Digital Rhetoric: Theory, Method, Practice
Douglas Eyman
Series: Digital Humanities

DOI: http://dx.doi.org/10.3998/dh.13030181.0001.001 [http://dx.doi.org/10.3998/dh.13030181.0001.001]

// two // Digital Rhetoric: Theory

When I began the project that eventually led to this book, I was interested in developing a theory of digital rhetoric, following Zappen (2005), who had suggested that scholars of rhetoric and technology should seek to craft a coherent digital rhetoric theory by synthesizing the various approaches that he cataloged in “Digital Rhetoric: Toward an Integrated Theory.” However, there is such a wide range of digital domains and contexts that digital rhetoric may engage that I am instead convinced that, like visual rhetoric, digital rhetoric should be viewed as a field that engages multiple theories and methods rather than as a singular theory framework.

In the sections that follow, I will be reviewing current work on the development and extension of digital rhetoric theory. Generally, scholars have chosen to either apply the well-established theories of classical and contemporary rhetoric to digital texts and contexts or they have argued that the digital, networked, communication requires a revision or rearticulation

of said theories. In other cases, the suggestion has been made that new forms of digital communication may require the development of a new rhetorical theory altogether, and several attempts have also been made to reframe theory from other disciplines and fields as inherently rhetorical (even if not explicitly understood as such except by rhetoricians). Because of the rapid pace of technological development and the relative youth of digital rhetoric as a field, I believe that there is value in each of these approaches, and I do not intend to privilege one over another; however, there are currently more examples of application and revision than there are of reframing and inventing new theories.

In terms of applying and revising traditional rhetorical theory, there is a distinct division between scholars who focus on classical rhetoric and those who prefer to engage contemporary theory. In this chapter, I will begin by reviewing approaches to classical rhetoric in terms of revising or reframing the five canons of rhetoric and then move to contemporary rhetorics by looking at the rhetorical situation, identity, networks, and digital ecologies, economies, and circulation. I have provided an overview of selected works in each of these areas in order to show a range of approaches and applications, but these references are certainly not exhaustive. As with digital rhetoric methods and practices, it is possible to claim that nearly all work that addresses digital communication can be considered part of digital rhetoric; however, I have endeavored to principally focus on work that explicitly situates itself within digital rhetoric and closely related fields.

Digitizing Classical Rhetoric

Most treatments of digital rhetoric focus on more contemporary work of theorists like Roland Barthes, Mikhail Bakhtin, Kenneth Burke, and Michel Foucault, among others; until recently, connections between classical rhetoric and digital media have typically not moved beyond applying

traditional rhetorical analysis of the role of ethos, pathos, and logos in online texts. James Zappen's (2005) "Digital Rhetoric: Toward an Integrated Theory" addresses the use of these three primary rhetorical appeals but focuses primarily on issues of identity and community as engaged by current rhetorical theory. The first work to fully engage classical rhetoric as a foundation for digital rhetoric theory is Kathleen Welch's (1999) *Electric Rhetoric: Classical Rhetoric, Oralism, and a New Literacy*. Welch uses Isocrates as a key figure of classical rhetoric, arguing for the "redeployment of Sophistic classical rhetoric" as a key move in developing a rhetorical theory that can account for the persuasive affordances of electronic media. Welch draws on the recovery work performed in the 1980s and 1990s by Cheryl Glenn, C. Jan Swearingen, Susan Jarrett, Richard Enos, Edward Schiappa, Takis Poulakos, and Victor Vitanza, then adds to this work her own construction of Isocrates as Sophist: in her argument, "classical Greek rhetoric and writing practices are Isocratic, which is to say Sophistic, intersubjective, performative, and a merger of oralism and literacy" (12). More recently, Collin Brooke (2009) undertakes a complete reconfiguration of the classical canons of rhetoric in *Lingua Fracta: Towards a Rhetoric of New Media*. While others have focused on a specific canon (such as memory or delivery) and their application or rearticulation in the face of digital texts, thus far only Brooke has provided a comprehensive consideration of all of the canons, describing their complex inter-relationships as an ecology of practice: "As an ecology of practice, the canons supply a framework for approaching new media that focuses on the strategies and practices that occur at the level of interface" (28).

Recovering the Sophists for a Digital Age

Sophistic rhetoric, with its focus on both literacy and orality and a clear sense of situated activity and sociocultural relativism, certainly is well suited for addressing issues of multimedia presentation and the function of

digital text circulation within particular social and electronic networks. In part, sophistic rhetoric is useful for exactly the reasons that got it into trouble with Plato: in her discussion of the *Pre-Socratic Philosophers*, Kathleen Freeman (1966) indicates that Plato felt that the sophistic principles of cultural relativism disavowed "any possibility of stable knowledge of any kind" (349), thus suggesting also that "objects do not exist except while someone is perceiving them" (349). Indeed, digital objects do not exist in the material sense apart from observation, activity, and use (either by humans or by technological actors). Another feature of sophistic rhetoric that argues for its importance to digital rhetoric is its focus on probability (and denial of absolute truth): "Acknowledging an epistemological status for probability demands in discourse a flexible process of ordering or arranging, a feature of both *nomos* (a social construct involving ordering) and narrative" (Jarratt, 1991, 47).

While relatively few scholars have focused on the Sophists (in part because we have less original material to work with), Welch's (1999) *Electric Rhetoric* provides an exemplary study in the use of sophistic rhetoric as applied to digital contexts.

Blakesley and Brooke (2001) and LaGrandeur (2003), among others, have singled out the work of Gorgias as prefiguring the value of visual rhetoric within the digital context, and Scott Reed (2009) characterizes "the rhetorical scene of 4th and 5th Century BCE Greece as something of a cybernetic system, one in which the conversation/conflict between Plato and the Sophists (particularly Gorgias, in my limited reading) can be viewed as a meeting ground between distinct approaches to medial 'extension'" (51).

In an earlier call to revive and use sophistic rhetoric, Michelle Ballif (1998) links the figure of the cyborg with the Sophist to create a "Third Sophistic

Cyborg" that functions "not as a rhetorical subject/political agent in any traditional sense, but rather as a rhetorical figure that embodies postmodern rhetorical practices" (53). Her aim is to show how this form of rhetoric might radicalize politics and democracy; it is a large-scale project that envisions a new kind of rhetor for a digital age: "The Third Sophist . . . is suggesting a rhetorical situation negotiated by *metis* rather than mastered by *techne*; and the cunning Cyborg is the figure (which is not One, but a network) that navigates the postmodern discursive world . . ." (67).

Recovering the Sophists for digital rhetoric can take place at the level of the image, the action, the process, or on the much grander scale of reforming rhetoric itself. It strikes me that there is still much productive work that could be done in digital rhetoric with regard to understanding and applying sophistic rhetorics to digital contexts, and I hope that we will see an increased focus not just on the relationship of Aristotelian-and-after classical rhetoric but a continuation of this kind of recovery work.

The Canons of Classical Rhetoric

I address the main elements of the rhetorical canon—invention, arrangement, style, delivery, and memory—in terms of their relation to the production of digital texts; I aim to focus, as the Roman rhetoricians did, more on production than on analysis, as Lauer (2004) indicates when she notes that "interpreters of . . . Roman rhetoricians, discussing their epistemologies, have often described their concept of rhetorical invention as a practical art concerned with the 'how,' not the 'why'" (23).

It may appear at first glance that I will be leaning rather heavily on Aristotelian constructions because I am using his canon of rhetorical practices as an organizing principle (which should be no surprise; Aristotle is nothing if not an expert taxonomist—perhaps the finest information

architect of his day). But, as Porter and Sullivan (1994) aptly note, "[b]ecause rhetoric is a situated and applied art, it generates *principles*, not *rules*. The difference is significant: principles are always interpreted and adjusted for situations (and rarely survive in pure form); rules circumscribe absolute boundaries" (115); in using Aristotle's framework, I hope to provide an anchor for the generation of principles—at the same time, I hope to avoid his tendency toward declamation of specific rules and dicta. In some respects, Aristotle's rhetorical canon *may* not be ideal for a taxonomy of digital practices because there is a great deal of overlap between invention and arrangement and even of invention and style when considering the production of digital compositions; thus the divisions are, like the digital works they aim to describe, porous.

Brooke (2009) argues that the "canons can help us understand new media, which add to our understanding of the canons as they have evolved with contemporary technologies. Neither rhetoric nor technology is left unchanged in their encounter" (201)—so there is a reciprocity at work as we consider the canons in light of digital rhetoric practices and new media objects. One approach that we can take is a fairly simple mapping of digital practices to classical uses of the canon, as presented in the table below:

But this kind of mapping doesn't surface the kind of reciprocal interaction that Brooke describes, instead keeping the canons intact as reified monuments rather than the flexible schema we need for them to continue to work after their encounter with digital texts. In each of the next sections, I'll take a look at the canons individually and note scholars (like Brooke) who have worked to reimagine or reframe the canons for use within a digital rhetoric.

Invention

In Aristotle's famous formulation, rhetoric is "the art (*techne*) of finding out the available means of persuasion" (1991, 37), and the primary means of finding these means is through the faculty of invention, which describes "how individuals might employ a theoretical framework to discover arguments that might be effective in public deliberation and judgment" (Sauer, 2003, 3). Michael Leff (1983) similarly describes Cicero's inventional topics of person and act as a shift from the Aristotelian "discovery of inferential connectives to the discovery of the materials for arguments" (29); according to Leff, Cicero's system (as described in *De Oratore*) also rejects Aristotle's strict division of dialectical and rhetorical theories of invention, drawing on both to provide an emphasis on discovery that privileged the establishment of logical relationships and the creation of categories of topics based on the subject of the discourse (30–31). Cicero's model of invention, then, can be described in terms of links (relationships) and lexia (materials). Renato Barilli (1989) also argues that Cicero overturned Aristotle's model of dialectic over rhetoric because Cicero valued the forum over the chamber, maintaining that Cicero refused to privilege content and meaning over modes, signifiers, situations, or contexts and that the probable for Cicero has a historical and temporal dimension (27–28). Thus, Cicero's model is also particularly appropriate for understanding networked rhetoric, which is metaphorically more forum than chamber, and which creates meaning through shared historical, temporal, and geographical contexts.

Table 2.1

Canon	Classical Definition/Use	Digital Practice
Invention	finding available means of persuasion	searching and negotiating networks of information; using multimodal and multimedia tools
Arrangement	formalized organization	manipulating digital media as well as selecting ready-made works and reconstituting them into new works;

		remixing
Style	ornamentation/appropriate form	understanding elements of design (color, motion, interactivity, font choice, appropriate use of multimedia, etc.)
Delivery	oral presentation	understanding and using systems of distribution (including the technical frameworks that support varying protocols and networks)
Memory	memorization of speech	information literacy—knowing how to store, retrieve, and manipulate information (personal or project-based; blogs or databases)

Casting invention as a process of discovery fits current practices of digital production in two respects: in the most common case, writers seek out materials to inspire—and in some cases to incorporate into—their own digital work; but rhetors also use the capacity of invention-as-discovery to invent new digital forms as well. Invention, as a function of digital rhetoric, includes the searching and negotiation of networks of information, seeking those materials best suited to creating persuasive works, as well as knowing which semiotic resources to address and draw upon (aural, visual, textual, hypertextual) and what technological tools are best suited to working with those resources.

Invention also takes place through interactions with other texts (including engagement with multimodal/multimedia digital objects and electronic discourse with other people). As Collin Brooke (2009) notes, new media texts foreground both “a more social model of invention” and “a model that is concerned more with practice than product” (82). For example, in a case of blogging by citizen-journalists, Damien Pfister (2011) argues that a “fundamental contribution that bloggers make to public deliberation” is “the invention of novel arguments. It is not just that bloggers simply pay attention to certain issues, thus directing the focus of the press; it is their ability to (occasionally) invent arguments worth taking up in broader

spheres of public engagement" (152). This process of invention happened through social interaction rather than as an individual process of discovery (which is the more common approach to understanding invention in terms of writing pedagogies in composition/rhetoric). Ryan Skinnell (2010) makes a similar point in an investigation of responses to a widely circulated video on YouTube. Skinnell also situates YouTube as an archive, arguing that the archive (as cultural practice of memory) can serve as a site of invention:

> archives are incomplete traces of past events. . . . [I]n Derrida's theory of archives, however, this incompleteness is not a barrier, but an imperative of archives that invites users to invent the narratives that make the traces seem whole. . . . The archives may determine what can be wrought from them, but the fundamental incompleteness of materials leaves spaces for users to invent connections that make the archives salient and comprehensible. (n.p.)

These gaps in the archive are a less extreme form of Hilst's (2011) directive to experiment with nonbeing as a mode of invention as it invites users to examine the elements of the archive that are not-there and respond to said archival incompleteness.

Rhetorical invention in networked digital contexts arises from user interaction both with archives and with other users, but it also is enacted and used individually but any given writer. Elizabeth Tomlinson (2011) suggests that "digitized rhetorical invention encompasses aspects of both idea creation and discovery, particularly as manifested through writers' audience considerations and their descriptions of their writing processes. By further deconstructing the artificial binary, digital invention can be more effectively and usefully interpreted according to a socio-cognitive

framework . . . which acknowledges spaces for both social influences and individual subjectivities" (63). The interaction of the social and individual, and the resistance of closure (in a sense, the experimentation with nonbeing), undergirds Brooke's reframing of invention as proairesis (action) as opposed to hermeneusis (interpretation). Brooke contends that "hermeneutic invention relies on the relative sturdiness of a final object and the negotiation of meanings within it . . . much of our theorizing about invention in rhetoric and composition remains bound by the particular media for which we invent" (68). For new media texts, there may be no "final object" as such (and if there is one, it may well resist "sturdiness" altogether); thus an understanding of invention for digital rhetoric should resist closure. Brooke uses social bookmarking services (sites like del.icio.us and citeulike) as an example of a digital invention practice that both engages social interaction and resists closure or completion in a way that privileges invention-as-action over invention-as-interpretation.

Brooke's take on invention follows in part from the distinction that Gregory Ulmer (2003) has made between heuristics and what he calls "heuretics"—"the use of theory to invent forms and practices, as distinct from 'hermeneutics,' which uses theory to interpret existing works" (4). In *Internet Invention*, Ulmer provides a kind of textbook-in-progress designed to introduce a new framework of invention for digitally mediated texts and images that are read not through traditional forms of literacy but through "electracy" ("a neologism coined to distinguish the emerging apparatus from the established one" [28]). Ulmer suggests that orality and literacy served specific socio-cultural institutions and that with each change in dominant medium, new institutions will arise: "In the same way that Socrates, Plato, and Aristotle did not ask how writing might serve the needs of the institutions of orality—religion, ritual, magic—but instead invented a new institution—school—and new practices native to writing (method, dialogue), it is my responsibility . . . to find an equivalent for electracy"

(28–29). This equivalent institution he calls the "EmerAgency," which is a kind of collaborative consulting practice for digitally produced investigations. Ulmer explicitly states that "the EmerAgency is a practice for invention" and opines that he is "optimistic about the possibility of the EmerAgency to facilitate the formation of digital rhetoric, even if it is not the rhetoric that I propose, since it does not claim absolutely to be that rhetoric, but rather a means to invent an appropriate internet practice" (28).

Invention, then, is not just the collection of resources that can be deployed in the development of an argument, and it is also more than the new arguments found through interaction with new media texts and through online social discourse—invention in digital rhetoric leads to new kinds of text, new forms of meaning, new practices of production, and potentially new institutions. Invention is also tied explicitly to arrangement, which can also facilitate invention in its application.

Arrangement

Arrangement in classical rhetoric is typically a formal system of organization that delineates each part of a speech based on its purpose: Aristotle (who was more concerned with invention than arrangement) recommended four parts, Cicero suggested six divisions, and Quintilian divided the oration into five parts (the genesis of the five-paragraph essay). For classical rhetoricians, though, this system of organization was not fixed and orators where not bound to follow the conventions in every case. Doug Brent (1997) suggests that in classical rhetoric, "arrangement is determined more by the context, the audience, the rhetorical purpose—the cluster of exigencies that rhetoricians refer to as *kairos*—than by a 'logical' progression of propositions" (n.p.).

While arrangement for digital works is still intimately tied to *kairos*, it shifts radically away even from the organic principles of organization suggested by classical rhetoric when new media works can be constructed nonlinearly. However, there is one hallmark of classical arrangement that is actually better suited to digital composition than to print composition. As Jane Walpole (1981) contends, "unlike its modern namesake, the classical concept of arrangement focused on the seven parts of an oration: introduction, narration, exposition, proposition, confirmation, confutation, and conclusion. This sequence is clearly designed to help a listening audience follow an oral argument. It teems with repetitions, restatements, familiar examples, expected patterns—clear characteristics of oral literacy" (66). While Walpole argues that these cues are unnecessary for readers (e.g., because they can refer back to previous pages of text), they take on new importance in digital rhetoric, where the thread of organization may not be the same for all audiences.

In digital rhetoric, arrangement may be a conscious decision of the writer of the digital text, but it may also be left up to the user, as in the case of hypertext, where the reader creates a new arrangement with each reading. In this case, arrangement is more of a boundary condition*, as the possible arrangements are limited by the number of nodes and the links between* them that have been established by the author. In this case, arrangement functions architecturally, and Brooke draws on Quintilian's architectural metaphor (from Book VII of *Institutio Oratoria*) to explain that "just because there is more than one way to walk through a building, this does not make its arrangement (architecture) irrelevant. So too with hypertexts" whose "links . . . are rhetorical practices of arrangement, attempts to communicate affinities, connections, and relationships" (91).

Arrangement can also be seen as an emergent feature of digital texts, as an element that is contingent rather than fixed. Brooke (2009) has further

suggested that we reframe the traditional canon of arrangement as "pattern"—and in so doing, we open up a range of opportunities for both analysis and production. Brooke notes that the database, seen as a cultural form (per Manovich, 2001, 219), becomes a rhetorical text: "Although databases may contain no predetermined order, they are useful to us to the degree that they provide some sort of order when they are acted on by users" (101)—and the patterns that emerge from such database use, from the "related purchases" system of Amazon to those provided from the output of search engine use, constitute a new formulation of arrangement for digital rhetoric. At the level of method, "the construction of small-scale databases can create the conditions of possibility for the kind of pattern and relationship analysis carried out under the umbrella of data mining" (107).

A more active form of emergent arrangement occurs through the process of "tagging"—individual users add descriptive tags to links, sites, or media objects that can form an arrangement when many users' tags are aggregated (this arrangement comes about organically and is referred to as a "folksonomy"). Jeff Rice (2010), for instance, speaks of "tagging" as a new system of arrangement as "the student, the text, the word, the image, and so on are tagged in relationships" and the rhetorical process of arrangement is invoked through the importance of "getting . . . ideas labeled in a variety of ways and delivered to an audience" (64). In this case, the folksonomy of tagging leads to an emergent arrangement, but the digital rhetorician can engage strategies that will help shape how it does so.

Digital rhetoric in many ways erodes the distance between rhetor and reader, producer and user. In terms of arrangement, we can consider interface customization as mechanism for allowing the user to decide upon an ideal individual arrangement—as for instance, Photoshop's floating tool palette allows the user to rearrange the elements of the interface upon the surface of the screen. As in the discussion of hypertext, this represents the

architectural sense of arrangement and demonstrates that it is available as a rhetorical function for both users and makers of digital texts.

For digital rhetoric, arrangement is also a productive art—not just a method for carrying forth a logical, cohesive argument. A theory of digital arrangement must include the practices of manipulating digital media as well as selecting ready-made works and reconstituting them into new works. As Lawrence Lessig (2005) points out, culture is made through the process of remixing, which is a confluence of invention and arrangement. Both Warnick (2007) and Hilst (2011) note the importance of juxtaposition as a form of arrangement that serves as a key rhetorical method for remix production. Thus, unlike Aristotle's formulation, where arrangement appears less important than invention, for a theory of digital rhetoric, the two are intimately tied together. Just as important for digital text production is the canon of style.

Style

Aristotle notes that "the whole business of rhetoric [is] concerned with appearance" (165), and thus style is an important consideration. For Aristotle, style was primarily a question of matching the appropriate forms of language to the discourse at hand, but he also had several suggestions for developing effective style (including an emphasis on correctness, use of appropriate metaphor, and an avoidance of excessively ornamental prose). Style is an important element of rhetoric but not, as Peter Ramus would have it, the only element of rhetoric. As Gideon Burton (2004) notes, "from a rhetorical perspective style is not incidental, superficial, or supplementary: style names how ideas are embodied in language and customized to communicative contexts . . . ornamentation was not at all superficial in classical and renaissance rhetoric, for to ornament (*ornare* = "to equip, fit out, or supply") meant to equip one's thoughts with verbal

expression appropriate for accomplishing one's intentions" (n.p.).

Style takes on new importance for digital rhetoric, particularly in terms of visual style: for a digital rhetoric, style is equivalent to "design"; thus, digital rhetoric must be concerned with understanding all the available elements of document design, including color, font choice, and layout, as well as multimedia design possibilities such as motion, interactivity, and appropriate use of media. Style in this sense is also an important quality in terms of a given text's use and usability. Bradley Dilger (2010) reminds us that for rhetoric, "style is never optional, as the common sense opposition of style to substance wrongly indicates" (16); rather, it is an integral element of all rhetorical communication and the question is not whether we want style or substance, but what kind of style we want to deploy as a component of substance. Brendan Riley (2010), noting that "Web writers have begun styling their work," argues that "if acquiring the ability to control one's speech gives one power, so must the ability to control one's style" and goes as far as declaring that "digital writing is style" (77).

Lanham (2006) argues that in an information economy, "attention is the commodity in short supply" (xi) and it is attention that is needed to make sense of the overwhelming availability of information in its raw state. And "the devices that regulate attention are stylistic devices. Attracting attention is what style is all about." Lanham suggests that we need to develop a faculty that helps us understand the relationship of style and substance in digital texts, a "bi-stable way of examining an expressive surface, through for meaning, and at for style" (256). Following Lanham, an example of style's function with regard to attention is Teena Carnegie's (2009) work on the interface as *exordium* (an attention-getting device) through its fundamental features of multi-directionality, manipulability, and presence.

Not everyone fully agrees with Lanham's project—Dilger (2010), for

instance, argues that "his approach maintains the style and substance dichotomy. For me, it would be better to shift the definition of style . . . to more fully acknowledge its connection to and inclusion of substance—the commonalities of stylistic elements of all kinds, not only those manifested in surface features" (16). [1] [http://quod.lib.umich.edu/d/dh/13030181.0001.001/--digital-rhetoric-theory-method-practice?g=dculture;id=N2_1;note=ptr;rgn=div1;view=trgt;xc=1] For both Lanham and Dilger, though, style has shifted from a limiting and limited approach to the purpose and function of rhetoric and regained access to its full faculties within the rhetorical canon as it is applied to digital texts. If style has always been a part of rhetoric, memory has been at times neglected, but is making a comeback with the advent of digital rhetoric.

Memory

Memory in the classical rhetoric canon was concerned with memorization of speeches but also with the function of memory in developing a store of rhetorical arguments and practices that the rhetoric could draw upon at will; indeed, the *Rhetorica ad Herennium* describes memory as "treasury of things invented." With the advent of alphabetic literacy, memory became less of a central concern of rhetoric—writing itself took up the processes that previously were delegated to the memory of the individual orator. In this way, memory began to serve a broader population, as social and cultural memories could be inscribed and archived (as, for instance, in libraries). Foucault's notion of the archive is also useful here, not just as a form of memory but as a system that interacts with the statement: statements are a dynamic part of communication and will change the archive—both physically, with new requests changing the substance of the rhetorical objects in the archive, but also by changing the conceptual frames through which we can interpret the archive (Foucault, 1972, 135).

A number of scholars in composition/rhetoric and technical communication

have begun the work of recovering memory—a canon that had been all but abandoned in the application of rhetoric to print texts in the teaching of composition. John Walter (2005), for instance, has suggested that metadata tagging of digital texts functions as digital mnemonics or ways of remembering significant information about digital documents. Similarly, Porter (2005) argues that rhetoricians should be concerned with recovering memory as a method for both the recovery of artifacts ("missing and lost works, traditions, arts; culture and language . . . 're-memory' on an individual as well as a cultural level" [n.p.]) and the preservation of artifacts (archiving, storage, and tracking of digital material). This last point is particularly important given both the ephemeral nature of digital texts as they circulate within unstable networks and the malleability of digital work (there is no guarantee of an "authoritative" work if all digital work can be easily manipulated and remixed). In a study of medieval illuminated manuscripts, Kathie Gossett (2008) argues that memory served as praxis in medieval rhetoric and that it has a potentially valuable role to play in composition pedagogy that focuses on multimodal and new media production; other scholars have turned to the canon of memory to inform the development of digital systems, such as Stewart Whittemore's (2008) application of *memoria* to the development of content management systems.

Brooke (2009) argues that a view of memory reduced to "a question of storage, as if memory simply signified the retention or location of quantifiable amounts of information" (143–44), closes off more rhetorical approaches to the use of memory in new media texts. He notes that "although memory is a canon that focuses our attention on the relationship between discourse and time, the treatment of memory as storage spatializes the canon, reducing it to the single axis of presence and absence" (148). He suggests that digital rhetoric requires a shift from memory-as-storage only to seeing memory as a range of practices, one of which is memory-as-

persistence. Brooke calls this form of memory "persistence of cognition" and defines persistence as a memory practice as "the ability to build and maintain patterns, although those patterns may be tentative and ultimately fade into the background . . . persistence is a practice of bricolage" (157); in other words, memory is once again an activity (as it was originally situated in the classical sense), not just a repository.

While the work of Brooke, Gossett, Whittemore, and others represent the beginning of a renewed interest in the canon of memory, there has been an even stronger surge in work that aims to recover the other "lost" canon—delivery.

Delivery

Delivery, like style and memory, takes on a new importance when considered as an element of digital composition. Digital rhetoric needs to provide methods for understanding and using systems of distribution and publication (including the technical frameworks that support varying protocols and networks), but this must be coupled with a broader theory of circulation. James Porter (2005) has also delineated several important facets of digital delivery, including access, interaction, and economics; he argues that a theory of digital delivery must include both productive practices and a method of developing ethical *phronêsis*. (See also DeVoss and Porter [2006] for an extended discussion of delivery and ethics and Porter [2009] for an expanded view of digital delivery that consists of five key topics—Body/Identity, Distribution/Circulation, Access/Accessibility, Interaction, and Economics.) Digital delivery also needs to take into account the performative aspects of digital composition (particularly with regard to multimedia work). However, Porter notes that the individual elements of his theory "don't have very much generative or productive power unless you put them into dynamic interaction with each other and

with other rhetorical topics. In other words, you connect up questions of delivery with rhetorical invention, with audience, with design of a web site, and so on" (Porter, 2005, n.p.).

A number of scholars have seen delivery in networked systems as circulation of digital texts, following John Trimbur's (2000) argument that circulation should be re-introduced in writing instruction; however, his definition of circulation is as an element or result of delivery. Trimbur suggests that

> neglecting delivery has led writing teachers to equate the activity of composing with writing itself and to miss altogether the complex delivery systems through which writing circulates. By privileging composing as the main site of instruction, the teaching of writing has taken up what Karl Marx calls a "one-sided" view of production and thereby has largely erased the cycle that links the production, distribution, exchange, and consumption of writing. This cycle of interlocked moments is what Marx calls *circulation*. (190)

My view of circulation as distinct from but effected by delivery is at odds with Trimbur's conflation of Marx's concept of circulation and the rhetorical practice of delivery. This is partly due to complications that arise from addressing the issue of consumption of social capital and partly due to Marx's use of circulation to refer to the entire process of production, distribution, exchange, and consumption; I see circulation as influential in each of these activities, but not as a container for them.

A great deal of work on delivery has been undertaken, both in composition/rhetoric (such as Yancey's [2006] collection, *Delivering College Composition: The Fifth Canon*) and in digital rhetoric. James

Ridolfo (2005), for instance, has developed techniques that aid the writer in developing what he calls "rhetorical velocity," tying into the notion of delivery as not just a transaction but as successful communication (or, as Lanham puts it in his discussion of delivery, "communicating the message in such a way that it would be accepted and attended to rather than refused, ignored, or thrown in the wastepaper basket unread" [24]). Ridolfo and DeVoss (2009) provide additional application of these techniques in "Composing for Recomposition: Rhetorical Velocity and Delivery."

Brooke (2009) argues that we need to see delivery not only as transitive or transactional but also as "intransitive, constitutive *performance*" (170, emphasis in original), suggesting that "it is debatable whether new media exists outside of performance . . . a discussion list is simply a list of email addresses, for example; it is only in the performance, the consensual invocation of a discussion space that the list exists as a medium for conversation" (181)—and if that is the case, delivery (as performance) is absolutely integral to digital rhetoric.

Digital Rhetoric and Contemporary Rhetorical Theory

The literature that draws on contemporary rhetorical theory—from Foucault, to Derrida, to Covino, to Deleuze and Guattari—to inform digital texts, new media, systems, networks, and digitally mediated organizations is vast. Indeed, many of the scholars who work on reframing or reimagining the classical canon of rhetoric draw on contemporary theorists to make their arguments, so, in a sense, we have already covered the influence of contemporary theory on digital rhetoric. Rather than collating a massive number of citations or presenting an annotated bibliography that would be longer than this book all by itself, I instead focus on three areas of contemporary theory that have seen recent interest in the field. These three

areas focus on reframing the notion of the rhetorical situation, the relationship between digital rhetoric and the formation of digital identities, and the appropriation and use of network by digital rhetoric scholars.

The Rhetorical Situation

The notion of the rhetorical situation serves as lens that frames a particular rhetorical activity within a set frame, thus allowing analysis to take place within a context that is created through the interaction of rhetoric, text, audience, and rhetorical purpose. Since its introduction by Lloyd Bitzer (1968), the concept of the rhetorical situation has been challenged, mediated, and reframed; the digital texts and networked spaces of digital rhetoric have prompted a renewed interest in the rhetorical situation and whether it can be applied to digital contexts as well as more traditional rhetorical activity.

Bitzer begins by theorizing rhetoric as a response to a specific need or exigence, which is a problem that requires a response: “an imperfection marked by urgency; it is a defect, an obstacle, something waiting to be done, a thing which is other than it should be” (6). It also must be a problem that can be addressed through discourse; this exigence is a necessary condition of rhetoric, and it calls rhetoric into existence as a response. Bitzer’s construction of the rhetorical situation includes three key elements: exigence, audience, and constraints. Exigence produces the situation, which “controls the rhetorical response. . . . Not the rhetor and not persuasive intent, but the situation is the source and ground of rhetorical activity” (6). The audience, in Bitzer’s framework, must be “capable of being influenced by discourse and of being mediators of change” (8); constraints are “made up of persons, events, objects, and relations which are parts of the situation because they have the power to constrain decision and action needed to modify the exigence” (8).

In response to Bitzer's construction, Richard Vatz (1973) argued that situation does not exist separately from rhetoric, nor does it call it into being by virtue of exigence; rather, rhetors establish situations through the choice to engage in rhetorical discourse. The rhetorical situation, in Vatz's view, is a product of perception rather than an independent, objective phenomenon. Steve Krause (1996) notes that Vatz's is "a position which is reminiscent of Gorgias': since 'nothing' (in the sense of ideal essences) exists, and since humans are inherently limited by perceptions, rhetors use language to *create* situations" (n.p., emphasis in original).

The following year, Scott Consigny (1974) suggested that the views of Bitzer and Vatz were two parts of a more complex approach to rhetorical situation. Consigny suggests that through *techne*, rhetors can "discover the real issues in indeterminate situations," manage "real situations and bringing them to a successful resolution or closure," and "can function in all kinds of indeterminate and particular situations as they arise" (180)—rhetorical invention thus may function as discovery and creation, depending on the need of the rhetor. Consigny does mediate Vatz's position as well, noting that rhetors do not exist outside of their own contexts and cannot by themselves bring a rhetorical situation into being.

While a number of theorists have continued to focus on rhetorical situation (such as Miller [1984], and Biesecker [1999], among others), the concept has more recently been called into question in terms of its ability to address digital texts and contexts. The following three examples represent approaches that broaden the scope of the rhetorical situation in response to digital rhetoric: Steve Krause (1996) develops a theory of immediacy to articulate the idea of the Internet "as both an example and a generator of immediate rhetorical situations"; Jenny Edbauer (2005) argues for a shift from rhetorical situation to rhetorical ecology; and Fatima Pashaei (2010) applies Edbauer's approach in order to develop an ecology of blogging that

follows Krause's collapse of the distinction between rhetor and audience in digital discourse.

Krause's (1996) work reimagines the rhetorical situation through the lens of postmodern critical theory, grounding his approach through a method of what he terms "immediacy":

> Immediacy and immediate rhetorical situations question the distinctions between audiences and rhetors, highlight the multiplicity of avenues of discourse within any given situation, and attempt to account for a discourse that seemingly takes place *outside* any physical situation and between fragmented/ contradictory/ multiplicitous selves. . . . [I]mmediacy is a much more fluid and dynamic reading of rhetorical situations that attempts to examine how discourse functions (or doesn't function) within a postmodernist, technologically-advanced mode where the static distinctions assumed by "modernist" rhetoricians like Plato, Gorgias, Bitzer, and Vatz are no longer valid. (n.p.)

The first principle of immediacy is the collapse of many of the distinctions that provide the framework for more traditional versions of the rhetorical situation, such as cause, effect, rhetor, audience, and message—"immediate rhetorical situations are first and foremost those which cannot trace their origins (or, in Bitzer's terms, 'exigence') to any singular cause" (n.p.). Krause uses examples from discussion lists and Usenet, showing the difficulty of tracing the thread of a discussion to its origins; I would suggest that this effect is even more apparent in Twitter, which functions more as a continuous stream than a discrete conversation. Additionally, with the instability of the web itself, with sites constantly vanishing and moving, the lack of a discoverable origin point highlights the way that "postmodern

situations also problematize and fragment unifying concepts of time, place, and identity" (n.p.). Refiguring the rhetorical situation through postmodern theory ultimately provides more questions than answers, but they are productive questions that have been taken up over the past decade and that continue to shape digital rhetoric theory.

An approach that implicitly follows Krause's construction is the move to see the rhetorical situation in ecological terms, thus allowing a given situation to exist within complex networks of interaction that are more fluid than traditional media would allow. Jenny Edbauer (2005) argues that "rhetorical situations operate within a network of lived practical consciousness or structures of feeling," and, like Krause, she suggests that "placing the rhetorical 'elements' within this wider context destabilizes the discrete borders of a rhetorical situation" (5). Edbauer proposes "a revised strategy for theorizing public rhetorics (and rhetoric's publicness) as a circulating ecology of effects, enactments, and events," simultaneously adding "the dimensions of history and movement (back) into our visions/versions of rhetoric's public situations" (9). While not specifically applying the frame of rhetorical ecologies to digital contexts, Edbauer's call to see the rhetorical situation in ecological terms fits very well with digital rhetoric approaches, and in the final example in this section, Fatima Pashaei uses Edbauer's ecological framework to situate a study of blogs.

Pashaei (2010) examines blogs about Muslim identity and practices and uses her analysis to complicate notions of exigence and audience as elements of the rhetorical situation and to support her claim that "the co-creation of rhetoric (by writers and their publics) in the blogosphere is transforming not only how discourse is generated and circulated in the public, but also the blog genre itself" (39). Following Edbauer, she rejects the view of the rhetorical situation as a series of fixed elements and instead argues that an ecological approach can better "account for the multitude of

possibilities for interaction and engagement between writers and their discursive publics, as discourse circulates through various environments, spaces, times, and societies" (65). In order to better represent the element of movement that a rhetorical ecology model foregrounds, Pashaei redesigns the classic rhetorical triangle as an atom, with all of the elements in motion. The model she builds is specific to the genre she is analyzing, but it has promise as a model for digital rhetoric.

Pashaei's model highlights the dynamic nature of rhetorical practice and "accounts for multiple exigencies that drive interactions between the author (blogger) and the public (discursive) as the blog's rhetoric circulates in time, space and society" (33).

Pashaei's case-study approach not only examines blogging in terms of rhetorical ecologies and circulation but also examines how the genre of the blog represents public constructions of Muslim identity—and it is the question of identity as a rhetorical construct (both online and off) that I turn to next.

Digital Rhetoric and Digital Identity

Identity has been a concern for digital rhetoric since the advent of networking technologies, and quite a few scholars have theorized how digital space complicates, facilitates, or subverts the very notion of individual identity. Early works tended toward a quasi-utopian view that the digital self, represented through conscious choices in and across networks, would leave behind the body, with its attendant baggage of race, class, and gender. More recent work calls into question the warrant of that claim, since the body—especially in digital form—is a discursive formation that resists the dissociation of the physical and the virtual, and still others are now turning to the antiutopian view that technology may be damaging

in its utilization of power outside of the physical body. Jimmie Killingsworth (2010), for example, argues "for the cyberhuman of the postmodern world, the body is not the core of identity so much as an element in a distributed identity that includes machines as well as other people. The problem of thus identifying the body with machines is that we may come to think of the body—and, by extension, other people—as something we use. Becoming users of the body rather than a body itself, we are prone to *over*use or even *ab*use the body" (83, emphasis in original). The notion of "distributed identity" can be seen as either positive or negative, and the value of technology to make and sustain social ties over geographic distances has contributed to the construction of such distributed identities as they are tied to social and cultural organizations:

> As a result of the weakening of traditional ties in late modernity, people look towards virtual communities as social loci for the re-negotiation and construction of their identities. The ambiguous and complex environment of cyberspace becomes a new arena for the articulation of the politics of recognition, generating hybrid collective formations, such as digital nations, virtual diasporas and other online communities of an ethnic/national orientation. (Diamandaki, 2003, n.p.)

In treatments of classical rhetoric, identity has often been tied to ethos, but ethos has also been reframed as an appeal that may be absent an identity (and the representation of character and decorum as revealed in the physical embodiment of the rhetor); Warnick (2007), for instance, argues that the assessment of ethos must take place through the internal logic and design of an argument, rather than as attached to the arguer (who may not be revealed in many cases). Although such an analysis is useful, it focuses on the text (in the service of rhetorical analysis) and not on the writer. In

contrast, Sherry Turkle (1995) posited that users (who write their identities into the virtual spaces they inhabit, from e-mail, to online discussion boards, to MUDs) could inhabit multiple identities in their online environments through a process of fragmentation.

The study of identity as a rhetorical construction also includes an interest in agency, as the digital realm has been characterized as both a space that frees one from control because it need not follow the metaphors and constraints of the physical world and one that exerts control through the establishment and enforcement of protocol (Galloway & Thacker, 2007). Contemporary digital rhetoricians are interested in the ways that hardware, software, and networks constrain online identity formation. For example, Kevin Brock (2010) notes that the "user who constructs an electronic identity (or many) is not the arbiter of that identity's boundaries; instead, it is the developer(s) of the relevant technology that have assigned the limits to what a user can be or do with that technology" (n.p.) and, in a similar move, Jennifer Bay (2010) examines "Web spaces in which bodies are 'tagged' and take on mediative properties that construct subjects. . . . Each site allows for certain kinds of cultural codes, which are invented and arranged by computer code and which function as the attributes or markup of the body" (154).

Bay's work in particular focuses on the ways that discursive markers of one's physical identity cannot be erased from the performance of online identity; in addition, there is an increased desire for more authentic markers of real bodies (such as through the use of video, webcams, and profile pictures). Bay's examples show that "the drive for real identity disadvantages women from being accepted as authentic or expert (blogging), constrains the types of bodies and connections that can be made in gendered terms (social networking and dating sites), and affects the ways that women can comport themselves toward others" (163–64). Bay's

examples show a distinct connection between the body and digital identity (perhaps addressing, albeit not in a necessarily positive way, the concerns that Killingsworth raises about the erasure of the body in digital discourse). And, as Bay argues, "what we do online now requires there to be more continuity—or at least fluidity—between our online and off-line selves" (155).

Digital rhetoricians are also concerned with the ways in which race is constructed, marked, or elided in online communities. In "The Appended Subject: Race and Identity as Digital Assemblage," Jennifer González (2000) addresses the question of how "visual representations extend or challenge current conceptions of racial and cultural identity and relations of power" (29), using a rhetorical analysis of three sites that feature the body as a primary element to interrogate representations of the body-as-object, disassembled into individual elements. More recently, Lisa Nakamura's (2008) *Digitizing Race: Visual Cultures of the Internet* is a detailed study of representations of race online in a process that she articulates as "digital race formation" as she develops a method that can "parse the ways that digital modes of cultural production and reception are complicit with this ongoing process" (14).

Another area that I have begun to think about with regard to digital rhetoric is how identity, and by extension, agency (another critical consideration for digital rhetoric) can be enacted by nonhuman actors, as in the case of Bruce Sterling's "spimes"—as he defines them, a spime "becomes an instantiation of identity. It's named, and it broadcasts its name, then it can be tracked" (2005, 105); and it is in the tracking that spimes (as well as humans) leave traces of their identities, scattered throughout the network. The number of active software agents working on the Internet has increased dramatically as advances in artificial intelligence and the exigence of information overload (both in terms of quantity and speed) have necessitated the

development of smarter tools for information acquisition, retrieval, and manipulation. The relationship between identity and network is not limited to software agents, however. A recent phenomenon is the rise of companies whose task it is to ensure positive online ethos for their clients. These companies, who provide "online reputation management" (Reputation.com, 2011), supply positive data points in the network and make sure these accounts appear higher on search engines than any negative ones do (and they also issue cease-and-desist letters to sites that they claim engage in defamatory practices, so they use a range of methods to accomplish their goal). In each of these emergent practices, the construction of identity is tied to the network.

Networks/Network Rhetorics

If the interface is the location and text most often addressed as the focal point of digital rhetoric investigations, it is the access to the network that such interfaces provide that has most fundamentally changed the way that digital texts use and enact digital rhetoric practices and principles. As Collin Brooke (2011) argues,

> The idea of the network has grown increasingly pervasive in recent years. Networks, as Alexander Galloway has written recently, function as allegorical indices for any number of intellectual, political, and/or social complex systems . . . we might ask ourselves if and how it might change the ways we consider rhetoric and writing. If indeed these perspectives represent a shift in our thinking, then a network(ed) rhetoric must be more than the ability to craft pithy status updates or the wherewithal to navigate privacy settings on Facebook. (n.p.)

Nodes and Links

Initial approaches to the concept of network used it primarily as a metaphor—borrowing the language of networking from graph theory, translating vertices and edges into nodes and links and connecting the idea of a network node to Barthes's (1974) term "lexia" (which he defines as "a unit of reading" [6]) in order to theorize hypertext (and, in particular, hypertext fiction) as constructed network.

Both "node" and "link" become important to digital rhetoric as they represent two rhetorical forms that are available for analysis, but it is the network itself that has become the more powerful form in terms of its affordances and constraints and the ways in which it mediates rhetorical situations, facilitates rhetorical ecologies, and impacts the formation of digital identity. In rhetorical terms, networks exercise power, and as Ulises Mejias (2008) argues, "networks—as assemblages of people, technology and social norms—arrange subjects into structures and define the parameters for their interaction, thus actively shaping their social realities" (qtd. in Langlois et al., 2009, 429). While the application of network theory has a long history in the social sciences (particularly in terms of social network analysis, covered in more detail in chapter 3 [http://quod.lib.umich.edu/d/dh/13030181.0001.001/--digital-rhetoric-theory-method-practice?g=dculture;trgt=div1_ch3;view=fulltext;xc=1]), its use in humanities disciplines is relatively new. In 2004, a special issue of *JAC* focusing on complexity theory (which draws on network theories and methods) featured a number of articles that applied network theory to rhetorical theories and methods. Editors David Blakesley and Thomas Rickert (2004) asked authors to respond to Mark C. Taylor's (2003) *The Moment of Complexity: Emerging Network Culture*, suggesting that "Taylor's claims concerning our emergent network culture and its complex, adaptive logics challenge current postmodern and cultural theories while

opening new fault-lines in the established narratives of the humanities in general" (824). Byron Hawk's (2004) contribution to the issue begins by arguing, "The ancient civic space that led to the emergence of rhetoric has been replaced by contemporary network space" but that there are "few rhetorical theories that adequately address the complexities of this new social space" (831–32). Hawk suggests that a project to build a rhetorical theory based on the topoi of complexity and networks could begin by mapping the rhetorical terms of classical rhetoric to the vocabulary of complexity and network theory (which he proceeds to do, relating heuristics to schemata, the rhetorical situation to complex adaptive systems and reframing logos, ethos, and pathos as network, screen, and affect, respectively).

Tiziana Terranova's *Network Culture* (2004) presents a detailed overview of the network as rhetorical construct, which she frames as a network culture that is "inseparable both from a kind of *network physics* (that is physical processes of differentiation and convergence, emergence and capture, openness and closure, and coding and overcoding) and a *network politics* (implying the existence of an active engagement with the dynamics of information flows)" (3). A crucial move that Terranova makes draws on the larger understanding of networks as systems (not just technological but also biological and social) that can enact invention through their development: "If the network is a type of 'spatial diagram' for the age of global communication, the self-organizing, bottom-up machines of biological computation capture the network not simply as an abstract topological formation—but as a new type of *production machine*" (100, emphasis in original). The network then provides digital rhetoric with both theories and methods that address both analysis and production.

But rhetoric is concerned also with the question of power, and thus many digital rhetoricians have turned to Galloway and Thacker's (2007) theories

of networks and network protocols to address the ways in which networks can simultaneously take on the roles of exigence and constraints (using Bitzer's [1968] terminology).

Protocol

Galloway and Thacker (2007) draw on the work of Deleuze (and, to a lesser extent, Deleuze and Guattari's *Thousand Plateaus*) to help identify and theorize the features of networks that function as forms of control, and, in turn, digital rhetoricians have made extensive use of Galloway and Thacker's theories (see Hilst [2010] for an approach that draws on both Deleuze and Guattari and Galloway and Thacker, filtered through an Ulmer-inspired lens). The main element of Galloway and Thacker's work that is taken up in rhetorical studies is the notion of protocol. In *The Exploit: A Theory of Networks* (2007), they focus on the issue of control, arguing that "networks, by their mere existence, are not liberating; they exercise novel forms of control that operate at a level that is anonymous and non-human, which is to say material" (5). It is from an analysis of the network's mechanisms of control (extending Galloway's previous theorization in *Protocol* [2004]) that they isolate and define the element of protocol, which "may be defined as a horizontal, distributed control apparatus that guides both the technical and political formation of computer networks, biological systems, and other media" (28).

Networked Publics

Featuring connections to both Terranova's network cultures/network politics and Galloway and Thacker's treatment of networks as the locations of geopolitical struggle, Langlois et al. (2009) focus on developing "networked publics" as an object of study for digital rhetoric; they suggest a "progressive departure from a focus on content . . . as the object of analysis

to study the constitution of publics to consideration of the networked routes that assemble members of publics and connect them with issues" (427). This construction of a networked public holds promise as a framework for applying digital rhetoric methods and theories to large-scale social and media contexts, and it may be particularly useful when evaluating and intervening in power relations:

> We define networked publics as those publics that come into being through online informational processes. The online informational systems provide the material, communicational, and social means for a public to exist, and this takes place through the implementation of a network that defines the parameters of agency of a public and its specific communicative affordances. In that sense, the network provides the parameters for assembling issues and their publics in specific ways. . . . [T]he network can impose a specific communicative discipline at the same time as it can offer possibilities of re-articulation of preexisting power dynamics. (430)

Network Methods

Theorizing the network in rhetorical terms encourages the development of network-enabled methods, such as using the network as a model of context-specific relationships. Franco Moretti (2011) has taken up a network analysis approach to the study of literary texts (such as Shakespeare's plays); he argues that doing so allows for a different kind of analysis that leads to a different level of interpretation:

> Once you make a network of a play, you stop working on the play proper, and work on a *model* instead. You reduce the text

> to characters and interactions, abstract them from everything else, and this process of reduction and abstraction makes the model obviously much less than the original object—just think of this: I am discussing *Hamlet*, and saying nothing about Shakespeare's words—but also, in another sense, much *more* than it, because a model allows you to see the underlying structures of a complex object. (84)

However, a rhetorical approach to networks may require more complex approaches than simply using network analysis features to develop alternative models of different kinds of texts; in fact, the network itself may constitute an inventional force (which, when combined with the possibilities of software agents and digital texts exhibiting rhetorical characteristics independent of human direction, opens up an entirely new realm of challenges and possibilities for rhetorical theory). Terranova (2004) hints at this possibility when she suggests that we can conceive of the network "as a 'grand mesh,' a form able to accommodate all variation and its mutations—an abstract machine that goes beyond the model to become the actual terrain for the study and engineering of complex and innovative behaviours" (118).

Networks and Digital Rhetoric as Economies and Ecologies of Circulation

While I have thus far provided a broad overview and selected references to scholars who are applying, revising, or reframing classical and contemporary rhetorical theory in order to align it with digital rhetoric, I now turn to my own sketch of a digital rhetoric theory that is founded on principles of circulation. I have constructed this approach as both theory and method (which I call "circulation analysis"), so it serves to also bridge chapter 2 [http://quod.lib.umich.edu/d/dh/13030181.0001.001/--digital-rhetoric-

theory-method-practice?g=dculture;trgt=div1_ch2;view=fulltext;xc=1]: "Digital Rhetoric: Theory" and chapter 3 [http://quod.lib.umich.edu/d/dh/13030181.0001.001/--digital-rhetoric-theory-method-practice?g=dculture;trgt=div1_ch3;view=fulltext;xc=1]: "Digital Rhetoric: Method." I begin by setting up a framework that situates digital circulation within specific ecologies and economies of production: while circulation ecologies represent the places, spaces, movements, and complex interactions of digital texts as they are produced, reproduced, exchanged, or used, the exchanges and uses that take place within those specific ecological circumstances are governed by the economics of circulation (which in turn are subject to the constraints and affordances offered by the situated ecologies in which the texts circulate).

Digital Ecologies

In one of his last works, Walter Ong suggested that

> The age in which humans existence is now framed, the age in which human life and technology so massively and intimately interact, can well be styled not only the information age and the age of interpretation, but, perhaps, even more inclusively, the ecological age, in principle an age of total interconnectedness, where everything on the earth, and even the universe, is interconnected with everything else, no only in itself but, ideally, in human understanding and activity. (qtd. in Walter, 2005, n.p.)

A scientific term originally applied to research on interactions in specific natural environments [2] [http://quod.lib.umich.edu/d/dh/13030181.0001.001/--digital-rhetoric-theory-method-practice?g=dculture;id=N2_2;note=ptr;rgn=div1;view=trgt;xc=1], "ecology" as a metaphor for complex, interconnected relationships has a rich history of use in writing

studies (Cooper, 1986; Syverson, 1999; Nardi & O'Day, 1999; Spinuzzi & Zachry, 2000; Spinuzzi, 2003; Blythe, 2007). The basic scientific definition of ecology is "the study of the relationships of organisms to their environment and to one another. The key word is 'relationships.' Ecology is a study of interactions" (Brewer, 1988, 1); another key aspect of the science of ecology is the study of the ecosystem: ecology can be applied as the "ecology of the individual organism [or] the ecology of groups of individuals or populations," when taking the latter approach, it is important to acknowledge that "populations live together in communities—the community along with its physical setting or habitat is a single, interacting unit, the ecosystem" (11). Thus, the key elements of ecological study—relationships, interaction, complexity, and community—easily map onto qualitative studies of writing and rhetoric in both epistemological and ontological terms.

Ecology is also a useful framework for a theory of rhetorical circulation because it provides a systems-based view of both the environments and relationships that take place through digital circulation mechanisms. Systems are characterized by their compositions, environments, and structures (Bunge, 1979); in *Applied Systems Ecology*, Friedrich Recknagel (1989) explicates these systemic elements:

> The *composition* denotes the set of system components, the *environment* denotes the set of environment components which influence the system components. The definition of the composition and environment in turn implies the marking of the system boundary. The *structure* denotes the set of relations between composition and environment as well as within composition. (13–14)

Networks, particularly the digital networks in which digital texts circulate,

are also systems, and in this way they can be similarly seen as elements in a digitally networked ecology of overlapping (and networked) ecosystems. Zan, Zambon, and Pettigrew (1993) argue that a "network is a system and not only a nexus of relations. Due to its systemic nature, a network is a working entity, which continuously reproduces its relationships and changes forms and contents over time. Therefore, networks are evolutionary systems, living organizations" (130); in other words, networks are ecological entities. The science of ecology uses this sense of system architecture to articulate its key unit of analysis: the ecosystem.

Ecologies and Ecosystems

Ecology as a field of study looks at both ecologies and ecosystems. Ecologies are internetworked and interacting systems made up of discrete ecosystems. An ecosystem can be "any size so long as organisms, physical environment, and interactions can exist within it" (Pickett & Cadenasso, 2002, 2), thus replicating the systems approach outlined above. As I use the terms, "ecology" is the super-structure and the theoretical lens; "ecosystem" is the specific system that a digital work originally belongs to when it is first distributed or published, but it is also the interconnected composition and environment that can be mapped and articulated through its circulation (and, indeed, that is one aim of circulation analysis).

Ecosystems represent specific, bounded locales where circulation takes place; and although circulation occurs across and through multiple ecosystems, the effects are best observed within particular localized systems; thus, ecologies represent the scales at which research on circulation may be most profitably undertaken.

Energy Flow and Material Cycling

Two important properties of ecosystems are that they have *energy flows* and they *cycle materials* (Kling, 2006); these two ecological properties can also be articulated as economic properties when applied to digital environments such as the Internet (indeed, Stephen Adler [1998] describes the Internet itself as an "information ecosystem"). In material ecosystems, such as ponds, forests, or oceans, the cycle of materials is enacted through the uptake, use, respiration, reformation, and reuse of the basic ecological components (e.g., plants, animals, water, carbon, nitrogen); the energy flows provide the engine for these material cycles though input and consumption (of solar/heat energy). These same essential processes can also be seen at work in digital production. The circulation of materials occurs in the use, remix, and appropriation of digital texts, and the energy that drives this circulation comes from the rhetorical activity of digital bricoleurs, often operating within particular social networks (in ecological terms, these are communities that inhabit specific ecosystems). In other words, the rhetorical activity of writers and the material labor of production is analogous to the input of energy per se into a natural system; once that energy (and the digital object that results from the deployment of that energy) is added to any given digital ecosystem, the interaction of environment (network) and other inhabitants (other digital texts) in that ecosystem generates relational links and instances of material cycling (also known as remix in terms of digital practice).

For example, YouTube (http://www.youtube.com [http://www.youtube.com]), a digital video file-sharing service, allows users to post and circulate digital videos they have found or created. But a common practice in the YouTube community is to appropriate and reuse the materials that have been posted there. In some instances, the remix is not complex: simply adding subtitles to videos (as translations, or to add information, or providing a parody of the original content). Other videos represent more complex interactions: players of massively multiplayer online role-playing

games (MMORPGs) such as *World of Warcraft* and *Guild Wars* have created a number of music videos that feature choreographed in-game activity set to songs such as the Village People's "YMCA" or MC Hammer's "U Can't Touch This." For a particularly involved example, see YouTube user GraveD1gger's "Guild Wars vs. World of Warcraft" (http://www.youtube.com/watch?v=YcWXL8jpFGs [http://www.youtube.com/watch?v=YcWXL8jpFGs]), which pits in-game choreography from two different MMORPGs as a dance contest set to Hammer's "U Can't Touch This" (which in turn samples Rick James's 1981 hit "Super Freak").

Cross-community *and* cross-media appropriation and circulation is fairly common in digital environments: in January of 2007, Clemens Kogler, Karo Szmit, and Andre Tschinder posted "Le Grand Content" to YouTube (http://www.youtube.com/watch?v=lWWKBY7gx_0 [http://www.youtube.com/watch?v=lWWKBY7gx_0]), describing it as an examination of

> the omnipresent PowerPoint-culture in search for its philosophical potential. Intersections and diagrams are assembled to form a grand 'association-chain-massacre'. Which challenges itself to answer all questions of the universe and some more. Of course, it totally fails this assignment, but in its failure it still manages to produce some magical nuance and shades between the great topics death, cable tv, emotions and hamsters. (n.p.)

The graphs and Venn diagrams that provide the content for "Le Grand Content" were originally published in Jessica Hagy's blog *Indexed* (http://indexed.blogspot.com [http://indexed.blogspot.com]), which features scans of diagrams that she draws on index cards.

But material cycling is certainly not limited to video production. Consider the case of Fark.com, whose users collect and aggregate headlines from newspapers and other online news sources, annotating them with amusing headlines; unlike the other examples, however, there is also an editorial mechanism that allows some headlines to be promoted to the main site while rejecting others—in ecological terms, this process may be understood as a "limiting factor," that is, an environmental factor that influences the maximum population of plants or animals in a given ecosystem.

Ecology as Metaphor

In describing circulatory activity as taking place within an ecological context, I draw on two approaches that also use the ecological metaphor: Nardi and O'Day's (1999) "information ecologies" and Spinuzzi and Zachary's (2000) "genre ecologies." Each of these formations plays a role in the structure of circulation ecologies, as both "information" and "genre" influence and are influenced by circulation, but I would suggest that information is too broad and genre is too narrow to effectively describe the interaction, movement, and exchange that occurs with the digital circulation of rhetorical objects. Information implies an object but does not incorporate use as an intrinsic component of that object's character. Genres shift and change not only over time but through the processes of circulation. What is useful, however, is the articulation of how both information and genres function within complex networks of interaction: how they interact within specific ecosystems.

Nardi and O'Day (1999) define an information ecology as "a system of people, practices, values, and technologies in a particular local environment. In information ecologies, the spotlight is not on technology, but on human activities that are served by technology" (49). This notion of information ecologies does two things particularly well: it shifts focus from

technology as tool to technology-in-use (that is, activity can be seen as a synergistic relationship between digital media/technologies and human actors) and it focuses the lens of inquiry on a finite context (which is useful for the development of research methods). And I agree with Nardi and O'Day (1999) when they posit that "the ecology metaphor provides a distinctive, powerful set of organizing properties around which to have conversations. The ecological metaphor suggests several key properties of many environments in which technology is used. An information ecology is a complex system of parts and relationships" (50). They go on to provide an extended metaphor, taking into account habitations, niches, speciation, and other biological components of an ecological framework; but for my purposes, the two most important elements of the ecological metaphor are that "an information ecology is marked by strong interrelationships and dependencies among its different parts" (51) and that "locality is a particularly important attribute of information ecologies" (55).

Strictly speaking, what Nardi and O'Day (and later Spinuzzi and Zachary) term "ecologies" are actually ecosystems: ecologies are the larger contexts in which these individual ecosystems reside and interact. And while Nardi and O'Day have established perhaps the most well-known use of an ecological lens for rhetorical practice, their insistence on locating "ecologies" in specific material locations (such as libraries, schools, and hospitals) actually places artificial boundaries on an ecological perspective, thus robbing it of a fully realized vision of interconnectedness and interrelationships that occur through both local and global environments. The other drawback to Nardi and O'Day's approach to applying an ecological metaphor is that they disassociate the ecological view from the systems-level view (despite the fact that ecology is essentially a study of biological systems); if "the technological system is the water we swim in, and it has become life-sustaining and almost invisible to us" (43), then occupying a position within a particular ecosystem (or, more accurately,

multiple ecosystems) and larger ecological structures is no less an invisible framework—until it is articulated and applied.

Spinuzzi and Zachary (2000) begin with the information ecology metaphor and extend it to their own work with what they call "genre ecologies." As they define it, a "genre ecology includes an interrelated group of genres (artifact types and the interpretive habits that have developed around them) used to jointly mediate the activities that allow people to accomplish complex objectives. In genre ecologies, multiple genres and constituent subtasks co-exist in a lively interplay as people grapple with information technologies" (172), and they argue that genres "are not static forms; they are dynamic, organic, and messy. To account for variations across instantiations of a given genre, a more robust, ecological perspective is required, one that accounts for the dynamism and interconnectedness of genres" (173). It is in this same vein that I therefore argue for an ecological perspective with respect to circulation in order to account for the dynamism and interconnectedness of rhetorical processes and the economics of production and circulation of digital work.

Whereas Nardi and O'Day's notion of information ecologies helps to frame the overall interaction between people, texts, and digital networks, Spinuzzi and Zachary's work on genre ecologies provides a description of how genres interact within specific ecosystems.

Circulation takes place both within and across specific, situated ecosystems; as I have noted, these ecosystems can be described in terms of the specific interactions between people, texts, and technologies. Thus, any method for examining or researching circulation must take into account not only the actors, networks, and interactions but also the specific articulation of media and technology within those networks. Ecosystems, then, have rhetorical, technical, and social dimensions that influence the possible routes of (and

interactions made possible by) circulation; these ecosystems can be framed as networks within specific and situated institutions (such as a department within a university or workplace), but they can also be framed in terms of digital spaces that are bounded by genre and activity. For example, eBay represents a particular ecosystem that engages a specific form of trade that is framed by eBay's interface, user communities, and system of ratings. Similarly, communities of users form networks within Flickr's social networking and image-sharing system that do not correspond to networks outside of the Flickr ecosystem (although there are connections across and through other networked ecologies). Some digital systems are also tied to specific user networks, such as posting links to del.icio.us that serve a particular course at a specific institution; in these cases, there is a connection between local (physical) communities and public digital networks; the intersection of local use and public digital spaces represents an important area of inquiry for the study of circulation.

Ecological systems as I see them can also be articulated in terms of scale (that is, the methodological lens can be focused narrowly or widely): digital ecologies can be identified as micro-ecologies (as in the work/portfolio of a single individual), midrange ecologies (which contextualize the work of collaborators, departments, research groups), or macro-ecologies (institutions, fields, disciplines, nations).

Economies of Circulation

If "ecologies" represent the contexts of circulation, "economies" represent the mechanisms that motivate circulation, primarily through the process of production, distribution, and exchange (using Marx's terminology). The key to how and where a given text will circulate is based upon the value of that text, which can be assessed in terms of either use-value or exchange-value. Because Marx's work is concerned with material production, his framework

includes consumption as an integral (and cyclical) component of the production process (and also required for the establishment of value). Consumption, however, becomes useful only at a metaphorical level when the object of the exchange is digital: exact reproductions can be made that do not consume the original products. Consumption can be described in terms of external resources (such as the living expenses of the scholar(s) who develop digital texts), but it no longer plays a direct role in the economies of circulation (although one might substitute "use" for consumption in order to fulfill all of the requirements of production in Marx's theory). This is not to say that digital objects are immaterial—they have material value by virtue of use and exchange. But it is useful here to depart from a strictly Marxist interpretation of capital and consider the role of what Bourdieu calls "cultural" and "social" capital in the economies of circulation.

It is important to note at the outset that I am *not* using Marx's notion of circulation here, because his use of circulation is both limited in scope and is divorced from production (which is the opposite of my contention that, rhetorically speaking, circulation plays an important role in all of the classical rhetoric processes, from invention to delivery). In his "Introduction to a Contribution to the Critique of Political Economy," Marx states both that "circulation is merely a particular phase of exchange or of exchange regarded in its totality" and that "exchange is simply an intermediate phase between production and distribution" (*Capital*, II: 203). This view of circulation is particularly limited as well since Marx asserts that "circulation time and production time are mutually exclusive. During its circulation time, capital does not function as productive capital, and therefore produces neither commodities nor surplus-value" (*Capital*, II: 203). Because Marx would say that circulation adds no use-value, and therefore no surplus value, the limitation that I see here is the insistence on separating the processes of production and circulation (the "time" part of

the equation).

Marx's view of capital itself is closer to my use of circulation, as he describes capital as "a movement, a circulatory process though different stages, which itself in turn includes three different forms of the circulatory process. Hence it can only be grasped as a movement, and not as a static thing" (*Capital*, II: 185). Patrick Murray (1998) argues that capital is indeed "not a thing, and not a historical constant, but a bizarre and astoundingly powerful (asocial) social form of wealth turned 'automatic subject'" (37). Murray's odd turn of phrase in declaring capital an "(asocial) social form of wealth" seems particularly apropos when applied to circulation—it invokes both the human activity that motivates circulation as well as the independent work of both human and nonhuman actors that facilitates the paths and mechanisms of circulation. Murray goes on to say that "the circulation of capital involves not simply a flow of materials but metamorphoses, *a flow of forms*" (37, emphasis in original); substitute "digital texts" for "capital" and this neatly describes my description of the process of circulation in digital communication networks.

Marx does recognize that circulation "is just as necessary for commodity production as is production itself, and thus agents of circulation are just as necessary as agents of production" (*Capital*, II: 205), but again, his theory is grounded in material production, thus requiring a kind of translation into a form that might be useful for understanding economies of circulation. Marx notes that transportation adds value (and surplus value) because it affects the use-value of commodities: "the use-value of things is realized only in their consumption, and their consumption may make a change of location necessary, and thus also the additional production process of the transport industry" (*Capital* II: 266–67). One might reframe this for digital networks: circulation (transportation) adds value because digital texts can be appropriated (although not consumed); this kind of use increases use-

value, although the real change wrought by digital circulation is always better expressed as exchange-value (which is possible without having to include consumption as a necessary component of production or necessary outcome of distribution). And this reframing shows where I must most sharply disagree with a Marxist interpretation of circulation. As Murray explains, "no value and, *a fortiori*, no surplus value is created in the restricted sphere of circulation for a simple reason: in this sphere no use-value is (preserved or) added to the commodity, and if no *use-value* is (preserved or) added, no *value* is added. For, while a use-value need not be a value, value depends on use-value" (46, emphasis in original). I would contend that circulation is the principle mechanism not only for enabling exchange-value but also for adding use-value to the rhetorical object via its reproduction, appropriation, and use within a particular circulation ecology or through interactions across multiple circulation ecologies.

Circulation makes the rhetorical object available for appropriation, thus increasing the use value. Consider the case of the MA thesis that is bound and sent to a university library—the thesis is in circulation, but its form severely limits the scope of said circulation, as its ecology of use is bound to the physical space it can occupy. That same thesis, made available on the web, is much more likely to be read, quoted, and cited—that is, to garner increased use-value. The rhetorical object itself is in essence a "flow of forms."

The production of digital objects endows them with use-value, but the motivation for production is grounded in the subjective exchange-value that is garnered through the distribution and publication (and ultimately circulation) of the texts. Because digital circulation does not function in the same way as material production, it is better to approach the question of exchange-value not through Marxist theory but via Bourdieu's theory of cultural capital. Particularly in terms of scholarly work and knowledge

management ecologies, digital objects are not typically traded for material or monetary gain; instead, the exchange-value of the work comes from the accrual of cultural or social capital.

Bourdieu's (1977) project began as an attempt "to extend economic calculation to all the goods, material and symbolic, without distinction, that present themselves as rare and worthy of being sought after in a particular formation—which may be 'fair words' or smiles, handshakes or shrugs, compliments or attention, challenges or insults, honour or honours, powers or pleasures, gossip or scientific information, distinction or distinctions, etc." (178); my own interest in developing an economics of circulation would fall in with the latter categories of symbolic goods, as I am particularly interested in the kinds of formation (genres) that occur in academic settings. In a sense, the Marxist perspective can be used to consider the circulation of digital texts as capital that requires labor, production, and distribution, while the Bourdieu-ian perspective is concerned less with the object of circulation and more with the composers and appropriators of those texts.

Economies of circulation, then, must account for both the use-value and exchange-value acquired by rhetorical objects as they circulate through digital networks as well as the social capital these works are exchanged for by their authors and appropriators. As with circulation ecologies, these processes are complex and interdependent, relying on the relationships between human and nonhuman actors who are connected via digital networks.

001/1:6/--digital-rhetoric-theory-method-practice?

G=DCULTURE;RGN=DIV1;VIEW=FULLTEXT;XC=1]