In The Language of New Media, Lev Manovich declares that we live in "a society of the screen" (94). While the screen has been used to frame visual representations for centuries, Manovich explains, "Today, coupled with the computer, the screen is rapidly becoming the main means of accessing any kind of information, be it still images, moving images, or text" (94). Human beings in the twenty-first century are constantly surrounded by screens and screening devices. Security cameras record and screen our movements in almost every public place or business. At our workplaces, we are constantly seated in front of computer terminals during the day, staring at screens that display text and image. At home, we encounter another framed screen that projects television shows, movies, and video games. We interface with video display terminals at ATMs, information kiosks, public telephones, grocery store checkouts, gas stations, and more. In almost every environment, we interact with some kind of screening device that mediates our experiences as human beings who read, write, and think. Considering this pervasive environment, it is curious that we so seldom speak of these screens in our work on rhetoric.¹

Against this background of screens emerges Mark C. Taylor’s text, The Moment of Complexity: Emerging Network Culture, which provides us with one glimpse of how screening is enmeshed with writing and rhetoric. For Taylor, writing always involves screening information, but Taylor’s screen is both a net that filters and a surface for projection. This “both/and” description of screening is essential to Taylor’s model of complexity theory since his concern is with the ways that everything and everyone is inextricably enmeshed in a constantly changing network, which is made possible by information processes. Taylor theorizes that
we live in a world where new technologies are changing the way that we perceive information: "Information is not limited to data transmitted on wireless and fiber-optic networks or broadcast on media networks. Many physical, chemical, and biological processes are also information processes" (4). In order to account for these new information processes, Taylor's book attempts to theorize "the relation between nature and culture in such a way that neither is reduced to the other but that both emerge and coevolve in intricate relations" (4). Taylor's phrase for that relation is complex adaptive networks. Such networks—or network logics—are embodied in human beings. As Taylor claims, "We are gradually discovering that we are, in effect, incarnations of worldwide webs and global networks whose complexity is fraught with danger as well as opportunity" (17). Thus, the screening that happens when we write comprises who we are as embodied subjects.

As the other essays in this special issue address, Taylor's model is clearly useful for rhetoricians in thinking about communication in network culture. However, less apparent is the connection to Manovich's observations about our relationships with the physical screens that pervade our lives. Manovich asks us, "What are the relationships between the physical space where the viewer is located, her body, and the screen space?" (94). Substitute viewer with writer in this quotation, and the question becomes one of rhetorical situation. While Taylor's model of complexity theory helps us to understand the importance of information processing, the material conditions—the human bodies—that put information into motion remain largely invisible. In light of Manovich's assertions, how do our bodily interactions with physical screens function as rhetorical components in Taylor's model of complexity?

In order to answer this question, we need to look at more than just The Moment of Complexity. One of Taylor's earlier works specifically deals with the body and can help us to think about the relationship of the body to the screen. That book is Hiding. Drawing from research in Internet studies, body studies, performance art, and critical theory, I will explore the implications of a rhetoric that, in Taylor's language, "simultaneously embodies and articulates the incarnational logic of networking" (230). Moving from local examples of bodies as individual networks to more global examples of bodies networking, I will argue that embedded in Taylor's texts is a notion of rhetoric that can provide us with exciting new visions for embodied rhetorics. Such a vision would be grounded in the notion that the body and computer together form a complex, co-adaptive system. At the end of this essay, I will suggest that recent work on affect,
such as by Brian Massumi, supplements Taylor’s model by attending to movement, but that movement does not take into account the technology behind movement. It is not enough to posit a theory of bodies, movement, and affect without confronting our bodily connections with machinery on a daily basis. Thus, for instance, while the concept of the cyborg is useful in thinking about bodies and/as machines, it needs to be extended to account for the co-adaptive, systemic relationships that humans have developed with information processing and viewing machines. If we are to think about bodies in a meaningful way, we must examine the body’s relationship to the computer screen and the body’s screening of online information.

Taylor’s complexity model provides theoretical grounding for the material ways that bodies both become screens and interact with a variety of screens on a daily basis. The human body screens information that it receives through sensory apparatuses, bodily filters, neural activities, and cognitive operations, and yet it also functions as a screen on which culture and identity are projected; in this way, the body simultaneously functions as filter and surface. Moreover, our screening bodies are in constant contact with other technological screens, such as computers, television monitors, webcams, and digital cameras, prompting us to question the comportment of the human body in relation to these screens and screening devices. For instance, how are we to think about the body that uses the camera phone to take pictures of others using a screen? What then is the relationship between the body that uses the phone to talk, to write text messages, and to take pictures? If Iris Marion Young is correct in suggesting that there is a feminine body comportment, will there emerge a technological body comportment for those who have access to particular technologies?

As our bodies interact with these screens—as our bodies as screens confront other technological screens—the body becomes a reflected and refracted image; it is both filtered, filtering, and reflected back on itself. Taylor’s work asks us to see this relationship between bodies and information as a complex adaptive system, to “see” ourselves as both information and screens. For instance, when we catch our reflection in the computer screen, we momentarily witness our body as it is screening information, and yet simultaneously it serves as another screen that processes the physical screen in front of us. The image that surfaces from this engagement seems to become another piece of information displayed on the screen. The material boundary between technological artifact and body is blurred, and the body simultaneously becomes image, informa-
tion, and material object. This self-reflective screening forms a complex, co-adaptive system of inscription that transforms our view of the body's relationship to contemporary digital writing practices. While there have been recent calls for an "embodied rhetoric" in composition studies, those calls have often focused on bringing back or acknowledging the presence of the affective body in writing processes. However, viewing the body within a complex co-adaptive writing system requires rethinking the body as always in motion, always moving and shifting as a matrix of information processes. Thus, for example, the composition student's body does not merely "write" a paper using a computer; the student body and the computer form a complex co-adaptive writing system that produces both material affects and virtual effects. A techno-bodied subjectivity would consider the recursive processes of screening and reflecting that form our networked identities; we can most readily see those processes in online networking practices. But before we move to online networks, let's examine how Taylor prepares us to see bodies and information in his earlier book on the body, *Hiding*.

**Rhetoric as Body Screen**

*Hiding*, in Ellen Lupton's words, is "a commentary on the culture of skin" (31). A visual experience in itself, the physical book provides the reader with images of the body overlaid with sheer, skin-like pieces of paper. This material presentation, along with the theoretical text, allows Taylor to challenge the modernist binary of surface/depth and the corollary binary of appearance/essence. A commonplace of postmodern theory is that it challenges any stable relationship between these binaries, and for Taylor, this opens up creative potential for a world filled with surfaces. In Taylor's thought, the body possesses incredible new possibilities for inventive acts. Since the outer is no longer merely an expression of the inner, the body is no longer "a sign that can be deciphered by those who know the code" (15). When our theories rely on depth metaphors and models, we always seek what we cannot see, or what lies beneath; thus, the body becomes the cover, actualized in the skin, that must be stripped away in order to discover, to "see," the true self. But this model eliminates the possibility for seeing the body in productive ways, as well as for thinking about the body in an age of media saturation. As Taylor concludes, "By repeatedly seeking what hides, we tend to forget how to read the surfaces on and between which life is lived" (25). One of the primary surfaces that Taylor wants to remember is skin.
As a way to remember how to read surfaces, Taylor turns to transgressive and transformative skin practices that create and invent new possibilities for seeing the body outside of the surface/depth distinction. Tattooing, fashion, performance art, and new media technologies all interrogate and bring forth the skin as meaning (less). Taylor’s discussion of these explicitly material events evokes the body in obvious ways. Skin functions as more than a barrier or surface; skin serves as a conduit, or canvas, for the performance of subjectivity and thought. What we see here in germinal form is the notion of body as screen, a notion born out in the concluding chapter of *Hiding*. There, Taylor explains, “The notion of distributed intelligence redraws the boundaries within the body, between mind and body, and between self and world. While the mind is not a mind, but a network of networks, the body is not a body, but, in Donna Haraway’s terms, a ‘network-body’” (323). By the time that *The Moment of Complexity* emerges, Taylor has reconceptualized the relationship between mind, body, and self in terms of complexity theory and adaptive systems.

One of the first places where we see this reconceptualization surface in *The Moment of Complexity* is in his discussion of writing. Consider how Taylor pushes us to understand the activity of writing as dynamic:

> The moment of writing is a moment of complexity in which multiple networks are cultured. If writing does not push limits to the tipping point, it is simply not worth the effort. The writing that matters disturbs more than it reassures; it drives authors as well as readers to the edge of chaos and abandons them. Writers realize that the pleasure of the text is not the satisfaction it provides but the dissatisfaction is engenders. (198)

Taylor positions writing within the intersection of multiple networks of influence that are not only textual, subjective, and cultural, but also biological, objective, and natural. In short, the influences can be both sides of the binary: natural and cultural. He explains that networks are what allow these distinctions between these binaries to become “porous screens” (199). Whereas in *Hiding* he is more concerned with the collapse of the binary, here Taylor is ready to acknowledge that the binary is not in fact a binary at all but part of a matrix structure formed using porous screens.

The concept of screen forms the key to Taylor’s discussion, but as he observes, “Screen, which, of course, can be either a noun or a verb, is a
strange word in which multiple meanings pass through each other without losing definition” (199). It can mean “to separate” or “to filter,” as well as” to conceal” and “to protect.” Thus, rather than see the screen as a barrier between opposites, Taylor theorizes the screen as “more like a permeable membrane than an impenetrable wall; it does not simply divide but also joins by simultaneously keeping out and letting through. As such, a screen is something like a mesh or net forming the site of passage through which elusive differences slip and slide by crossing and criss-crossing” (199–200). The screen functions as a dynamic node in a network of relations rather than as a barricade. This translates into an understanding of nature and culture not as binary opposites but as different points in a network of relations. Our whole understanding of the world, as predicated on opposites, is moving more toward a “strange loop” created by technologies of production and reproduction (72). Such technologies (like the screen) force us to look to alternate metaphors that move beyond binary opposites.

“But,” Taylor continues, “a screen is also a surface on which images, words, and things can be displayed. Every surface is actually a screen that hides while showing and shows while hiding” (200). A simple example of this phenomenon is the computer display. While it projects the interface of the machine, it also hides the internal hardware that processes the information. Another example would be the holographic image, at one time a popular means of presenting images on postcards and other memorabilia. The holographic screen usually displays two different images depending on the angle at which one views the image. While it’s easy to make the general observation that screens can perform two different functions simultaneously, Taylor seems more interested in what happens at the nexus of those two functions, or where the two functions meet. In Heideggerean fashion, Taylor hints at the possibility that the process of screening is the condition of possibility for being: “In network culture, subjects are screens and knowing is screening” (200). If screening is a condition for being and for subjectivity, then the intersection between the process of screening and the material surface that screens is a critical juncture for identity formation and for understanding networking. Taylor expands his theory to address identity formation: “The screening critical to channeling experience, articulating knowledge, and cultivating meaning occurs through dynamic patterns” (204).

The recursive nature of the screen allows us to consider every surface as a screen and every knowledge-building act as a process of screening. That process of screening, though, is not a pure act of interpretation and
meaning-making; rather, there is always an effect to screening that is itself another screen:

> While a screening is a presentation of a film, video, CD-ROM, website, etc., screenings are remains, waste, and detritus. Screening is often a process of filtering, designed to purify by removing, excluding, or repressing what threatens to contaminate. What is screened, however, does not simply disappear but lingers as dangerous refuse, which is neither precisely present nor absent. (288 n.3)

This is what it means to live in a networked culture—bodies are modalities of image, information, and material object; bodies are formed through the complex adaptive processing of all three modalities simultaneously. Under this system, writing expands into a political, embodied movement that constantly implicates refracted and reflected bodies.

Taylor's model offers us the possibility that rhetoric is the screen, the permeable membrane on which meaning is made and through which meaning is filtered. Taking complexity theory into consideration means we can no longer envision rhetoric as merely verbal, visual, and oral. Rather, rhetoric is networked among all three components through the ultimate screening device that is the body. What this means is that perhaps our minds and brains are not only filtering information, but our bodies are as well. Our bodies are implicated in the rhetorical choices we make and the rhetorical capacities (to filter and serve as filters) that we possess. Networked writing involves determining, filtering, and forging connections between information and bodies. But where do these practices meet? Where is the transformation zone on the body that allows these practices to merge? The first obvious place to look is the location where human body meets the outside world: skin.

**Skin as Local Area Network**

The connective membrane that encapsulates our singular bodies is called skin. Like Taylor, Claudia Benthien points out that early on in life, we see the skin as the boundary between ourselves and the world: “It is through the skin that the newborn learns where she begins and ends, where the boundaries of her self are” (7). Interestingly enough, skin and brain are formed from the same biological substance: “In the embryo, the skin and the brain are formed from the same membrane, the ectoderm; both are, in essence, surfaces. A substantial part of embryonal perceptions in the womb occurs through the skin” (Benthien 7). While skin and brain are
both formed from the same membrane, and thus retain a certain mem-
brane quality, they are also, in Taylor’s language, types of screens or
filters for information. The information we screen may come to us in
terms of bacteria or “germs,” but it may also come to us in terms of
linguistic structures and cultural patterns. In fact, the viruses we encoun-
ter as human bodies and the viruses we encounter online may not be that
much different. Thus, while our skin processes bacteria, it also processes
and reflects cultural norms and patterns of meaning making; both natural
and cultural processes are happening simultaneously. It makes sense,
then, that in networked structures we use “skins” to both personalize and
process the interactions between ourselves and others. We can easily
theorize skins through the interactions between ourselves and machines.

In online contexts, skin has two ostensible meanings, which are
significant to an understanding of network culture. First, skin refers to the
graphical avatars used in gaming communities; sometimes these avatars
merely reflect the cultural influences and rituals of the game. However,
in other instances, these skins can actually challenge those influences. As
Allyson Polsky notes in an examination of female gaming culture,
“Female gamers began producing experimental skins that challenge real
world gender ideals and the aesthetics of both their male peers and the
male-dominated gaming companies.” The avatar as skin emphasizes the
visual representation of the self in embodied terms; avatars, though, are
usually perceived as “stand-ins” or representations of real-life bodies.
The second meaning of skin is also of interest here. This meaning refers
to the graphical layer or covering that users create to personalize software
interfaces. For instance, the desktop interface for one’s MP3 player can
be personalized using a “skin” that is downloaded and installed on one’s
computer. But what is the relationship between the digital skin that
represents the embodied subject and the skin that covers or layers the
technology? The relationship is much the same as we see in the purely
physical world.

In basic physical terms, we also seek to customize our bodies through
all kinds of body modifications. Body piercing, tattooing, and other
bodily modifications such as cosmetic surgery, allow the human form to
function as a screen on which to project our selves and form identities.
Visual culture has allowed and encouraged the human body to become the
new tabula. As Taylor theorizes, “Body art represents, among other
things, a sustained effort to reverse the dematerialization of art by making
the body matter” (Hiding 111). Tattooing, for example, allows the body
to show up; it reveals to us that just like the brain, the skin also serves as
cultural screen and processor. Skin is an important screen, a part of knowing, thinking, understanding and accessing the world. A new way to conceive skin, then, is as the body's local area network, which means as a confluence of nodes or access points through which meaning is processed and created. Local Area Networks, or LANs, are small, typically invisible networks, but their very invisibility allows for other things to show up. As Taylor explains, “In many ways, the transformation of reality by electronic media is a practical extension of processes of abstraction and dematerialization (pre)figured in high modern art. When the body appears by disappearing on the screen, it becomes effectively material” (Hiding 111).

We know that our bodies effectively “disappear” when we are positioned in front of our networked computer screens. But even if our physical bodies appear absent, they show up in all kinds of linguistic and social processes that occur in online interactions and publications. While we do have ways of describing and presenting bodies online (avatars, images, webcams), those forms are usually considered stand-ins for actual bodies in front of computers. If, as Taylor writes, the “self is the result rather than the presupposition of screening information,” then subjectivity is clearly always in process and cannot be accounted for by a static visual object (Moment 205). Skin as visual depiction and skin as membrane would seem to be incompatible definitions, but according to Taylor, this would be part of network logic. The skin is screen, composed of nodes that are networked in both visible and porous ways. Thus, we can see the skin as screen, but because it is porous, it is constantly shifting, in motion, taking in information and exuding it. This is why body marks constantly shift in meaning depending on informational influences and contexts. But what of the relationship, then, between our computational screening of information over online networks and the LAN that is our skin? What is the relationship between the body of the user and the connections to information and others created online?

One of the reasons why many theories of embodied rhetoric have not addressed technology might be that technology poses a threat to the perceived organic unity of the body. It exposes the disruptive and refracted nature of the user in front of the computer screen. It also exposes the body as information streams. Consider the proliferation of the “skin” movement online: hundreds of individuals have created thousands of “skins”—digital coverings—for their software interfaces. In this respect, the interface is the prosthesis through which physical and digital bodies merge. How are we to distinguish between an online skin and a material
skin? As Taylor explains, “In network culture, technology is an indispensable prosthesis through which body and mind expand. This relationship is always two-way: as body and mind extrude into world, world intrudes into body and mind” (Moment 231). This is why technology, and in particular the technology of the computer, provides a means for us to understand the ways that networks operate.

**Broadbanding Bodies**

While we each have skins and we attempt to (re)create the permeable character of that skin online, we also must think about the ways that human bodies become permeable screens on a broad scale. One particular form that allows us to consider this idea is the webcam. More popular in the earlier days of the Internet explosion, webcams allow a user to hook up a mini-camera to a computer and stream a continuous camera image to a particular web page. The image is usually refreshed every few minutes, giving the impression of “live” images. Webcams are utilized to project a variety of images, such as views of a college campus, views from an office, or more infamously, views of coffeepots in break rooms. Most people, though, use webcams to project images of themselves for family and friends to view, often as they are working at their computers.

Because the webcam projects an image of the operator, the webcam is a useful form for thinking about the physical body in network culture and the complexity of the body’s relation to the screen and ultimately to the network.

The image of the webcam operator staring into her screen on your screen is one of the most familiar images of the webcam movement. Michele White notes that in the webcam genre, “Binary distinctions between operator and spectator are disturbed by the way that the webcam mirrors the spectator’s bodily position in front or the screen. [. . .] The spectator is already intimately close to the computer or even too close to see” (“Between”). Since most webcams are positioned next to the operator’s computer, the spectator or viewer’s position in front of the computer is mirrored in the webcam operator’s position. In this instance, the screen simultaneously captures and conflates the spectator’s and the operator’s positions, making it difficult to determine who is spectator and who is operator. White explains that often, computer spectators become so wrapped up in the image that they are unable to grasp the whole representation (“Too Close” 20).

Moreover, as White observes, depictions of eyes on many webcam sites reinforce this confusion with seeing on screen. An example comes
from the website JenniCam, one of the first and most famous webcam sites. In the image heading at the top of her main page, Jennifer Ringley, operator of JenniCam, is featured holding the web camera up to her eye. She seems to be looking through the webcam at the visitors to her site. As White claims, the webcam apparatus seems to supplant one of her eyes and “A fuzzy depiction that is reflected in the camera lens appears to be the body of the spectator” (“Between”). But the depiction in the lens is not clearly the spectator’s body. The Rorschach-type image could also be the reflection of the computer screen or the reflection of the operator’s body on the screen. The uncertainty of the image in the lens attests to the multiplicity of screenings that are happening on the network.

Further complicating webcam screenings are images of Ringley and other webcam operators wearing glasses. White reminds us that

Glasses may screen the computer operator’s eyes from the viewer while also allowing her to see. Seeing the screen reflected back in the operator’s glasses reminds spectators of their own physical relationship to the computer screen. Less detailed reflections may even suggest that the spectator is reflected in the operator’s glasses. Glasses impose a mediating frame, a kind of screen, between self and other. (“Between”)

These on-screen examples witness the body of the spectator becoming another information process, just as the body of the operator becomes an information process caught up in the transmittal of her body into bits and bytes. The body becomes image, simultaneously captured and transmitted as data. The body’s position in relation to the screen and the adaptability of screening the body through mobile computing devices further confuses the spectator with the screen. “In this sense,” White explains, “all computer spectators become collapsed with the computer and may fail to distinguish where subject ends and object begins” (“Too Close” 20). The spectator is no longer a separate subject who processes or views the image; rather, the spectator becomes part of the screen, “literally mirrored, doubled, and confused with the screen” (23). The transmission of pictures/images that people take transfers the individual’s vision to the vision of the machine.

This body as screen that happens on the webcam network is similar to what happens in some pieces of hypertext fiction. N. Katherine Hayles describes the net/work that is performed in Talan Memmott’s *From Lexia to Perplexia*, a piece of hypertext fiction that challenges us with the
realities of network culture. Hayles characterizes computers as simulation machines that produce environments:

To construct an environment is, of course, to anticipate and structure the user's interaction with it and in this sense to construct the user as well as the interface. When the simulated environment takes literary and narrative form, potential possibilities arise for reflexive loops that present the user with an imaginative fictional world while simultaneously engaging her with a range of sensory inputs that structure bodily interactions to reinforce, resist, or otherwise interact with the cognitive creation of the imagined world. (48)

Memmott takes advantage of these flexible loops to structure the viewer's experience so as "to understand herself as a permeable membrane through which information flows" (Hayles 50). Using what Hayles terms a "creole" language comprised of English and computer code, Memmott attempts to force viewers to see both our connections and our disjunctions with computers as reading and writing technologies. At one point in the work, Memmott carefully layers text and meaning three-foldly, so as to make the viewer think that "the self is generated through a reflection on the inside of the screen, as if on the inside of a mask" (Hayles 52). Across another layer, "the subject and the techno-object are both inside, interfaced with the world through a screen that functions at once as display and reflecting surface" (52). And finally, a doubling third layer that "positions us inside the screen as well as external to it" (53). Hayles sees this movement as forcing viewers to recognize that their bodies are also undergoing transformations in reading the text, that they too are part of the cybernetic circuit (52).

In both the webcam genre and in Hayles' reading of Memmott's work, it becomes clear that the body functions as both a screen and a screening that is always already networked with other processes. In Taylor's terms, the connections between viewer and computer illustrate the networked processes of a complex, co-adaptive system. But while the model for this system in these examples is based on the individual viewer and computer, it can also be extrapolated to complex systems among many individuals. Recently there has been a proliferation of social software that allows many conversations and discussions. Friendster, Orkut, and other online "communities" attempt to connect or "network" individuals through their software. Individuals are depicted through digital images, providing the illusion that the image represents an authentic body. One of the reasons why these pieces of networked
software ultimately fail is because they attempt to represent physical bodily patterns online. Clay Shirky explains, “A group of people interacting with one another will exhibit behaviors that cannot be predicted by examining individuals in isolation” (“Social Software”). Therefore, social software cannot attempt to replicate individual human usage patterns because those patterns will constantly change and alter; they are nomadic processes.

**Bodily Assemblages**

The nomadic processes of groups emerge from the complex co-adaptive system formed among human bodies and computers. The coupling that makes possible these networks is the connection between body and machine—what we might term an assemblage. Deleuze describes an assemblage as being “populated by becomings and intensities, by intensive circulations, by various multiplicities (packs, masses, species, races, populations, tribes [. . . ])” (Boundas 105). The assemblage relies on the structure of the rhizome, a concept based on principles of connection and heterogeneity, territorialization and reterritorialization. In *A Thousand Plateaus*, Deleuze and Guattari liken the rhizome to the relationship between wasp and orchid: “The orchid deterritorializes by forming an image, a tracing of a wasp; but the wasp reterritorializes on that image. The wasp is nevertheless deterritorialized, becoming a piece in the orchid’s reproductive apparatus. But it reterritorializes the orchid by transporting its pollen” (10). But the concept of assemblage has a dual nature: “On the one hand, it is a machinic assemblage of bodies, of actions and passions, an intermingling of bodies reacting to one another; on the other hand it is a collective assemblage of enunciation, of acts and statements, of incorporeal transformations attributed to bodies” (88). They go on to say that “the material or machinic aspects of an assemblage relates not to the production of goods but rather to a precise state of intermingling of bodies in a society, including all the attractions and repulsions, sympathies and antipathies, alterations, amalgamations, penetrations, and expansions that affect bodies of all kinds in their relations with one another” (90).

One clear place we see these assemblages in action is through “smart mobs,” Howard Rheingold’s term for the phenomenon of people acting in concert regardless of whether they know one another: “The people who make up smart mobs cooperate in ways never before possible because they carry devices that possess both communication and computing capabilities” (xii). Smart mobs are made possible through mobile phones,
laptops, PDAs, or any device that allows for communicative coordination between individuals. This coordination is characterized in physical terms, meaning that it is often used for physical aggregation of bodies in a particular time or place.\(^7\)

Rheingold refers to the concept of this physical coordination as a mobile ad hoc social network, or

the new social form made possible by the combination of communication, computation, reputation, and location awareness. The *mobile* effect is already self-evident to urbanites who see the early effects of mobile phones and SMS. *Ad hoc* means that the organizing among people and their devices is done on the fly, the way texting youth everywhere coordinate meetings after school. *Social network* means that every individual in a smart mob is a "node" in the jargon of social network analysis, with social "links" (channels of communication and social bonds) to other individuals. (169–70)

Derived from smart mobs, these ad hoc mobile networks enable human bodies to spontaneously assemble in a physical place through the mobile connections. He describes several scenarios where people have assembled for political action through mobile ad hoc social networks. For instance, he writes, "On November 30, 1999 autonomous but internetworked squads of demonstrators protesting the meeting of the World Trade Organization used 'swarming' tactics, mobile phones, websites, laptops, and handheld computers to win the 'Battle of Seattle'" (158). Rheingold sees the potential for political action through the networking of bodies via machines and mobile communications. But the network is not just reliant on mobile networks for its potential; it is also reliant on the assemblage of the human and technology. Rheingold incorrectly explains that it is because we *carry* these devices. I would argue that it's not a matter of carrying the device; rather, we have become inextricably connected to the device, creating a machinic assemblage. Cell phones, pagers, and other mobile computing devices are no longer seen as amenities but as necessities for living. The assemblage that is formed from human and cell phone (or other mobile computing device) allows those physical connections to take place through invisible network transmissions. Thus, the invisible networks that allow the skin to process and reflect information, the neural processes that form the nexus of our brains, are extended to the invisible wireless and microwave transmissions of mobile computing devices.
Conclusion: Affect

At this point, it might seem easy to connect these ideas with Brian Massumi's theory of affect as outlined in *Parables for the Virtual*. In that text, he conceptualizes the body beyond mere materialism and toward movement: "to think the body in movement means accepting the paradox that there is an incorporeal dimension of the body. Of it, but not it. Real, material, but incorporeal" (Massumi 5). Massumi describes this dimension as affect, or "a body's capacity to enter into relations of movement and rest" (15). Affect might be described as that intangible ability of the body to produce change while itself having the ability to change in response to bodies/affects. How is this different from Taylor's theories of emergence and network culture? Massumi and Taylor use different vocabularies to describe similar phenomena. Both want to move beyond the nature/culture binary and account for ways to understand bodily selves and produce material change. The difference I see is in the application of their theories. Massumi specifically moves against application: "The first rule of thumb if you want to invent or reinvent concepts is simple: don't apply them" (17); in contradistinction, Taylor spends an entire chapter outlining a plan for application ("The Currency of Education"). I think we can mediate between these two poles with our examination of how certain practices of screening have emerged, especially in Internet culture. Such an examination would not be for the purposes of application, but perhaps to theorize how we may not be able to apply complexity theory to Internet environments. This does not mean that I would privilege Massumi's paradigm over Taylor's; rather, while I find Taylor's theories conducive for theorizing Internet environments, they cannot fully account for the ways the individuals will use machinic assemblages in connective ways. Most of the ways that people have adapted technologies for their own uses have not been predicted or theorized beforehand; this is because these adaptations are always changing and altering with the (re)circulation of data and information.

Moreover, while Massumi's theory of affect does account for embodied connections between individuals, it does not fully explain the linking and transmission of bodies through wireless communications. As wireless signals and transmission hubs become more pervasive, our bodies will be constantly moving through wireless transmissions all of the time; how will our bodies interact with the complex co-adaptive wireless transmission system? Sometimes, when the cable signal on our television is out, I can use my body as a kind of antenna to help the television signal come in. This makes me wonder how our bodies will function within the
complex evolving system of wireless transmissions. While our bodies constantly move through information and form the screen for that information, while simultaneously, in loop-like fashion, processing and screening it, affect as we might know it will change. Wireless signals and electronic transmission will merge with bodies and transpose affect into a biotech phenomenon, if it isn’t already.

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Notes

1. In composition studies, there are several works from the 1980s that discuss the shift to reading and writing on computer screens, but this research has been mostly left dormant. For example, see Haas. In rhetorical theory, both Kenneth Burke and James A. Berlin speak of “terministic screens” in their work. However, as it is used in rhetoric and composition, “terministic screen” often lacks attention to the material screens through which we currently write and communicate. See Burke and Berlin. Blakesley’s The Terministic Screen: Rhetorical Perspectives on Film, alludes to the terministic screen as a material screen with reflective properties.

2. I use the plural for embodied rhetorics to indicate that there are many different ways of conceiving an “embodied” rhetoric, and, in actuality, the term is not defined uniformly. For some, an embodied rhetoric might refer to Crowley’s review of recent theories of the body and her call to move beyond the modernist subject, and Hindemann calls her attention to the teacher’s body as an “embodied rhetoric.” I would align my approach with Crowley’s.

3. The most common form of machinic connection in the West is the personal computer or PDA, but for other examples we could also look at the thousands of Asian workers who form complex co-adaptive systems with the motherboards their bodies create, and so on.

4. At the same time that our bodies seem to disappear on screen and in online interactions, we also become much more aware of our bodies through the effects of typing and sitting for long periods of time. While there has been a great deal of medical research on the potential detrimental effects of computer use, no clear conclusions have been drawn.

5. There has been some research on the webcam form, but not on the rhetorical principles of the form. Michele White, whose article “Too Close to See,” is cited later in this essay, has done some of the most extensive work on this genre. See also Theresa Senft’s earlier work on the webcam form.

6. Hayles vacillates between using the term “reader” and “user” in her discussion of Memmott’s audience. I prefer to use the term “viewer,” which reinforces the comparison with the webcam example and reinforces the focus on the image.
7. Smart mobs do not necessarily require a group of individuals to gather in one specific place. They can also refer to the phenomenon of moblogging, or mobile weblogging, where amateur or professional writer/journalists chronicle live events as they happen. Sometimes they upload these chronicles to the web or they may even video or audio record these events for others to see. In many cases, these accounts are performed to promote specifically political action.

Works Cited


