] But almost none of the handbooks or guides bring up the matter of "interactivity," which is—at first glance—what (along with the ability to incorporate sound, animation, and video) differentiates the page from the screen. "Interactivity" is the subject for another, different, paper: We need to consider how interactivity is like and unlike using only words on a page to communicate with others, but we also need to consider how our regard for communicating (again, on paper or screen) might change when we think of the relation we have with audiences as being one of interactivity rather than the one-way model of communication that seems to have shaped most approaches to print-based writing.

In the articles from *Computers and Composition* we discussed above, it is precisely in widening our sight to include the normally invisible interface that the articles make their arguments: If we are not able to see interfaces and to see how interfaces cannot be separated from "content" and other shaping practices, then we miss seeing how we are rhetorically called into so many of the behaviors and practices we have (and perhaps might not want). How then to respond to some of the comments that have appeared in the passages we've quoted above from the handbooks and guides, or in these?:

> A dense, tightly packed page with narrow margins signals difficult material. Ample white space signals openness and availability. White space frames the material on the page, preventing it from seeming oppressive and burdensome and so contributes to ease in reading, regardless of the difficulty of the content. (*The Writer's Harbrace Handbook*, 2001, p. 117)

> The design of any document should, above all else, support the content the writer is presenting.… Therefore, understand your content first. Articulate it as clearly as you can, with words. Then, look to the ways effective design can help you to deliver that content. Remember: *Every design element in a document should help readers to understand the content*. (*The Allyn and Bacon Handbook*, 2003, pp. 757–771, emphasis theirs)

> The presentation of a web portfolio should help the reader see the contents better, rather than distract the reader from the contents. The design of a web portfolio should encourage the readers to think carefully and favorably about the contents or artifacts not about the design itself. (*The Web Portfolio Guide*, 2003, p. 27)

> Regardless of its content, a well-designed document
> - is easy to read.
> - helps readers locate information.
> - adapts to the limitations of and takes advantages of the opportunities associated with the medium … in which it is published. (*The Bedford Researcher*, 2003, pp. 246-247)

Content here is the words, regardless of how they appear. Occasionally discrete visual elements such as photographs, charts and graphs, or video clips are considered as possibly being content (see, for example, the chapter on "How do you interpret and use visual texts?" in *The Scott, Foresman Handbook* or the section on "Argument on the Internet" in *Connections*), but these other elements are also and more often relegated to being attractive decoration or "visual aid," and are often considered in terms of how they can be used to manipulate audiences (see, for example, pages 148-150 of *The Scott, Foresman Handbook*).[8] All the other elements that go into designing texts online, we hope we've demonstrated through all the different passages we've cited and through our arguments, are considered to be only technical or functional aspects of composition.

But all the concerns of the writers from *Computers and Composition* ought to apply here. As teachers with knowledge and understanding of the broad contexts of composition, we cannot take the handbooks as they come. Instead, we need to discuss with students how all of what is present on screen—the particular orderings of screens (think back to Barker's [1986] arguments about how the enforced linearity

[8] For a discussion of how writing handbooks have tried to address the specifically visual aspects of (primarily) printed texts throughout this century, please see Diana George (2002).

of a screen can shape audiences as "not very bright"), the choices of icons or multiple windows, and all the other wider range of visual choices that go into designing interfaces (see Wysocki, 2001)—delimits the actions audiences can take, and hence the thinking they are asked to do (or not) and the attitudes they are asked to acquire. If we do not discuss with students how what is present on screen is dependent on the attitudes and backgrounds of those who design what we see and not just on apparently neutral function or technical requirement, then **we risk what those earlier writers saw: how audiences can be restricted or silenced or reduced in complexity by what we produce.**

These are concerns we are saddened to see being forgotten in the handbooks and guides.

How not to forget? How to see more broadly?

We started this article by talking about sight, and how our ways of seeing direct our attentions toward some things and away from others; we started by talking about the particular sight that the development of interfaces has led us toward, where we are asked to see nothing but the screen, and then to look at what is on the screen as though it is to disappear so that we can get, functionally, to the work at hand. We need, then, to learn and teach practices that keep our sights more widely focused.

We need to be practicing, so that it becomes habit, seeing that is not limited to what is immediately before our eyes. That is, we need to be asking, regularly, who and what are not made present at the screen, and we need to be asking what behaviors and actions are encouraged—and not—by all that is on screen and by the actions and decisions that have shaped what is on screen.

One set of strategies for doing this is to ask students (and ourselves) to redesign, through sketches on paper or on screen, the interfaces we use everyday. If we redesign a word processing application, for example, so that we can choose paper color and texture, and so that we can write in the uneven lines that handwriting often takes, then what does this tell us about the kinds of work the software has been designed to encourage us toward, and the kinds of thinking? What would a web browser look like were it designed for people whose languages move from right to left rather than from left to right—and what does this tell us about who is supported by this interface, and who not? How could we design computers that allowed two people to work together at the same time at the same screen, that truly encouraged real-time, face-to-face collaboration? Redesigning a desktop computer so that it doesn't require a monitor—so that people who do not have sight can use it—necessarily trips us over lots of invisible assumptions about interfaces. Redesigning pages of print so that the intonation and tenor of a writer's voice are more visible is an exercise that helps us see how much paper interfaces thin out our messy and particular embodiments.

The last little exercise indicates another way we need to enlarge our seeing: **We need to be seeing all texts as having interfaces, printed and online**. Although "interface" is itself a problem, given the historic baggage we have described it carrying and its too-easy conception as form, we can also try to see the term as describing not the border between computers and us but **the border between us and us**: The interface, screen or paper, is where we make ourselves visible to each other using the strategies available to us. The writers from *Computers and Composition* whom we quoted earlier worked to apply concepts and awarenesses from literacy studies—especially concerning the social and contextual notions of literacy—to work with computers. But there is little going in the other direction. What might we gain by thinking of print through the concept of "interface," through the broad-seeing, rhetorical conception of interface we describe here?

In both preceding paragraphs, the broader, rhetorical notion of interface we encourage is for readers as well as for designers and composers. **If we want interfaces that encourage us toward relations of, say, generosity toward each other, or more patience, then we have to learn to be able to read such interfaces.** The handbooks and guides we've discussed here shape us to be able to read and judge as good those interfaces that follow their prescriptions; interfaces that do not follow those prescriptions we will judge as bad—or unreadable. Generosity toward interfaces—and hence generosity toward each other—requires teaching each other how to approach interfaces that are unfamiliar so that we can begin to understand what possibly new arguments their composers are constructing.

But we will end with a question for the designers of interfaces, as well as for those who teach the designers of interfaces: **Is it possible to design—is it worth pursuing the design of—reflexive interfaces, interfaces that themselves encourage the wider kinds of seeing we have discussed here, interfaces that encourage their audiences to question how the interfaces construct and shape those who engage with them?**

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Appendix

General Handbooks	# of pages on web design	# of pages giving technical instruction	
The Allyn and Bacon Handbook. Fifth Edition	17	7	41%
The Holt Handbook. Sixth Edition	5	1.5	30%
The Longman Handbook for Writers and Readers. Third Edition	0	0	
The New Century Handbook. Second Edition	47	29	62%
The Scribner Handbook for Writers. Third Edition	20	8	40%
The Scott, Foresman Handbook for Writers. Sixth Edition	35	9	25%
The Writer's Harbrace Handbook	0	0	
A Writer's Reference. Fourth Edition	0	0	
Guides for Web Writing and Research			
The Bedford Researcher	22	2	9%
Connections: A Guide to On-Line Writing	59	33	56%
Researching Online	31	20	65%
The Web Portfolio Guide	163	64	39%
writing@online.edu	21	6	29%
Writing Online: A Student's Guide to the Internet & World Wide Web	10	8	80%