

## 2 *New Media Users*

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The phonograph was one of those rare, Jekyll-and-Hyde devices that was invented for one thing and ended up doing something completely different. Edison “perfected” his phonograph (so he said) in 1888, and was thoroughly convinced that its primary function would be in business communications. His machine had read-write capabilities, and he and successive groups of enthusiastic investors thought it would make a revolutionary dictation device. They were wrong, of course. In the mid-1890s, consumer demand helped to transform the phonograph into a read-only amusement device, and by 1910 recorded sound had become the first nonprint mass medium. The purpose of the present chapter is to account for as well as describe this diversion of purpose, and in doing so, urge that the histories of new media be sought amid uses and users, rather than simply amid descriptions of product development, product placement, business models, or calculations of market share. Those elements are crucial, but that’s not all there is. Like the preceding chapter, the chronological focus of this one is narrow, while its ambitions to contextualize new media remain extremely broad. During the years 1895–1910, recorded sound was reconceived as a commodity for home consumption. Somewhat like the much later reorientation of computing toward “personal” computers, the success of home phonographs and prerecorded phonograph records relied in part on unacknowledged assumptions about what were personal and domestic concerns at the same time that it signaled profound changes attending U.S. culture at large.<sup>1</sup>

The title of this chapter, “New Media Users,” echoes and adapts the title of the previous one, “New Media Publics,” in part because I want to notice distinctions between publics and users that are too often forgotten or ignored. Publics are comprised of users, but not all users are entitled or constitutive members of the public sphere. The Indians, shrews, and minstrels who came up in accounts of tinfoil phonographs during 1878—not to mention crying babies, barnyard animals, and inebriates—were neither users nor

publics; they were *representations* that differently served to define public life and public memory according to long-standing, if unspoken, rules about who matters and who doesn't, and by what means and media. By contrast, the working-class saloon patrons who amused themselves by cheating nickel-in-the-slot phonographs were true users, but they were hardly the public imagined by phonograph executives, required by capitalist exchange, or comfortably accommodated by arbiters of U.S. public life or middle-class culture during the 1890s. They were hackers.<sup>2</sup> Nor were more dutiful, paying customers all equally members of the public sphere, although one feature of mass culture as it continued to emerge in this period was precisely the apparent eclipse of such distinctions, as publics came gradually to seem comprised of consumers rather than citizens—in other words, as consumer choice came gradually to seem the most effective and available public expression of an individual's reason and identity.<sup>3</sup>

I am being more critical than I am cynical: I want to notice distinctions between publics and users because I argue here that while new media help mutually to reconstruct public life and public memory, it is users who help to define new media in crucial ways. Or as Janet Abbate (1994, 4) puts it in reference to the early history of the Internet, "Users are not necessarily just 'consumers' of a technology but can take an active part in defining its features." Users in this sense do not necessarily stand in any self-conscious relationship to publics. They are neither exactly "counterpublics" nor exclusively subcultures; they are diverse, dynamic, and disaggregate. They stand both as mirrors and receptors for the ideological formations of the public sphere, yet are not themselves necessarily ideological: individuals do not "belong" as users, but their activities as users can have profound consequences for what Michael Warner (2002, 12) calls the "metapragmatics" of belonging.<sup>4</sup> Of course, the users of early recorded sound were not active in exactly the same manner that users of Abbate's early Internet were, but they helped to shape the medium in important ways. In particular, gender difference became integral to the definition of recorded sound. Middle-class women were central to the meanings of phonographs and records as such because women helped deeply to determine the function and functional contexts of recording and playback. Put simply, I do not propose that home phonographs eventually became gendered instruments of mass culture. They did, but there's much more to it than that: I propose instead that gender and cultural differences were built in to home phonographs from the start.

Somewhat like Abbate in her work on the ARPANET and Internet, my interest is in posing questions that might bedevil the strict dichotomy of production and consumption, which is so familiar to media history and so characteristic of U.S. attitudes toward tech-

nology, whether those attitudes are technophobic or technophilic. The production/consumption dichotomy harbors a particular determinism since it typically puts producers first and then draws an arrow toward consumers. Within this gesture lurks a tendency to use invention and technology as sufficient explanations of social and cultural change, and this in turn has helped orient media history toward narratives of social effects, and at the same time away from the agencies of any but white, middle-class men and the developed world. It favors publics over users, in other words, rendering a history in which, for example, "inventing the telephone is manly; talking on it is womanly."<sup>5</sup> A more calculated version of the same logic can lurk behind even the most affirmative, feminist-friendly accounts of consumer resistance as well as celebrations of exceptionalism, rendering a history in which, for instance, men invented the telephone, but women taught them what it was for, or in which men invented the phonograph, but let women help them sell it during the First World War.<sup>6</sup> Such narratives describe women as agents, whether through their adaptive reuse of consumer goods or occasional usurpation of supposedly male roles. Yet their agency is largely reactive rather than active, a bind that can only be undone by a critical reevaluation of production and consumption as either historically stable or mutually distinct terms of analysis.<sup>7</sup>

Habitual reliance on the production/consumption dichotomy has led to an early history of recorded sound that runs something like this: After Edison invented the phonograph, competition arrived from Berliner (the "gramophone") and inventors at Bell's Volta Laboratory (the "graphophone"), prompting Edison's own commercial development of his machine. The phonograph and graphophone were marketed by the North American Phonograph Company, incorporated in 1888, via a network of local companies operating in protected territories. The expensive devices were leased and later sold as dictating machines, without much success, since office workers resisted the complicated and still temperamental machinery. "Almost by accident," things changed: one California entrepreneur adapted his phonographs into nickel-in-the-slot machines, which gradually both proved the success of recordings as amusements and created a demand for prerecorded musical records. When Berliner started to market his gramophone and disc-shaped records in the United States in 1894, he faced competition from imitators as well as companies like the Columbia Phonograph Company and, in 1896, Edison's National Phonograph Company, both of which sold only cylinder records at first. The market for home machines was created through technological innovation and pricing: phonographs, gramophones, and graphophones were cleverly adapted to run by spring motors (you wound them up), rather than messy batteries or treadle mechanisms, while musical records were

cleverly adapted to reproduce loudly through a horn attachment. The cheap home machines sold as the ten dollar Eagle graphophone and the forty dollar (later thirty dollar) Home phonograph in 1896, the twenty dollar Zon-o-phone in 1898, the three dollar Victor Toy in 1900, and so on. Records sold because their fidelity improved, mass production processes were quickly developed and exploited, advertising worked, and prices dropped from one and two dollars to around thirty-five cents.<sup>8</sup>

What's missing? Besides the elision of consumption and buying (phonographs and records are *played*, after all), such accounts limit the definition of production to the activities of inventors and entrepreneurs. What if that kind of production were only a tiny part of the story, granted its singular importance by the same cultural norms and expectations that construe technology as a male realm? The very meaning of technology might be at stake. The spring-motor phonograph worked in homes around the world, but would it have been described or even understood as "working" if it did not already make sense somehow within the social contexts of its innovation? For that matter, would the nickel-in-the-slot phonograph have worked in just the way it did if the office workers disparaged as "nickel-in-the-slot stenographers" by the North American Phonograph Company executives had embraced rather than resisted the dictation machine?<sup>9</sup>

Questions like these get women and other users back into history. "Recorded sound," writes historian Andre Millard (1995, 1), "is surely one of the great conveniences of modern life." Yet we know from Ruth Schwartz Cowan's important *More Work for Mother* (1983) and a few other feminist histories of technology just how vested the definition of "convenience" can be within the gendered, social, and economic constructs of a time and a place. Electric washing machines are modern conveniences, but their appeal and adoption at the beginning of the twentieth century in the United States must be read at least against simultaneous changes to the standards of acceptable cleanliness, the demographics of domestic labor, the socioeconomic geography of electrification, and the ongoing reconstruction of other domestic chores.<sup>10</sup> Convenience by itself explains nothing. In short—to bend the language of production just a little—it must be that homemakers helped *make* home phonographs, to the curious and complicated extent that they "made" homes, once it is acknowledged that the lives of new media are not just public relations events, business models, or corporate strategies but fully social practices. As Jonathan Sterne (2003, 197) puts it, the early history of the phonograph "is at least as much about the changing home and working lives of the middle class as it is about corporate planning and experimentation."

I am suggesting that phonographs and phonograph records had rich symbolic careers, that they acquired and possessed meanings in the circumstances of their apprehension and

use; and that those meanings, many and changeable, arose in relation to the social lives of people and of tangible things. Perhaps because they are media in addition to being technologies and commodities, phonographs and records seem to have possessed an extraordinary "interpretive flexibility," a range of available meanings wherein neither their inventor nor the reigning authorities on music possessed any special authorial status.<sup>11</sup> Edison's intention for the machine was largely confounded, while composers and musical publications left the phonograph virtually unnoticed until its immense popularity forced them into addressing its role as a "self-playing" musical instrument. Later, hugely influential record producers—eventually multinational corporations known as "labels"—habitually failed to predict which recordings would succeed and which would fail. Instead, the medium of recorded sound was authored by the conditions of its use, with phonographs and phonograph records acquiring their cultural heft as they acquired their range and circulation among human hands and ears as well as among other media and goods.<sup>12</sup>

Though frequently ignored by cultural theorists and cultural historians who tend to emphasize the *extensive* qualities of mass culture, phonographs and phonograph records, like music itself, suggestively exhibited *intensive* qualities to accompany those extensive ones. This extensive/intensive dichotomy is a helpful heuristic that has emerged from the histories of reading practices to distinguish modern and premodern literacies.<sup>13</sup> Simply put, either readers consume a lot of material, moving quickly from one text to another, or they consume a little material repeatedly and with greater intensity. Newspapers and pulp fiction versus the Bible. Modern mass culture involves consumption that is extensive in this sense. Many different media bombard audiences while commodities jostle and vie for their attention. Television viewers flip through hundreds of channels without watching one. Texts and other goods are consumed in a seemingly endless stream, whether the unceasing flows of the broadcast media or the proliferation and perishability of so many mass-produced consumer goods. Mass society is disposable, profligate.

Like other mass media, phonographs and records came to possess extensive, mass appeal, and notably to rely on the consumption of public taste as such. They relied, that is, partly on the marketable extent of their appeal in the marketplace—a consumer logic that lies behind fads, hits, and stars. But phonographs and records also made sense according to intensive uses, at first by customers at public phonograph parlors and later by listeners at home. The present chapter begins by introducing this intensity in a comparison between phonograph records and another contemporary medium, the mass-circulation monthly magazine, which is seen by some critics as the cardinal form of U.S. mass culture, at least before the nickelodeon. The chapter then addresses the definition of the phonograph as a form of mechanical reproduction as well as a musical instrument dependent

on women as agents and subjects, where subjectivities arise in part according to the lived experience or negotiation of a host of cultural categories, like professional and amateur, or at home and in public. And the chapter concludes by alluding to the ways in which the norms and habits of shopping helped to define the home phonograph amid the desirability and circulation of other goods.

By sticking to the verb *define* rather than *produce* and *consume*, I want to describe the emergence of home phonographs as a multifaceted, culturally and historically specific process that involved a wide range of factors that were determined in part by the growth of the middle class and changing roles for women in U.S. society. The evidence of such a multifaceted process of “design and domestication” is of course multidimensional.<sup>14</sup> It includes representations of different kinds, like the language and metaphors used to describe phonographs, the advertising used to sell them, and features of phonograph design. And it includes a variety of related social practices, like music making as a domestic pursuit, mimicry as a performance genre, and shopping as a leisure activity.

The intensive uses of recorded sound are many. Some of the most intensive have been and remain highly idiosyncratic, practiced only by certain subcultures or subgroups of users. The most avid collectors, for instance, obsessively search out and possess records in addition to listening to them. So-called audiophiles obsessively attend the sound quality of playback. And DJ’s scratch, sample, and mix records. The avid fans and fan clubs associated with particular recording artists and musical styles can be just as intense in different ways; indeed, the term *fan* derives from *fanatic*. These uses and users are idiosyncratic in the sense that none of them merely play recorded sound, if the word *merely* can be used to denote expectations of extensive use that attend mass media. But recorded sound was and is intensively consumed in less idiosyncratic ways too, by everyday users who *do* “merely” play records. In particular, repetition represents another significant form of intensity. Though certain users (small children and professors, according to Roland Barthes) have a greater investment in repetition than others, part of the habitual intensity of using recorded sound is repeated play.<sup>15</sup> Part of the practice of “merely” playing records is playing them again and again.

Just as extensive, industrial print production and “speaking” on paper provide important contexts for understanding the first, primitive and ephemeral phonograph records, the history of another, more specific print commodity can offer one helpful context for understanding the emergence of recorded sound as a unique mass medium. Nickel-in-the-slot and exhibition phonographs enjoyed great popularity for several years in the early

and mid-1890s without becoming a genuinely mass phenomenon. A best-selling record meant sales of something like five thousand copies over two years; the first “million-selling” records are usually ascribed to 1903–1905.<sup>16</sup> By contrast, print media already enjoyed a mass audience of long standing. As early as the 1820s (for the American Bible and Tract Societies) and the 1830s (for the urban penny press) reading audiences in the United States ranked toward the millions rather than the thousands. Beyond mere numbers, however, there were qualitative changes to print media in the mid-1890s that signaled a new kind of market. In *Selling Culture*, Richard Ohmann (1996) argues that U.S. mass culture arrived first in the pages of magazines like *Munsey’s*, *McClures*, and *Cosmopolitan*. He sees mass circulation monthly magazines like these as the cardinal form of mass culture in the United States because, starting around 1893, a growing number of such publications integrated additional illustrated advertisements into their feature pages, and started to profit much more on the sale of advertising revenue than on the sale of issues and subscriptions. This decisive reorientation—from selling magazines to seducing consumers and “selling their eyeballs”—had no exact counterpart in the history of recorded sound, at least until the commercialization of radio in the 1920s, but it nonetheless helps to contextualize the new medium.

The timing, scale, and scope of the modern monthlies all make them helpful yardsticks. Simply in terms of numbers, the aggregate circulation of monthly magazines shot from eighteen million in 1890 to sixty-four million in 1905. In terms of content, scholars generally agree that the magazines helped map the social spaces of U.S. life in which “women were usually singled out as the trainees for participation in the commodity-laden modern world” (Bogardus 1998, 518). Advertisers pitched to women in the women’s magazines and the general circulation ones, as the vague category of “customer” itself became increasingly gender typed.<sup>17</sup> Indeed, the National Phonograph Company advertised in *Munsey’s* as early as 1900, while the Victor Talking Machine Company had begun its lavish advertising campaigns in *Cosmopolitan* and the *Saturday Evening Post* by 1902. In 1906, Victor boasted that its “advertising campaigns reached some 49 million people every month,” more than half the U.S. population, while Edison’s reputedly less aggressive National Phonograph Company advertised its wares by placing full-page ads in more than a dozen national circulation magazines each month, including *Cosmopolitan*, *Munsey’s*, *Good Housekeeping*, *Everybody’s*, and *Outlook*.<sup>18</sup>

More than simply a platform for advertising home phonographs, the modern monthlies helped enable and were enabled by some of the very social, economic, and cultural conditions that helped make home phonographs such a success. If the “big three” phonograph

companies—Victor, National, and Columbia—started their meteoric rise roughly three years after the new *Munsey's*, *McClures*, and *Cosmopolitan*, they nonetheless joined the modern monthlies as, in Ohmann's (1996, 29) terms, a "major form of repeated cultural experience for the people of the United States." By 1909, the phonograph industry was producing 27.2 million records a year, still a fraction of the aggregate circulation of the magazines.<sup>19</sup> Yet while monthly issues had a shelf life of one month, phonograph records individually survived on a logic of repetition. Even more than print media of the time, records were *repeated* cultural experiences, literally played again and again and again. This distinction seems central to the meanings of the home phonograph as an element of mass culture and is related to nonprint commodities as well. When a woman took down a box of Uneeda biscuits, the brand name was familiar, and the biscuits were continuous with the contents in previous tins or packages. All Uneeda biscuits looked and tasted the same; all fifty-seven varieties of Heinz pickles were consistently, coherently different from one another. That sameness and coherence formed part of the magic of standardized mass production. It was "magic" partly because as much as the biscuits and pickles of each variety might look and taste the same, they really were different.<sup>20</sup> By contrast, phonographs and phonograph records helped to introduce the intensity of true repetition to the performance of mass markets. Leaving aside the question of whether two records of the same sounds were really the same, individual users of recorded sound continually reused their own same records without ever—or hardly ever—using them up.

Even F. W. Gaisberg (1942, 18), who performed on early records for Columbia and then traveled as (what would later be called) a talent scout and recording engineer, found himself compulsively repeating the same record over and over: "The thirst for music among the people must have been prodigious to endure the crude and noisy records produced at that time. I remember my own affection for those rough tunes. I seemed never to tire of repeating the record of 'Ben Bolt' from *Trilby*." Gaisberg's wonderment betrays his assumption that "the people" shared a thirst for recorded sound that was both impossible to slake and at the same time irrational, focused inappropriately and obsessively on poor-quality recordings because of the melodies they contained. Whereas rational consumers might grudgingly "endure" the noise, the contemporary marketplace induced even those who—like Gaisberg—should know better into an enervated cycle of repetition: "I seemed never to tire." Gaisberg's repetition of "Ben Bolt" was but one instance of "Trilbymania," the remarkable fad that gripped the United States after George Du Maurier's popular novel *Trilby* was serialized by *Harper's* in 1894. (In the novel, the character Trilby sings "Ben Bolt" before she is hypnotized by the evil Jew, Svengali, when she can also sing

a more sophisticated repertoire.) While Gaisberg played and replayed his record, there were twenty-four theatrical versions of *Trilby* playing on the U.S. stage, including parodies, and consumers could also choose between Trilby hats, Trilby dolls, Trilby shoes, and other Trilby goods that vied for their attention. The *New York Times* lamented that everyone had "to know 'Trilby,' to talk 'Trilby,' to eat 'Trilby,' [and] to dream 'Trilby.'"<sup>21</sup>

This so-called Trilbymania has been puzzled over by cultural historians. Like fictional Trilby herself, consumers were transfixed. As Susan A. Glenn (2000, 91) explains, the craze is "testimony to the cultural centrality of questions of selfhood" at the time, "not only the vulnerability and mutability of the female self, but also the larger question that faced both sexes confronting an emerging industrial society where hypnotic suggestibility might be induced by the lure of material goods, by the manipulations of advertising, or, as some social theorists worried, by the psychological sway of the crowd or the mob." *Trilby* and Trilbymania together offer a parable of mass consumption, complete with a (now familiar) raucous intertextuality—a swirl of meanings that connect across magazines, books, sheet music, drama, and dry goods—and inflected by an absentminded yet virulent anti-Semitism, since the Dreyfus affair was playing out in the press at exactly the same time and shared the partly Parisian setting of Du Maurier's novel. While Americans read, listened, and shopped, the popular "Ben Bolt" was variously "sung by" fictional characters, stage actresses, recordings, and (doubtlessly) consumers themselves. Gaisberg may or may not have sung along, but wearing down his record of "Ben Bolt," like consuming other Trilby goods, produced its own meanings according in part to the mode, frequency, and *reproducibility* of the experience. Gaisberg's "Ben Bolt" repeatedly made sense to him in the contexts of its own repetition as well as in the combined contexts of Gaisberg's life, his self, and the ambient mania.

The sort of repetitive intensity that Gaisberg and other phonograph users indulged in had previously been more a feature of musical education ("Practice, practice, practice") than musical reception. It was reminiscent of the literacy practices surrounding devotional texts, for instance, or literacy in situations of particular scarcity, when a single newspaper or mail-order catalog got read intensively, again and again, and by many readers. Consumers today have gotten used to the way in which small children play the same videocassettes over and over (and over and over and over) again, or the way some idiosyncratic cultural forms seem to elicit idiosyncratic repetitions (*It's a Wonderful Life* and *The Wizard of Oz*, for example), but adult U.S. culture more typically consumes and discards, reads and recycles, buys extensively and then buys some more. Phonograph records, then tapes, videocassettes, CDs, DVDs, and MP3s also counter that trend; part of the

complex logic they harbor as material possessions is repetition and continual re-consumption, rewind and replay.

I will return briefly to this question of repetition and the role that almost ritualized repetition seems to have played in the social construction of the home phonograph, amid the magic and desires of the modern marketplace. First, however, it is necessary to think more directly about the domestication of mechanical reproduction. If users were intensively reusing or repeating records, the records they played were also elaborately constructed as repeat performances, as the mechanized reproduction of desired sounds. The language of *mechanical reproduction* is not anachronistic in this case. It is possible to call phonographs a form of reproductive technology with assurance because one crucial part of every phonograph was its “reproducer,” incidentally containing a “diaphragm”—the parts that resonated in response to grooves on the record and thereby reproduced sound. The term *reproducer* of necessity entered the vocabularies of many phonograph owners at the turn of the twentieth century. And if the new medium of recorded sound thus provoked little changes or additions to the semantic lives of Americans, it likewise came to possess meanings within and against existing discourse more broadly defined. Sound reproduction became defined by and against an existing field of metaphors, attitudes, assumptions, and practices. Varied constructions of mimesis and music formed important contexts for the uses and users of the new medium.

The vocabulary with which phonographs were introduced and the symbolic terrain they occupied were all part of the definition of the medium, its coming into focus, first as a novelty and eventually as a familiar within U.S. homes, embodied in a phonograph that sat right near where the radio and then the television would ultimately sit further on into the century. Like the discursive lives of those later media, the discourses making sense of recorded sound formed a matrix of heterogeneous, changing, and even contradictory messages. These messages were registered in part within promotional representations—advertising, trade brochures, published accounts, and the habits of retail establishments handling the products. Also like radios and televisions, part of the discursive life of the phonograph emanated from the design of the machine itself and its location within the home.<sup>22</sup> The japanned surfaces of an early tabletop machine or the mahogany finish of an enclosed-horn Victrola (1906) were each suggestions of the way a machine might fit into home decor. Additional messages lay coded into records themselves, which reproduced music yet also offered effective *representations* of music, whether implicitly or explicitly. Records rendered two- to three-minute versions of—metonyms for—a genre, composition, and performance, packaged materially and acoustically for private consumption.

“Band” records were actually recorded by small ensembles representing bands; recorded musical pieces were short segments or pastiches representing whole compositions; comic sketches were two-minute records representing whole fifteen-minute vaudeville “turns”; and the earliest recordings were announced and even occasionally applauded, representing live performances.

Figurative representations of phonographs and records underwent a particularly important change as part of the redefinition of recorded sound as a form of domestic amusement. The metaphors of inscription and personification that had initially helped to define the medium were gradually displaced, and then replaced by richer metaphoric identifications of the phonograph within the existing discourses surrounding music and home in U.S. life. When Edison first unveiled his phonograph at the New York offices of *Scientific American*, he and witnesses alike anthropomorphized the device, which saluted them and asked after their health. A decade later, a program distributed at Worth’s Palace Museum in New York urged novelty seekers, “Before leaving the museum don’t fail to interview the wonderful EDISON PHONOGRAPH.” Americans stood ready to personify new technology. Yet somehow these metaphors did not follow the phonograph into U.S. homes. Playback did not elicit the same personifications that recording-plus-playback did. Although the earliest phonographs as well as those promoted for office use were routinely understood and represented according to metaphors of writing and embodiment, the home phonograph was not. Writing metaphors continued to matter in the specialized context of intellectual property disputes over recording (since the U.S. Constitution explicitly protects “writings”), while personifications lingered only in the commercial literature surrounding dictation phonographs. The dictating machine was first promoted as a businessman’s “ideal amanuensis,” gendered male. A few years later, when women made up more of the nation’s office workforce, the cover of one National Phonograph pamphlet made a simple equation by picturing a phonograph beside the words “Your Stenographer,” while corporate propaganda assured wives that their businessmen husbands were dictating to a phonograph, “instead of talking to a giddy and unreliable young lady stenographer.” Home phonographs simply did not elicit the same personifications. That makes them unusual. Cars and boats remain “she,” while many early domestic appliances, including home electrification, were sometimes represented in terms of domestic servants or even slaves.<sup>23</sup>

Part of what helped to occlude or deflect metaphors of personification in the representation of home phonographs was the continued instability of phonographs and records as mimetic goods. The problem of representing them as representational proved vexing,

judging at least from the catalogs and advertisements for amusement phonographs and related supplies that make competing as well as confusing claims of verisimilitude. A strangely varied and inexact language of exactness came to dominate promotional representations of the medium as a means of representing music. Victor advertisements soon assured readers that “the living voices of the worlds’ greatest artists can now be heard, whenever you choose, in your own home.” Edison records were by contrast “the acme of realism.” This Victor copy suggests complete transparency, access to the actual and natural voices of performing artists. But the Edison slogan boasts of supreme artifice, the ultimate reality effect. And similar confusions arose and remained throughout the literature.<sup>24</sup>

With the displacement of metaphors of personification by varied mimetic claims made on behalf of phonographs and phonograph records, gender difference became newly and more literally instrumental to representations of sound recordings itself as an adequate and appealing means of representation. Women’s voices formed a kind of standard for recording because they proved particularly hard to record. Despite its early success with band music, Columbia was utterly unable to record women’s voices well as late as 1895, when Lilla Coleman’s records were admitted in its catalog to be “suitable only for use with the tubes—Not adapted for horn reproduction.” The Boswell Company of Chicago offered its “high grade original” records in 1898 with the assurance that “at last we have succeeded in making a true Record of a Lady’s voice. No squeak, no blast; but natural, clear, and human.” The Bettini Phonograph Laboratory in New York similarly claimed “the only diaphragms that successfully record and reproduce female voices.” The Victor Company offered a few sopranos, but contralto voices were the norm for the few women recorded on the earliest records. As late as 1904, one phonograph handbook warned that “taking high notes” could be troublesome, particularly in the case of “ladies’ voices,” which tended to render “a harsh screech, technically called [a] ‘blast.’” Part of the tacit knowledge accrued by recording engineers like Gaisberg was the ability to record different voices, timbres, and instruments successfully (sometimes through “subterfuge”), despite the limitations of acoustic recording technology.<sup>25</sup>

Film theorist Richard Dyer (1997, chapter 3) has explained the way that film lighting historically normalized white skins, making the filmic reproduction of nonwhite complexions the special or “abnormal” case. Recorded sound, somewhat like telephony, provides a related (if inverted) instance at the turn of the twentieth century: mediated sound was normalized in relation to women’s voices. As one German official rationalized in 1898, telephone companies had to rely on women operators in part because the frequency of their vocal range was “especially well suited” for transmission, making them “more eas-

ily understood than men.”<sup>26</sup> Similarly, it is clear that early recording technology succeeded as recording technology according to its success with women’s voices, particularly those of sopranos. Recording women’s voices so they sounded “natural, clear, and human” proved that recording worked, as the nature of records and women coincided. The visual and aural mimetic codes attending modern media, in other words, are constructed partly of racial and gender differences—differences that habitually attend users, not publics. Nonwhite skins and women’s voices became particularly potent indexes of “real” or successful representation, though of course success (like realism) varies according to the social and perceptual conditions of each medium as well as contemporary aesthetic norms. Filmic representations succeeded amid cultural constructions of race as a form or source of visual information. Telephonic representations succeeded amid constructions of “the operator” as both gendered and effaced, available to facilitate transmission but hardly to transmit. And phonographic representations succeeded amid constructions of soprano voices as desirable commodities in themselves. Not that such visual and aural mimetic codes were the exclusive, static, or entirely thoughtful conditions of respective media: the Bettini Phonograph Laboratory adopted as its slogan “A True Mirror of Sound,” mixing its metaphors as if aural mimetic codes might be effectively constructed or translated from visual ones. (Similarly, one maker of piano rolls in the 1920s charmingly advertised its reproducing rolls as “the film of the music camera.”)<sup>27</sup>

Just as Boswell Company records were reputedly “original,” Bettini’s were “autograph records,” the telling inscriptions of unique human voices. Both terms meant to indicate that these records were recorded from human voices rather than duplicated from pre-existent recordings, which was probably a common practice in the 1890s. The distinction between original and nonoriginal records may have confused consumers, who were necessarily more mindful of the broader distinction between live music and recorded sound. Slippage in terms like original, true, natural, living, and real in the literature promoting home phonographs served to emphasize rather than contradict the apparent power of mechanical reproduction to appeal and enthrall: everywhere Victor’s trademark dog, Nipper (trademark 1900), sat listening for “his master’s voice.” The pleasures of that slippage, the contiguity and contestation of imitation and reality, are evident in the mass circulation of Nipper’s image as well as in the records themselves. Many of the earliest records were marketed without identifying the recording artists who performed them. Some of Columbia’s earliest artists made recordings that sold under many different names, as if made by many other people. Bettini, which did identify well-known bel canto singers of the day, also offered records of a “Lady X,” coyly represented in its 1898 and 1899 catalogs



LADY X  
POPULAR AMERICAN SONGS AND NEGRO MELODIES  
Price, \$1.25 each

1	I Want You, Ma Honey.....	Fay Templeton
2	All Coons Look Alike to Me.....	E. Hogan
3	Louisiana Lou.....	Leslie Stuart
4	Yvette.....	J. L. Golden
5	The Harmless Little Girl (From Lady Slavey).....	Kerker
6	A Hot Time in the Old Town.....	Theo. A. Metz
7	The New Bully.....	Trevathan
8	My Coal Black Lady.....	W. T. Jefferson
9	I want Them Presents Back.....	Paul West
10	Little Alabama Coon.....	Hattie Star
11	Mr. Johnson, Turn Me Loose.....	Ben. R. Harney
12	My Gal is a High Born Lady.....	Barney Fagan
13	Mamie, Come Kiss Your Honey Boy.....	May Irving
14	Isabelle, A Girl Who is One of the Boys.....	Bratton
15	A Simple Little String (From the Circus Girl).....	L. Monckton
16	I Don't Love Nobody.....	Lew Sully
17	Frog Song.....	G. E. Trevathan
18	Standing on the Corner.....	Geo. Evans
19	My Baby is a Bonton Belle.....	C. L. Davis
20	The First Wench Done Turned White.....	Ed. Rogers
21	Lou, Lou, How I Love My Lou (from Pousse Cafe).....	Mills
22	Baby (from the Lady Slavey).....	G. Kerker
23	He Certainly Was Good to Me.....	A. B. Stoans

Figure 2.1 "Lady X" performs for the Bettini Phonograph Company, 1898 and 1899. (Source: Library of Congress.)

with her back turned to conceal her identity; she recorded "Popular American Songs and Negro Melodies." Because recordings displaced the visual norms of performance (listeners couldn't see the stage), they hinted at imitation or ventriloquism in new ways, just as mimicry was enjoying such great popularity in U.S. vaudeville and musical theater.

Mimicry was the particular province of vaudeville comedienne like Cissie Loftus, Elsie Janis, Gertrude Hoffmann, and Juliet Delf. One reviewer even delighted in a contest between the "Cissie Loftus Talking Machine" and the "Gertrude Hoffmann-ograph," when the two headlined on the same bill, competing to see which of them could imitate each other's imitations best. Personification was stood on its head, as women were facetiously celebrated as machines. Such mimicry and its enthusiastic reception helped open "questions about the relationship between self and other, individually and reproducibility" that proved both provocative and timely.<sup>29</sup> As Susan Glenn, Miles Orvell, and others have described, U.S. culture at the turn of the twentieth-century was deeply engaged with questions of authenticity and artifice, realism and illusion. There were celebrations of certain imitations as potentially "true," while in literature and the other arts, "the real thing" proved an elusive category, pleasurably attended in its elusiveness. "Cissie Loftus Is Not a Phonograph," another reviewer had remarked in 1899, while Loftus herself sometimes created her imitations with the help of recordings, and in one of her vaudeville turns even played a record of opera star Caruso before imitating him by imitating it.<sup>29</sup>

Offstage mimicry thrived as well. Manufacturers urged consumers to "accept no imitations," although such warnings routinely went unheeded. In the music trades, the three big phonograph companies were harried by pirates, as competitors sprang up and tried to "dupe" (duplicate) records, re-create successful recordings, or undercut prices. At the same time, more than half of the pianos sold in the United States were reportedly "stencil" instruments, labeled and sold by companies that had not manufactured them (the particular bugaboo of Steinway, Chickering, Baldwin, and other famous makers). Of course, the preeminent claim of verisimilitude available to phonograph promoters and listeners alike was the surprisingly pliable notion of acoustic fidelity. Recordings sounded exactly like the sounds they recorded, although the quality of sounding "exactly like" has continued to change over time and according in part to available technology, most recently from the standards of analog to those of digital recording. Any mechanical form of sounding "exactly like" must have been defined in part against popular vaudevillian mimicry as well as in light of the amateur mimics who probably emulated (that is, mimicked) well-known vaudevillian mimics at home or in their own social circles. "Singing along" with recordings came to make unnoticed sense as "singing like" recording artists.



In addition to tapping the varied discourses of U.S. realism and mimesis, home phonographs gradually came to make sense against and eventually within the musical practices of the day. To give anything like a complete summary would be impossible, but there are certain “givens” regarding U.S. musical life at the turn of the twentieth-century, among them the association of home, woman, and piano, and the complementary though possibly less portentous association of outdoor public space, man, and band music. Both were to be tested by the immense popularity of recorded band music for home play.

Music literacy rates were high. Among the middle and upper classes some level of musical literacy was expected of all women, and those talents were freighted with the sanctity of home and family. Hundreds of companies made pianos to feed these expectations; the industry managed to sell 170,000 pianos in 1899 alone, and numbers kept climbing. Meanwhile, there were tens of thousands of band members around 1900, many professionals but most amateurs, their gathering, practicing, and playing the evidence of communities fostered by civic, ethnic, or institutional identities. Music of all kinds had recognized social functions, gendered relations, and moral valences. Opera, in particular, was both the subject and instrument of (high/low) cultural hierarchy. Pianos were both the subject and instrument of (middle-)class aspiration. Ragtime was both the subject and instrument of quickening markets and (racialized) play. And mimicry was both the subject and instrument of (feminized) explorations of selfhood.<sup>30</sup>

Clearly, the arbiter of musical activity within the home was the woman, while the most direct arbiter of musical activity at large was most likely an uncalculated combination of sheet music publishing houses, metropolitan performance institutions, and an army of roughly eighty thousand music teachers of both sexes (81 percent women by 1910). Increasing professionalization was applauded on civic and national levels, while the professionalization of women was usually condemned. (Of roughly fifty-five thousand professional musicians in 1910, 71 percent were male.) Musical periodicals carried chastening stories of popular divas and their harrowing lives, while mass-circulation monthlies like *Good Housekeeping* lamented when any young woman, suffering from too much talent or ambition, returned from a conservatory and denied “to her father and mother the simple music that they love and understand.” (“She has learned that Beethoven and Chopin and Schumann are great, but she has not realized that simpler music has not lost its charm. . . . Perhaps she has caught Wagneritis.”) To some observers, women were simply condemned to amateurism. James Huneker, a writer fond of sorting European composers into masculine and feminine types (Bach and Beethoven versus Haydn, Chopin, and Mendelssohn),

summed it up, “*Enfin*: the lesson of the years seems to be true that women may play anything written for the piano, and play it well, but not remarkably.”<sup>31</sup>

It helped not at all that the most successful popularizer of “good” music in the era, bandleader John Philip Sousa, was both prone to a noticeably “feminine” fastidiousness and explained his popular repertoire as an act of redeeming the fallen. Played by Sousa and his men, a “common street melody” became a respectable woman: “I have washed its face, put a clean dress on it, put a frill around its neck, pretty stockings, you can see the turn of the ankle of the street girl. It is now an attractive thing, entirely different from the frowzly-headed thing of the gutter.”<sup>32</sup> Thus Sousa popularized good music and made popular music good. In his several perorations on the “menace of mechanical music,” Sousa deployed similar metaphors to equal effect. The pianola and the phonograph, he was sure, would reduce music to “a mathematical system of megaphones, wheels, cogs, disks, cylinders . . . which are as like real art as the marble statue of Eve is like her beautiful, living, breathing daughters.” To use these devices was to subvert nature in a world where naturalness and womanliness coincided with seeming ease; “The nightingale’s song is delightful because the nightingale herself gives it forth.” Sousa warned that these machines were like the recent “crazes” for roller skates and bicycles, but that they might do more damage, like the English sparrow, which “introduced and welcomed in all innocence, lost no time in multiplying itself to the dignity of a pest, to the destruction of numberless native song birds.” Sousa’s metaphors drift confusedly amid gender and national categories in their allusion to birds and description of musical culture. Women amateurs have “made much headway” in music, he wrote approvingly, but the mechanical music will make them lose interest, and “then what of the national throat? Will it not weaken?” Sousa’s U.S. amateur loses some of her gender definition in his next question: “What of the national chest? Will it not shrink?” Whatever else he imagined, Sousa foresaw the coming decline of amateur music-making with great perspicacity.

In all of its modalities—performance, instrumentation, composition, and education—the sounds, subjects, and spaces of U.S. music were shot through with assumptions of moral and aesthetic value that remained inseparable from active categories like tradition, class, race, gender, domesticity, and professionalism. What interests me here are the translations that became available between and among categories around 1900, which might indicate points of contestation or change in the mutual discourses of music and home where the new medium could take root. Among them there were public, performative translations, of course, like Sousa’s play across the categories of popular and

“good” music, or like the adaptive traditions of blackface, which played across and against categories of race, class, and gender. But there were other translations across other categories as well, and the home phonograph became party to many. Particularly evident, for example, was slippage in the relative operation of the categories amateur and professional against the categories domestic and public. Victor advertisements asked, “Why don’t you get a *Victor* and have theatre and opera in your own home? The *Victor* is easy to play” (1902), while National Phonograph assured that its product “calls for no musical training on the part of any one, yet gives all that the combined training of the country’s greatest artists give” (1906). Both appeals resemble contemporary advertisements for pianolas and player pianos, which stressed the ease of play along with the salutary musical production—good for the soul, good for the family.<sup>33</sup> At work was a partial translation between amateurism and professionalism that tended to enforce the amateurism of home listeners, not just in the subsequent withering away of live home music, as Sousa so astutely recognized, but also in the celebrated availability of professionally produced music in the home. Records and piano rolls were “professional” in the dual sense that they reproduced the work of paid musicians and were the standardized, mass products of purposeful corporate concerns with which listeners were now engaged in commercial relations.

**Proof of Advertisement**  
 For \_\_\_\_\_  
 Sent \_\_\_\_\_  
 From THE FRANK A. MURPHY COMPANY  
 178 FIFTH AVENUE, NEW YORK

**W**HEN a man leaves home in the evening it is because he seeks amusement. The best way to keep him home is to give him the amusement there. Make home a competitor of downtown, the club, the café, the theatre and the concert hall. No one thing will furnish so much amusement for so many people, so many times, and in so many ways as the Edison Phonograph.

Talk about versatility! If you had a brass band on tap and several leading concert hall singers on salary, and two or three funny men to crack jokes, and a beautiful soprano to sing ballads, you could not give the same amount of varied entertainment that the Edison Phonograph gives by simply changing records.

You can hear the whole program at some nearby store in this town.

National Phonograph Company  
 Edison's Area, Newark, N. J.

Figure 2.2 National Phonograph Company advertisement, 1906. (Source: Thomas A. Edison Papers Microfilm Edition.)

35. See, for example, Levinson (1997, xii); Starr (2004, 298–299). The “materiality” of digital media has been the subject of considerable comment among critics—for instance, in Hayles (1999)—though the term itself has developed a range of meanings that make synthesis particularly difficult—an issue I will return to in chapters 3 and 4.
36. As Hayles explained to me in an e-mail in April 2002, “When I coined the phrase ‘flickering signifier,’ I had in mind a reconfigured relation between the signifier and signified than had been previously articulated in critical and literary theory. As I argue in that piece, the signifier as conceptualized by [Ferdinand de] Saussure and others was conceived as unitary in its composition and flat in its structure. It had no internal structure, whether seen as oral articulation or written mark, that could properly enter into the discourse of semiotics. When signifiers appear on the computer screen, however, they are only the top layer of a complex system of interrelated processes, which MANIFEST themselves as marks to a user, but are properly understood as processes when seen in the context of the digital machine. I hoped to convey this processual quality by the gerund ‘flickering,’ to distinguish it from the flat durable mark of print or the blast of air associated with oral speech.”
37. There is a lot packed into this claim, I know; helpful to this formulation has been J. Chandler’s (1998, 60) reflections on (Paul Veyne and) history, as well as Poster’s (2001, 73–74) reflections on (Jacques Derrida, Judith Butler, and) the performativity of the trace.
38. “Reading the Background” is the title of a chapter by Brown and Duguid (2000) that elegantly makes this point.
39. A number of scholars have made related assertions. (Reflexivity, as Hayles [1999, 9] observes, is one of the—reflexive—characteristics of contemporary critical theory.) I am thinking of Raymond Williams’s (1976) observation about vocabulary in *Keywords*, de Grazia’s (1992) observation about the Enlightenment logic of textual authenticity, and J. Chandler’s (1998) observation about romantic literary history.
40. Critics who work on film and television make similar observations about “history on” as “history of” with varying degrees of self-consciousness. See, for example, Sobchack (1999–2000); Hanke (2001).
41. Joyce is thinking of hypertext and networked culture generally.
42. See particularly Gillies and Cailliau (2000). Cailliau calls himself (in the third person) “the self-appointed evangelist of the World Wide Web” (324). The Edison/Berners-Lee comparison is from Naughton (2000, 245). The Edison/Moses comparison is from Carlson and Gorman (1990), who call Edison the Moses of mass culture because Moses led the children of Israel to the promised land but did not enter.
43. See Gillies and Cailliau (2000, 218, 226–227); L. Addis, “Brief and Biased History of Preprint and Database Activities at the SLAC Library, 1962–1994,” January 2002, <<http://www.slac.stanford.edu/~addis/history.html>>.

<<http://www.perseus.tufts.edu>> and the *Thesaurus Linguae Graecae*; see Ruhleder (1995).

44. In thinking about disciplines as such, I have been prompted by Ruhleder (1995), and influenced by Lenoir (1997), especially chapter 3.

### Chapter 1

1. The portion of this chapter on nickel-in-the-slot phonographs initially was a contribution to a conference at the Dibner Institute at MIT, and I am thankful to Paul Israel and Robert Friedel for their invitation to participate. The material on tinfoil phonographs has occupied me for a long time; different and much more partial versions have appeared as “First Phonographs: Writing and Reading with Sound” and “Souvenir Foils.”
2. *Scientific American* 37 (December 1877): 384.
3. Lastra’s (2000) first chapter, “Inscriptions and Simulations,” is an account of the ways in which modern media were first imagined according to these tropes.
4. There is a widespread misapprehension that magnetic tape was the first medium for amateur recording. Actually, phonographs and graphophones (but not gramophones) could all record sound until electrical recording became the norm around 1920. See Morton (2000).
5. These are claims adapted from the work of Anderson (1991), Habermas (1989), and Warner (1990). On circulation, see also Henkin (1998); John (1995).
6. On public speech, for instance, see Looby (1996); Fliegelman (1993); Grasso (1999); Ruttenburg (1999).
7. The most notable exception is Cmiel (1990).
8. Secord (2000, 523) supposes that “relative stability in print reemerged from the mid- and later 1840s” in Britain, “with the laying of a groundwork for a liberal nation-state, based on imperial free trade and an economic future clearly within the factory system,” though this was clearly not the case in the Victorian United States. Another factor unattended here, as in Secord, is electric telegraphy.
9. For the number of papers, see *Centennial Newspaper Exhibition* (1876), where the data were compiled in part from the 1870 census, and in the course of collecting a “monster reading room and an exchange for newspaper men” at the Centennial Exposition in Philadelphia, known as the Newspaper Pavilion, with collected issues from across the United States. According to the *U.S. Census of Manufactures*, in the twenty years between 1880 and 1900, the amount of capital involved in U.S. newspapers and periodicals rose by an estimated 400 percent, and the amount of paper consumed rose by 650 percent.

10. In this last claim, I am agreeing with Secord (2000). Like Secord, I am trying to stress that the fixity of print is a variable social construct rather than an inherent property of the medium, that media are always social before they are perceptual. This case has been stated most strongly by Johns (1998, 2, 19). For the U.S. context, see McGill (2003).
11. See de Grazia (1992, 7), who offers a wonderful account of how the Shakespearean canon emerged as a constituent of this logic, how it “came to be reproduced in a form that continues to be accorded all the incontrovertibility of the obvious.”
12. A. Fabian (2000, 173, passim). Slave narratives offer a particularly good example of this.
13. See Gutjahr (1999, 110–111).
14. Secord (2000) makes this point more broadly and at much greater length in his study of the ways that different readers differently received *The Vestiges of the Natural History of Creation* (1844).
15. Article 10 of the *Articles of Impeachment* against Johnson (March 1868) reads, “That said Andrew Johnson . . . did attempt to bring into disgrace, ridicule, hatred, contempt and reproach the Congress of the United States, . . . to excite the odium and resentment of all good people of the United States against Congress . . . and in pursuance of his said design and intent, openly and publicly and before divers assemblages of citizens . . . did . . . make and declare, with a loud voice certain intemperate, inflammatory, and scandalous harangues, and therein utter loud threats and bitter menaces . . . amid the cries, jeers and laughter of the multitudes then assembled in hearing.” (The twentieth-century impeachment, by contrast, was less about what President Bill Clinton literally *said* than about what he *meant*; namely, it “depends what the meaning of is is.”)
16. In writing about plain speech, Lears relies on Cmiel (1990, 263–265), who counted books of verbal criticism and usage manuals listed in the *National Union Catalog* between S. Hurd’s *A Grammatical Corrector* (1847) and R. H. Bell’s *The Worth of Words* (1902); Cmiel notes 182 total editions of 34 titles.
17. Emphasis added; quoted in *Clayton v. Stone and Hall*, 2 Payne 392 (1829), referring to “a newspaper or price-current,” and cited in *Baker v. Selden*, 101 U.S. 99 (1880). My thinking about the two cases is indebted in part to Meredith L. McGill, “Fugitive Objects: Securing Public Property in United States Copyright Law” (working paper, October 12, 2000).
18. On spirituals, I’ve been influenced by Cruz (1999).
19. Records of the Edison Speaking Phonograph Company exist at the Edison National Historic Site in West Orange, New Jersey, and at the Historical Society of Pennsylvania in Philadelphia. Documents from West Orange have been microfilmed and form part of the *Thomas A. Edison Papers: A Selective Microfilm Edition* (1987). These items are also available as part of the ongoing electronic edition of the Edison Papers; see <<http://edison.rutgers.edu>>. For the

- items cited here, like Uriah Painter to Thomas Edison, August 2, 1879 (“milked the Exhibition cow”), microfilm reel and frame numbers are given in the following form: TAEM 49:316. Documents from Philadelphia form part of the Painter Papers collection and have been cited as such. The company’s incorporation papers are TAEM 51:771. The history of the company may be gleaned from volume 4 of *The Papers of Thomas A. Edison* (1998). Also see Israel (1997–1998).
20. “An Interesting Session Yesterday: Edison, The Modern Magician, Unfolds the Mysteries of the Phonograph,” *Washington Star*, April 19, 1878. The *New York Times* carried a shorter version of the same story on the same day.
21. Edward H. Johnson to Uriah H. Painter, January 27, 1878, in the Painter Papers; Johnson prospectus, February 18, 1878, TAEM 97:623. Both are transcribed and published in Edison (1998). I am grateful to the editors of the *Papers of Thomas A. Edison* for sharing this volume in manuscript as well as their knowledge of the Painter Papers.
22. “The Phonograph Exhibited: Prof. Arnold’s Description of the Machine in Chickering Hall—Various Experiments, with Remarkable Results,” *New York Times*, March 24, 1878, 2:5.
23. Accounts of Jersey City are reported in the *Jersey Journal*, June 13, 14, and 21, 1878, and the *Argus*, June 20, 1878.
24. *Iowa State Register*, July 3, 1878; *Daily Times* (Dubuque), July 16 and June 29, 1878.
25. For a discussion of this improving ethos at later demonstrations, see Musser (1991, chapter 3), where he adapts Neil Harris’s idea of an “operational aesthetic” to the circumstances of Lyman Howe’s career in “high-class” exhibitions. Differently germane is Cook (2001).
26. “Renewed optimism” is Musser (1991, 22), apropos of Wiebe. In thinking about the demonstrations as hegemonic forms, I have been influenced by Uricchio and Pearson’s (1993) work on the “quality” films of 1907–1910; on the pervasiveness and social function of Shakespeare in U.S. culture, see Uricchio and Pearson (1993, 74–78).
27. “Our Washingtons” is from Edison (1878). My carnivalesque touches on Friedrich A. Kittler’s association of recorded sound and the Lacanian order of the real, since as Kittler (1999, 16) notes, the phonograph (unlike writing) can record “all the noise produced by the larynx prior to any semiotic order and linguistic meaning.”
28. These details from the Painter Papers, Letter books, and Treasurer’s books of the Edison Speaking Phonograph Company, including Smith to Hubbard, November 23, 1878; Mason to Redpath, November 1, 1878; Cushing to Redpath, July 16, 1878; Redpath to Mason, July 10, 1878.
29. The year 1878 also saw a bewildering number of versions of *H. M. S. Pinafore* on the U.S. stage, see Allen (1991). An original printed copy of Hockenbery is at the New York Public

- Library, available elsewhere in microprint as part of the English and American Drama of the Nineteenth Century series (New York: Redex Microprint, 1968). The production history of *Phunnygraph* is unknown.
30. This refers to the second wave of phonograph demonstrations, when the machine had been “perfected,” as Edison put it; *Proceedings of the Fourth Annual Convention of Local Phonograph Companies* (1893), 112. On authorship and exhibitions, see Musser (1991, 6–7).
  31. Uriah Painter to Thomas Edison in reference to the Matthew Brady Studio’s photograph of the inventor with the phonograph; see TAEM 15:575.
  32. We know this figure for Wilde’s photographs because they were in violation of copyright; *Burrow-Giles v. Sarony*, 111 U.S. 53 (1884).
  33. See Lastra (2000, 16). On sister instruments, see Andem (1892, 7). This point has been difficult for audiences to swallow when I have tried to make it at conferences. I am confident of its accuracy in specific reference to accounts of 1878: though present on occasion, phono/photo analogies are not typical in this first rush of news accounts.
  34. From Dickey (1919); noted in Lears (1989, 41), as part of his discussion of advertising and the “modernization of magic.”
  35. See Menke (2005).
  36. “Sacralizing” is from Levine (1988); “salvage” is from James Clifford’s “salvage ethnography,” noted in Cruz (1999, 180). For the slightly later use of the phonograph in ethnography, see Brady (1999).
  37. Stated in the extreme, or too extremely, “All concepts of trace, up to and including Derrida’s grammatological ur-writing, are based on Edison’s simple idea. The trace preceding all writing, the trace of pure difference still open between reading and writing, is simply a gramophone needle” (Kittler 1999, 33).
  38. Quoted and further described in A. Fabian (2000, 132, 134; emphasis added). I am relying on recent scholarship that sees the federal support of Civil War widows, orphans, and veterans as the origin of the U.S. welfare state; see Skocpol (1992).
  39. *Weekly* (?), April (?), 1878; see TAEM 25:187. Pat Crain pointed out the “pye” pun to me.
  40. On Tyler and his style, see Vanderbilt (1986, 81, 84); also see Spengemann (1994, 4–11).
  41. *Baker v. Selden* was heard by the U.S. Supreme Court in 1879. In its decision, the Court established the idea/expression dichotomy that has stood in copyright law since. The case involved bookkeeping manuals and asked whether an author’s rights to the printed bookkeeping forms extended to cover the bookkeeping method they made possible. The answer was yes at first hearing (in 1874) and no on appeal (101 U.S. 99).

42. An even better example of a similar mistrust of print was the ballad collectors’ determination to value unpublished sources above published ones. Francis James Child devoted himself to locating manuscript sources and the sources that “still live on the lips of the people” (Kittredge, 1965, xxvii–xxviii). Child’s work appeared in parts, from 1883 to 1898. American “Folk-Lorists” felt the same way. “Negro” folklorist Alice Mabel Bacon urged, “Nothing must come in that we have ever seen in print” (1897); quoted in Cruz (1999, 170). A generation later, the “new bibliography” movement in literary studies set out to establish editions of canonical “works,” salvaged from the (potentially corrupt) printed “texts” of the past.
43. This is Marx (1997, 967) from his work on another keyword.
44. More broadly put, “Production is indeed historiography’s quasi-universal principal of explanation, since historical research grasps every document as the symptom of whatever produced it” (de Certeau 1988, 11).
45. The *Oxford English Dictionary* seconds Farmer, noting in 1856 and 1879 the first uses of *record* to mean a person’s record, and in 1883 and 1884 the first uses of *record* to mean best recorded achievement.
46. I have been a prime offender here, since I write, infelicitously, that the nickel-in-the-slot phonographs “proved to be a wedge that opened the modern entertainment market” (Gitelman 1999b, 69). This assigns their meaning teleologically, according to what came later, and I here want to ask what they meant in their own time. Kenney’s (1999, 23–30) account of the nickel-in-the-slot machines is less teleological. See also Sterne (2003, especially 201–206).
47. My account runs parallel to Kenney’s (1999). See also De Graaf (1997–1998); Berliner (1888).
48. This last was reported at the local companies’ convention of 1891; see Brooks (1978).
49. “Songs for a Nickel,” *Journal* (New York), November 9, 1890.
50. See “The Musical Industry of the Phonograph among Some of Our Companies,” *Phonogram* 2 (August–September 1892): 180–188; Andem (1892, 59–61). Sterne’s (2003, 137–177) account of “audile technique” is particularly illuminating here (chapter 3). Referring to stethoscopes, phonographs, and telephones, and looking toward radios, Sterne writes, “The technicized, individuated auditory field could be experienced collectively” (161).
51. See also Kasson (1978, 41–50).
52. Quoted in Brooks (1978, 10; emphasis added).
53. “The Musical Industry of the Phonograph,” 187; one machine reportedly averaged a take of fifteen dollars a day for three months. That’s three hundred nickels for a playing time around two minutes. Six hundred minutes equals ten hours of play per day! Doubtless, the figures were greatly inflated by the *Phonogram*, a trade publication. On the move from parlors to living rooms, see Sterne (2003, 200–209), as well as the chapter that follows below.

54. *Journal* (New York), November 9, 1890; *Times* (Buffalo), May 7, 1892.
55. *Chronicle* (St. Louis), February 14, 1891.
56. *Proceedings of the Second Annual Convention of Local Phonograph Companies* (1891), 64.
57. On fidelity questions and their grounds, see Lastra (2000, chapter 4). See also Thompson (1995); Sterne (2003, chapter 5); Morton (2000, chapter 1). Rick Altman was particularly helpful in the formulation of this paragraph.
58. *Proceedings of the Second Annual Convention of Local Phonograph Companies* (1891), 64.
59. For a description of a rudimentary 1889 catalog, see Brooks (1978, 6). Quoted here is the Columbia catalog dated October 1, 1890, Division of Recorded Sound, Library of Congress, with later catalogs of this and other companies; North American's "Catalogue of Musical Phonograms" is in the archive of the Edison National Historic Site and appears in TAEM 147:361–362. On Columbia and the U.S. Marine Band, see Brooks (1978, 10–18).
60. Edison Phonograph Works's catalog appears as TAEM 147:314–318. For the Louisiana record as well as more on crossover between minstrelsy and recording, see Cogswell (1984, 145).
61. Brooks (1978, 11, 18); Brooks is drawing on research by Ray Wile. For an example of the de facto rationale, see Millard (1995, 80–81); Gaisberg (1942, 83)—hardly an impartial witness given his career in recording—concur. It's an interesting claim that recurs in the literature, but one that needs more attention.
62. The President's Own, an exhibition by the White House Historical Association, the White House Office of the Curator, and the U.S. Marine Band in cooperation with the National Park Service (permanent).
63. See also Altman (2004, 43–51).
64. Hazen and Hazen (1987, 8).
65. Umble (1996, 63–64, 66) tells the story of two local bands playing through a new telephone line to each other in order to commemorate the event.
66. These generalizations are from Kreitner (1990, 47, 87–88); Kreitner's argument for the typicality of the Pennsylvania county he studies is suggestive without being airtight. On band records, see also Kenney (1999, 28–30).
67. See Ryan (1989).
68. I'm drawing here on Corbin (1998). On civic ceremony in this period, see Ryan (1997, chapter 6).
69. Warner (1990, 61–63); the quote continues, "Printed artifacts were not the only metonym for an abstract public" (62).

70. See Henkin (1998).
71. James Andem, quoted in *Proceedings of the Second Annual Convention of Local Phonograph Companies* (1891), 62–63.
72. Quoted in Brooks (1978, 9, 16).
73. Martland (1997, 16); see also Israel (1997–1998, 41). Sterne (2003, 298) includes only a one-paragraph description of the tinfoil demonstrations, because *The Audible Past* explores neither inscription nor experience as central concerns.
74. Lundy in New Jersey complained bitterly that his territory was always being invaded by others or usurped by Edison's own open-door policy at Menlo Park, while the company for its part suspected that Lundy was underreporting his gross. Redpath's complaint is noted in De Graaf (1997–1998, 48). Lundy's complaint appears in TAEM 19:109, and the company's suspicions were noted by Redpath in TAEM 19:89.
75. Edison Speaking Phonograph, Accounts, TAEM 19:177 and following; for this total, see Israel (1997–1998, 36). For the number of automatic phonographs, see *Proceedings of the Second Annual Convention of Local Phonograph Companies* (1891), 118.

## Chapter 2

1. This chapter began long ago as a paper for the Media in Transition conference at MIT (October 1999). That version appears in Thorburn and Jenkins (2003).
2. For telling changes to the meaning of this term (which I am of course applying anachronistically), see Nissenbaum (2004).
3. This is part of the "structural transformation" by which the Habermasian "liberal subject" became personified as (today's denomination) "the consumer." In pointing to this users/publics distinction, I am responding to the present ubiquity of the terms *user* and *user friendly*, and thinking about Siegert's (1998, 79) pronouncement that "the days in which media history is discussed in terms of the 'public sphere' are numbered."
4. See especially chapter 2 of Warner (2002). I am also drawing on Oudshoorn and Pinch's (2003) introduction.
5. This is Purcell's (1995) cogent critique. See also Cockburn (1992); Rosalind Williams (1994).
6. See Fischer (1991). Here, as in his book *America Calling*, Fischer shows how women's uses of the telephone helped to redefine it as an instrument of sociability. Kenney's chapter 5, "The Gendered Phonograph: Women and Recorded Sound, 1890–1930," treats the home phonograph as "a medium for the expression of evolving female gender roles in America" by which women expressed "a range of perspectives, sensibilities, and ambitions that males had not foreseen"