

Rhythms of Relation: Black Popular Music and Mobile Technologies

Alexander G. Weheliye

In this essay I focus on the singular performances of the interface between (black) subjectivity and informational technologies in popular music, asking how these performances impact current definitions of the technological. After a brief examination of those aspects of mobile technologies that gesture beyond disembodied communication, I turn to the multifarious manifestations of techno-informational gadgets (especially cellular/mobile telephones) in contemporary R&B, a genre that is acutely concerned, both in content and form, with the conjuring of interiority, emotion, and affect. The genre's emphasis on these aspects provides an occasion to analyze how technology thoroughly permeates spheres that are thought to represent the hallmarks of humanist hallucinations of humanity. I outline the extensive and intensive interdependence of contemporary (black) popular music and mobile technologies in order to ascertain how these sonic formations refract communication and embodiment and ask how this impacts ruling definitions of the technological. The first group of musical examples surveyed consists of recordings released between 1999 and 2001; the second set are recordings from years 2009–2010. Since ten years is almost an eternity in the constantly changing universes of popular music and mobile technologies, analyzing the sonic archives from two different historical moments allows me to stress the general co-dependence of mobiles and music without silencing the breaks that separate these “epochs.” Finally, I gloss a visual example that stages overlooked dimensions of mobile technologies so as to amplify the rhythmic flow between the scopic and the sonic. The artifacts in question boost the singular corporeal sensations of informational technologies without resorting to a naturalization of these machines. In other words, black musical formations relish the synthetic artificiality of cell phones and other mobile gadgets as much as making these a vital component of the performed body. They achieve this by transforming the sounds of mobile telephones into rhythmic patterns vital to their musical texts, which make audible how humans and mobile machines form a relational continuum.

I frequently return to Samuel R. Delany's constructive differentiation between “the white boxes of computer technology” and “the black boxes of modern street technology,” because it highlights the racialized core of the very definition of technology (cited in Dery 1994, 192). Although things

have changed somewhat—Delany made this statement in 1994—due to the proliferation of mobile devices (laptops, netbooks, smart phones, portable music players with web capabilities, tablet computers, etc.), and the move away from “white boxes” as the de facto model for personal computing, Delany’s pithy distinction still holds, both in its general implications and in the racialized provenances of this split. As recent studies have shown, most youth of color in the United States log on the internet from mobile devices or public personal computer terminals, and thus still only have access to the “the black boxes of modern street technology” (Schiffer 1991; Black Digerati 2009; Contreras 2009; Lang 2009; Watkins 2009; Wortham 2009; Brustein 2010). Moreover, black and Latino youth have been early adopters of “street technologies,” especially portable music players such as the boom box and Walkman. The culture of using boom boxes and other portable music devices to occupy public space continues today in “sod-casting”: “the public playing of trebly MP3s off mobile phones on British public transport—mostly buses, mostly in London, mostly by teenagers, often non-white teenagers . . .” (Hancox 2009; Marshall 2009). Generally, the pioneering use of mobile “black boxes” such as pagers and boom boxes in non-mainstream cultures does not figure into the histories cellular telephones, MP3 players, or current internet-enabled mobile devices, showing how the inclusion in or exclusion of particular machines determines how technology is defined (Araujo n.d.; Schiffer 1991; Heckman 2006).

Much of the critical literature about cellular telephones tends to focus on how radically this technology has altered communicative patterns at the node of public and private through its mobility and how people use cell phones to distinguish themselves from others or project images of themselves as hip teenagers or successful businessmen in a Veblenesque or Bourdieuesque fashion. Communications studies scholars James Katz and Mark Aakhus, for instance, propose a theory of “Apparatgeist” that encapsulates the particular historical instantiation of cell phones as well as other social technologies; they write: “We coin the neologism Apparatgeist to suggest the spirit of the machine that influences both the designs of the technology as well as the initial and subsequent significance accorded to them by users, non-users and anti-users” (2002, 307). This approach is useful for locating the significance of technologies in the interstices between the apparatus and a variety of attendant practices, rather than accenting one at the cost of the other. Writing more specifically about the cell phone, Katz and Aakhus argue that the machine’s Apparatgeist follows the logic of “perpetual contact” that combines mobile communication, private talk, and public performance. Still, the notion of “perpetual contact” leaves intact the largely communicative and content centered bias in many theories of

information technologies. While those aspects clearly remain important in any considerations of technology, too often the tactile or haptic dimensions of these machines remain muted. How can we think about cell phones as communicative devices without losing sight and sound of their ringtones, vibrate modes, visual displays, touch screens, keypads, and so forth, as well as the feel and color of the material the machines are made of?

Many critics have noted how mobile communication reduces the non-linguistic aspects of the communicative performance between the two or more speakers given that they appear to each other only as disembodied voices and/or snippets of text (email, SMS, mobile chat, for example), including Leopoldina Fortunati, who asserts: “mediated communication lowers the quality of communicative performance, as far as to deprive it of the support by non-verbal language, proxemics, kinesics, etc.” (2002, 517). Nevertheless, these forms of interaction also buttress the non-face-to-face tête-à-tête, for instance through the different environments (temporal, geographic, social, etc.) the speakers inhabit and the various textures (sonic, haptic, visual, olfactory, etc.) of the mobile devices. Accordingly, body-to-body communication does not vanish in mobile communication but (re)materializes in both the participants’ respective location and in the apparatus itself (Fortunati 2005). Put simply, mobile devices are bodies too, even if they exist chiefly in relation to and in symbiosis with humans. Given the ubiquity of mobile devices in the western world and across the globe, it would behoove us to conceptualize them not merely as disembodied tools that facilitate pure communication but also devise languages that allow for the analysis of the “fuzzy” and textural dimensions of mobile communication and the different apparatuses in which it is bodied forth.

For my purposes, contemporary black popular music not only presents sonic redactions of techno-ecologies, but more importantly their transposition into the realms of sensation via rhythm. These musical formations stage the “rush” of itinerant information technologies, what Anna Everett has referred to as “digital plentitude” (2003, 14). Instead of merely focusing on the communicational dimensions of these machines, contemporary R&B unearths the aspects of technology above, beyond, and between the transmission of zeros and ones, highlighting, for instance, a body registering a pager set to vibrate mode. Brian Massumi elucidates the different modalities through which humans experience the world, differentiating “perception,” “[which refers] to object oriented experience” from “sensation,” “[which refers to] ‘the perception of perception,’ or self-referential experience. Sensation pertains to the stoppage- and stasis-tending dimension of reality. . . . Sensation pertains to the dimension of passage, or the continuity of immediate experience. . . . Perception is segmenting and ca-

pable of precision; sensation is unfolding and constitutively vague” (2002, 258–59, n11). Conveying sensation is crucial for it locates the import of technologies not merely in the contents they transmit or their socio-political significance, but also in the textural provenances of these machines, which are a considerable part of their allure and utility while oftentimes eluding the grip of critical discourse. In this regard, the sonic represents an ideal venue for hearing and being affected by “the constitutive vagueness” of information technologies due to its non-linguistic qualities such as timbre and rhythm that resonate throughout the body. Whereas scholarly discussions tend to focus on the perception of mobile technologies, (black) popular music intensifies their sensation: the textural relay and relation between human bodies and machines.

I will now make a few points about the generic parameters of R&B, particularly its overdetermined relationship to hip-hop. Although recent post- or hyper-soul manifestations of R&B have imported certain masculinist tendencies from hip-hop, it still remains a “feminine” genre (Bat 2001). While hip-hop routinely transacts black “masculine” exterior braggadocio in its obsessions with guns, hypersexuality, and conspicuous consumption, R&B might be said to stage a more “feminine” version of the (black) subject that traffics in love and sex stories without hip-hop’s hardened outer shield. I am not, however, suggesting any strict correlation between biology and the performative body, although R&B is the only musical category in which black female performers dominate; I merely wish to register some broad discursive markers. Modern R&B is also the popular musical field most concerned with interpersonal relationships, and while it is considered a particularly ‘black’ genre due to the racial identity of most of its performers, obvious socio-political overtones remain a rarity. For every “I’m Black and Proud,” there are numerous invocations of “Will You Satisfy?,” “Turn Off the Lights,” or “Where Is the Love?” Even in some of the more politically inspired soul of the 1960s and 1970s explicit political messages appear in a rather oblique fashion, hence song titles like “A Change Is Going to Come,” “Respect,” and “People Get Ready.” This tendency to circumvent the strictly political and the genre’s “femininity” might explain the absence of any sustained critical discourse about R&B (particularly when contrasted with the sizeable archive of hip-hop criticism), or discussions that do not reduce the genre to the musical manifestation of the Civil Rights Movement. In this way, R&B figures in scholarly debates primarily through its manifest (political) content, echoing the functionalist Cartesianism found in so many considerations of technology.

When not fettered to benchmark of political content R&B emerges as the deterritorialization of hip-hop, especially in the genre’s differently

tuned configuration of the black (female) voice. In the wake of hip-hop, singing appears as “softer” and less assertive than rapping, which has now become the standard against which black musical expressivity is measured. Hence, the statements by many rappers, who claim that they feature R&B singers to sing hooks on their records to “appeal to the ladies.” While contemporary hip-hop is engulfed by and has in some sense been superseded by R&B in popularity, its femininity is often kept at bay by masculinist retrenchment. Because R&B centers on a variety of interpersonal intimacies, it creates a complex rhythmic arrangement for the sensation of human-machine enmeshments.

Communications and other technologies have been a steady presence on R&B recordings as lyrical topics and as structural components for some time. At the moment, lyrically, nary a hit song exists without the mention of cellular phones, beepers, two-way pagers, iPhones, Blackberry’s, answering machines, various surveillance gadgets, email messages, the internet, Twitter, etc., stressing the interdependence of contemporary interpersonal communication and informational technologies. This penchant for machines in R&B can also be found in the genre’s use of cellular telephones both as a voice alteration apparatus and as part of the sonic tapestry. In fact, the uses of the “cell phone effect” have recalibrated conceptions of the voice and soul within the contemporary popular musical landscape. Lately, a plethora of mainstream R&B productions feature parts of the lead or background vocal performance sounding as if they were called in over a cell phone as opposed to produced in a state of the art recording studio. The increased prominence of these technological artifacts in R&B indicates the enculturation of informational technologies in practices that are customarily relegated to the dominion of the non- and/or pre-technological, as well as amplifying some neglected attributes of current techno-informational flows.

Instead of trying to downplay the technological mediation of the recording, the “cell phone effect” does away with any notion of the self-same presence of the voice. Jeremy Gilbert and Ewan Pearson explain that in majority popular musical practices newer technologies are considered artificial and inartistic, creating a hierarchy of counts as technological:

Some items are considered *more* technological in status than others. In this scheme, a drum machine is more technological than a drum. . . . Such considerations are founded on an order of the real within which aesthetic preferences are transformed into ontological distinctions. . . . Such distinctions almost always proceed by rendering the technological components utilized in their favored forms invisible as technologies—they are more ‘real’ or ‘natural,’ absorbed wholly into those that play them as expressive extensions of the performing body. (1999, 112)

The “cell phone effect” resists such principles of the “real,” choosing instead to stage voice processing devices as both technological *and* expressive “extensions of the performing body.” More importantly, the “cell phone effect” makes audible the sensation of hearing the human voice distributed across the digits of binary code. In addition, cell phones appear not as cumbersome synthetic obstructions of “authentic” and “natural” human speech at either end, but as integral to post-millennial interpersonal communication, while also rhythmifying their acoustic properties. The mobile “black boxes” of street technology break through the sound barrier between humans and machines; their mobility allows for a relational engagement with the technological.

R&B features numerous lyric incantations of cell phone use qua social interaction, often positioning this ubiquitous feature of current life worlds as the embodiment of interpersonal relations. On her 2000 track “Hey Kandi,” Kandi, one of the only prominent female R&B song writers and producers, responsible for such hits as Destiny’s Child’s “Bills, Bills, Bill” and TLC’s “No Scrubs,” deploys a variety of voice processing maneuvers to almost baroque extremes. “Hey Kandi” is structured around a cell phone heart-to-heart between the artist and a friend concerning Kandi’s new beau. All the background vocals are sung and/or spoken through the phone, we often hear a dial tone, and the track makes ample usage of the popular auto-tune voice alteration software. Here, the cell phone functions as the conduit for interpersonal communication as well as aiding the creation of intimacy. This particular track also renders audible quite a few sounds associated with cell phones (voice at the other end of the “line,” busy/free signal, and ringing), producing a technological intimacy that arises from both the content and mode of transmission.

Aaron Soul’s “Ring, Ring, Ring” (2001), which echoes the previous recordings that bear similar names by ABBA and De La Soul, begins with a shout out to “one to one Erickson,” and then tells a sad story about the hurtful words he uttered to his girlfriend “when [they] were last face-to-face,” leading the couples’ subsequent estrangement. By the time we get to the chorus, Aaron’s cell phone has transmogrified into a prime indicator of his amorous woes: “ring, ring, ring, my cell phone’s not ringing,” and apparently his girlfriend’s “cell phone keeps ringing,” because the caller ID feature on her phone allows her to ignore his persistent calls. What strikes the ear here is that Aaron Soul’s voice almost shapeshifts into a cell phone through the incessant chanting of “ring, ring, ring,” in what initially sounds like a musical figuration of onomatopoeia.

Nevertheless, the repetition of *ring* fails to dissolve into a mimetic ocean since it sounds nothing like the “real world” ringing of a cell phone.

Instead, the track imagines a sonico-linguistic modality of hearing mobile technologies that traverse the fields of desire and are embodied in the recorded human voice. Later in the song, Soul tells us that he wishes his mobile would sing, thus affecting a reversal in which the singer transforms into a cell phone, and the machine takes on the singer's attributes. Rather than accurately reproducing cell phone sounds, Aaron Soul channels and seems possessed by its ring-tones. The song brings to mind Sadie Plant's comments regarding the cell phone's significant realignment of contemporary acoustic bionetworks:

The warbles, beeps and tunes of the mobile have become so common that their calls have begun to constitute a new kind of electronic bird song, changing the soundtrack of cities and altering the background noise in regions as varied as the forests of Finland and the deserts of Dubai. [In fact,] many urban song birds have become adept at impersonating mobile tones and melodies." (2002, 29)

Perhaps we can think of Aaron Soul's sonic redaction of his cell phone as the emergence of a different sort of urban songbird, one that codes humans and machines not as separate entities but both as components of a constitutive relation, which performs the technicity of the human via rhythm and the humanity of machines through vocalization.

On "Call Me" (2000) Soul's compatriot Jamelia tells a different story. Accompanied by the ringing of a cell phone and the sounds of an ultra-modern clavichord, Jamelia instructs her own man and, by extension, all other men, "don't forget to call your boo tonight, baby is waiting for your call." This track differs most manifestly from "Ring, Ring, Ring" by weaving cell phone ring tones into its rhythmic fabric, albeit only during its final minutes. Rather than hearing these tones as similitude, I want to ask how we might understand the effects of their rhythmic recurrence within the confines of black musical formations? These musical examples equate verbal communication with mobile technologies by merging the supposedly deeply personal with technological gadgets. In this way, the technological appears not so much in the Nokia's and Erickson's as it does in the spaces between the apparatus and social practices, what Edouard Glissant (1997) calls "a poetics of relation." In these songs mobile phones are so much more than mere facilitators for the intricacies of intimate affairs, they serve as sonic indices of desire and as machines of longing.

Ginuwine's "2Way" (2001) revolves around the two-way pager, which, as opposed to regular pagers (only numeric and one-way) allows its users to exchange text messages. When this song was released over ten years ago two-way pagers and similar devices were widespread in the United States,

while cell phone text messaging was already hugely popular in Europe and the rest of the world. The track begins with the ring tones of a pager, which give way to a cascade of strings and Ginuwine's introductory speech and is followed by the chorus: "It's a two-way street, it a two-way door/It's a two-way life (Pick it up and two way me)/It's a two-way sky it's a two-way tel/It's a two-way life, pick it up girl and hit me." This passage is striking because it only references the pager implicitly, choosing instead to signify on the interpersonal connotations of the two-way moniker. Ginuwine equates the give and take of an intimate relationship with the machine's reciprocal attributes so as to sound the constitutive technicity of "human communication." As the song continues Ginuwine offers a cornucopia of sensations through the aural lens of the two-way pager: the auditory "Now I got mine on loud/ if you get at me I'll hear you;" the visual: "If it's dark light it up, put 'em up. Put 'em up/If it's closed, flip it up/ in the club, beam me up;" and the haptic "I got mine on vibe, so if you get me/I'll feel you/I'll call you back real quick/no lie better yet, I'll just reply." While communication surely represents one of main functions of the two-way pager, Ginuwine's track is more interested in exploring the "constitutively vague" dimensions of this machine. In this context, sound performs the sensation of communicational technologies by virtue of its a-signifying signifying properties; those aspects of the sonic that exceed linguistic content, but nonetheless engender strong tactile and aural responses.

All the recordings I have discussed thus far were released at the dawn of the millennium when ringtones were primarily monophonic and could easily be differentiated from music. While early mobile ringtones consisted of a particular sequence of tones and did not differ significantly from the functional sounds of a ringing landline, mobile phone ringtones are now largely MP3 clips (usually around 15 seconds in duration) of existing musical recordings. Besides featuring only parts of songs, these clips attain ringtone character by virtue of their repetition, which blurs the line between their utility as sonic indicators of incoming calls and musical consumption. Moreover, just as the previous examples musicalize functional ringtones via rhythmification, using excerpts of songs as ringtones embeds them in a different rhythmic context (Gopinath 2005; Licoppe 2008, 139–52; Goggin 2011, 55–79). In fact, the incorporation of monophonic or polyphonic ringtones into popular musical recordings is now largely a historical relic given the almost complete disappearance of these types of ringtones specifically designed to alert users to incoming calls, which have largely been replaced with ringtone sounds culled from musical recordings. For, in order to achieve the same effects as Jamelia, Ginuwine, or Kandi, current artists would have to interpolate, repeat and rhythmify

other pieces of music, which would be akin to the practice of sampling and require a completely different set of musical and legal practices. In 2000 consumers used the functional ringtones that were preinstalled on their mobile, now users either acquire bits and pieces of preexisting songs or create ringtones from their own MP3 collection, if they use ringtones at all. Despite this virtually total move to using digital audio recordings as indicators of incoming voice calls and the absence of actual ringing sounds, these sonic marks still carry the name and operate as ringtones. Due to the steep decline in ringtone sales since 2009, alternative modes of the interanimation between mobile devices and popular music have flourished: the immensely popular app by musician T-Pain that allows everyone to emulate the musician's trademark auto-tuned voice, or the purchase of songs for the massively popular rhythmic iPhone game *Tap Tap Revenge*, for instance. More generally, with the advent of Apple's iPhone and similar devices, mobile phones and portable music players are no longer separate physical entities but housed in the same gadget. Recorded music and mobiles enjoy an unprecedented symbiotic relationship in term of content and at the hardware level. Furthermore, mobile devices have become the embodiment of "convergence culture," since they now also include calendars, alarm clocks, notebooks, compasses, e-readers, still and video cameras, voice recorders, flash lights, calculators, navigation devices, answering machines, and video players.

In another instance of the continual blending of popular music and mobile technologies, hip-hop star Drake proclaims that he can only write his rhymes on his BlackBerry mobile device. In a MTV documentary (Mack and Warren 2010) Drake's producer describes the artist's process thus: "All Drake's raps for eternity have been written inside of a Blackberry. . . . I've had dummy Blackberrys around that I just pull out for him to write on, like if he needs one . . . that don't actually even work!" This is how Drake portrays how he works: "I can't write my raps on paper. The Blackberry keys—my thumbs were made for touching them" (quoted in Ziegbe 2010). The documentary then cuts to a shot of Drake in the sound booth of a recording studio, reading his raps from a BlackBerry. It bears noting that of all the functions contained in such a device, Drake singles out the haptic sensation of the keyboard in the portrayal of his compositional process. Ringtones and mobile technologies have become an essential part of composing, recording, distributing, and commodifying contemporary popular music: all musical recordings can potentially be used or sold as ringtones, all ringtones can possibly become songs, but only some of them are currently used in this way.

In addition, the success of ringtones has lead to the creation of a (al-

most universally derided) sub-genre of hip-hop dubbed “ringtone rap.” The recordings by artists such as Soulja Boy, Mims, Dem Franchize Boyz that fall into the purview of ringtone rap are generally written/produced (catchy short sing-song hooks, tinny beats, non-sensical rhymes) so as to sound best when heard through cell phone speakers, and, therefore sell as many ringtones as possible (Moody 2007). Hence, ringtone rap reverses the absorption of monophonic ringtones into popular music that occurred at the turn of the millennium by transmogrifying songs into extended ringtones. Although Trey Songz’s “Lol:-)” (2009) is sung rather than rapped, it features a prominent ringtone rapper Soulja Boy, and bears the sonic hallmarks of the subgenre, sounding like a crunk version of the children’s song “Frère Jacques.” The lyrics further compound the interweaving of popular music and mobile technologies: “Cruisin’ in that Benz around the city (round tha city Yup!)/ Then I felt my phone buzz, I know that she like thugz/... Then she sent a text that had read, ‘baby, I’m at home’/Then she sent another one that said she’s all alone/So I texted her a smiley face and said, ‘let’s do the grown’ She said, ‘lol boy you crazy, come on’/Sent that lil’ face with the tongue ‘cause I’m nasty/I’m on my way (way), girl I can’t wait (wait) Twitter me a picture, lemme see that okay.” Songz song narrates his mobile interaction with a female love/lust object via text messaging, which is why his phone does not ring but buzzes. In response to her initial written missive, Songz sends an SMS that contains a “smiley face” emoticon, and later he includes another emoticon a face with its tongue sticking out—“:-P”—, which is usually used to indicate playful defiance. Here, it presumably works as an indicator of Songz’s willingness to engage in cunnilingus (“cause I’m nasty”). The “smiley face,” like other emoticons, is a pictogram, which can be formed either by combining punctuation marks [:-)] so that they visually approximate the shape of a smiling face or by using a graphic image (☺). The emoticon’s power of signification does not rely on the sound of the graphic marks, it is solely based on the iconic shape of its signifiers. In this way, pictograms operate in diametrical opposition to logograms (u = you, 2nite = tonight, etc.), which depend entirely upon the sound of the letters and numbers (Crystal 2008, 37–62). Instead of substituting a short series of punctuation marks or an image for two words for the sake of brevity, the “smiley face” symbolizes a particular sentiment (happiness). Conversely, this pictogram enters the phonetic record as a linguistic approximation of an image (“smiley face”) and not a description of a sentiment, otherwise Songz’s would sing the words “happy” or “happiness” instead of “smiley face.” Songz’s rendition of the “smiley face”—translating the emoticon to words and ensconcing this alphabetic amalgam in his rhythmically stylized vocalization—extends the sign’s reach into the realm of the sonic, albeit only insofar as it refers back to the graphic image of a “smiley face.”

The chorus of “Lol:-)” introduces another composite that hails from the land of electronically mediated communication: “Shawty just text me, say she wanna sex me (LOL smiley face, lol smiley face)/Shawty sent a Twit pic saying come and get this (LOL smiley face, lol smiley face).” LOL is one of the most common abbreviations used in internet and mobile written communication, and it also represents one of the few instances in which initialisms from this jurisdiction have successfully crossed over to spoken English. As with “smiley face,” the LOL (initially a contraction of three words: laughing out loud) makes the jump from written to spoken language not by simply restoring the acronym to its original three word glory but by giving voice to the letters: L O L. Thus, the invocation of LOL and smiley face, both of which were initially used to append affect to written communication, achieve their effects in the context of the song, because they have already transitioned from electronic script/image to oral communication. They have become a part conversational spoken English as noticeable symbols of and for (mobile) electronic communication. In addition, the backing track—expressly designed to sound like a simulacrum of a now historical monophonic ringtone— as well as the singing and repetition further accent the sonorous dimensions of these traditionally silent signs/phrases. Rhythm, which is defined by recurring patterns of sound, sets in motion a conversion of the expressive signification that has accrued to “LOL” and “smiley face.” Accordingly, “LOL” and “smiley face” cease connoting humor and happiness, they are now phonic signifiers for the rhythmic relationality of mobile technologies.

In a slightly different vein, Monica’s “Blackberry” (2010) track begins with a non-musical sonic indicator for an incoming text message and goes on to narrate the singer’s powers of electronic detection (her willingness to check his phone and her ability to crack the device’s lock code). These powers impart warnings to Monica’s boyfriend, whom she accuses of infidelity (Who you sneakin’ wit ‘cause I already got the code to ya phone), and the “other woman” (Get yo hands off my man/Girl you already know). Monica’s beau conducts his affairs on a BlackBerry smartphone, which was launched in 1999 as a two-way pager, took on its current smartphone capabilities in 2002 (email, web browsing, SMS, etc.) and owes its success primarily its outstanding emailing capabilities. At the outset BlackBerrys were pitted against similar devices produced by Motorola: BlackBerrys were used by the elite personalities such as Bill Gates or Al Gore while Motorola pagers were allied with rappers and sports figures, Jay-Z and Shaquille O’Neal, for instance (Century 2001). Rapper Jay-Z’s immensely popular “I Just Wanna Love U (Give It 2 Me)” (2000) includes the following lines: “Only way to roll, Jigga and two ladies/ I’m too cold, Motorola,

two way page me, c'mon," which cemented the gadget's place in the popular imagination. According to Howard Rheingold, "Hip-hop culture, street-wise and fashion-conscious fans of rap music, favor Motorola's two-way pagers, while young stockbrokers, suits, and geeks in the information technology industry favor the BlackBerry wireless pagers from Research in Motion" (2003, 23). BlackBerrys have until recently been associated almost exclusively with white-collar work, the corporate world, masculinity, and whiteness, Motorola two-way pagers (and subsequent devices such as the Sidekick), on the other hand, have signaled leisure, sexuality, youth, femininity, blackness, etc., thus rescripting the black/white boxes of technology partition for the era of ubiquitous mobile communication and computing (Sage 2009).

As a consequence of the widespread dissemination of smartphones, the BlackBerry has since traveled beyond its early professional stomping ground, yet it still registers in the cultural imagination primarily as a professional and masculine tool. All these factors contribute to how Monica mobilizes the BlackBerry, since the device stands in for her male love object as well as his infidelity. On the one hand, this provides a reference to the pivotal role of the BlackBerry in the public spectacle of Tiger Woods' extramarital affairs: Monica, like Woods' wife, will uncover his dalliances by monitoring his mobile phone. On the other hand, the BlackBerry, as a signifier for the business world and masculinity, magnifies the lover's transgression, since he is using the device to conduct personal and illicit communication. Monica's "untrustworthy boo" does not appear in the song, he is personified by the repurposed BlackBerry and the singer's affective relationship with the machine.

Akin to Aaron Soul's "ring, ring, ring" chant, the word "blackberry" materializes in this song in such an interrupted, rhythmic, and digitally altered way that it barely registers any relation to the linguistic unit that it is based on: "I'm the one that checks (checks), check the (chicks) Black (black) ber (ber) ry (ry)/Yep that's me/I'm the one that checks his phone when he falls asleep early in the morn/You better have a call, go to your phone, ring leave it on with the black (black) ber (ber) ry (ry)." In fact, if the song were not named "Blackberry" the listeners would probably not be able to decipher the signification of the word through the auto-tune haze, and, accordingly, it signifies chiefly in the domain of sensation. While the verses concentrate on the intricacies of intimate relationships as refracted through mobile technologies, the scat-like singing and auto-tuning of "blackberry" in the chorus locate it beyond the grasp of wordness and meaning. The chorus is the only part of "Blackberry" in which Monica intonates in this scat-like fashion (emphasizing rhythm and sonority rather melody or meaning) and

her voice appears audibly digitally altered, providing a stark contrast to the naturalistic and melismatic grain of the singer's voice throughout the rest of the track. Thus, Monica's particular staging of the word "blackberry" relies on its cultural meanings (mobile device and attendant practices) at the same time as it recodes this linguistic unit as a sonic emoticon. The way Monica vocalizes "blackberry" in the chorus supplements the song's narrative with non-linguistic affect. Monica's "Blackberry" takes a different path than Trey Songz's "LOL:-)" to the aural rendering of emoticons: Songz takes written electronic signs, sounding them out through song while fully retaining their sociolinguistic signification, Monica, however, transforms a word into a sonic affective sign that almost leaves behind linguistic meaning altogether. In both cases R&B allows for the rhythmic ensnaring of machines and emotions, because the genre possesses an expansive repertoire—in lyrical content, available styles of "emotive" singing, and musical gestalt—for the sonic transaction of interpersonal affairs.

I will now turn to the British TV series *Metrosexuality* (1999) to draw attention to the rhythmic representation of mobile technologies in a chiefly ocular medium. In *Metrosexuality* much of the social interaction between the characters takes place on mobile and sedentary telephones, and phone conversations constitute at least half of the screen time. In the very first scene after the opening credits, we are introduced to teenager Kwame, who is desperately trying to reunite his divorced fathers Max and Jordan. Before Kwame makes a visual entrance on the screen, we witness a fast paced montage of the telephone call Kwame places on his mobile. Rather than showing Kwame dialing his father's number, however, the screen is taken up by a series of accelerated motion images featuring city streets and buildings that are soundtracked by swishing sounds and accelerated recordings of mobile dial and ringing tones. Moreover, the camera angles are frequently irregular, which only adds to the perplexity engendered by these shots, especially since these shots also function as an introduction to *Metrosexuality*. The expedited noises and visual montage come to an abrupt halt with the tone of Max's mobile as he answers Kwame's call while sitting in a hair salon. Then, the editing crosscuts between Kwame's position on the streets of Noting Hill (the lettering on screen reads "In the heart of Noting Hill . . .") and Max's location at the salon as up-tempo dance music plays in the background. In this part of the sequence the camera circles restlessly around Kwame as he moves around and speaks to his father, while a stable camera frames a medium close-up of Max's face.

Once the phone conversation between the two has ended, we cut to a close-up of Kwame's hands as he dials papa Jordan's number, which is followed by another fast-motion montage that depicts the rapid travel of

information over cellular networks via the rhythmic editing of image and sound. Jordan takes Kwame's call on a grey cordless phone whilst working in a recording studio with mid-tempo bass heavy music emanating from the studio speakers. In his conversations with his fathers, Kwame tells both that the other parent has failed to pick him up from soccer practice, and, as a result, Max and Jordan arrive at Kwame's location at the same time, while Kwame and his two best friends watch the them interact at a distance. Sadly, Max and Jordan do not reconcile as Kwame had hoped in devising this elaborate ruse. In Jordan's portion of this tripartite interaction, the diegetic music, the telephone, and Jordan's clothing provide a muted contrast (monochrome, largely grey clothing, enclosed space, only the bass of the music is audible, etc.) to the brash, colorful, and buoyant sounds and colors that structure the shots featuring Kwame (canary yellow hip-hop outfit, electric blue cellular phone, lots of movement, etc.) and Max (red mobile phone, blond dreadlocks, red flowery outfit, etc.).

There are many instances like this over the course of the show's narrative that imagine how aural information traverses space via the deployment of highly accelerated and rapidly intercut images accompanied by swishing and ringing noises to accentuate the velocity of the montage. Here, velocity registers as the intensification of sensation, because the viewer is forced to bear witness to the duration of its escalation. The collages of the telephone calls in *Metrosexuality* punctuate the triangulated visual and sonic flow between the different locales/characters, channeling the rush mobile communication in ways that are specific to the medium of television; they also set in motion a rhythmic "poetics of relation" at the juncture of mobile devices and humans.

Nicola Green's treatment of rhythm accents the different temporal structures of mobile technology use, distinguishing between three modalities of mobile rhythm: "the rhythms of mobile use; the rhythms of integrating mobile use into everyday life; and the rhythms of relation between use in everyday life and institutional social change" (2002, 285). The examples discussed in this chapter add another rhythmic layer to the relational complexities of mobile time by initially removing mobile technologies from everyday life. Wrested from the vagaries of the quotidian and interfaced with pop songs or televisual narratives, these machines have radically different functions, moving, to put it in schematic terms, from practical use to aesthetic sensation. Surely, both of these aspects already commingle before their musicalization, and in this way, it is a shift not in kind but in degree and intensity that amplifies those rhythmic dimensions beside and below routine information transmission. Moreover, once they have entered into rhythmic relations with other matters and forces, the textural facets of

mobile technologies reenter the annals of every day life, becoming integral to these devices' allure and functionality. According to Gilles Deleuze, "rhythm...is more profound than vision, hearing, etc. . . . What is ultimate is thus the relation between sensation and rhythm, which places in each sensation the levels and domains through which it passes. . . . Sensation is not qualitative and qualified, but has only an intensive reality, which no longer determines within itself representative elements, but allotropic variations" (2003, 37–39). The instances of mobile rhythm analyzed above produce the polymorph variations mentioned by Deleuze in their emphasis on the diverse rhythms of the technological and the human, hinting at an embodied relational theory of mobile technologies that accents their communicative and aesthetic facets.

As a conceptual tool and a mode of apprehending the world "rhythm" mobilizes "the processes of bringing-into-relation" that are fundamental to any social formation and/or object but are habitually neglected in favor of their stagnant counterparts (Glissant 1997, 95). Still, these models of rhythm (and Glissant's notion of relation) do not simply replace the metronomic beat of the inert and unchanging with sheer flux; instead they dwell in the uneven territory at the junction of mobile use, everyday life, institutional social change, and aesthetics. Indeed, rhythm names and transacts the dialectical liaison of these at times opposing forces, making them constitutive of the objects or practices they envelop. Therefore, rhythm produces the multifaceted processes through which mobile technologies (along with a host of other technologies and rituals) come into being as consuming textural, sonic, and haptic relations, or in Henri Lefebvre's phrasing: "To grasp a rhythm it is necessary to have been *grasped* by it . . ." (2004, 27, original emphasis). Taken together, the cell phone rings, the pager sounds, Drake's BlackBerry authorship, ringtone rap, the repeated sung vociferations of ring, ring, ring, call me, 2- way, LOL, smiley face, and blackberry, as well as the optico-sonic overflow of *Metrosexuality* boost the mobile sensations of communication technologies through the conduit of rhythm. The aforementioned rhythmifications might appear auxiliary, but they tap into facets central to the existence and utility of mobile technologies that do not register on the metronomic radar of many critical dialects. If, as John Urry remarks, "humans are sensuous, corporeal, technologically extended and *mobile* beings," then cellular telephones, because they are highly mobile and facilitate interpersonal contact, operate as prime indicators of what it means to be human at this point in history (2007, 51, original emphasis). The sonic incorporation of mobile technologies into popular music extends and remixes these machines' anthropomorphic bass line, and, as a result embodies the rhythmic relation of all technologies.

Notes

1. These “facts” should not be construed as providing sociological evidence for the musical examples I will discuss later but contextualize the pivotal place of mobile technologies and sound in black culture.
2. See also Urry (2007, 177).
3. According to the 2009 ICT (information and communication technologies) Development Index there were four billion mobile subscriptions worldwide (61% penetration rate) while there existed 1.3 billion land-lines (19% penetration rate). Given that these numbers only include subscriptions and exclude various modes of mobile sharing that are prevalent in the poorer parts of the globe, the overall penetration rate is likely higher. See International Telecommunication Union (2009). On mobile sharing, see, for instance, Steenson and Donner (2009).
4. These tendencies have shifted somewhat in recent years with the growing popularity of rappers (Kanye West and Drake, for instance) that do not conform to hip-hop’s masculinist template.
5. See Ward (1998); Werner (2006). The problem here is not R&B’s inherently apolitical nature but that critics value the genre if the lyrics ‘transcend’ the interpersonal and putatively private domain by espousing recognizably political themes, which rehashes the long-standing gendered qualities of the public/private divide. For a general consideration of the public/private split and gender, see Elshtain (1993).
6. Here is a partial list of contemporary songs (1995–2010) that devote a significant part of their lyrics and sounds to mobile technologies. R. Kelly: “3-Way Call,” “Remote Control,” and “Text Me.” Soulja Boy: “Kiss Me Through the Phone.” Ludacris: “Sexting.” Christina Milian: “Call Me, Beep Me! (The Kim Possible Song).” Hi Town DJs: “Ding-A- Ling.” Jackie Boyz. “Callin’ Me.” The Firm: “Phone Tap.” Field Mob: “Stop Callin.” Vybz Kartel: “Video Recorder” and “U Nuh Have a Phone (Hello Moto U).” Three 6 Mafia: “2 Way Freak.” J-Luv: “Telefon Liebe.” Romeo: “Romeo Dunn.” Beyonce & Lady Gaga: “Video Phone.” Trina: “Phone Sexx.” The Game: “Camera Phone.” Ciara: “Pick Up the Phone.” Adina Howard: “Phone Sex.” Next: “Phone Sex.” Rayvon: “2-Way.” Teairra Mari: “Phone Booth.” Lil’ Romeo: “2 Way.” Destiny’s Child: “Bug-A-Boo.” Sammie: “Twitter Freak.” Big Boi: “Ringtone.” The following songs contain references to previous communication technologies: Skyy: “Call Me.” Blondie. “Call Me.” Missy Elliott: “Beep Me 911.” De La Soul: “Ring, Ring, Ring.” ABBA: “Ring Ring.” Jodeci: “My Phone.” A Tribe Called Quest: “Skypager.”
7. See Woods (2000); Weheliye (2002).
8. Kandi, *Hey Kandi...*, CD (Columbia Records, 2000), <http://www.discogs.com/Kandi-Hey-Kandi/release/1486224>.
9. Auto-Tune software was initially designed to correct the pitch of a singer’s voice in the recording process, it was, however, taken up primarily by popular musicians as a voice distortion mechanism that rendered the human voice robotic. This altered use of Auto-Tuning, which has now become the defining feature of the software for the majority of pop music audiences, was initially popularized by its prominence in R&B at the end of the 1990s. See Tyrangiel (2009). For a general consideration of voice altering techniques in black popular music, see Weheliye (2002).
10. Aaron Soul, *Ring, Ring, Ring*, CD (Def Soul, 2001), <http://www.discogs.com/Aaron-Soul-Ring-Ring-Ring/release/465459>.
11. Jamelia, *Call Me*, CD (Rhythm Series, 2000), <http://www.discogs.com/Jamelia-Call-Me/release/1108420>.

12. Ginuwine, “2 Way” *The Life*, CD (Sony Music, 2001), <http://www.discogs.com/Ginuwine-The-Life/master/258621>. Two-way pagers were en vogue popular communicational devices when Ginuwine’s song was released in 2001. They have since been replaced by text messaging on mobile phones. See “Pager,” in *Wikipedia, the free encyclopedia*, <http://en.wikipedia.org/wiki/Pager> (accessed July 27, 2010); and the 1999 entry “Paging” in *Focal Dictionary of Telecommunications*, Focal Press. Oxford: Elsevier Science & Technology, <http://www.credoreference.com/entry/bhfidt/paging> (accessed July 27, 2010).

13. On the history of text messaging, see Goggin (2006, 65–88). There are a variety of reasons for the initial slow adoption of text messages in the United States; however, as of 2008 US mobile subscribers send and receive more written messages than they do voice calls. See Reardon (2008).

14. Sumanth Gopinath describes different mobile ringtones thus: “the commodification of the ringtone has occurred in several stages. These stages provide the outline of a model for ringtone development, whereby functional tones become: (1) monophonic ringtones or simple melodies; (2) polyphonic tones (MIDI synthesizer music); and (3) digital sound files (True Tones or other company-specific formats, and ultimately MP3 files)” (2005). In the earlier period around 2000, ringtones were primarily monophonic and slowly being replaced by polyphonic ringtones, now digital sound files have all but eclipsed the other two forms. Nonetheless, non-musical sounds (beeps, chirps, and so on) are still prevalent in signaling incoming text messages, Twitter alerts, instant messages, emails, calendar reminders, etc.

15. Due to the increasing demand for these recordings, Billboard Magazine introduced its “Hot RingTones” chart, which tracked the sales of polyphonic ringtones, in the November 6, 2004 issue. The “Hot RingMasters” chart that tabulates the sales for all ringtone species superseded this chart in December 2006 (see *Billboard* 2006). Even though ringtones based on popular hits still represent a significant portion of digital musical sales in the United States, it has become quite easy to produce ringtones from digital music files in iTunes or smartphone apps such as Ringdroid. See May and Hearn (2005); Bull (2007).

16. The “I Am T-Pain” iPhone app sold 300,000 in its first three weeks of release and continues to average 10,000 downloads per day. The game requires players to tap a series of colored balls in accordance with the rhythm of a particular song. As of June 2010, Tap Tap Revenge had sold more than five million tracks through its in-game music store. See Johnson (2009); Dredge (2010).

17. See Goggin (2006, 143–211); Jenkins (2006).

18. Trey Songz, *LOL:-)*, CD (Atlantic Recording Corporation, 2009), <http://www.discogs.com/Trey-Songz-LOL---The-Remixes/release/2044187>.

19. Even though musical ringtones are now used for voice calls, incoming text messages, and emails, IMs are frequently signaled by a buzz, a beep, or other “non-musical” noises.

20. Wikipedia defines emoticon as “a textual expression representing the face of a writer’s mood or facial expression. Emoticons are often used to alert a responder to the tenor or temper of a statement, and can change and improve interpretation of plain text.” “Emoticon,” in *Wikipedia, the free encyclopedia*, <http://en.wikipedia.org/wiki/Emoticon> (accessed July 12, 2010). In instant messaging, email, and text messaging images such as these ☺ ☻ are used rather than punctuation marks. For instance, whenever I typed the title of Songz’s song while writing this chapter, MS Word autocorrected the punctuation marks to look like this ☺ .

21. The abbreviations ROFL (rolling on the floor laughing), TTYL, (talk to you later), and

OMG (oh my god) have also made the jump to spoken English. See Crystal (2006); Ulaby (2006); Tagliamonte and Denis (2008). LOL also plays a crucial role in the codification of a sociolect (“lolspeak” or “kitty pidgin”) particular to the internet phenomenon Lolcats, which combines images of cats with witty captions. See Dash (2007). In her discussion of “cyberpunctuation,” Jennifer Brody (2008) shows how emoticons are mobilized in contemporary cinema, which suggests another modality for the cultural logics I have been outlining here. Finally, the transposition of LOL into face-to-face communication has a precedent in the “air quotes” (using one’s fingers to make quotation marks in the air during conversation) that are now synonymous with the “ironic 1990’s” (Beers 2001). Although “air quotes” are not spoken per se, they are written characters that are at present used to punctuate verbal communication with affect (irony).

22. Monica, “Blackberry” *Still Standing*, CD (J Records, 2010), <http://www.discogs.com/Monica-Still-Standing/release/2279141>.

23. Barack Obama’s avowed dependency on his BlackBerry and the public discourse about Obama’s relationship with this device epitomize the apex of BlackBerry’s cultural omnipresence in the United States. See Clifford (2009); Hauser (2009).

24. Jay-Z, *I Just Wanna Love U (Give It 2 Me)*, CD (Roc-A-Fella Records, 2000), <http://www.discogs.com/Jay-Z-I-Just-Wanna-Love-U-Give-It-2-Me/release/781701>.

25. The now discontinued Sidekick (introduced in 2002) was the precursor to today’s smartphones, featuring an LCD screen, a full QWERTY keyboard, email, IM, and web capacity. The gadget entered the annals of popular culture in 2005 when a group of hackers appropriated the private information from Paris Hilton’s Sidekick and posted it on the Web.

26. In the aftermath of Woods’ much publicized text message conversations with his mistresses, there is now an iPhone app (TigerMail: Tigers don’t always leave tracks) that promises to erase the traces of potentially incriminating notes once they have been received. As Gerard Goggin shows, mobile technologies have acquired cultural meaning in part by being associated with the uncovering and making public of illicit celebrity romances (Prince Charles’ taped phone conversations with Camilla or the text messages found on Paris Hilton’s stolen Motorola Sidekick) (2006, 126–40).

27. Rikki Beadle Blair, dir., “Metrosexuality,” DVD, 1999, <http://www.imdb.com/title/tt0212216/>. For an extended consideration of mobile music players in the cinematic construction of urban space, see Weheliye (2005, 123–44).

28. I am not advocating the privileging of rhythm as a sign of Afro-diasporic alterity as occurs frequently but attempting to make its formal properties usable for a conceptualization of mobile technologies. For a critical genealogy of how rhythm came to be heard as an enactment of radical black difference, see Radano (2003), especially chapter five.

References

- Araujo, Luiz. n.d. “History of Pagers and Beepers.” LafaCity.Info. <http://lafacity.info/index.php/cell-phones-history/3-history-of-pagers-and-beepers>.
- Bat. 2001. “What Is Hypersoul?” riddim dot ca. Accessed July 20, 2010. <http://www.riddim.ca/?p=180>.
- Beadle Blair, Rikki, dir. 1999. “Metrosexuality.” DVD. <http://www.imdb.com/title/tt0212216>.
- Beers, David. 2001. “Irony Is Dead! Long Live Irony!” Salon.com, September 25, 2001. http://www.salon.com/life/feature/2001/09/25/irony_lives/print.html.
- Billboard*. 2006. “Ringmasters Chart Debuts.” December 9, 2006.
- Black Digerati. 2009. “I Use My T-Mobile Sidekick to Get Online More Than My Computer!”

- Black Web 2.0, September 4, 2009. <http://www.blackweb20.com/2009/09/04/i-use-my-t-mobile-sidekick-to-get-online-more-than-my-computer>.
- Brody, Jennifer DeVere. 2008. *Punctuation: Art, Politics, and Play*. Durham, NC: Duke University Press.
- Brustein, Joshua. 2010. "Mobile Web Use and the Digital Divide." Bits: NYTimes.com, July 7, 2010. <http://bits.blogs.nytimes.com/2010/07/07/increased-mobile-web-use-and-the-digital-divide>.
- Bull, Michael. 2007. *Sound Moves: Ipod Culture and Urban Experience*. New York: Routledge.
- Century, Douglas. 2001. "A World Divided Into Two-Way-Pager Camps." *New York Times*, January 14, 2001. <http://www.nytimes.com/2001/01/14/style/noticed-a-world-divided-into-two-way-pager-camps.html>.
- Clifford, Stephanie. 2009. "For BlackBerry, Obama's Devotion Is Priceless." *New York Times*, January 8, 2009. http://www.nytimes.com/2009/01/09/business/media/09blackberry.html?_r=0 (accessed August 16, 2013).
- Contreras, Felix. 2009. "Young Latinos, Blacks Answer Call Of Mobile Devices." NPR.org, December 1, 2009. <http://www.npr.org/templates/story/story.php?storyId=120852934#commentBlock>.
- Crystal, David. 2006. *Language and the Internet*. New York: Cambridge University Press.
- . 2008. *Txtng: the Gr8 Db8*. New York: Oxford University Press.
- Dash, Anil. 2007. "Cats Can Has Grammar." Anil Dash, April 23, 2008. <http://dashes.com/anil/2007/04/cats-can-has-gr.html>.
- Deleuze, Gilles. 2003. *Francis Bacon: The Logic of Sensation*. Translated by Daniel W. Smith. Minneapolis: University of Minnesota Press.
- Dery, Mark. 1994. "Black to the Future: Interviews with Samuel R. Delany, Greg Tate, and Tricia Rose." In *Flame Wars: The Discourse of Cyberculture*, edited by Mark Dery, 179–222. Durham, NC: Duke University Press.
- Dredge, Stuart. 2010. "5m Song Sales Milestone for Tap Tap Revenge Games." Mobile Entertainment News, June 4, 2010. <http://www.mobile-ent.biz/news/37390/5m-song-sales-milestone-for-Tap-Tap-Revenge-games>.
- Elshtain, Jean Bethke. 1993. *Public Man, Private Woman: Women in Social and Political Thought*. Princeton, NJ: Princeton University Press.
- Everett, Anna. 2003. "Digitextuality and Click Theory: Theses on Convergence Media in the Digital Age." In *New Media: Theories and Practices of Digitextuality*, edited by Anna Everett and John Thornton Caldwell, 3–28. New York: Routledge.
- Fortunati, Leopoldina. 2005. "Is Body-to-Body Communication Still the Prototype?" *The Information Society* 21 (1): 53–61.
- . 2002. "The Mobile Phone: Towards New Categories and Social Relations." *Information, Communication & Society* 5 (4): 513–28.
- Gilbert, Jeremy, and Ewan Pearson. 1999. *Discographies: Dance Music, Culture and the Politics of Sound*. New York: Routledge.
- Glissant, Édouard. 1997. *Poetics of Relation*. Translated by Betsy Wing. Ann Arbor: University of Michigan Press.
- Goggin, Gerard. 2006. *Cell Phone Culture: Mobile Technology in Everyday Life*. New York: Routledge.
- . 2011. *Global Mobile Media*. New York: Routledge.
- Gopinath, Sumanth. 2005. "Ringtones, or the Auditory Logic of Globalization." *First Monday* 10(12). http://firstmonday.org/issues/issue10_12/gopinath/index.html.
- Green, Nicola. 2002. "On the Move: Technology, Mobility, and the Mediation of Social Time and Space." *The Information Society* 18 (4): 281–92.
- Hancox, Dan. 2009. "On the Buses: Sodcasting and Mobile Music Culture." dan hancox: a

Current Musicology

- miasma of lunatic alibis, October 23, 2009. <http://dan-hancox.blogspot.com/2009/10/on-buses-sodcasting-and-mobile-music.html>.
- Hauser, Kasper. 2009. *Obama's BlackBerry*. New York: Little, Brown and Company.
- Heckman, Davin. 2006. "Do You Know the Importance of a Skypager?": Telecommunications, African Americans, and Popular Culture." In *The Cell Phone Reader: Essays in Social Transformation*, edited by Anandam Kavoori and Noah Arceneaux, 173–86. New York: Peter Lang.
- International Telecommunication Union. 2009. "Measuring the Information Society-ICT Development Index 2009." Accessed July 19, 2010. <http://www.itu.int/net/pressoffice/backgrounders/general/pdf/5.pdf>.
- Jenkins, Henry. 2006. *Convergence Culture: Where Old and New Media Collide*. New York: NYU Press.
- Johnson, Lynne D. 2009. "Sorry Jay-Z Auto Tune Isn't Dead, T-Pain Has an iPhone App to Spread It to the Masses." *Fast Company*, September 4, 2009. <http://www.fastcompany.com/blog/lynn-d-johnson/digital-media-diva/sorry-jay-z-auto-tune-isnt-dead-t-pain-has-iphone-app-spread>.
- Katz, James Everett, and Mark A. Aakhus. 2002. *Perpetual Contact: Mobile Communication, Private Talk, Public Performance*. Cambridge: Cambridge University Press.
- Lang, Michael. 2009. "Young Blacks and Latinos Are Labeled the 'hyerusers' of Mobile Devices." *Noire Digerati—The Future Face of Technology*, November 30, 2009. <http://www.noiredigerati.com/articles/2009/11/30/young-blacks-and-latinos-are-labeled-the-hyerusers-of-mobile.html>.
- Lefebvre, Henri. 2004. *Rhythmanalysis: Space, Time and Everyday Life*. Translated by Stuart Elden and Gerald Moore. New York: Continuum.
- Licoppe, Christian. 2008. "The Mobile Phone's Ring." In *Handbook of Mobile Communication Studies*, edited by James Katz, 139–52. Cambridge, MA: MIT Press.
- Mack, Tim, and Michael John Warren, director. 2010. "Drake: Better Than Good Enough." MTV, June 23, 2010. <http://www.imdb.com/title/tt1686457>.
- Marshall, Wayne. 2009. "Mobile Music & Treble Culture." *wayneandwax.com*, September 1, 2009. <http://wayneandwax.com/?p=2332>.
- Massumi, Brian. 2002. *Parables for the Virtual: Movement, Affect, Sensation*. Durham, NC: Duke University Press.
- May, Harvey, and Greg Hearn. 2005. "The Mobile Phone as Media." *International Journal of Cultural Studies* 8 (2): 195–211.
- Moody, Nekesa Mumbi. 2007. "Rappers Aim for Ringtones." *News & Observer*, November 2 2007. <http://www.newsobserver.com/105/story/757666.html>.
- Plant, Sadie. 2002. "On the Mobile." *The Effects of Mobile Telephones on Social and Individual Life*. Accessed 24, 2011. <http://classes.dma.ucla.edu/Winter03/104/docs/splant.pdf>.
- Radano, Ronald M. 2003. *Lying up a Nation: Race and Black Music*. Chicago: University of Chicago Press.
- Reardon, Marguerite. 2008. "Americans Text More Than They Talk." *Wireless—CNET News*, September 22, 2008. http://news.cnet.com/8301-1035_3-10048257-94.html?tag=newsLatestHeadlinesArea.0.
- Rheingold, Howard. 2003. *Smart Mobs: The Next Social Revolution*. New York: Basic Books.
- Sage, Simon. 2009. "Study: BlackBerry Adds 15 Hours to Work Week." *intomobile.com*, August 24, 2009. <http://www.intomobile.com/2009/08/24/study-blackberry-adds-15-hours-to-work-week>.
- Schiffer, Michael B. 1991. *The Portable Radio in American Life*. Tucson: University of Arizona Press.

- Stenson, Molly, and Jonathan Donner. 2009. "Beyond the Personal and Private: Modes of Mobile Phone Sharing in Urban India." In *The Reconstruction of Space and Time: Mobile Communication Practices*, edited by R. Ling and S. Campbell, 231–50. Piscataway, NJ: Transaction Publishers.
- Tagliamonte, Sali, and Derek Denis. 2008. "Linguistic Ruin? Lol! Instant Messaging and Teen Language." *American Speech* 83 (1): 3–34.
- Tyrangiel, Josh. 2009. "Auto-Tune: Why Pop Music Sounds Perfect." *Time*, February 5, 2009. <http://www.time.com/time/magazine/article/0,9171,1877372,00.html>.
- Ulaby, Neda. 2006. "OMG: IM Slang Is Invading Everyday English." NPR.org, February 18, 2006. <http://www.npr.org/templates/story/story.php?storyId=5221618>.
- Urry, John. 2007. *Mobilities*. Cambridge: Polity.
- Ward, Brian. 1998. *Just My Soul Responding: Rhythm and Blues, Black Consciousness, and Race Relations*. Berkeley, CA: University of California Press.
- Watkins, S. Craig. 2009. *The Young and the Digital: What the Migration to Social-Network Sites, Games, and Anytime, Anywhere Media Means for Our Future*. Boston: Beacon Press.
- Weheliye, Alexander G. 2002. "'Feenin': Posthuman Voices in Contemporary Black Popular Music." *Social Text* 71, Volume 20, no. 1 (Summer): 21–47.
- . 2005. *Phonographies: Grooves in Sonic Afro-Modernity*. Durham, NC: Duke University Press.
- Werner, Craig Hansen. 2006. *A Change Is Gonna Come: Music, Race & the Soul of America*. Ann Arbor: University of Michigan Press.
- Woods, Scott. 2000. "Will You Scrub Me Tomorrow." *Village Voice*, December 12, 2000. <http://www.villagevoice.com/2000-12-12/music/will-you-scrub-me-tomorrow/>.
- Wortham, Jenna. 2009. "Mobile Internet Use Shrinks Digital Divide." Bits: NYTimes.com, July 22, 2009. <http://bits.blogs.nytimes.com/2009/07/22/mobile-internet-use-shrinks-digital-divide>.
- Ziegbe, Mawuse. 2010. "Drake Reveals Songwriting Process In 'Better Than Good Enough' Documentary." MTV.COM, June 21, 2010. <http://www.mtv.com/news/articles/1642017/20100621/drake.jhtml>.

