Introduction

😊

If punctuation can capture the spirit of a time, then none has done so as clearly for the digital age as the emoticon. The idea that users communicating through high-tech screens would need a hieroglyphic to represent their moods or facial expressions suggests a series of tensions at work in our digital connections to each other. According to Marvin Minsky, author of *The Emotion Machine: Commonsense Thinking, Artificial Intelligence, and the Future of the Human Mind*, “it is still widely believed that minds are made of ingredients that can only exist in living things, that no machine could feel or think, worry about what might happen to it, or even be conscious that it exists—or could ever develop the kinds of ideas that could lead to great paintings or symphonies.”

A computer scientist, Minsky hopes to challenge this popular dogma by demonstrating that human emotions function like complex machine operations and, in turn, that machines could be capable of their own complex emotions. If Minsky is correct about the current public attitude toward machines, emoticons could be explained as an attempt on the part of digital communicators to inject human emotion into an apparatus they ultimately view as incapable of expressing it. Interacting with and through what they apparently view as an emotionless screen, users try their best to re-create a human face.

At the same time, the widespread use of emoticons might imply a stronger public faith in technological expressions of emotion than Minsky’s comments suggest. A recent study illustrates that some users may be more comfortable interacting with less realistic avatars, and that in
certain cases they prefer the emoticon to the actual human face. The study had students interact in several different settings: in a highly realistic videoconferencing setting, in an audio-only setting, and in a setting using an unrealistic “emotibox” that rendered a user’s facial expressions as abstract computer graphics. In the end, those users who had interacted through the emotibox not only disclosed more, but perceived their partners as more “revealing, honest, and friendly” than those who interacted through the video screen. Far from cold, emotionless machines, these users seemed to experience the expressions of the avatars with which they interacted as genuine emotions. In *The Media Equation: How People Treat Computers, Television, and New Media Like Real People and Places*, Byron Reeves and Clifford Nass note a number of similar studies that evidence people’s willingness to engage machines emotionally, including smiling back at grinning avatars and being more interactive with computers they perceive as polite. For the users in these studies, technological representations of emotion were not simply degraded forms of actual human feeling. They were their own unique versions of emotion that mimicked, and in certain instances surpassed, more apparently human emotional expressions.

This book explores a range of assumptions about the capacity of communication technologies to capture, convey, and express emotion. A culture’s communication technologies have a complex relationship with how its people understand and talk about their own and others’ feelings. Although Minsky suggests that emotion has generally been seen as a uniquely human attribute, at odds with technology, just as often machines have been seen as *better carriers of human feeling*—as people’s responses to “friendly computers” might indicate. These complicated understandings of emotion parallel equally complicated notions about technology itself. At the same time that new technologies are imagined to be improving human life by increasing people’s capacity for memory, movement, and so forth, they are also regularly seen to be hurting humanity by overloading people with information and generally bombarding them with new—and presumably dangerous—stimulation. There is something both wonderful and creepy about the mechanical emotions Minsky identifies, and it is this tension—and specific attempts to resolve it—that centers the discussion in the following chapters.
In addition to the complicated machine emotions implied in the emoticon, U.S. popular culture abounds with stories of feeling machines. In Stanley Kubrick’s 1968 film *2001: A Space Odyssey*, the computer HAL 9000 displays a highly developed emotionality that roots much of the narrative tension of the film. In one of the film’s most dramatic scenes, the astronaut David Bowman disconnects HAL’s cognitive circuits after HAL has killed his fellow astronaut, Frank Poole. As Dave begins the process of shutting “him” down, HAL comments in an eerily calm but desperate voice, “I know everything hasn’t been quite right with me, but I can assure you now, very confidently, that it’s going to be all right again. I feel much better now. I really do.” As Dave continues, HAL’s pleading persists: “Will you stop, Dave? Stop, Dave. I’m afraid. I’m afraid, Dave.”

In this scene, as throughout much of the film, HAL seems the most emotionally engaged of the crew. Despite HAL’s pleadings, Dave continues his work without a word, mechanically turning screw after screw until HAL is shut down. In a last expression of emotion, HAL sings “Daisy Bell,” a late nineteenth-century love song, as his voice gradually gives out. Illustrating his own understanding of machine emotions, Kubrick explained shortly after *2001* was released that he had aimed to depict “the reality of a world populated—as ours soon will be—by machine entities who have as much, or more intelligence as human beings, and who have the same emotional potentialities in their personalities as human beings.” HAL may indeed be the most human character of the film in terms of his overt emotional expression.

Kubrick’s collaboration with Steven Spielberg, *A.I.* (2001), offers a similar story of machines that emulate—and in many ways surpass—human emotional expression. In a future in which highly developed robots serve humans in various ways, the electronics company Cybertronics develops a robotic young boy capable of feeling and expressing love. A prototype named David is adopted by a family whose son, Martin, is in a long-term coma. Although she is initially skeptical about this apparent replacement son, Martin’s mother, Monica, eventually warms to David, and goes through the sequence of words programmed to activate his imprinting process. Once she does, David, who has called her Monica to this point in the film, calls her “Mommy,” and his intense love begins.
Like HAL, David is among the most emotionally expressive characters in his film world. The other boys, including Martin, who eventually returns home as David's brother, are depicted as hypertypical preadolescent sociopaths. Martin convinces a naïve David to cut off a lock of their mother's hair while she sleeps, promising that she will love him more if he does. One of Martin's friends stabs David's hand to see if he is equipped with pain sensors, prompting David to grab Martin and cower behind him until they both fall into a swimming pool, nearly drowning. But if David is the most sensitive of these boys, his robotic teddy bear, Teddy, is often all the more so. In one scene, at Martin's prompting, David and Martin both call to Teddy, attempting to prove which of them Teddy likes more. Exasperated, Teddy escapes when Monica walks through the room. “Mommy,” he cries, as he grabs her hand. The more mechanical the character, the film seems to suggest, the more emotionally sensitive they are.

Numerous other stories have depicted similarly emotional machines. Despite the initial portrayal of Arnold Schwarzenegger's cold, calculating robotic killer in *Terminator* (1984), by the film's sequel (*Terminator 2: Judgment Day*, 1991), this time-travelling cyborg has turned to good and found his sensitive side. “I now know why you cry,” the distraught Terminator tells John Connor, the boy it returns from the future to protect, just before it destroys itself to keep its technology from falling into the wrong hands. Computers and robots are not the only machines imagined to feel and express emotions. Wilbert Awdry's *Railway Series* books, which date back to the 1940s and include the popular children's character Thomas the Tank Engine, depict railroad cars and other vehicles that feel joyful, sad, grumpy, and a range of other emotions. The Disney film *The Love Bug* (1968), and subsequent films in the same series, depict a highly emotional, loving automobile named Herbie, whose horn, headlights, and windshield wipers become his tools of emotional expression.

Playing on this tendency to attribute emotions to machines, an IKEA television commercial from the early twenty-first century tells the story of an old desk lamp discarded in favor of a new model. Slow, sad music accompanies a set of shots in which the old lamp, left on the curb outside in the rain, seems to “stare” into the house of its former owner, where the newer, shinier lamp is in place. The punch line comes at the end of the commercial, when a narrator walks on screen to address
the audience. “Many of you feel bad for this lamp,” he begins. “That is because you’re crazy. It has no feelings, and the new one is much better.” Frightening, funny, cute, and eerie—popular culture has presented a wide range of feeling machines.

What do these complex beliefs regarding emotional machines, apparently held by computer scientists, film directors, and the audience for IKEA lamp commercials, tell us about attitudes regarding both emotion and technology? What are the roots of these desires and fears that technologies might respond to us with emotion? Although HAL and David are only the products of science fiction, the average twenty-first-century American interacts with and through a wide range of technologies. Automated voices “greet” us on our telephones. Computerized GPS units can guide us as we drive. Even our friendships can become computerized versions of themselves. When we talk on most cell phones, we hear a digital approximation of our friends’ and family members’ voices. In many ways, an army of HALs and Davids may seem to be mediating the whole range of our emotional connections.

As with the emoticon, the extent to which we believe a technology capable of capturing and expressing human emotions will bear upon the quality of our interactions with each other. If I believe that an iPhone provides some unique expression of my individualized tastes and feelings, how might I alter my communications with others or even my sense of my own emotional life? In contrast, if I see these new technologies as offering degraded or even malevolent forms of emotional connection, how might I behave in order to cope with these presumably lessened emotional interactions? In short, how do I approach the world of communication, technology, and emotion if I view an iPhone as Herbie, HAL, David, Teddy, Thomas, an IKEA lamp, or something else entirely?

In the United States, for the greater part of the twentieth and early twenty-first centuries, media technologies have been given a great responsibility for human emotion. Phonograph records, movies, radio broadcasts, television programs, websites such as Facebook, and a range of other media have been both celebrated and criticized for their power to communicate emotion. A range of clergy, teachers, politicians, and others have held these media accountable for everything from teen suicides to mass murder. The more powerful or advanced the technology, these thinkers often claim, the more dangerous its emotional
stimulations. At the same time, the idea of the global village, whether attributed to Marshall McLuhan, Al Gore, Apple, or a host of others who have made similar arguments, rests on assumptions about the ability of communication technology to transcend time and space and draw people into a community of shared affections. In this view, better access to more powerful technologies seems a path toward a happier, more united world. In these, as in many other cases, both technological naysayers and celebrants seem to maintain the connection between more powerful technologies and more powerful expressions of emotion, with more advanced technologies getting us closer to our emotional hell, or heaven, respectively.

These discussions of the emotional power of communication technology often focus on the “new technologies” of a given era—those developing media that seem to be transforming a culture’s abilities to connect in ways that can only be imagined. As I will illustrate in the next chapter, when the telegraph first emerged, a number of American commentators suggested that it would unite the world in one common heart, creating the sort of global village McLuhan would discuss in the following century. Others worried that it would destroy local communities and neighborhoods and create a hyperactive culture of information addicts, predicting a series of criticisms that would accompany the rise of the Internet. Each of these effects no doubt took place in certain contexts and to various extents; however, both sides would have been hard pressed to prove that the extreme transformations they predicted had arrived.

These nineteenth-century discussions, like the twentieth- and twenty-first-century ones that followed them, are part of a still longer history of Western cultural attitudes toward technology and emotion. Socrates lived at a moment when writing was a relatively new communication technology and Greece was transitioning from a predominantly oral to a written culture. The complexities of this intermediary period are borne out in Plato’s dialogues—written pieces in which Socrates, Plato’s mentor, often attacks the effects of writing on his orally based philosophical dialectic. A central element of Plato’s Phaedrus is a written text by the speechwriter Lysias that young Phaedrus obtains and then performs for Socrates. Significantly, as Jacques Derrida has noted, Socrates uses the Greek term pharmakon (Φάρμακον)
in an early reference to the alluring power of Lysias’s written speech. In using this word, which translates to drug, medicine, or charm—it is the original source for the English word pharmacy—Socrates suggests the emotional power carried by a written text. In fact, Socrates may be the original advocate of the so-called “hypodermic needle model” of communication, which imagines communication technologies to carry an overwhelming emotional force that, like a drug, has an immediate impact on their audiences. Despite their ability to deconstruct it, Lysias’s script evokes a “frenzied enthusiasm” in both Phaedrus and Socrates.

In Socrates’s discussion, the seductive power of Lysias’s speech emanates from the problematic nature of writing itself. At the beginning of the dialogue, when Phaedrus tries to deliver his own version of the speech, Socrates insists that Phaedrus read from the script he has hidden under his cloak. “Much as I love you,” he tells Phaedrus, “I am not altogether inclined to let you practice your oratory on me when Lysias himself is here present.” At a later moment, Socrates instructs Phaedrus to read part of the script out loud so that he “can listen to the author himself.” Living at the moment that he did, Socrates would have witnessed the transition from a culture of face-to-face, present-bound communication, to one that seemed to defy the logic of time and space by allowing a speechwriter such as Lysias to be both present and absent at the same time.

Reflecting a cultural uneasiness with this transition, Socrates later suggests that one of the problems with writing is that it “doesn’t know how to address the right people, and not to address the wrong.” This is because the author is not there to make decisions about when and with whom to communicate. In contrast, Socrates tells Phaedrus, there is a type of discourse “that knows to whom it should speak and to whom it should say nothing.” Phaedrus understands this to be not the “dead discourse” of writing, “but the living speech, the original to which the written discourse may be fairly called a kind of image.” In its transformation of time and space, Socrates suggested, the written word was simultaneously living and dead. It detached the emotions of language from the body of the speaker and represented them in the disembodied form of the text. Like a drug, the written word stimulated emotion without a clear source, lending it an apparently evocative and eerie power.
A number of later thinkers shared Socrates’s sense of the eerie power of developing communication technologies, even if they disagreed with his more negative evaluation of it. Elocution—discussed in more detail in chapters 1 and 3—was an intricate form of oral performance that developed well after the transition to literacy, and its practitioners tended to take a more positive view not only of writing, but of printing technology as well. Elocutionists created elaborate forms of gesture and speech believed to convey highly emotional meanings to their audiences. In his 1846 *Manual of Elocution*, Merritt Caldwell suggested the centrality of printing to elocutionary practice:

> The art of engraving was not understood by the ancients. In modern works on elocution much advantage has been taken of the improvements of this art; and in regard to gesture, abundant illustrations have been furnished, which addressing the eye, make a stronger as well as a more definite impression on the mind than could well be made by words.13

In contrast to Socrates’s evaluation of writing, for Caldwell the new technologies of printing and engraving had enhanced rather than degraded oral communication. Printing was a technological condition that made possible the emotional power of elocutionary speech.

Despite this apparent disagreement, Socrates and the elocutionists shared an essentially pharmacological understanding of communication technology. For Socrates, the written form of Lysias’s speech gave it an unusual power over the emotions. For Caldwell and his fellow elocutionists, the orderliness of print, not to mention the gestures and movements those printed pages captured, carried its own emotional power. Both Socrates and the elocutionists largely took for granted that newer communication technologies brought about an increased stimulation of emotion, Socrates largely reacting against it, and the elocutionists largely embracing it. For both, there was something special about the new technologies of their age that seemed to herald a new emotional climate.

Why might someone assume that a newer communication technology would cause more powerful emotional stimulation? Both the positive and negative views on the telegraph mentioned above shared this belief with Socrates and the elocutionists, and many contemporary views on the Internet and other “new media” do so as well, as do many of the
other thinkers discussed in the chapters that follow. Such beliefs in the interconnection of technology and emotion might seem contradictory. In many ways, emotion and technology may seem completely at odds with each other. Especially in those moments when scientific and technological progress has been given a central place in society, technologies of various sorts have been seen as highly rational, objective, and calculating. In contrast, emotions have often been seen as uniquely personal, subjective, and irrational.

However, a belief in technological progress may itself lead someone to attribute an emotional power to various technologies. This faith underlies much of the horror in science fiction representations of feeling machines. Once a highly advanced, rational computer like HAL develops a fear of dying, there appears to be little that can stop him. He can put the rational power of his technological thinking to the service of his private, irrational impulses. In a similar way, David of *A.I.* seems to love with a fervor that his human counterparts can only imagine. Stripped of human frailties, he becomes a singular loving machine. Similarly, people’s belief in a technology’s ability to store information, transmit messages, or make connections across time and space may suggest its ability to stimulate emotion for either good or ill. In these ways, a faith in scientific progress and the powerful rationality of new technologies can encourage concerns—or celebrations—regarding frenzied enthusiasm.

It is tempting to assume that one’s contemporary moment is an apex of technological development. With no knowledge of the many technologies that would follow, Socrates may well have seen writing as an end point in the history of communication. The elocutionists seemed to associate a level of cultural and communicative perfection with the printing press, as if the ideal form of communication had finally arrived. Looking back on these earlier moments, we of the twenty-first century may assume that Socrates’s head would simply explode if he were faced with the Internet, cell phones, or any number of other digital technologies, as if in our time we really have reached a summit of communication possibilities. For better or worse, many have suggested, today we connect with each other and exchange information at a peak rate of speed, giving our contemporary culture a heightened sense of emotional intensity.
To be sure, some thinkers assume that newer communication technologies disconnect people. Although Socrates attributed a kind of emotional power to writing, he also seemed to worry about how it separated people from each other. Lysias's absence from Socrates's exchange with Phaedrus was a central element in that dialogue's critique of writing. Those who assumed that the telegraph would destroy communities worried that people would choose distant communications over connecting with their neighbors. The use of emoticons may evidence a concern for technological and emotional disconnection as well—as suggested by Minsky's comments above—by reflecting worries that computers replace interpersonal communication with a technology that cannot quite sustain it. Whether people believe that new technologies enhance or hinder connections, and whether they see those effects as positive or negative, will illustrate a range of assumptions about the interconnection of emotion and technology.

The chapters that follow explore some of the complexities of these views of emotion and technology, focusing on how they have impacted thinking about communication in the United States. In contrast to the majority of the sources I analyze, I do not take a position on the relative advancement of various “new technologies” or on whether these technologies enhance or hinder our connections to each other. Likewise, I do not take a position on the relative worth of “emotional” versus “rational” communication. As I will argue throughout, such positions too often camouflage larger assumptions about culture or identity. People's claims about the emotional power of a specific communication technology may have little to do with the technology itself and much more to do with concerns about the moment in which they are living.

Rather than trying to prove or refute the emotional power of any particular technology, this book aims to analyze and demonstrate the consequences of various rhetorics of emotion and technology. By rhetoric, I mean the ways our language—whether in scientific papers, advertisements, movies such as A.I., or other means by which we communicate—shapes our views of ourselves and the world around us and create particular possibilities for being-in-the-world. At first thought, technology and emotion might seem anything but rhetorical. Technologies have clear physical, mechanical, or electrical properties that make them suitable for some tasks and not others. A knife is significantly
different from a telegraph key, and the printing press is different from a telephone. A culture communicating by carrier pigeon would have different possibilities for connecting than one using the Internet. In the same way, emotions have very real physiological characteristics. We feel emotions in our bodies, often as physical experiences that seem to defy language altogether.

Neither technologies nor emotions exist in a vacuum, however. Whether a given technology is good or bad is a product of argument as much as it is its specific physical properties. It is for this reason that people can come to such disparate positions on the cultural worth of the telegraph, radio, Internet, or other communication technologies. Likewise, most of these technologies arrive surrounded by a host of messages about their value and use. It would be hard to separate the technological characteristics of the iPhone from the advertisements through which Apple shapes its meaning, as well as from its discussion in newspapers, television programs, and other media sources. Similarly, a nineteenth-century citizen would likely have used a telegraph with knowledge of the celebrations and denunciations that surrounded it at the time.

Of particular importance to these discussions is what Leo Marx has called the *rhetoric of the technological sublime* (a concept I explore in more detail in the next chapter). Focusing on the nineteenth century, Marx illustrates some complex and often contradictory ways that American writers addressed the new technologies of the locomotive, telegraph, and steam ship. These technologies were seen as sublime because they seemed to dwarf both individuals and the vast American pasture. While Marx focuses his discussion on nineteenth-century America, much of the same could be said about Socrates, as well as many of the twentieth- and twenty-first-century authors I discuss. The presumed sublime power of technology has served many as a rhetorical trope through which to both celebrate and vilify the technologies of their day, allowing people to shape the rhetoric of technology in their own particular ways.

Emotional expressions are also heavily influenced by the historical moment and culture in which they take place. Despite contemporary ideas about stoic masculinity, for example, at various times in the past crying has been seen as especially masculine. The historian Peter
Stearns has addressed these ideas through his concept of “emotionology,” which he defines as “the attitudes or standards that a society, or a definable group within a society, maintains towards basic emotions and their appropriate expression,” including the “ways that institutions reflect and encourage these attitudes in human conduct.” His work recognizes how everything from parenting manuals to dating etiquette can establish dominant ideals about different emotional expressions. Although these ideals cannot necessarily force someone to feel emotions in a particular way, they can set strong limitations on acceptable emotional displays, and thus create consequences for those who step outside them (for instance, the contemporary American male who weeps more than is considered masculine). Still, work in anthropology and cultural neurology suggests that even the physiological experiences of emotion can vary widely from one group to another, based on the norms and rules of each culture.

Analyzing these rhetorics of emotion and technology should allow us to think more critically about how we interact with and through the communications media that surround us. Deliberations on the emotional power of technologies can have very powerful effects, not only on consumers of these technologies, but on those who produce them, as well as on the scientists, government agents, clergy, and other thinkers who attempt to make sense of them. For instance, if cultural discussions seem to focus on some specific sort of emotional stimulation, media producers may adjust their products as a way of taking advantage of it. The media producers I discuss in the following chapters responded to cultural anxieties about immigration and class with very particular marketing schemes and product adjustments.

Scientific analyses of media effects can have their own effects on a culture. If social scientists begin to believe that popular music has a negative impact on listeners’ emotions, and communicate those beliefs to the larger public, then parents, educators, and legislators may well act accordingly. Likewise, in moments dominated by beliefs that better technology itself will establish stronger emotional ties between people—as was the case in many of the early twentieth-century discussions the following chapters address—communication is often conceived as a technical problem to be solved with bigger or better transmitters. Such views tend to favor the wealthiest members of society who can
afford the most technologically advanced equipment. They also tend to ignore the social, ritual, and cultural elements that also make up communication practices, flattening them to a simple matter of information transmission.

Correspondingly, to the extent that discussions of emotion undertaken in scientific studies, popular magazines, advertisements, and so forth delimit appropriate levels of emotional expression, they will tend to legitimate certain kinds of communication and denigrate others. Claims labeled “too emotional,” for instance, can be dismissed without consideration, as can those people who make them—an issue that has faced women at numerous points in the history of democratic and scientific debate. Arguments about technologies’ ability to communicate emotion reflect desires and fears about the human capacity to do the same. How a culture addresses these matters will have important consequences for their views of technology, emotion, themselves, and the world around them.

In addition to these more specific effects, discussions of emotion and technology also tell us much about the hopes and anxieties of the culture in which they take place. A culture’s understanding of race, class, or gender may make it see certain groups as especially vulnerable to the emotional manipulation of different technologies. For instance, U.S. social critics and researchers have tended to be especially wary of media targeted at the working classes, women, or other presumably at-risk groups. Concerns about the nickelodeon, a cheap, early twentieth-century movie theater, reflected attitudes about motion pictures themselves as well as their predominantly working-class and immigrant audiences. The Payne Fund motion picture studies, which I explore in chapter 4, were driven in part by concerns about the vulnerabilities of working-class youth. Analyzing a culture’s rhetorics of emotion and technology offers a means of understanding the complexities of meaning and identity through which its members struggle.

Given the recurrence of these discussions of emotion and technology, a whole range of moments in history could generate valuable and insightful analyses. This book focuses primarily on one interesting manifestation of these rhetorics, exploring the period of the early twentieth-century United States, from the turn of the century until the mid-1930s. The thinkers of this time shared many attitudes with Socrates,
the elocutionists, and the telegraph commentators of the nineteenth century. However, several unique characteristics of the period prove especially fruitful in terms of discussing the rhetorics of technology and emotion.

For one, this period saw the birth and expansion of much of the modern electronic mass media. Thomas Edison was granted a patent for a motion picture system in 1891. Emile Berliner founded the American Gramophone Company in 1892. Guglielmo Marconi established his early American radio company, American Marconi, in 1899. Over the next several decades, motion pictures, phonographs, radio, and a range of other media technologies found wide distribution and popularity. As Friedrich Kittler has noted, the arrival of cinema and the phonograph in particular challenged a range of cultural perceptions. Unlike the writing technologies that had preceded them, phonographs and films were able to store time by sequencing together a collection of distinct moments. The gramophone and the cinematograph were the first technologies that could “record and reproduce the very time flow of acoustic and optical data.”

The idea that the new media could store and broadcast time itself prompted a range of discussions regarding the emotional intensity of the age. The sense of eerie disembodiment with which Socrates experienced a written speech was replicated by many early twentieth-century thinkers, who listened to the disembodied voices emerging from their record players or “floating through the ether” as a radio broadcast. When the American historian Lewis Mumford wrote of the connections between magic, science, and technology in his 1934 book *Technics and Civilization*, he was both addressing the long-standing history of the technological sublime and pointing to a renewed sense of mysticism that surrounded the new technologies of the period in which he was writing.

As had been the case for the telegraph and earlier technologies, both the utopian and dystopian bandwagons were crowded with educators, clergy, politicians, and other thinkers who made various proclamations about the effects of this new media age. For many of these commentators, theirs was a transitional moment that would either enhance or tear down the human connections they had come to know. As a result, communication technologies took a central place in many discussions of early twentieth-century culture and society, just as they have in our own.
The new media were accompanied by a like explosion in advertising. American advertising had begun an ascent in the mid- to late nineteenth century with the aggressive promotion of a variety of “patent medicines.” However, the American advertising industry did not begin to take its current-day form until the 1890s, when agencies developed more specialized positions—account executives, copywriters, and so forth—and took control over more elements of the advertising process. While nineteenth-century advertisers had generally allowed the newspaper or magazine publisher who printed an ad to make decisions about images, typeface, and other design elements, the turn-of-the-century agency saw each of these as a crucial part of the advertiser’s vision. As the industry grew, so did the number of advertisements in circulation. From the Civil War to the turn of the century, the revenue from advertising rose from $50 million to $500 million, and the money spent on advertising went from .7 percent of the gross national product to 3.2 percent. Advertising agencies entered the twentieth century with a new sense of identity and purpose.

This growth in advertising played into the culture of “conspicuous consumption” that Thorstein Veblen identified with the American leisure class of the turn of the century. The increased attention to advertising imagery—fostered both by changes in the industry and by advances in printing technology that made larger, more detailed pictures possible—encouraged stronger associations between consumer goods and various middle- and upper-class lifestyles. Soaps, colas, automobiles, radios, and other products were presented as representations of the consumer’s self-identity. Consumer products were not merely goods to use, advertisers increasingly suggested; they were essential components of one’s everyday identity.

Closely related to the growth of advertising was the early twentieth-century formalization of another field of promotion: public relations. According to the Oxford English Dictionary, the phrase was first used in its current sense—to describe the general identity of an organization or important person—in 1898. By 1925, writers had explicitly recognized that “any publicity is good publicity” and that there was “no such thing as bad publicity,” stressing this growing climate of promotion. Edward Bernays, widely considered the father of public relations, opened a PR firm in 1919 and published his first book-length treatise on the topic in
1923. By 1935, Bernays claimed that the “organization of communication in the United States enables practically any person or any group or any movement to be brought almost immediately into the closest juxtaposition with people almost anywhere.”

Advertisers and other promotion experts played on this new sense of worldwide publicity. Dale Carnegie’s suggestions for “how to win friends and influence people” built upon a whole range of earlier twentieth-century pronouncements regarding how people’s speech, dress, personality, and other elements of self-presentation reflected their general character. Early twentieth-century advertisements suggested that certain brands of automobile tires reflected a more civilized upbringing. According to Columbia, Victor and other record companies, the kind of phonograph one purchased could do the same. As publicity became increasingly important, product manufacturers seemed to insist that everyone was a walking PR stunt. In this climate, communication technologies were ways of both connecting with other people and demonstrating one’s social status and high-technological sophistication. A radio both picked up broadcasts from the outside world and broadcast the social standing of its owner.

This period also saw the beginning of America’s rise as a global power. Although this book deals almost exclusively with issues within the United States, the country’s development as an international superpower offers an important backdrop for these domestic matters. In 1898, the Spanish-American War and the resulting Treaty of Paris left the United States with a burgeoning international empire. America’s participation in World War I reiterated its importance on the world scene. The war also dealt heavy blows to the German, Russian, Ottoman, and Austro-Hungarian empires. As the United States expanded its international reach from the turn of the century into the 1910s and beyond, it enlarged its cultural influence and the market for its products. The Hollywood film industry took advantage of these new international relations, as did other media producers. Following the war, Hollywood quickly became a complex multinational enterprise, distributing its films throughout the globe. The early twentieth century signaled the beginning of the global dominance of American popular culture, which gave an added impetus—and consequence—to the nation’s domestic media production.
The expanding media and advertising industries were also met by a new group of American social scientists, who began to take seriously the capacity of communication technologies to capture and transmit emotion. In 1892 Yale University founded its psychological lab, which early on featured such figures as Edward Wheeler Scripture, who made recording technologies a central subject of his investigations. One of his students at Yale, Carl Seashore, who became a professor in the University of Iowa’s psychological lab in 1897, devoted his career to the psychology of music. At Iowa, Seashore built a veritable cottage industry for the psychological study of communication phenomena. He and his students and colleagues analyzed phonograph records, speeches, motion pictures, vocal performances, and a range of related topics.

In addition to analyzing media technologies, Seashore and his fellow researchers also employed them in their studies. Maintaining the sublime power of technology, Seashore suggested that photographic, motion picture, and recording technologies were a psychologist’s best tools for analyzing the various forms of communication studied in his lab. Using tonoscopes, phonophotography, and a range of other recording devices he and his colleagues designed, Seashore put the new communication technologies to work in analyzing themselves. Two of the Payne Fund motion picture studies took place in Seashore’s Iowa lab, one using motion picture–based psychological equipment to analyze the effects of motion pictures on audience members’ emotions.

Scripture, Seashore, and other social scientists who took up similar topics were inaugurating what the media scholar Paul Lazarsfeld would decades later call an “administrative” approach to communication research. As Lazarsfeld defined them, administrative researchers, including himself, worked with private companies and the government to improve the marketing, publicity, and other effects of the media. The sorts of early twentieth-century studies undertaken in Scripture’s and Seashore’s labs were both implicitly and explicitly administrative. By focusing on the power of various media to capture and transmit emotions, these studies offered implicit endorsements of the very claims media producers were marketing with their products—that specific communications media could produce specific emotional effects for their audiences. More explicitly, a number of researchers worked directly with media producers to help them improve the marketing or
functioning of their goods. Seashore, in fact, found commercial success of his own, creating a widely successful test of musical talent that he sold to schools throughout the country.

These relationships between commercial media production and social scientific media research had a range of important implications for the period, as the following chapters will demonstrate. For instance, a number of media producers developed scientific or pseudoscientific explanations of the benefits of their products. Some quoted academic social researchers directly, or even got their endorsements. Those products developed by academic media researchers themselves, such as Seashore’s music tests and the Pronunciphone—a set of phonograph records developed by scholars at the University of Wisconsin and intended to scientifically enhance one’s pronunciation (addressed in chapter 3)—suggested still more specific connections between the new technologies and the new social science of the time. Finally, the attention of social scientists began to highlight the potential benefits of the commercial media to the education of youth and adults. Stereoscopes, motion pictures, radio programs, and phonograph records were all marketed as aids in the education process and found captive audiences in schools throughout the country.

Of course, as was the case with the Payne Fund studies, many social scientists took a negative view of the emotional impact of these new technologies. However, even these studies could reinforce the more general view put forward by the commercial media. Many of these studies still employed recording and motion picture apparatuses, suggesting the unique ability of these technologies to capture and transmit emotion. Likewise, by focusing on such issues as how commercial motion pictures created widespread emotional stimulation or deceived audiences’ perceptions, these researchers reiterated the sublime power of communication technologies. These very critiques could reiterate the assumed technological power that media producers relied upon to sell their products.

These discussions of the power of communication technology impacted another significant feature of this period. From 1912 to 1934 a series of important legal and regulatory decisions took place that gave shape to America’s commercial media system for the next sixty-plus years, if not longer. The most important of these, the Communications
Act of 1934, which bookends my period of analysis, was the chief legislation regulating American communication until 1996. It overwhelmingly legislated the rhetoric of technological sublimity that had been discussed by social scientists, media producers, and other concerned citizens over the previous three decades. In this act, as well as for the FCC that the act created, the “public interest” in communication was defined primarily in technological terms. A good media system was one that transmitted meanings in an effective manner.

Together, these various discussions created an interesting and in many senses troubling set of attitudes about emotion and technology. To many thinkers of the time, the new media seemed uniquely capable of both capturing and transmitting human emotions. For business-people who made their livings selling record players, home movie cameras, and a host of other media devices, this became a common trope through which to advertise their wares. A more sophisticated record player would presumably give its owner greater access to a whole range of sentiments they might otherwise be denied. The widespread diffusion of these media devices to homes and throughout the general culture panicked many social researchers and other critics who shared this belief in the power of technologies but were apprehensive about the emotional overstimulation they might bring about. However, even as social scientists worried about the emotional power of movies and other media, many, like Seashore and Scripture, employed motion pictures, record players, and other media devices in their research laboratories. The high-tech power that made a movie dangerous for its audiences also seemed to make motion photography ideal as an apparatus for scientifically recording emotions. In these and other ways, the new media technologies became embroiled in a complex set of celebrations and critiques.

Owing to its importance in media history, the early twentieth century has been explored by a number of media historians. Such writers as Susan Douglas, Robert McChesney, Paul Starr, Erik Barnouw, Carolyn Marvin, Daniel Czitrom, James Carey, Michele Hilmes, Lisa Gitelman, Friedrich Kittler, Jeffrey Sconce, and Jonathan Sterne have offered important investigations of this early period of American media. Of these, Douglas, Carey, Marvin, Gitelman, Kittler, Sconce, and Sterne provide particularly detailed technological histories, making
the technological features of the media they explore a central part of their discussion. By placing these media technologies in their historical context, these scholars have explored the cultural understandings of media at a time in which, as Marvin succinctly puts it, “old technologies were new.” Other histories of non-media technologies, such as those by Wolfgang Schivelbusch, Leo Marx, David Nye, and Wiebe Bijker, have likewise made important strides in these directions. Similarly, Jonathan Crary’s studies of technology and perception in the nineteenth century have close parallels to my discussion of early twentieth-century mediated emotion. While these scholars do not take emotion as a central concern, their historical investigations of media and technology have provided an important foundation for my own analyses.

At the same time, a rich body of work on the cultural history of emotion has developed over the last decade, some of which focuses specifically on this same early twentieth-century period. Although such writers as Norbert Elias and Mikhail Bakhtin had offered early histories of emotion, this work did not begin to coalesce into a coherent body of scholarship until the later part of the twentieth century. Peter Stearns’s research on the history of emotion was central to this, and is an important influence on my own work. By showing how different historical moments maintained different standards regarding emotional expression, the work of Stearns and his followers offered an important means of exploring the public and social aspects of emotional experience. Because of the work of Stearns, as well as that of such scholars as Daniel Gross, Sara Ahmed, Melissa Gregg, and Gregory Seigworth, by the early twenty-first century it was possible to talk of an “affective turn” in social theory, as more and more scholars began to take the emotions seriously as a social and historical phenomenon.

*Feeling Mediated* investigates how thinking about emotion intersects with thinking about technology, focusing primarily on an intellectual and rhetorical framework established during the early twentieth century that continues to stand in the way of larger social understandings of mediated emotion. I call this perspective *media physicalism*. The philosophical position of physicalism developed during the early twentieth century within the Vienna Circle, which included such philosophers as Moritz Schlick, Otto Neurath, and Rudolf Carnap. Taking science to be a unified language describing the reality of the world, physicalists
assumed that most philosophical questions could be best answered by employing the vocabulary and methods of the natural sciences. As framed by Herbert Feigl, a student of the Vienna Circle who spent time in the University of Iowa’s philosophy department during Carl Seashore’s reign, physicalism understood human experience as reducible to a set of physiological traits. From the standpoint of physicalism, “to every proposition describing introspectively what, as we say, is given as a datum of my consciousness, there would be a corresponding proposition in physical language describing, as we say, the condition of my nervous system.” A person’s conscious experiences were equivalent to a set of physical reactions in the body.

In the early twentieth-century discussions of media and emotion I address, a technologically focused brand of physicalism gained a firm hold. The combination of growing concerns about the impact of the era’s new media and growing concerns about emotional stimulation—both of which contributed to each other—encouraged a range of thinkers to locate emotion in media technologies themselves as well as in a decidedly technologized version of the human body. This perspective supported phonograph companies’ claims about the emotional power of recording technology, even as it served media researchers seeking to solidify their position as legitimate scientists looking “objectively” into the electrical processes of both technologies and bodies. In its framing of the relationship between people and communication technologies, media physicalism suggested a variety of contradictory and often highly problematic positions, drawing connections between technological development and emotional civilization (with all its race, class, and gender consequences) and suggesting that the quality of a people’s communication could be determined primarily on technological grounds.

The following chapters offer a history of the rhetoric of media physicalism, showing some of the ways that notions of assumed technological power get attached to ideas about emotional stimulation during the early twentieth century and then exploring the implications of the resulting positions. In analyzing the growing dominance of this rhetoric, I focus predominantly on the discussions and debates of people in positions of power. Journalists, clergy, educators, radio announcers, politicians, scientists, media producers, and others of similar authority have unique platforms from which to shape these debates. As these discussions make
their way into newspapers, radio programs, laws, classrooms, and the
design and marketing of technologies themselves, they become part of
the wider rhetoric informing our technological and emotional lives.

In focusing on these elite positions, I do not mean to suggest that
everyday people are somehow brainwashed into believing in some
dominant understanding of emotion or technology—physicalist or oth-

erwise. People need not believe in a dominant emotional or technologi-
cal rhetoric for it to take a toll on them. Instead, these elite discussions
create a set of dominant cultural expectations against which our own
emotional and technological displays are likely to be judged. This domi-
nant culture can also set some very practical limitations on our com-

unications. If a technology is designed in a specific way, based on the
perceived benefits it might provide, it may be difficult if not impossible
for us to use it in other ways. The fact that mass-produced radio receiv-
ers were not designed to transmit, barred most users from one kind of
participation in broadcast culture. Although a group of technologically
savvy amateurs found ways to subvert this limitation, most radio users
remained more passive listeners.

Similarly, if media producers believe that a particular kind of music
stimulates consumers’ emotions in a way that is beneficial to their com-
pany, they are likely to produce that product rather than others. The
Frankfurt School scholar Theodor Adorno has often been accused of an
elitist dismissal of the everyday listener because of his critiques of the
mass-produced nature of the popular music industry. While Adorno
certainly does not waste love on the popular music audience, his cri-
tiques of the culture industry also point to wider problems of which the
listener is a victim.35 If the industry is driven to produce standardized
music, which is believed to produce standardized emotions beneficial
to the financial gain of recording companies, then listeners will have
their musical choices seriously curtailed. Listeners do not need to be
passive consumers or brainwashed drones to experience the limiting
effects of the culture industry; they feel them every time they look for a
media product that is not available to them.

In fact, it might be said that the elite decision makers are the ones
most directly “brainwashed” by the culture’s ideas about emotion and
technology. They are generally the most engaged in debating these
ideas and tend to have the most at stake in how they play out. Without
a doubt, and as the following chapters illustrate, media experts can
become quite fervent in their defenses of and attacks on media technolo-
gies. Despite their presumed status as outside observers, these experts
are rarely free from the anxieties and ideologies at work in the broader
culture. Established norms about technology and emotion will guide
how media companies, media scientists, communication policy mak-
ers, and others think about their respective work and will have power-
ful secondary effects on the culture at large. Media physicalism, in all its
paradoxes and contradictions, exercised just this sort of power in the
eyearly twentieth century, and it continues to do so in our own time.

The following chapters explore some of the complexities of U.S.
understandings of communication, technology, and emotion that play
into a larger rhetoric of media physicalism. Chapter 1, “Conflicting Feel-
ings: Technology and Emotions from Colonial America to the New Age
of Communication,” offers some historical and theoretical background
to set the groundwork for the more focused, early twentieth-century
case studies that follow. Drawing together Leo Marx and Peter Stearns,
I trace America’s rhetoric of the technological sublime with a partic-
ular attention to its intersection with the history of emotion. A belief
in the uniqueness of the new American frontier played a fundamental
role in the country’s eighteenth- and nineteenth-century technologi-
cal and emotional rhetorics. I end the chapter by discussing how this
larger history fed into the technological and emotional rhetorics of the
eyearly twentieth-century United States. Similarly to our own moment,
a number of people described this period as high-speed and chaotic,
with automobiles and other developing technologies contributing to
this perspective. This sense of intensity created a belief in the unique-
ness of the period that encouraged the strong rhetorics of sublimity that
pervaded a number of discussions of technology and emotion. It was
just this sense of emotional and technological power that set the stage
for the era’s growing wave of media physicalism.

Chapters 2, 3, and 4 explore the rhetorics of technology and emo-
tion around specific early twentieth-century communication technolo-
gies. Each of the basic technologies I address in these chapters was both
commercially available to everyday consumers and employed by social
researchers and other scientists in their laboratory analyses. Likewise,
both the popular and scientific discussions of these technologies tended
to foreground their abilities to capture and transmit emotion, and the marketing of these technologies regularly employed the language of science. Finally, and as a result, each of these technologies became associated with education, being marketed for and used in school curricula, as well as a variety of self-help or correspondence course formats. The marketing, discussion, and dissemination of these technologies contributed to larger cultural attitudes about technology and emotion, driven by a general faith in the technological sublime as well as specific concerns about race, class, or gender that inflected each individual discussion.

Chapter 2, “Touching Images: Stereoscopy, Technocracy, and Popular Photographic Physicalism,” explores the marketing, sale, and scientific use of stereoscopes from the 1890s to the 1920s. These three-dimensional viewers had been developed in the nineteenth century, but found a new popularity in the early twentieth-century United States. While stereoscopes may be largely unknown today, their early twentieth-century success offers a fascinating snapshot of the power of media physicalist rhetoric. Despite the stereoscope’s nonelectronic, old-technological status, U.S. companies worked hard to establish its high-tech, sophisticated nature. The power of stereoscopic technology, the argument went, came directly from its capacity to transmit not only images but feelings. Used appropriately, these companies promised, the stereoscope would stimulate sentiments of nationalism, whiteness, and middle-class cultural capital appropriate to the new technological age. At the same time, stereoscopy began to be used in geography, medicine, astronomy, optometry, and a range of other scientific fields. While there was much debate about the scientific reality of the stereoscopic effect, many of these scientists reiterated the technological power of the stereoscope, giving a force to the physicalist claims made by their commercial developers. Drawing on these scientific studies, the two largest stereoscope companies, Keystone Viewing Company and Underwood and Underwood, created sets of stereoscopic slides, books, and other related material as kinds of high-tech self-improvement courses. Using a high-tech stereoscope, these companies promised, could transform someone into a more civilized person by cultivating his or her emotions in a range of powerful ways.

Chapter 3, “Electrifying Voices: Recording, Radio, and the New Friendly but Formal Speech,” explores the impact of recording and radio broadcasting on speech delivery, teaching, and research. The period of
Introduction

The 1910s to the early 1930s saw the speech discipline replace the highly emotional practice of elocution with the more supposedly emotionally restrained practice of public speaking. This change reflected both concerns about emotional control encouraged by the new media age and the use of various technologies by speech teachers, scientists, and others. This new speech was to be both conversational and highly polished, illustrating concerns inspired by the new possibilities of amplification. Discussions of broadcast speech figured prominently in these debates, as the radio announcer became an exemplar of the new mass-mediated subjectivity. The radio announcer enacted the emotionally controlled life with technology to which each American was supposed to aspire.

Chapter 4, “Projecting Emotions: Motion Pictures, Social Science, and Emotional Self-Control,” explores a set of scientific and popular concerns about motion pictures and related recording technologies. This chapter focuses primarily on the work of Christian Ruckmick, a psychologist in Carl Seashore’s Iowa laboratory. As a colleague of Seashore, Ruckmick used apparatuses such as the psycho-galvanometer—a device that used film to record subjects’ emotional responses—to analyze a range of communication phenomena. Ruckmick was the primary researcher on one of the two Payne Fund motion picture studies completed at Iowa, and the most explicit study of emotion among the thirteen final Payne Fund monographs. For this research, Ruckmick hooked up a group of children and adults to the psycho-galvanometer, had them watch motion pictures, and then recorded their emotional reactions to various scenes. This research, like other studies taking place at Iowa and in much of the wider scientific community at the time, illustrated an interesting array of anxieties both within the general culture and among early twentieth-century social scientists. The same technological power that made motion pictures dangerous stimulants of emotion made the recording apparatuses of the laboratory ideal for emotional analysis. These technologies also allowed Ruckmick and his colleagues in the social sciences to project an image of an emotionally controlled, scientific objectivity that sought to highlight their own immunity to the emotions of the new media age.

Departing from these early twentieth-century case studies, chapter 5, “Connecting Centuries: The Legacies of Media Physicalism,” considers some of the ways these earlier attitudes about emotion and technology
have carried over into the early twenty-first century. Although there would be a series of ebbs and flows in both social scientific and popular attitudes toward technology and emotion, the physicalist outlook of the early twentieth century became embedded in a range of institutions and practices. The Communications Act of 1934 remained in force until 1996, and its replacement, the Telecommunications Act of 1996, reiterated much of the earlier act’s stance on technological and emotional matters. Likewise, and as I have already suggested, many of the utopian and dystopian concerns that greeted the radio and phonograph have surrounded the new media of the digital age as well. The social scientists and other thinkers of the twentieth century had established an American attitude toward new media in general. Media technologies were a set of technological and emotional transmissions directly impacting audience members, who were themselves but a collection of technological and emotional impulses.

Chapter 5 considers some specific early twenty-first-century examples of the rhetoric of media physicalism, showing how the same concerns about technological sophistication and emotional stimulation that characterized the early twentieth century are still at work today. Looking at such popular works as Steven Johnson’s *Everything Bad Is Good for You: How Today’s Popular Culture Is Actually Making Us Smarter*, and Nicholas Carr’s book *The Shallows: What the Internet Is Doing to Our Brains*, as well as more academic work on media and emotion, I show how a persistent thread of media physicalism unites these positions to each other, as well as to the early twentieth-century work I discuss. In the second part of the chapter, I use research in the philosophy of mind to both critique media physicalism as an approach and to further explain the theoretical and philosophical premises that underlie the arguments and analyses throughout this book.

It is clichéd to say that there is some benefit in “talking about our feelings.” While this book emphasizes the importance of this kind of talk—broadly conceived—it is ambivalent about its relative benefits. Certain kinds of talk about technology and emotion, such as those that make up the rhetoric of media physicalism, can have a range of constraining effects on a culture. Still, I hope to demonstrate that talking about this talk—thinking about how a culture expresses and negotiates its celebrations and concerns about mediated emotion—can help us
see possibilities occluded by less thoughtful or reflexive kinds of conversations. In taking this approach, this book shares common themes with work in what is called the rhetoric of science or, more directly, the rhetoric of inquiry. The rhetoric of science, building on the research of such writers as Thomas Kuhn, explores how research practices, styles of writing, and larger intellectual paradigms structure the thinking of the natural sciences. The rhetoric of inquiry, as a group of scholars at Seashore’s University of Iowa would eventually call it, expands this perspective to include the human sciences such as psychology and sociology as well as such areas as law, economics, and political science.36

Scholars in both the rhetoric of science and the rhetoric of inquiry have offered useful ways of analyzing a range of established academic disciplines, attempting to understand, for example, how the paradigms of a field like biology structure what scientists know about the body as well as how biological information is communicated from experts to the public. However, the early twentieth-century “media researchers” I discuss in the following chapters did not participate in a common, formal discipline. They were a loose coalition of psychologists, sociologists, speech teachers, and others trying to make sense of the emerging communication technologies of their period. A field of media or communication research would not be formalized for several decades. Likewise, and as a result, the lines between academic and public understandings of the media were not as distinct as they might otherwise have been. There was no well-established scientific language about the media to be translated for the public, although many researchers were trying to establish one, and a number of media producers were trying to take advantage of it as they did. The rhetoric of media physicalism was an emerging blend of cross-disciplinary academic perspectives, the promotional claims of commercial media producers, and larger public discussions of technology and emotion.

For like reasons, the rhetoric of media physicalism has an uneasy fit with one of the central focuses of rhetoric of science and rhetoric of inquiry scholarship: argument. One of the early goals of both approaches was to demonstrate how even ostensibly objective sciences were, in fact, making arguments and creating persuasive appeals. Chemical formulas were not simply abstract renderings of a hidden reality; they were a certain kind of persuasive attempt to win people to a chemical reading of the
world. Charles Bazerman, an important figure in the rhetoric of inquiry, has used this persuasion-focused approach as part of his own “rhetoric of technology.” His book *The Languages of Edison’s Light* seeks to understand how Thomas Edison, as scientist and businessperson, gave his light meaning and sold it to the larger culture. Bazerman does not cast Edison as some all-knowing, all-powerful persuader of the public, however; rather, he suggests that the inventor had to negotiate with the rhetorical power of the electric light itself. As Bazerman explains, “The night lit up at the flick of a switch argued for itself, electrocution of beast and man signified electricity’s terrifying power, and regular delivery of light was one means of persuading consumers to pay their monthly electric bills.” Still, the fact that “Edison was savvy enough as a rhetorician to use all these material arguments” explains for Bazerman much of his success.37

In the examples of media physicalism that I address, there is no clear rhetorician or group of rhetoricians offering a unified, persuasive message. Certainly the people I discuss engaged in various sorts of persuasion. Carl Seashore attempted to advocate for a certain psychology of music and, eventually, sell his own test of musical talent; stereoscope companies attempted to sell a largely outdated technology as a high-tech one; speech teachers argued for a new, supposedly scientific understanding of public speaking; radio producers sought to sell audiences a specific version of a presumably personable announcer. The physicalist understanding of communication technology and emotion that emerged from these messages and interactions was largely a by-product of these other, more explicit goals. None of the thinkers I discuss directly advocated a physicalist stance, at least in name; however, as I will demonstrate in the following chapters, both individually and collectively, their messages and practices gave this perspective a particular cultural power and even a sense of inevitability.

As a way of addressing these complexities, I approach media physicalism through a perspective that Jenny Edbauer and Nathaniel Rivers and Ryan Weber call *rhetorical ecology*.38 According to Edbauer, rhetorical scholarship has tended to focus on concrete “rhetorical situations,” imagining a clearly delimited time and space in which rhetorical meanings are created. While this might make sense when analyzing a speech that takes place in a specific location and moment in time—and even here rhetorical theorists have raised questions39—that this view cannot account
for some of the more complicated interactions to which contemporary rhetorical criticism has turned. Edbauer argues that such work demands a different approach that recognizes that “the intensity, force, and circulatory range of a rhetoric are always expanding through the mutations and new exposures attached to that given rhetoric.” Recognizing these energies and mutations, rhetorical ecology “reads rhetoric both as a process of distributed emergence and as an ongoing circulation process.”

This book undertakes a kind of rhetorical ecology of inquiry, exploring the distributed emergence and ongoing circulation of media physicalism. The presumed sublime power of early twentieth-century communication technologies and a parallel concern for emotional control were a “shared contagion” inflecting the era's understandings of media and feelings more generally. Phonograph companies' claims that recorded music gave audiences a uniquely powerful form of emotional experience were closely connected to educators’ and others’ fears about the emotional dangers of movies as well as to psychologists’ arguments about the power of their own emotion-recording technologies. As a result, even when these various thinkers seemed to be strongly opposed to each other, they often implicitly conspired to build quite similar understandings of mediated emotion. Each of the individual voices I explore was thus both a product and producer of the larger rhetorical ecology of media physicalism. Even as they responded to extant ideas about the emotional power of media technology, they pushed them forward in the form of product advertisements, popular articles, scientific studies, and media policies.

In exploring these discussions as a rhetorical ecology, I work to stress various sorts of connections across the topics and people I address. The fact that Carl Seashore's laboratory used and studied stereoscopes and that Seashore was mentioned in various stereoscope company publications evidences the often quite concrete relationships between media researchers and media producers during this period. Indeed, Seashore and his colleagues appear across the various early twentieth-century chapters, as do other important figures in the history of media research, such as the psychologist E. B. Titchener, who was the mentor of Christian Ruckmick before he joined Seashore's department. A number of academic institutions also appear across these chapters, including such universities as Iowa, Wisconsin, Ohio State, and University of Chicago, all of which were active in the study of communication during the early twentieth century.
In making these connections within and across the academy itself, I explore some important and well-known ideas in the history of the social sciences—such as psychology’s rejection of philosophy and its abandonment of introspection—with an eye to their importance for the history of mediated emotion. As I discuss in more detail in chapter 4, introspection was a research method in which people were asked to reflect upon their own internal bodily and psychical processes. The fact that psychologists studying early twentieth-century media were also instrumental in rejecting introspection is an important feature of the rhetorical ecology of media physicalism. The view that emotions were primarily bio-technological processes made them seem both dangerous, for media users and media researchers alike, and below the surface of people’s introspective perception. Not surprisingly, and as I explain in chapter 4, by the 1930s, various forms of emotion-recording technologies came to replace introspection in most psychological labs. While this book is not a history of psychology per se, the connections I draw suggest that some central concepts in psychology’s history may be intricately connected to broader cultural ideas about media and emotion. By the same token, although I won’t spend much time on physicalism as a formal philosophical position, my arguments about the less philosophically sophisticated position of media physicalism may well suggest that anxieties about emotion and technology undergird physicalism more generally—that it, too, emerged as part of this particular rhetorical ecology.

By tracing these connections within the academy and showing how the academy’s ideas connect to wider discussions of the media, this book also offers a historical perspective on the emergence of administrative media research. As I mention above, Paul Lazarsfeld identified this model of research in the 1940s, but Carl Seashore and a range of other social scientists engaged both the government and corporations in administrative fashion almost from the beginning of their research into communication. This had a powerful influence over the kinds of studies these researchers undertook, which typically dealt with questions about the shaping of attitudes or the emotional impacts of technologies that were especially interesting to business executives or administrative officials. These administrative impulses were an important part of the early rhetorical ecology of media physicalism, whose technological and physiological perspective was especially well suited to corporate and
governmental concerns. In an important sense, this book demonstrates, administrative communications research and media physicalism have intimate connections to each other, at least in the American context. To the extent that media physicalism still dominates American thinking about the media, it does so alongside a still troubled set of administrative tendencies.

Of course, it is easy to assume that arguments about introspection or scientific studies of media use are disconnected from popular ideas about the media. In exploring how scientists, producers, educators, clergy, and others engaged with the new media are part of the same rhetorical ecology, I hope to show the wide reach and broad consequences of our thinking about emotion and media in general, as well as of media physicalism in particular. Although I place the emergence of the media physicalist position in the early twentieth-century United States, it built upon a still wider set of rhetorical ecologies (including the earlier American ideas about emotion and technology I address in chapter 1). Just like concerns about emotion and technology more generally, certain aspects of media physicalism may have been at work in Socrates’s concerns about writing or elocutionists’ celebrations of print. Still, the early twentieth-century confluence of the emergence of broadcasting, the adoption of a highly commercialized, market model for thinking about the media, and American social scientists’ particular perspective on these emerging phenomena inflected the rhetorical ecology of media physicalism in some especially interesting and problematic ways. Indeed, I will argue that media physicalist thinking has become a central component of how a large number of American scientists, policy makers, journalists, and others make sense of communication, which, beginning in the early twentieth century, came to be seen predominantly as a technological process whose consequences were primarily about informational and physiological effects.

In taking aim at these ideas, this book takes seriously James Carey’s claim that twentieth-century American thinking about the media has been dominated by a “transmission model” that stresses technology, efficiency, and impact at the expense of the interaction, dialogue, and community encompassed in the “ritual view” that Carey favored. The emphasis on transmission has resulted in communication teaching and research that focuses on how someone might best affect another
person—or avoid being affected—rather than on how people join together in communal meaning making. In offering the history that it does, this book suggests one powerful source for the dominance of the transmission model of communication—the narrow views of technology and emotion encompassed in media physicalism.

Exploring media physicalism's claims about technology and emotion demonstrates the powerful consequences of a technologically centered, transmission view of communication. If we assume that how people feel about a particular piece of media is primarily a question of how their body responds to it physiologically, or if the quality of a message depends primarily on its technological features, we can avoid asking some tough questions about the ethics of communication. In fact, as I will demonstrate in the following chapters, in their adoption of media physicalism, early media researchers explicitly tried to avoid a series of social, historical, cultural, and ethical questions.

However, questions about who gets access to the media and how, about what kinds of values we want our media to uphold, about the intricate role of media in the creation of culture, and about all the various ways we might understand quality communication don’t simply disappear when media researchers take up emotion-measuring technologies. To take one powerful and important example, because claims about technological power and emotional control inevitably have class, race, and gender assumptions built into them, media physicalism offers a quite problematic politics of identity, even as it suggests that such questions are not relevant to media use or research. Undoubtedly, media physicalists of both the early twentieth and early twenty-first centuries repeatedly make claims about society and culture—for instance, arguing that people are becoming too emotionally keyed up, or that, as a culture, our lives are faster, better, or worse, than the lives of people in the past. However, in tying these claims to the bodies and brains of individual people, media physicalism ultimately fails to explore what should be central components of the social aspects of mediated emotions—how a group of people envision themselves, their technologies, and their emotions, how this vision is communicated, and the consequences of this vision for those who do and do not fit within it. In seeking to understand and challenge the rhetoric of media physicalism, this book hopes to bring these important questions to the fore.