



Recovering Delivery for Digital Rhetoric

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Abstract

This article develops a rhetorical theory of delivery for Internet-based communications. Delivery, one of the five key canons of classical rhetoric, is still an important topic for rhetorical analysis and production. However, delivery needs to be re-theorized for the digital age. In Part 1, the article notes the importance of delivery in traditional rhetoric and argues that delivery should be viewed as a form of rhetorical knowledge (*techne*). Part 2 presents a theoretical framework for “digital delivery” consisting of five key topics—Body/Identity, Distribution/Circulation, Access/Accessibility, Interaction, and Economics—and shows how each of these topics can function strategically and heuristically to guide digital writing.

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My aim here is to resuscitate and remediate the rhetorical canon of delivery, which, along with memory, is one of the two neglected canons of the art of rhetoric. Delivery—*actio* or *pronuntiatio* in classical Roman rhetoric, *hypokrisis* in Greek (Lanham, 1991; see also Nadeau, 1964; Connors, 1983; Reynolds, 1996)—was one of the five major classical rhetorical canons, along with invention (*inventio*), arrangement (*dispositio*), style (*elocutio*), and memory (*memoria*). In classical rhetoric and through most of the history of rhetoric, delivery referred to the oral/aural and bodily aspects of an oral speech or performance—i.e., to the speaker’s voice (intonation, volume, rhythm) and to bodily movements and gestures. Because delivery came to be associated almost exclusively with speech situations and with functions of the speaker’s body (voice, gestures), it seemed less relevant, if not irrelevant, to written composition than the other canons (particularly *dispositio* and *elocutio*). By the time of 20th-century rhetoric theory and composition pedagogy, delivery had effectively disappeared. It is seldom taught, at least as a distinct topic, in departments of writing, English, or communication.

With the emergence and, now, ubiquity of Internet-based communication, it is long past time to revive the rhetorical canon of delivery. Not your father’s Oldsmobile but an updated vehicle, an expanded and retheorized notion of delivery designed for the distinctive rhetorical dynamics of Internet-based communication.¹ “Internet-based commu-

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¹ Recently, several important discussions on the canon of delivery have appeared in print, including significant efforts to remediate the canon of delivery for the digital age: Kathleen Blake Yancey’s (2006) edited collection *Delivering College Composition* focused on issues pertaining to the delivery of composition instruction in the digital age. Paul Prior et al. (2007) have recognized the critical importance of reviving delivery and have developed a framework for remediating the five classical canons for the digital age. They suggested that the term “delivery” be reconceived as mediation and distribution and have gone one step further by demonstrating their theory through a multimodal digital text. Though I very much agree with their theoretical approach to mediation and distribution, my framework for delivery includes more elements and critical components and is geared more toward production. Jim Ridolfo and Dànienne Nicole DeVoss’s (2009) discussion of delivery focused on “rhetorical velocity,” which

nication” is, of course, not a monolithic, well-defined thing: it is a range of media, technologies, rhetorical venues, discourse genres, and distribution mechanisms—everything from online discussion forums to news outlets to academic journals to shopping malls to online museums to simulated game and lifeworld environments to wikis to blogs to social networking services (SNSs), and so on. There are considerable rhetorical differences between a wiki, a blog, an email discussion list, and an SNS—and there are considerable ethical, editorial, and political decisions involved in setting up and maintaining any of these types of forums. We need a robust theory of digital delivery to help us navigate these kinds of rhetorical complexities. Understanding how the range of digital delivery choices influences the production, design, and reception of writing is essential to the rhetorical art of writing in the digital age. Rhetoric theorists need to understand this point, as do HCI (human-computer interaction) designers, technical communicators, digital media developers, etc., as the point pertains in fundamental ways to web-based writing and communication.

My audiences for this article are (1) rhetoric/composition scholars and, more generally, humanist scholars, for whom I would like to highlight the importance of technical knowledge as a legitimate form of humanistic thought; and (2) HCI designers, web authors, and technical communicators, for whom I would like to emphasize how rhetoric theory and critical humanistic thinking contribute value to web-based production and design. Each audience can learn much from the other.

This paper is divided into two main parts. In Part 1, I briefly overview the history of rhetorical delivery in order to position delivery as a *techne*, or art—a move that is important to framing delivery more broadly than it is typically understood. In Part 2, I propose a theoretical framework for digital delivery consisting of five components:

- *Body/Identity* – concerning online representations of the body, gestures, voice, dress, and image, and questions of identity and performance and online representations of race, class, gender, sexual orientation, and ethnicity
- *Distribution/Circulation* – concerning the technological publishing options for reproducing, distributing, and circulating digital information
- *Access/Accessibility* – concerning questions about audience connectedness to Internet-based information
- *Interaction* – concerning the range and types of engagement (between people, between people and information) encouraged or allowed by digital designs
- *Economics* – concerning copyright, ownership and control of information, fair use, authorship, and the politics of information policy

These five components are more than merely subject area domains, abstracted topics, or technical proficiencies. Rather, think of these as the common topics (*koinoi topoi*) of delivery—i.e., categories that operate heuristically and productively across multiple situations to prompt rhetorical decisions regarding production. In short, they help you write. For example, under the common topic of “access,” demographic information about your audience’s degree of access to broadband Internet should serve the productive purpose of guiding the format you, as a writer or web designer, use to deliver information. Indeed, you might offer multiple formats for audiences with restricted vision (and who are rendering digital information via screen reading programs) or for audiences who have limited (or no) access to broadband connections. If you produce a web page, you should use CSS (Cascading Style Sheets), an approach to web design that separates out formatting elements from informational content to increase accessibility for, for instance, blind persons or persons using handheld devices to read the information.

Technical knowledge about distribution options—i.e., how audiences are likely to access, engage, and interact with information—pertains in critical ways to rhetorical decisions about informational content, design, style, etc. In short, technical knowledge is integral to the art of rhetoric and to the canon of rhetorical delivery in the digital age. As Kathleen Welch (1990) argued nearly thirty years ago, “The fifth canon [delivery]. . . is now the most powerful canon of the five.” Now more than ever.

I see as a concern for what I am calling circulation, but with an eye particularly toward timing (*kairos*) and “recomposition”—or the deliberate strategy of designing a piece of writing not only for circulation but also for re-use or remixing. This, too, I see as an important feature of the canon for digital delivery—but, again, not the entirety of the canon.

1. Framing rhetoric and delivery as art (*techne*)

In classical Greek and Roman rhetoric, delivery referred primarily to oral delivery: to making a public speech on political, juridical, or ceremonial occasions. Aristotle did not show much respect for delivery in *Rhetoric*, treating it only briefly (*Rhetoric* 3.1–3.7). He saw delivery functioning “in the same way as acting. . . a matter of natural talent and largely not reducible to artistic rule,” except insofar as it relates to “how things are said [*lexis*]” (Aristotle, 1991, 3.1.7, p. 219). This dismissal of delivery provided the dominant cue for Western thought in regard to the canon: that is, delivery does not require “artistic labors”—ergo, it is not that important.

But Aristotle’s students and later Roman rhetoricians afforded delivery considerably more attention, along two lines in particular: (1) emphasizing the role of the body in rhetorical action and (2) stressing the importance of emotional impact. For instance, the author of *Rhetorica ad Herennium* regretted the lack of attention to delivery and argued for its importance: “[B]ecause no one has written carefully on this subject.. and because the mastery of delivery is a very important requisite for speaking, the whole subject, as I believe, deserves serious consideration” ([Cicero, 1981], 3.21.19, p. 191). *Rhetorica ad Herennium* offered specific advice about how voice and body pertain to persuasive impact, noting how different occasions call for different strategies. For example, the rhetor can achieve an emotional effect by using “a restrained voice, deep tone, frequent intermissions, long pauses, and marked changes” ([Cicero, 1981], 3.24.25, p. 201); however, for sustained debate it is better for the rhetor to use “a quick gesture of the arm, a mobile countenance, and a keen glance” (3.25.27, p. 203). Roman rhetoricians such as Theophrastus and Cicero viewed delivery as an important component of emotional—and, therefore, persuasive—effect. In contradistinction to Aristotle, Cicero saw delivery as critical to rhetorical effect, as he discussed in *De Oratore* (1988). Cicero’s treatment (3.213–27) acknowledges the important relationship between performance (bodily, tonal) and persuasion (see Sunkowsky, 1959, p. 273).

In *Institutio Oratoria*, Quintilian (1922) provided a detailed discussion of delivery (11.3), focusing mainly on voice and bodily movement: the quality of voice, the position and carriage of the body (including discussion of hands, neck, eyes, head, and, interestingly, dress), as both relate to the emotional force of the oration. Quintilian told us that being overdressed is as bad as being underdressed: “excessive care with regard to the cut of the toga, the style of the shoes, or the arrangement of the hair, is just as reprehensible as excessive carelessness” (1922, 11.3.137, pp. 317, 319). (For a job interview do you wear a tie, a dress versus dress pants, makeup versus none? Should you cover up your tattoos?) But Quintilian’s discussion of delivery is not detached from other rhetorical considerations. Quintilian noted the important connection between delivery and the character of the speaker (*ethos*) and the emotional depth and appeal of the presentation (*pathos*). Delivery relates to persuasive force. For example, a demeanor exuding modesty can be persuasive with judges in a legal matter, just as much as “a toga sitting well upon the shoulder” (11.3.161, p. 333) but it only achieves the desired effect if the emotion is sincere, the facts are compelling, and the argument sound: “All emotional appeals will inevitably fall flat, unless they are given the fire that voice, look, and the whole carriage of the body can give them” (11.3.2, p. 245). The point here is that the body is an integral part of rhetorical action. The sincerity of one’s commitment and the appropriate coordination of one’s thoughts, feelings, and bodily expressions are important to rhetorical effect.

Fast forward to the early Renaissance. In *The Treasure of the City of Ladies* (1405/1985), Christine de Pisan provided a similarly comprehensive perspective on rhetorical delivery—a holistic view of how the princess or “noble lady” ought to conduct herself in court. De Pisan did not carve up the canon like Aristotle did—i.e., she did not distinguish between invention and style, delivery and audience. She did not create an elaborate classification system or outline of the art of rhetoric, nor did she exclude the body from the rhetorical scene. Rather, de Pisan’s rhetoric is of a different kind: it focuses on the whole person, covering the speech, the demeanor, the tone, the ethical stance and moral obligation, the dress, and the behaviors holistically. De Pisan’s view is an integrated view of rhetoric and the body that we do not often see represented in the Western rhetorical canon, or at least not the academic canon. Until relatively recently, de Pisan’s work was not treated as a serious rhetoric treatise because it is not abstract and philosophical (like Aristotle’s); it does not proceed via an elaborate classification system. Historically it was dismissed, disregarded, and neglected as a conduct book, a mere etiquette guide, when in actuality it might well be one of the few historical examples we have of a wholly integrated rhetoric, one that considers the rhetoric of the entire person, not only what she says, but how she behaves, dresses, gestures, and, importantly, interacts with others in complex political settings.

The emergence of the printing press in the 15th century represents a key historical shift in the canon of delivery. Elizabeth Eisenstein’s highly regarded book *The Printing Press as an Agent of Change* (1979) described the immense

impact of the printing press on Western intellectual, scientific, and religious thought. I view Eisenstein's work as an important treatise on delivery: a detailed story about how a mechanical copying mechanism (the printing press) can affect vast rhetorical, political, social, and cultural upheaval. Eisenstein described the revolutionary effects of the printing press in Western European culture during the 16th and 17th centuries. She stopped just short of saying that the printing press *caused* the Protestant Reformation—but not that far short. Not only did the printing press play a significant role in distributing and promoting religious ideas in the 16th century, she pointed out, but the ability of print to collect, perfectly replicate, and widely distribute common sets of mathematical and scientific data enabled yet another revolution, the rapid growth of scientific thought in the 17th and 18th centuries. The technological shift from scribal to print culture was not a mere technical or instrumental shift from one form of delivering knowledge to another. The new form of delivery *changed knowledge itself*; it changed the parameters, procedures, and locus for what constituted religious truth and scientific knowledge; it changed who had the right to create, promote, and distribute knowledge, giving power to a wider range of voices (including voices of religious protest). Eisenstein pointed out that print enabled “typographical fixity. . . a basic prerequisite for the rapid advancement of learning” (1979, p. 78). “Fixity” was particularly important for the advancement of science, as this enabled the standardization and wide distribution of mathematical and scientific knowledge: “the development of neutral pictorial and mathematical vocabularies made possible a large-scale pooling of talents for analyzing data and led to the eventual achievement of a consensus that cut across all the old frontiers” (p. 269). Print helped both (a) to establish a fixed archive of scientific knowledge and (b) to distribute that knowledge widely. The result was a pooling of scientific knowledge that enabled later discoveries.

But we do not typically use the term “delivery” in connection with the history of print publishing. Delivery as a term was associated almost exclusively with speech, not with print. Delivery was a dominant concern of the much-maligned English elocutionary movement of the 18th century, with its excessive (some might say obsessive) focus on correct pronunciation and usage, as well as with decorum—the correct posture, stance, and gestures of the orator. Some works, like Gilbert Austin's *Chironomia; or the Art of Manual Rhetoric* (1644/1966), even provided elaborate diagrams of how to hold your hands and arrange your fingers in order to make a point. Here is where the art of delivery became degraded. Delivery techniques became disconnected from rhetorical considerations such as emotional effect on audience (as in Quintilian) or ethical and political action (as in de Pisan).

Why rehash this history of rhetorical delivery? Because these past treatments, categories, and classifications, particularly the systems of Greek and Roman classical rhetoric, persist. They have an enduring power and influence over our categories of thought, our systemic classifications, our vocabularies, our ways of thinking about writing, technology, and production.

Let's start with the word “technology”—probably the #1 god term of the digital age—a term carrying considerable historical baggage. That word contains a key concept from classical Greek rhetoric: *techne*. *Techne* is often translated as “art,” but we have to understand that term differently from our contemporary notions of art as the aesthetic, imaginative works of “artists.” In the classical Greek rhetoric and philosophy of Aristotle and Plato, *techne* represents a kind of knowledge: “first of all, *techne* is a pure knowledge of form or standard” (Wild, 1941, p. 257), a matter of bringing form to material in order to make something. But the made object has a purpose: “the work of each art is accomplished for the sake of something” (Wild, 1941, p. 259). The true artist has a sense of effect as well as of form: what result or outcome will the made object have in the world? *Techne* requires both an abstract knowledge (e.g., of material and of form) and a procedural knowledge (e.g., of application and technique). In short, it requires both theoretical understanding and practical know-how working in tandem. As John Wild (1941) pointed out, Plato distinguished *techne* from *tribe*, “meaningless repetition of practice” (p. 264), i.e., routinized mechanical procedures lacking insight. In other words, in our own vocabularies “technical” should be distinguished from “mechanical.”

Rhetoric, as *techne*, is the art of creating discourse, whether speech or writing, to achieve a desired end for some audience. Like all arts, it can be practiced badly or well. It becomes degraded when it is taught or practiced as a set of *mechanical* procedures, rules or formulas to be followed or patterns to be copied. It achieves status as a true art when it is taught and practiced as a form of knowledge involving a critical understanding of the purposes and effects of the art on audiences and the practical know-how to achieve those effects in new discursive situations. To apply this point to digital writing, knowledge only of the mechanics for coding web pages using CSS (Cascading Style Sheets) is not sufficient to the art of web authoring in the digital age. Rather, the writer/designer needs to know how to use these procedures to achieve the desired effect—for example, distributing useful information to readers and doing so in a readily accessible way.

What I see in too many tutorials, manuals, and workshops on web design is a degraded form of rhetoric, i.e., a reduction of the art to routinized procedures, abstracted from context, without the full comprehensive *techne* kind of knowledge, which includes knowledge and understanding about audiences, effects, and choices. That is one kind of fallacy—a type of instrumental fallacy. However, I often see humanist academics committing a different kind of fallacy: dismissing technical knowledge too readily as mindless mechanics or robotic functions, failing to see the importance of technical know-how to rhetorical competency. One cannot be an effective digital writer without knowing both technical procedures and how to deploy them to achieve the desired end. The *techne* for digital rhetoric includes both technical/procedural knowledge and knowledge of audience and effect (Lauer, 2004, p. 49), not merely know-how in the sense of mechanical production skills but rhetorical knowledge as well.

My point in reviewing the role of delivery in historical rhetoric is to recall that the art of rhetoric has traditionally included delivery under its umbrella, although sometimes a diminished version of that canon, not always a robust form. The principal reason to resuscitate delivery is a productive one: a broad conception of delivery can aid invention as well as the design and evaluation of writing. It is of particular importance to audience. A robust canon of delivery should help us think more productively about how we are writing, and to whom, and lead us to make smarter choices as writers/designers, whether we are producing online information or non-digital information.

When rhetoric shifted its focus historically to writing, the canons of delivery and memory became subordinated (see Trimbur, 2000; Jacobi, 2006). By nature of its permanence, writing seemed to have little need for an art of memory. Similarly, delivery was seldom taught per se as an art of composition, because it seemed to be a material, technical, and economic concern more relevant to publishing than to writing per se. Never deemed all that important compared to other canons, delivery had dropped off the map by the late 20th century. Delivery was seldom taught in composition classes²; it was certainly not regarded as a subject worthy of research.

Kathleen Welch (1999) argued that the disappearance of memory and delivery was by no means a “benign removal” (p. 144). Rather she saw it as a “rigorous suppression,” part of the overall narrowing of the definition of rhetoric to mean, mostly, “attenuated style or language decoration” (pp. 149–150). She pointed out that for many non-Western cultures (for example, Native American culture) memory and delivery are fundamentally important rhetorical canons. The historical impetus toward erasing/suppressing the canons of memory and delivery is a way to subordinate the materiality of writing and the technical side of composition practice—that part of the art that has to do with material cause, with understanding the materials and tools for writing. Welch saw the shift in rhetoric toward textual formalism—i.e., toward a nearly exclusive focus on two or three rhetorical canons (arrangement and style, and perhaps invention)—as an ideological move toward an abstracted, theoretical-philosophical rhetoric that privileges written discourse over oral and visual; that privileges the modes of exposition and formal argumentation over expressive and narrative writing; that privileges logical and disinterested analysis over emotional response; that privileges empirically derived and rationalistic knowledge over ancestral, religious, and cultural knowledge; that privileges the disciplinary domains and methodologies of science and humanism over community or personal experience. This bias works to the detriment of women, people of color, and non-Western cultures (see Welch, 1994). It is a bias that privileges the contribution of the theorist over the practitioner. Reviving the canons of delivery and memory requires reviving skills and forms of knowledge and practice that traditional Western rhetoric and humanistic thought have seldom acknowledged or valued.

2. A framework for digital delivery

My intention here is not to provide a comprehensive theory of digital delivery, but rather (a) to outline what I see as the chief features of that theory—i.e., what I am calling the five *koinoi topoi* of delivery (body/identity, distribution/circulation, access/accessibility, interaction, economics); (b) to provide some examples of how each of these features can assist the art of rhetorical production, particularly the canon of invention; and (c) to cite some representative scholarship in each of these five areas. Much of this canon recovery work has already been done, particularly in the field of computers and composition. In fact, I would dare say that most of the research published in the journals *Kairos: A Journal of Rhetoric, Technology, and Pedagogy* and *Computers and Composition* is related more closely to the canon of delivery than to any of the other canons—although scholars in that field seldom view their

² As Reynolds (1993) pointed out, “In composition studies, the first three canons—invention, arrangement, and style—are used to organize the materials presented in the vast majority of the textbooks, but the last two—memory and delivery—are typically ignored or, worse, deleted without a word of explanation” (p. 3).

work as “delivery.” What I am doing here is not so much creating a new theory of digital delivery as I am aggregating and coordinating a well-established body of research and scholarship under the rubric of “digital delivery.”

2.1. Body/Identity

The body plays a key role in face-to-face oral delivery, as the classical Roman rhetoricians noted: the body is enmeshed in persuasive effect, particularly emotional impact. “The body” includes a number of features related to your identity—i.e., how you present in terms of gender, race, ethnicity, sexual preference, age, etc. It also includes your “performance”—i.e., your facial expressions, your gestures, your haircut (or absence of hair), your posture, your physical movements, your manner of dress, and your manner of speaking. These bodily features are significantly intertwined with your *ethos* as a speaker. I can achieve one kind of *ethos* by writing a newspaper editorial advocating labor union representation for Wal-Mart employees. However, I can also rhetorically perform in a different way by putting my body on the line: showing up at a pro-union protest in front of a Wal-Mart outlet carrying a sign, collaborating with others in the protest to create a street scene, a performance, that the media might well report—and thereby raise public consciousness about a labor issue. This public performance is also rhetoric: using the body as itself a “text,” a delivery mechanism for a persuasive point.

The body does not disappear in virtual space. It is certainly constructed differently, but it is there in all its non-virtual manifestations: gender, race, sexual preference, social class, age, etc. Is it possible to “gesture” or create a bodily action online? Yes, of course, as we well know from the simplest and most well known of all bodily representations in online space: ☺. The smiley face emoticon is an ASCII textual representation of a bodily act that is used to add nuance to a piece of text. On a more advanced level, when I make an avatar in the simulated world of Second Life I am creating a bodily representation of myself, one that may or may not correspond to my lifeworld self, but one that has a virtual bodily existence. That avatar is my virtual bodily self that, when combined with virtual speech and behavior, results in a rhetorical performance.

Numerous scholars have explored the bodily aspects of virtual space, particularly from the perspective of gender (e.g., Armstrong, 2005; Blair & Takayoshi, 1997; Blair & Takayoshi, 1999; Gerrard, 1997), race (e.g., Banks, 2005), sexual orientation (e.g., Alexander & Banks, 2004; Alexander, 1997; Rhodes, 2004), and ideological disciplining of the body (Selfe & Selfe, 1994; Porter, 2003). Feminist scholars like Gail Hawisher and Patricia Sullivan (1999) and Susan Herring (2001) have pointed out that the Internet is by no means a neutral space where gender is invisible. On the contrary, Internet participants often take their gender identities into digital space with them: they can approximate their lifeworld gender identities, or they can create dramatically alternative identities in those spaces. As Hawisher and Sullivan (1999) discussed in their analysis of representations of women’s bodies on web sites, the Victoria’s Secret web site represents “the fantasy version of a desirable woman,” reproducing “the age-old stereotypical relations among the sexes” (pp. 274–275). The site often portrays women in provocative sexual poses à la the *Sports Illustrated* swimsuit issue to sell products.

The Victoria’s Secret site embodies the marketing cliché that “sex sells.” However, academics’ professional sites also attempt to market a product using bodily images, albeit a scholarly “product” using different forms of appeal. The professional web site for the legal scholar Lawrence Lessig (n.d.) (see <<http://www.lessig.org>>) is based on a professional *ethos* of scholarly competence, personal integrity, and civic concern. Using mainly text and textual highlighting, along with a few photographs (mainly of his book covers) and links (with associated logos) to public action groups like Creative Commons and the Electronic Frontier Foundation, Lessig creates an online persona for himself: the scholar-activist who publishes legal research but who is also invested in civic action pertaining to Internet freedom and digital intellectual property. He includes a photograph of himself standing with his arms folded, in a white shirt with rolled-up sleeves, in a kind of James Dean-like posture exuding nonchalant (but also studious) cool. No suit here, he’s not one of “them.” Not the stereotyped image of the corporate lawyer, but rather an activist-lawyer-scholar.

Compare Lessig’s professional web site with that of another scholar, Donna Haraway (n.d.) (see <<http://www.egs.edu/faculty/haraway.html>>). Haraway’s site is a more conventional programmatic web site consisting mainly of descriptive textual information about her current work: her courses taught, her current research interests, information about how to contact her, and her academic credentials and affiliations. She does not feature her upcoming speaking appearances, as does Lessig, or provide interactive tools like blogs and RSS feeds for readers to engage in discussion or to receive updates about her activities. In one early version of her academic site, she provided a photo of herself with a dog, a casual pose of her in blue jeans in a lush wooded setting. It is not the typical academic headshot at all, but a personal picture showing a warm side to her character. On both Haraway’s and Lessig’s sites, bodily representations

are an important supplement to information about their scholarly activity. Chiefly, those representations add a personal touch, using the body to exhibit an attitude that helps to represent each's identity.

These web sites provide static graphic representations of the body (photographs), but in the world of MMOGs or MMORPGs (Massively Multiplayer Online Role-Playing Games), virtual bodies actually *move* in 3D environments—for example, in game worlds like EverQuest and World of Warcraft and in simulated worlds like Second Life. People can create their own avatars and thereby represent themselves in the names they choose, their manner of dress, and their online performances (e.g., how they present in terms of race, gender, and sexual orientation; how they speak). There is a new generation of rhetoric scholars, like Phill Alexander (2007) and Brian Bailie (2007), taking principles of rhetorical and cultural analysis and critique into virtual worlds to understand the nature of the rhetorical dynamic in those worlds; to develop principles for written production within those spaces (e.g., principles for designing characters and for understanding conventions and ethics of the simulated world); and/or to understand the relationship between RL (Real Life) and VR (Virtual Reality).

It is not only the visual body that is recovered in virtual spaces. The speaking body is also recovered, as numerous scholars have pointed out (for example, Halbritter, 2004; Lunsford, 2006; McKee, 2006; Shankar, 2006; Rice, 2006). Voice and aurality are a central concern in digital rhetoric, as the World Wide Web supports multimedia discourse that enmeshes textual, video/visual, and aural elements. In digital spaces we have to consider not only textual presentation but oral performance, the very qualities of voice that were central to classical rhetoric. As VoIP services (Voice Over Internet Protocol) become more prevalent, the speaking voice will become an even more important feature of online worlds and games, and that will add yet another level of complexity to the rhetorical dynamic of such spaces. Will typed textual discourse disappear once VoIP becomes fully integrated? No, but its role in the rhetorical dynamic is certain to change as it becomes intertwined with voice and virtual bodily movement.

The traditional humanist approach to technology draws a firm line between the human and the machine, but this approach fails to appreciate the compelling power of virtual life and communication. A more promising approach, articulated by Katherine Hayles (1999) and others, is the posthumanist approach to technology. This approach begins with Donna Haraway's (1991) notion of the cyborg: a hybrid metaphor that challenges the human-machine distinction and questions conventional body boundaries and notions of the writer as purely human. A posthumanist approach explores cyborgian hybridity, the connectedness between human-machine. Such an approach begins by recognizing that "there are no essential differences or absolute demarcations between bodily existence and computer simulation, cybernetic mechanism and biological organism, robot teleology and human goals" (Hayles, 1999, p. 3). In effect, "we are all . . . cyborgs" (Haraway, 1991, p. 150).

The posthumanist approach views the human body and technology as merged in a new hybrid form: the cyborg. If we are thinking in terms of human communication, the cyborg is an especially useful metaphor, as I have previously argued (Porter, 2003). The machines that we use to write and speak are closely merged with our flesh-and-blood bodies, if you think about how we are connected to our cell phones and our computers (and to our cell phones which have become computers), thanks to the development of mobile and wireless technology. The phone/computer can now be with us at all times, even attached to our ears. But we are also typing text messages into those phones. We are also re-creating our bodies in cyberspace, as we create characters to represent us (who we are or who we would like to be) and rhetorically perform in virtual space. In 1990 our online rhetorical performances were mainly textual, as we typed our communications and sent them via email. The smiley face icon (and its ASCII derivatives) was our limit for bodily/ facial expression. By 2000 the World Wide Web was pushing us to think more visually about our communications and about how we represented ourselves graphically in photos. And now in the era of YouTube we must think cinematically and aurally as well. Digital rhetorical performance is becoming increasingly multimodal and increasingly synchronous.

Although it might seem that these virtual environments exist mostly for the sake of game-playing, entertainment, and, yes, virtual sex, that is only the first-generation version and popular representation of such environments. These virtual worlds are already becoming spaces for business transactions, for legal consultations, for political activity, for community support groups, and for training and education.³ Game-playing worlds and "second life worlds" are environments supporting a wide variety of human interactions. We need a robust rhetoric of digital delivery to understand how to be an effective rhetorical participant within these environments.

³ For example, the "Serious Game Design" (n.d.) Master's program at Michigan State University was founded in 2007 to teach game design "with a purpose beyond entertainment, including but not limited to games for learning, games for health, and games for policy and social change."

2.2. Distribution/Circulation

In the offline world, when you arrange a lunch appointment with a colleague, you decide how you are going to contact her—by phone, by email, by dropping by her office and asking her face to face. Your decision is based on contextual factors, including proximity to her in time and space and the immediacy of the appointment (Is her office close to yours? Is she there now? Is the lunch for next week, or next hour?), as well as knowledge about user preferences (Is she OK with phone calls at home? Is she a regular email user?). If you know that your colleague only occasionally checks email, and it is thirty minutes before lunchtime, then email is probably a poor choice for distributing your message. If you want to effect a felicitous outcome—one that results in you and your colleague actually meeting for lunch—then you reflect on this question of message delivery. Your reflection might take eight seconds—i.e., it is a brief, nearly instantaneous decision—but the choice of distribution matters to the success of the communication.

Digital distribution refers to rhetorical decisions about the mode of presenting discourse in online situations: What is the most effective way to distribute a message to its intended audiences, in a timely manner, and in a way that is likely to achieve the desired outcome? Circulation is a related term that pertains to how that message might be recycled in digital space (should you want that to happen).⁴ When you add a phrase like “Please feel free to re-post this call for proposals” to an email announcement, you are signaling to readers that you want broad circulation of your message. Distribution refers then to the initial decision about how you package a message in order to send it to its intended audience. Circulation refers to the potential for that message to have a document life of its own and be re-distributed without your direct intervention. You can design your discourse to achieve a high degree of circulation, or you can design it to limit circulation, depending on your wishes.

When I decide whether to submit an article manuscript to the print journal *College Composition and Communication* or to the online journal *Kairos*, I am making a *techne* decision regarding delivery, distribution, timing, and audience impact. If the article is accepted for publication in *CCC*, then I will wait probably two years for that article to appear (that’s bad), but it will be read by a broad cross-section of rhetoric/composition scholars and teachers (that’s good). If the article appears in *Kairos*, it will come out sooner (perhaps six months), but its audience will be different (more technorhetoricians, scholars and teachers already invested in teaching in online environments). Making this distribution decision requires understanding the relationship between my article and possible audiences, and knowing which publication venue is more suitable given the focus of the article and what kind of impact I want it to have and *when* I want to have it. Timing is a particularly important consideration—the *when* of rhetorical performance (see [Ridolfo & DeVoss, 2009](#)). The rhetorical term *kairos* refers to timing, to the appropriate time to deliver a discourse but also to the appropriateness of the discourse for its occasion (its audience, its immediate context, its historical and cultural context). It is a key concept for rhetoric in general, and for the canon of delivery in particular.

When I first distribute a digital document, I usually send it to a single designated location, or perhaps a few locations, for “publication.” However, to what extent do I want that document to circulate, to be recycled, reused, and reshipped? If I want a high degree of circulation, then it is important to understand the technological and rhetorical procedures for helping that document cycle in digital space. If I send that document as a Word file or PDF, I have already limited its circulation potential on the Internet. However, if I want to encourage broad circulation, I would write the piece in HTML and make sure to include appropriate meta-tags (that is, keywords embedded in the HTML code, visible in the code but invisible in the rendering of that code on the Web) that will assist searchers in locating that article. If I want broad distribution of a video I have created, I load it on YouTube and make sure that it is tagged with keywords that will invite viewing. If I want an online article to be shipped easily across a variety of digital formats, then I make sure to divide the content from the format—i.e., I design the writing using CSS, an approach to web authoring that separates the format file from the content file. Why do that? Because that enables the content to be shipped easily to different formats—for example, for display on a PDA screen or for easier rendering by a screen reader that will translate textual information into audio format for users with sight or reading disabilities.

⁴ I am indebted to Doug Eyman (2007) for helping me appreciate the relevance of the distinction between “distribution” and “circulation”—a distinction noted by Karl Marx (1970) but remediated here for application in the realm of Internet communication. Although Eyman’s framework for understanding circulation is different from my own, his 2007 dissertation provided a detailed and valuable analysis of this concept and analyzed techniques for tracking circulation in digital spaces.

To further encourage distribution I can attach a Creative Commons license like an Attribution-Noncommercial-ShareAlike license⁵ to my document that will clarify for users how they can use the work. I can license the work to encourage others to reuse and redistribute it but disallow commercial uses and insist that my authorship of the work be credited. How I design the work, license it, and tag it—and the location(s) I choose for its original distribution, and when I distribute it—all these matters play a part in determining the circulation potential for that digital document. In the print realm, such matters are typically handled by publishers and editors, along well-established axes of distribution (e.g., academic journals get shipped to libraries and individual subscribers). For a print journal article, I submit my typed, double-spaced manuscript and let the editors and publishers worry about distribution and circulation. In the digital realm, online writers need to become rhetorically smart *distributors* as much as *producers* of discourse.

2.3. Access/Accessibility

Numerous scholars in computers and composition have addressed the question of access (e.g., Banks, 2005; Grabill, 2003; Moran, 1999; Powell, 2007; Selfe & Hawisher, 2004; Slatin, 2006), but beyond identifying (and regretting) the problem of computer resource inequity, what can a writer or designer *do*? As Charles Moran (1999) said, “the rich have more, the poor less” (p. 215), but how does one approach the problem proactively? Moran advised university teachers to address the inequity problem locally by, for example, advocating “less-expensive equipment” (p. 218) and ensuring that computer-based writing curricula do not disadvantage the students with less or no access to computers. Such a strategy begins by challenging some of the technology policies and decisions that contribute to lack of access for many: teachers can be advocates for open-source software applications rather than costly proprietary applications; they can design writing assignments to make use of less expensive or free applications; they can teach students to be creative producers using less expensive tools (e.g., using Google docs, a free collaborative authoring tool, for team projects).

But this approach addresses the needs of a small and relatively privileged segment of society: those with the educational background and resources to attend universities. Outside the university, the problem of access is more severe: the absence and inadequacy of computer resources and the lack of an adequate network infrastructure in homes, schools, and public places mean that large segments of the population cannot access and benefit from digital information. That problem is a growing one in the United States where government documents, news media, health information, public archives, and even public debate have increasingly moved to online spaces, leaving people with limited access to those spaces cut off from information, public debate, and cultural knowledge vital to their health and well-being and necessary for their participation as citizens.

It is not enough to say that Internet usage is now “widespread,” just because we have data that tells us that there are over 220 million Internet users in the United States and that “most” of the people in the United States have access to an Internet connection. Those grand generalities by themselves mislead. Although the United States is near the top of the list of nations in terms of percentage of citizens with Internet access, it is important to note the significant income and education disparities. For example, for those with household incomes of less than \$30,000 per year, the level of Internet usage is only 57%, compared to 94% for those with household incomes over \$75,000 per year (Pew, 2008). Certain groups continue to lag in their Internet adoption, including Americans age 65 and older, black Americans, and those with less than a high school education (Fox, 2005; Pew, 2008).⁶ A large number of US citizens have *no* Internet access, and a large number have uneven or irregular access. “One in five American adults say they have never used the Internet or email and do not live in an internet-connected household” (Fox, 2005).⁷

⁵ Such a license signals to others that they can “remix, tweak, and build upon your work non-commercially, as long as they credit you and license their new creations under the identical terms” (About: Licenses, n.d.). In short, this license encourages remixing and promotes sharing of remixed products.

⁶ Data reported by the Pew Internet and American Life Project (2008) show that, as of December 2008: only 41% of Americans over age 65 use the Internet; only 64% of black Americans use the Internet (compared with 77% for whites); and only 35% of those who have not graduated from high school use the Internet (compared with 67% of high school graduates and 95% of college graduates). For purposes of this survey Pew defines “use” as an instance of someone using the Internet or sending/receiving email “at least occasionally” (Pew, 2008).

⁷ As Internet information design becomes increasingly multimodal (i.e., incorporating audio and video), the question of level of access becomes more important. Even if a poorer household has modem access, without broadband access that household is not able, practically speaking, to access certain forms of information that are presented only or mainly in multimedia formats. The groups that perhaps have the lowest levels of Internet access in the United States are Native Americans (particularly those on rural reservations) (Tristani, 2001; Twist, 2002) and disabled persons, a group that includes a wide variety of types of physical disability (Rainie et al., 2003; Slatin, 2006).

It is important to distinguish between “access” and “accessibility,” overlapping terms that nonetheless refer to distinct spheres of concern. “Access” is the more general term related to whether a person has the necessary hardware, software, and network connectivity in order to use the Internet—and to whether certain groups of persons have a disadvantaged level of access due to their race, ethnicity, socioeconomic status, gender, age, or other factors.

“Accessibility” refers to the level of connectedness of one particular group of persons—those with disabilities.⁸ When you take into account the wide variety of disabilities, it is not hard to imagine that at some point in their lives practically everyone has a disability of some kind, at least a minor one, and probably knows someone, or many someones, with a major and/or permanent disability of some kind. As John Slatin (2006) argued, the goal should not be “simply to make online information and services accessible” but rather “to ensure that the world has access to the ideas and information that are generated by individuals who have disabilities, individuals whose sensibility and consciousness may be radically different from those whose voices are most commonly heard—people who may have valuable solutions to problems that face all of us” (p. 161). In other words, the reason to write/design for accessibility is not only to enable people with disabilities to *consume* information but to help them *produce* it.⁹

From the standpoint of digital production, putting the concept of access into action means designing information so as to help audiences with limited access to digital resources engage that information via alternate media and formats. This could mean strategies such as promoting the installation of computer resources in publicly accessible places such as libraries, government buildings, and kiosks; maintaining information in both print and digital formats; and designing information for access via mobile phones and other handheld devices. For instance, while a health clinic might move much of its patient information into web-based delivery systems, it should consider maintaining that information in print forms (and in robust forms of print distribution) so that lower income users can still access it.

Designing information for ready and usable access by mobile phones is perhaps the most important way to support access by a broader socioeconomic range of users—and also by users across the globe. From a broader global perspective, computers and Internet access simply don’t exist for much of the world. (Africa has a population of 975 million, 14.5% of the world’s population, but only 5.6% of the African population are Internet users. India has a population of over 1 billion people, of whom only 7.1% are Internet users [Internet World Stats, 2009; US Aid, 2003].) The penetration rate for cell phone usage is much greater than for computers, particularly in countries like India and China. (As of 2007, China had 487.4 million cell phone subscribers—or about 38% of the population (Data Group News Service, 2007; see also Associated Press, 2006; Lemon, 2007). Europe is approaching 90% saturation [Reardon, 2007].) The emerging area of “mobile web design” (Gohring, 2006; Jones, 2004; Moll, 2005) focuses on strategies for writing web-based information in ways that will make it readable via handheld devices, because for many users that will be the principle mode of access to web-based information.

Designing for accessibility requires a certain kind of *techne* knowledge related to delivery. If I am given the technical writing assignment to “write a manual that helps people set up their DVD player,” the first thing I should understand is that the assignment is flawed. The instruction to “write a manual” confuses ends with means. It is confusing the formal aspect of *techne* (make an object, a manual) with the final goals of *techne* (help people use their DVD players). In Aristotelian terms, the assignment confuses formal cause and final cause.

Focusing on delivery—and, particularly, emphasizing access and accessibility—means starting the writing process with audience and working backwards to made object. We might then rearticulate the writing task along these lines: “People need to set up their DVD players—and some of these people do not have access to the Internet, some are seeing-impaired, some cannot read, etc. How do we help these people install their DVD players? What types of help do we offer?” Approaching the problem from the perspective of audience access/accessibility means starting with audience need—and with the diversity of audiences—and then developing a rhetorical approach (or, more likely, a variety of approaches) to address that need.

⁸ Mary Frances Theofanos and Janice Redish (2005) stressed the importance of designing online information for blind and “low-vision users”—a category that includes a large number of people (about 7.7 million people in the United States alone), and a category that will include almost every person at some point or other in their lives. Many users cannot fully access multimedia or animation on the Web: people with hearing disabilities need captioning or transcripts for audio content; people with vision disabilities need descriptions of video content.

⁹ Annette Harris Powell (2007) argued that it is important to approach access on the level of “actual practices” (p. 17). As Powell pointed out, the issue of access for many is not so much access to physical technology (hardware, software) as literacy and social access—i.e., understanding about online rhetorical conventions and dynamics and how to negotiate them. See also Porter, 1998, pp. 102–105.

Defining interactivity in terms of human interaction potential, rather than by reference to technical features, helps us imagine a broader range of human interactions with machines, systems, interfaces, and designs. And indeed this is what the phenomenon of Web 2.0 is all about. On the right side of the continuum we have more emphasis on the highly interactive forms of design, forms that critically engage the user and that even invite the audience to co-produce knowledge (when appropriate of course—when I’m ordering airline tickets I don’t need to be a co-producer). The true revolution of the Internet lies at the right end of the interactivity spectrum—when users can critically engage what they read (e.g., by commenting on a published editorial posted on a blog) or further to the right, when they co-produce and become writers, when the distinction between audience and writer blurs. At this level, a site actively invites the audience to become a co-producer of content. What social networking sites, video games, wikis, and simulated worlds are demonstrating is that audiences participate enthusiastically when they are invited to become co-producers of content, when the activity is meaningful, when the content is engaging and compelling.

In a study published in *Technical Communication Quarterly*, Carl Whithaus and Joyce Neff (2006) examined the quality of interactivity in a hybrid writing course (for another important study of online interaction, see Wysocki, 2001). Their study involved students taking the same course, but from three different locations with three different types of interaction: “those physically present with [the instructor, Joyce Neff] in the classroom, those participating in small groups at distant sites, and those at isolated computer terminals without direct voice access” (p. 433). One of the key findings of their study is that the quality they call “liveliness” is a critical component of learning, and living, in online spaces. They define “liveliness” as “a moment in which discussion emerges in an unpredictable, but not necessarily unplanned for, form” (p. 451). It could be a moment when the students are engaged in genuine problem solving (and there is no one right expected answer); it could be a moment of frustration or tension (e.g., when students are negotiating assignment requirements with the teacher). Whithaus and Neff concluded that teachers should script in “spaces or activities that encourage open-ended student discussion about their writing projects” (2006, p. 451) in order to encourage liveliness to emerge in a hybrid course.

The Whithaus and Neff study affirms that a key feature for effective interaction is liveliness, or what Nathan Shedroff (n.d.) called “interesting and compelling experiences.” Yes, access and usability are critical measures of audience interactivity, but they represent only the minimal criteria for interactivity. Digital information that is designed in ways that interest and engage audiences and that calls upon them to actively participate in co-production seem to be more effective than those designs that position the audience as passive consumers of information.

2.5. Economics

When rhetoric asks questions about audience and purpose—What is my purpose for writing? Who is my audience?—it is also implicitly asking questions about the economics of delivery. What motivates someone to produce and distribute a piece of writing? What motivates someone else to access it, read it, interact with it? What drives the interaction and makes it productive for both parties? These are basic questions of rhetorical production that are also basic questions of economics. These are questions that need to be included in a robust canon of digital delivery.

Writing—all writing, I would say—resides in economic systems of value, exchange, and capital. These systems are not necessarily monetary or commercial systems (think about Pierre Bourdieu’s [1983] notions of cultural capital and social capital), but they are economic systems nonetheless. The kind of economics I am talking about has to do with value more broadly defined: yes, it might involve the exchange of currency—but the motivation could be based on desire, participation, sharing, emotional connectedness. This is the secret of the Web 2.0 dynamic.

I use the phrase “the economics of rhetoric”¹¹ as shorthand for a number of different delivery concerns, including questions about motivation (what prompts somebody to write?); questions regarding intellectual property, ownership, and rights to writing; and matters related to credit, payment, and the labor of writing. The economics of rhetoric is dramatically changed in the realm of digital discourse.

This dramatic economic shift has occurred because of technological developments involving “the internetted computer” (Porter, 1998; Porter, 2003) and because of the social networks that the technology has helped to promote.

¹¹ Economics has always been an important component of rhetoric, as DeVoss and Porter (2006) have argued, but historically the relationship has only occasionally been articulated, appreciated, or examined within the field of rhetoric—most notably by Deirdre McCloskey (1998) and Richard Lanham (2006) (see also Carter, 2005). It is important to note the distinction, however, between McCloskey’s focus on *the rhetoric of economics*, versus my focus on *the economics of rhetoric*.

The computer plus the Internet and the World Wide Web provide publishing capacity to the individual writer. With a networked computer with a copy-paste function, the writer has the capacity to download and upload files and, if she has broadband Internet access, “the means to distribute and access a wide variety of information (text, graphics, audio, video) globally, quickly, and relatively easily” (DeVoss & Porter, 2006, p. 195). Such a capacity threatens the traditional print-based and analog models of publishing and media distribution because it puts publishing capacities in the hands of a much broader cross-section of society. Not everybody has this capacity, to be sure, as we have seen in our consideration of Access/Accessibility, but a much broader range of ordinary users now has the economic means to “compete” (in some sense) with traditional publishers and media conglomerates—in the same way that the printing press opened new avenues for print distribution in the 16th century, threatening the Church’s control over the distribution of knowledge.

The first major crisis of the new digital economy was “the Napster crisis” (DeVoss & Porter, 2006). This Internet-based service enabled thousands of users to upload and share their music files in a comprehensive way that was not possible with analog audiotapes. What Napster labeled as “filesharing” the recording industry signified with a different term: “piracy.” The Napster case is just one example of how, in creating new mechanisms for distribution and circulation, Internet technology has created the cyberinfrastructure allowing for new digital economies to emerge—economies that can create significant challenges for industries built on nondigital economies.

Traditionally, rhetoric/composition has typically conceptualized writing from the standpoint of “composing” (creating the isolated text) and “reading” it. But when writing enters digital spaces, we need to reconceptualize writing from the point of view of production, consumption, and exchange (see Marx, 1970; Trimbur, 2000). This shift in vocabulary is not innocent or neutral. It forces us to think about writing as involving labor, as being involved in an economic system of exchange, as having status as a commodity with value (both use value to the reader, but also exchange value).

What are the motivations for distributing information online? What motivates someone to maintain and post to a political blog, or to help strangers solve their technical problems in a user help forum, or to contribute an encyclopedia entry to Wikipedia—all instances of unpaid writing? As Clay Shirky has said, from an economic standpoint “it sure is weird that the Wikipedia works” (Aigrain, 2003). It is not weird if you accept that people write because they want to interact, to share, to learn, to play, to feel valued, and to help others. And that drive of people to interact socially is a key feature of the new digital era. It explains the popularity of blogs and of social networking spaces like Facebook, MySpace, and YouTube.

Yochai Benkler has been investigating this phenomenon of social sharing in the digital realm, framing such sharing in terms of a gift exchange economy (Benkler, 2003; Benkler, 2004; Benkler, 2006). His first point was that conventional monetary notions of economics are inadequate for explaining the phenomenon of social networking. Like carpooling, social networking does not usually generate dollars directly—but, like carpooling, it does generate economic value, value that is not easily captured by standard economic models. The term that Benkler employed to describe this phenomenon is “commons-based peer production,” which refers to a mode of economic production in which the creative energy of large numbers of people is coordinated into meaningful projects, mostly without traditional hierarchical organization or financial compensation. Most scholars are involved in commons-based peer production, or at least they are if they are participants in email discussion groups (i.e., listservs). Most professional discussion groups—like H-RHETOR (for scholars working in the history of rhetoric), AoIR-L (listserv for the Association of Internet Researchers), and CHI-WEB (discussion group for web designers)—are based on a gift-exchange economy. Scholars and practitioners participate on these lists not to make money directly but rather to share information and resources of value to the community.¹²

The other crisis involving digital economics is the plagiarism crisis—the perception (backed by some evidence) that the academic problem of plagiarism has become much worse in the digital era, thanks to easier access to available texts (through the Internet) and thanks to the growth of the online term paper industry. In the realm of the Internet and World Wide Web, plagiarism makes a lot of sense from an economic standpoint—that is, if we are willing to suspend the ethical standpoint. In the world of digital filesharing, it makes much more sense to find available material and to recycle

¹² Writing well before the digital age, Pierre Bourdieu (1983) told us two things of importance to digital distribution: (1) the importance of symbolic capital (or cultural capital) in a society should never be underestimated; and (2) the relationship between symbolic and material capital matters; they have an effect on one another. (Symbolic capital is tied to the potential and actual development of economic capital.) Figuring out how this works is *not* just the job of economics. It is the job of rhetoric as well.

it than to create new material. From the standpoint of efficiency, recycling makes a lot of sense. The issue for digital writers is distinguishing between licit and illicit recycling—with the understanding that the guidelines for determining that distinction rely on a rhetorical understanding of the contexts of use. In academic contexts, the rules for crediting others' work differ from those in professional workplace contexts or social networking contexts. In a digital economy, the role of the professional writer/designer shifts from production of original content to managing information: that is, overseeing the design, development, and testing of information products. What we have in digital writing is a different economic exchange system than in print culture. Capital resides not so much in the original texts you produce as (a) in your ability to deliver and circulate texts in ways that make them accessible and useful to others and (b) in your ability to collaborate with others, to share files, to co-create meaning in social spaces. In other words, in the digital economy, what we think of as “writing ability” is shifting toward a collaborative notion of networked writing.

The production, distribution, use, and circulation of digital materials always involve issues of intellectual property—sometimes trademark issues, but almost always copyright issues. I see the issue of copyright, and the related issues of ownership, licensing, and control of digital material, as a key subtopic of digital delivery. Take the example of the screen shot, a common technique for capturing or copying online images. Almost every screen shot involves the capturing of copyrighted material. The question is, Who owns the copyright? For a screen capture, there are likely to be multiple copyright holders involved. For example, if I capture a Facebook page, I am likely picking up three types of copyrighted material: (a) original work created and uploaded by the account holder, the “user” (e.g., photos, comments and captions, messages); (b) potentially, work copyrighted by others that the user has “borrowed” for use on her/his site; and (c) most likely, pieces of the Facebook interface copyrighted or trademarked by Facebook.

Negotiating questions about the rights of users (writers) vis-à-vis the rights of copyright holders (authors, publishers) is one of the key economic questions for digital rhetoric: deciding what is usable and what isn't, who needs to be credited and who doesn't, and who has the right to control these decisions involves both legal and ethical considerations. Such questions are important for individual writers, but they are also large social and political questions involving copyright laws and information policy. To be an effective digital writer and designer, one who has sufficient understanding of the *techne* involved here, requires extensive and current knowledge of the status of law and policy.

Thus, as pertains to delivery, the *topos* of economics includes issues of rhetorical economics—that is, motivation and exchange value: determining what information content, strategies, designs, architecture, etc. will likely encourage the participation of desired audiences. It includes questions of payment or credit for labor. It includes ethical questions of economic rights as well, questions that the field of computers and composition has long been raising in regards to digital copyright, plagiarism, and filesharing.

3. Delivery in action

Technical knowledge is integral to digital rhetoric, but that knowledge is not merely mechanical, routinized procedure. Yes, it can certainly be reduced to that (and often is), but when practiced as art (*techne*) technical knowledge intersects with rhetorical and critical questions in order to assist discursive production and action.

The *techne* of digital rhetoric required here must be of two types: (1) productive how-to knowledge—i.e., the art of knowing various technological options and knowing how to use them to achieve various rhetorical effects; and (2) practical judgment, ethical *phronesis*—i.e., the ability to ask and answer critical questions about one's choices, such as what serves the common good, what are the human implications of various options, who is in/excluded, who is helped/hurt, who is empowered/disempowered by various technology designs? *Productive* knowledge about making and *practical* knowledge about doing (and the ethics of doing) should work in conjunction to guide writing/communication practice. Here is where humanistic thinking has much to contribute to HCI.

By themselves, as static topics, these *koinoi topoi* of delivery—Body/Identity, Distribution/Circulation, Access/Accessibility, Interaction, Economics—do not do very much. To maximize their generative or productive power you must put them into dynamic interaction with one another and with other rhetorical topics. In other words, you connect up questions of delivery with rhetorical invention, with audience, with design of online information, and so on. Sort of like the relationship between Kenneth Burke's (1969) pentad and the ratios.¹³

¹³ Burke's pentad forms the basis for his dramatisic method. The five perspectives of the pentad—scene, act, agency, actor, purpose—represent five viewpoints one can take toward human situations. However, it is through forming the *ratios*—i.e., putting the five elements of the pentad into

Here is one example of what I mean: A real-world communication problem for emergency room healthcare is how to locate relevant patient records quickly and how to render those records textually, aurally, and/or visually—sometimes on an extremely small handheld screen—so that healthcare providers can quickly determine the proper course of medical care. In an emergency room, getting the right information quickly to the right medical personnel can mean the difference between life and death. Studying this process and designing information systems to meet the needs of multiple healthcare users are concerns of designers in HCI and researchers in usability studies (see, for example, Mirel, 2003).

This is not a merely mechanical task but rather one of *techne*: a task involving critical decisions about audiences and their disciplinary orientations (e.g., given their differing roles in healthcare, nurses, doctors, hospital administrators, and lab technicians need different kinds of information and at different levels of granularity); questions of information selection and arrangement; ethical issues regarding patient privacy and who should have access to what information; and deep understanding about the workplace context and the rapid information dynamics of that context (What happens in emergency rooms? How do healthcare providers do their work, how do they access information while providing patient care?).

The distributed information is not just digital, of course. The communication dynamic involves print, oral, and digital forms of information intersecting (and, at times, conflicting)—and of course the patient's body is right there as the key focal point of the entire scene. The canon of memory plays a key role in this setting: i.e., retrieving a patient's medical history, lab test results, and so on. Memory here is not only a mechanical question of information storage but a *techne* question involving the process for generating information content and considering audience (*inventio*), design of information (*dispositio*), and mechanisms for technological delivery (*actio*).

Solving this problem for healthcare requires a *rhetorical* approach, and it requires putting the topics of the rhetorical canon into dynamic tension: we must understand how to store patient information (*memoria*) so that it can be quickly retrieved by different users who are accessing that information for different purposes at different stages of patient care. The information has to be arranged (*dispositio*) in a way that is easily comprehensible. It has to be delivered (*actio*) via different media. The persons responsible for entering that data have to understand what data is needed by what audiences for what purposes (*inventio*) and design the information (*dispositio*) in a style that is clear and concise (*elocutio*).

The question of delivery of information is similarly complex: How do I ensure that different audiences, accessing the information via different media and browsers and devices, “see” the same information? What mechanisms do I install to enable certain designated users to change or update patient information—and who has the right to change the patient's record? What policies and technological constraints need to be built in to ensure that patient information is distributed quickly to those who need it while simultaneously protecting the information, screening it from those who do not have a right to see it? Treating the problem as a strictly mechanical question or as a matter of information storage and retrieval misses the complexity of the rhetorical setting, particularly the complexity of the *use* of this information by and for humans. This situation needs smart technological thinking for sure, but it also requires smart rhetorical thinking (and legal and ethical thinking) that is sensitive to audience needs and the context of the information's use, a context that includes legal and political considerations as well as health-related and disciplinary ones.

The point of reviving delivery is not to demonstrate the enduring truth of classical categories. What matters is developing useful rhetoric theory. A useful rhetoric theory should raise significant questions and encourage productive thinking about how to communicate with others. The real value in developing a robust rhetorical theory for digital delivery lies in production: How can this theory aid productive action? How can it prompt the critical thinking of writers/designers and help them produce better (more valuable, usable, and useful) online communications and thereby help people with their lives? As always, the ultimate point of rhetoric is to help writers/speakers/designers do a better job of helping people live their lives—or, even, save lives. Developing a robust rhetorical canon for digital delivery is necessary to achieve that end.

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dyadic relationships (scene-act, scene-agent, etc.)—that the writer/producer can achieve critical understanding about human action and motives. Similarly with the *koinoi topoi* of delivery: it is by making connections among and across the topics that the writer/producer can achieve productive, creative thinking.

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