van Veen, tobias c. 2013. "Vessels of Transfer: Allegories of Afrofuturism in Jeff Mills and Janelle Monáe." *Dancecult: Journal of Electronic Dance Music Culture* 5(2): 7–41.
Weheliye, Alexander G. 2002. "'Feenin': Posthuman Voices in Contemporary Black Popular Culture." *Social Text 71* 20(2) (Summer): 21–47.
Womack, Ytasha L. 2013. *Afrofuturism: The World of Black Sci-Fi and Fantasy Culture.* Chicago: Lawrence Hill Books.
Zuberi, Nabeel. 2007. "Is This The Future? Black Music and Technology Discourse." *Science Fiction Studies* 34(2): 283–300.

Anderson, Reynaldo and Fluker, Clinton R. eds.
The Black Speculative Arts Movement:
Black Futurity, Art, + Design. Lanham:
Lexington, 2019

13

Designing Love

Reimagining Technology and Intimacy

Ebony A. Utley

Technology has irrevocably altered intimacy. Defined as "a feeling of closeness and connectedness that develops through communication between partners," intimacy is a "fundamental human motivation" (Laurenceau, Barrett, and Rovine 2005, 314). Electronically mediated communication (EMC), including but not limited to email, text, social media, and video messages, create and sustain connections in ways unimaginable prior to the technological interventions we now take for granted. Despite technology's domestication into United States culture, extremely cautionary technological determinists remain wary and believe new technologies are "causal agents, entering societies as active forces of change that humans have little power to resist" (Baym 2010, 24). Queries about Google making us stupid and texting decreasing face-to-face communication aptitude (as well as the ability to spell properly) echo past critics of Plato and Socrates who decried the alphabet's deleterious effects on memory, Thoreau who questioned the necessity of the telegraph, and the Knights of Columbus who predicted that the telephone would ruin home life (Fiefer 2014, 28).

Interpersonal communication research that both supports and counters dystopian assessments of technology's impact on intimacy is developing rapidly. Its missing component, however, are specific investigations of how technology affects intimacy between African Americans, especially those in romantic relationships. This chapter fills the gap by initiating a conversation about African Americans, intimacy, and technology. After a brief discussion of African Americans' historical relationships to technology, I describe how technology impacts three persistent relational issues among African American couples. I explain how the romantic relationship experiences of African Americans inspired the development and design of *Love Lines*, a technological solution to improve intimacy. Finally, I conclude with my personal

reflections on being a black woman creator of intimacy technology in a society where technology is rapidly changing intimacy.

AFRICAN AMERICANS AND TECHNOLOGY

Historically, African Americans maintain a unique relationship with futurism and technology. Mark Dery describes African Americans as "descendants of alien abductees" inhabiting a "sci-fi nightmare" where technology was "too often brought to bear on black bodies (branding, forced sterilization, the Tuskegee experiment and tasers...)" (1994, 180). As slaves, African Americans functioned similarly to Google, forced to respond to the whims of white masters who demanded knowledge, productivity, and subservience without remuneration. Enslaved black bodies were essentially electronic power tools—capable of superhuman (i.e., nonwhite) feats, useful while in the best condition, and sold or discarded once peak productivity had passed. Everett compares the "current scramble for domination and domestication of the Internet" to the colonization of Africa by the West (2002, 137). Beginning in the mid-1990s conversations about blacks and technology frequently focused on the digital divide and obscured attention to "black technolust and early technology adoption and mastery" (127).

Contemporary attention to black technology continues to be rife with racist assumptions. For example, Black Twitter highlights this fraught and complicated relationship. Black Twitter "describe[s] a large network of black Twitter users and their loosely coordinated interactions, many of which accumulate into trending topics due to the network's size, interconnectedness, and unique activity" (Ramsey 2015). At the University of Southern California, three white men initiated the "Black Twitter Project," which aims to study the phenomenon. After public outcry by Black Twitter and others over the white authorship, Dayna Chatman, a black woman graduate student, was identified as the originator of the study. Chatman claimed to not know how the project description was released prematurely without attributing her and expressed frustration with the misrepresentation "because this is indicative of the very same problems—erasure of Black people and their contributions—that my project is about" (Chatman 2014). This lack of clarity presents two possibilities: Chatman's omission was an oversight by her white male advisor or her addition to the team masked the embarrassment of her white male advisor. Either option is unacceptable. "Black Twitter Project" was further critiqued as an invasive COINTELPRO-type surveillance because the study's authors failed to acquire passive or active consent from the community as they collected their tweets and metadata (Newitz 2014). Additionally, members of Black Twitter were angry that the researchers initially identified Black Twitter as a community that came together to engage the television show *Scandal* instead of a community of political activists.

Beyond the scope of the shortcomings of "Black Twitter Project," most focus on African American technology use now centers comfortably on Twitter as if other avenues are less worthy of investigation. When, in fact, according to a Pew Research

Center 2014 report, 80 percent of blacks are internet users, 62 percent of blacks have some sort of broadband connection at home, 92 percent of black adults are cell phone owners, and 56 percent own a smartphone of some kind. Additionally, the study found:

> Some 86 percent of African Americans ages 18–29 are home broadband adopters, as are 88 percent of black college graduates and 91 percent of African Americans with an annual household income of $75,000 or more per year. These figures are all well above the national average for broadband adoption, and are identical to whites of similar ages, incomes, and education levels. (Smith 2014)

In light of this data, Nielson and other corporations are brainstorming how to profit from online African American activity (Koh 2014). In the interim, progressive, nonracist, nonmarket research on the specific ways technology impacts intimacy within black romantic relationships is long overdue.

AFRICAN AMERICANS INTIMACY AND TECHNOLOGY

Conflict is inevitable, especially in love relationships. When at least two interdependent people vie for resources, maintain incompatible goals, and/or experience interference from the other person while achieving their specific goals, conflict will ensue (Hocker and Wilmot 2014, 13). Conflicts occur when partners disagree or, at least, when they think they disagree. Perception is a key component of understanding conflict as "an interaction process where partners disagree about goals, rules, roles, culture, and/or patterns of communication" (Turner and West 2013, 248). All romantic relationships experience conflict; relationship success is contingent upon how couples address their conflict.

African American romantic relationships are unique because in addition to the interpersonal conflict that occurs in all relationships, they also unduly experience social conflict. For example, racism, income inequality, and compromised conditions for longevity including but not limited to violent crime, disparities in (preventative) health care, environmental racism, food insecurity, increasingly punitive criminal justice policies, as well as police brutality and violence further complicate their interactions. African American romantic relationships must simultaneously calibrate to internal and external pressures by reconciling not only interpersonal and social but also technological conflict. Within this in mind, this section considers how technology impacts black intimacy in conjunction with three persistent relational issues among African American couples: economic insecurity, an imbalanced sex ratio, and infidelity.

Partnerships experiencing economic insecurity are precarious because of perpetual conflicts about scarce resources. Shifts in the US economy due to technological advancements impact African American relationships negatively when the conditions for employment become based on unattainable education, specialized skillsets,

or collaboration with affluent partners. Forty-eight percent of the experts surveyed in a 2014 Pew study about the future of jobs "envision a future in which robots and digital agents have displaced significant numbers of both blue-and-white-collar workers—with many expressing concern that this will lead to vast increases in income inequality, masses of people who are effectively unemployable, and breakdowns in the social order" (Smith and Anderson 2014).

Meanwhile, Silicon Valley thrives not just with unicorns (companies worth $1 billion) but decacorns (companies worth $10 billion or more), many of which may be building early iterations of the aforementioned Artificial Intelligence. Accessing this wealth remains a challenge for African Americans who must prepare to provide for their families in the future without the comparable resources of whites. Programs like Black Girls Code and Code 2040 emphasize coding as a skillset of the future but Atwood asserts that learning to code is like training to become a car mechanic (2015). Equal emphasis must be placed on the critical and computational thinking necessary to design the technologies that will need to be coded. Eglash cautions that even with education and funding, technology entrepreneurship opportunities require "collaborations through a sort of nerd network" that is predominantly white (2002, 50).

Jobs provide financial stability but they also buffer self-esteem and influence relational satisfaction. Aborampah explains, "The security derived from one's employment has a bearing on one's sexual behavior. The extent to which a relationship can be satisfactory depends, in part, on the extent to which one enters the relationship without having to worry about economic support" (1989, 324). How will romantic relationships be affected if African Americans are intellectually, financially, and socially unprepared for the worst case digital economy scenario?

Just as scarce economic resources contribute to romantic relationship conflict, so does scarce partner availability. The black community's infamous sex ratio imbalance indicates that single black women outnumber single black men within the ages of greatest marriageability. The imbalance was documented as early as 1850 ostensibly commensurate with the increasing lynchings of black men (Aborampah 1989). The actual numbers of marriageable black women available to marriageable black men have fluctuated throughout African American relational history and are contingent upon demographics. The disproportionate numbers of black men in prison, probation, or parole as a consequence of the war on drugs contribute greatly to the actual imbalance as well as create the persistent perception that black men are unavailable even when not necessarily the case (Dauria et al. 2015). Media from *Nightline* to *Being Mary Jane* perpetuate the notion that a single black woman cannot attract a man of her own.

In fiction and reality, competition is fierce among black women who desire a black husband. Their (perceived) numerical disadvantage decreases their negotiating power with men who are less likely to commit to one black woman if they believe there are a plethora of alternatives; it also increases the level of acceptable sexual promiscuity as women must do more to beguile a man (Aborampah 1989). Reality television thrives on representations of black women who act as if they feel compelled to

behave in lascivious, possessive, and potentially violent ways to garner and sustain the attention of eligible black men. With the advent of online dating (and mobile swiping), Slater observes men in general who are disinterested in relationship conflict resolution and disinterested in commitment because the gendered power differential works in their favor (2013).

On the other hand, the numbers of African Americans who are online dating is steadily increasing. One of the original online dating sites, BlackPlanet launched in 2001 and had 20 million registered users by the time of its sale in 2008 (Frommer 2008). It has since been followed by Black People Meet and Black Christian People Meet (both owned by People Media; the same company that owns Match.com). Soul Swipe, Meld, and Bae are notable mobile dating apps designed by and for African Americans to counter the macroaggressions and outright racism frequently experienced when online dating within racially nonspecific communities. Research on interracial online dating within the United States reports that races generally prefer to date within their race although black men express greater willingness to outdate than black women which may further contribute to the sex ratio imbalance (Hwang 2013). Online/mobile dating creates opportunities to seek partners both within and beyond one's ethnic and geographical boundaries. Minimizing geographical boundaries, however, demands answers to questions about partnerships across continents within the African diaspora. Will traditional laments of the sex ratio imbalance shift when US black men and women are willing to look for romantic partners globally?

Even while online dating, the black community's sex ratio imbalance creates conflict over incompatible relational goals like commitment, and it may also create conflict over monogamy. As a result of the numbers game, there is more acknowledged man sharing among black women, more unsanctioned infidelity within black couples, and higher rates of STI infections. According to the Centers for Disease Control and Prevention (CDC), "the rate of new HIV infections among black women in 2010 was 20 times that of white women and nearly 5 times that of Hispanic women" (CDC 2012). Although rates are still higher than all other ethnicities "from 2005 to 2014, the number of new HIV diagnoses among African American women fell 42 percent" (CDC 2016). Unfortunately, African American rates of gonorrhea, chlamydia, and syphilis are also notably higher than those of whites (CDC 2014). While the imbalanced sex ratio is a contributing factor, additional reasons for the STI disparity include limited access to high-quality health care and HIV prevention education, discrimination by and mistrust of the medical community, fear, and stigma (CDC 2014).

As online/mobile dating becomes a more acceptable way to meet potential partners, using various technologies becomes a more acceptable way to sustain electronically mediated relationships. With dating online there is greater possibility for sexual experimentation and sexual identity exploration without STI consequences. Social presence describes experiencing a mediated interaction as if it were synchronous. Hapitc devices create social presence by simulating (sexual) touch. For example, Fundawear "allows physical touch to be transferred wirelessly between couples and

recreated on their skin. It sends real touch from one smartphone to another and from there to mini sensors inside the Fundawear garments, so couples can tease, tickle and tantalise—even when they are apart" (Fundawear). Kiiroo and HighJoy manufacture teledildonics or haptic sex toys for mediated synchronous sex that allow partners to remotely control each other's pleasure. Fleshlight's Vstroker is a sex system where penetrating an artificial vagina is simulated on virtual pornography. Tenga creates products for virtual 3D sex via Oculus Rift (Merchant 2014). In fact, Levy predicts a future beyond online interactive sex where robot sex and marriage are normalized (Levy 2008). The Swedish science fiction television show *Real Humans* depicts robot sex as reality. The show was so popular a British-American version was created. Sullins proposes that roboticized sex could eventually be accompanied by loveotics—love between humans and robots with affective emotions (Sullins 2012, 405).

Certainly, sexual exploration through technology has the potential to reduce STI transmission, but research has yet to determine whether it will be affordable, accessible, or desirable to the African American community. Teledildonic marketing materials almost exclusively feature white bodies. Furthermore, an increase in haptic or robot sex raises questions about what counts as infidelity. Social media and online dating have already redefined couple conflict over infidelity, increased opportunities to cheat, and increased possibilities for getting caught.

Reflecting on this new terrain, I coined "digital indiscretions" to describe "infidelities aided by technology." In my study, the technologies used to commit or discover infidelity included:

> phones (texts, pictures, calls, call history, etc.), websites, email, Facebook, and other social media. The most popular sites that revealed digital indiscretion were dating websites. The most frequently mentioned email providers were Gmail, Yahoo, and Hotmail. In addition to Facebook, the mentioned social media sites were MySpace, YouTube, Twitter, and Instagram. Other technologies used to cheat or to discover cheating included Mapquest, PayPal, Skype, the iPhone, iPad, and Xbox. (Utley 2015, 156)

Digital indiscretions are attractive because they are comprised of hyperpersonal relationships which are initiated online yet the participants feel closer to each other than to their nonmediated relationships because of the absence of nonverbal cues, selective self-presentation and partner idealization (Walther 1996). Infidelity online is about more than which technologies are used. Studying it must also consider the psychology between how and why people digitally connect.

My aforementioned study's sample was majority African American. More research must consider the prevalence, justifications, and consequences of digital indiscretions. The cloak of anonymity online increases opportunities for conflicts caused by digital deception including selective self-presentation—misrepresenting oneself online, nonconsensual nonmonogamy—one person sustaining multiple relationships with unsuspecting partners, cyberstalking—premeditatedly wielding technology in a way that makes someone feel unsafe, catfishing—creating a fake identity online with the intention of interacting with another person, and revenge porn—posting nonconsensual sexually explicit pictures of a (former) partner online.

Future visions of black romantic life must account for all of these previously identified intimacy and technology possibilities and subsequent challenges. Inspired by the technological terrain of African American relationships, I pose not only questions for further study but a practical technology solution for learning to improve romantic relationship communication and mediate romantic relationship conflict.

LOVE LINES DEVELOPMENT

Love Lines is a web-based educational game (lovelinesonline.com) developed to improve intimacy by requiring players to practice analyzing communication and resolving conflict in romantic relationships. *Love Lines* is an eponymous title named for actual lines of text quoted from my interviews with Americans about relationships, particularly infidelity and early sexual experiences. After each interview, as part of my field notes, I entered the most poignant quotes into an Excel spreadsheet. Initially, I had no idea what I would do with this document, but ultimately it became the basis for the love lines which are the central focus of play. I selected approximately 70 quotes from the combined data set of over 128 hours of conversation with 135 individuals to create *Love Lines*.

The infidelity data came from 110 American women who described themselves as having been cheated on, done the cheating, or been the other woman. Participants were asked to define love and infidelity, share their experience(s) with infidelity, offer advice to other women based on their experiences, and explain their motivation for participating in the study. Interviewees told me empowering stories about how infidelity contributed to their personal growth (Utley 2016). They also told me devastating stories about infidelity's coexistence with social, economic, emotional, psychological, sexual, and physical abuse (Utley 2017). Nearly every participant shared her story in hopes of helping someone else.

The love lines are also drawn from interviews with twenty-five African American men over age eighteen who remembered sexual experiences that occurred at eighteen years old or younger. I asked them to define a sexual experience, describe their early sexual experiences, and discuss how those sexual experiences impacted them as adults. There were quaint stories about consensual lost virginity in high school. There were also harrowing memories of childhood sexual violations as young as between three and four years old and profound explanations about how those violations impacted their adulthood. From the development of sexual fetishes to porn addictions, to rampant promiscuity and pimping, the men explained how being sexually violated by adults and other children shaped their manhood. The male interviewees said they participated because they wanted to contextualize black male sexuality and help others with their stories.

Taken together, the samples' ages ranged from nineteen to sixty-seven with an average age of thirty-eight and a half. Sixty-one percent identified as black, 28 percent identified as white, 5 percent identified as Latina, 3 percent identified as biracial, and 2 percent identified as Asian. Nearly 80 percent identified as heterosexual

and approximately 92 percent had some or more college education. Since each set of participants were recruited via social media snowball samples, the high numbers of African Americans and higher education levels are reflective of my personal network and my desire for a majority black sample. These demographics reflect a diversity that is unmatched in traditional research that is too often a predominately white convenience sample of undergraduates evaluating hypothetical situations.

African American human subject research is desperately needed, but academic press editorial departments make it difficult to publish and Institutional Review Boards (IRB) make it woefully difficult to conduct. My infidelity study was initially exclusively about black women (Utley 2011), but publisher rejections to my book proposal within the realm of "while we find your project very interesting, we fear the topic is too niche for our list and won't offer abroad enough appeal" spurred me to expand the sample while consciously recruiting African American women.

Similarly, the CSULB IRB queried why I was uninterested in interviewing all men about their sexual experiences instead of just black men. Despite seven prior IRB-approved research projects, they suggested I consider partnering with a man or conduct online surveys in lieu of interviews. When I demanded that the sample population and project design remain unchanged, they required me to include the following statement in the consent form "The researcher is mandated to report illegal (sexual or other) behaviors and abuse" irrespective of their state's statute of limitations or interviewee desire. The unreasonable criminalization of participants prior to the actual interview may have accounted for a significant number of potential participants who were initially interested and failed to follow through. IRB also demanded I include a list of crisis hotline numbers and online resources for interviewees. Because of the paucity of research about black men's sexual violations, most of those resources target white women and would be perceived as ineffectual at best and offensive at worst to the population I was trying to make comfortable with me as a researcher. Qualitative research on sensitive topics like sex, trauma, and (potentially) shame is already difficult to conduct and even more so with the institutionalized racism of impractical IRB interventions.

Nonetheless, listening to women and men disclose what were often their most devastating intimate experiences in order to help strangers inspired me to maximize the potential reach for their narratives beyond traditional publication outlets and research institutions. I thought about how many other individuals secretly shared parallel experiences and could use the social support of confirmation that they were not alone as well as communication strategies for dealing with these situations. I thought of family members who could use these narratives to help them support loved ones who had experienced infidelity, abuse, or sexual victimization. Some of the narratives were so emotionally stirring that I knew I needed to reach an audience beyond the academic pay wall of scholarly journals. Furthermore, prioritizing African Americans is important because placing majority African American voices at the center of a new technology to address couple communication and conflict resolution emphasizes how social forces can shape romantic relationships for all couples. Focusing on African American relational problems focuses on *the* problems.

The *Love Lines* tag "Real Love. Real Lines. Real People" was inspired by an undergraduate during a focus group. Demographics and detailed relational context are intentionally omitted within the game to encourage imagination and aid players in envisioning themselves in relationship to the love lines, which reflect both positive and problematic communication. Even though the lines are decontextualized, the sentiments are very real, very impassioned, and very likely to have been felt by others. Once I identified the game's content, I was ready to decide on its design. At this point, it will be useful to understand how *Love Lines* is played.

LOVE LINES DESIGN

Initially conceptualized as an alternative to traditional textbooks in relational, interpersonal, and/or family communication undergraduate courses, *Love Lines* was galvanized by new digital learning environments also called cloud-based learning solutions like Cengage's MindTap, Macmillian's LaunchPad, and McGraw Hill's Connect. *Love Lines* engages students by being conveniently accessible while connecting to their lived experiences.

The five procedural levels of *Love Lines* mirror a relationship's stages. The relationship is blissful in level 1: "Honeymoon," where players imagine a relationship, associate their emotions with that relationship's communication, and identify the correct relational communication vocabulary that characterizes that relationship's positive communication. The relationship experiences conflict and challenges in level 2: "Disturbances," where play is identical to level 1 except players are asked to identify what might be problematic about the relationship's communication. The "Discovery," level 3, requires players to practice problem-solving by becoming the primary communicator in a relationship with a chatbot. In level 4: "Decision Time," players solve problems and resolve conflict in real time with other players online and ultimately make decisions about the fate of the relationship. The final level 5: "Personal Reflection," assesses player self-awareness about romantic relationship communication.

Players begin at level 1: "Honeymoon" by inputting the names of two people in a romantic relationship. Choosing the names allows players to depersonalize the game by entering imaginary names or personalize the game by inputting their name and the name of a former, current, or potential opposite sex or same sex partner. After entering names, players are shown a randomly generated positive love line and informed who says the love line to whom in order to set the perspective.

Players are initially asked to choose an emoji attached to an emotion word and emotion color that represents how they feel about the love line. This step domesticates their experience with the technology because most undergraduates have either previously used or received an emoji in their EMC. Emotion emojis, words, and colors further appeal to the target audience of undergraduates so that if they have difficulty identifying an emotion word, they can still connect with a familiar emoji and/or color. Then they are asked to choose one of three relational communication rationales, for example, social support, empathy, or reframing, to determine which

one represents what is positive about the communication. If an incorrect rationale is chosen, the screen darkens; the screen lightens when the correct rationale is chosen. Immediate response pages reiterate player choice and explain the correct answer.

Players see a heart meter that fills when they are correct and drains when they are incorrect. Players cannot move to the next level until they have achieved a predetermined number of consecutively correct answers. Positive love lines continue to be randomized and may repeat. Because multiple rationales apply to each line, players may see the same love line with a new set of rationales, only one of which is always correct. Once the goal for level 1 has been met, a results screen for the level shows which positive rationales are most easily identifiable by the player and which ones are more difficult.

Level 2: "Disturbances" marks the start of conflict in the relationship. Players are told who says a problematic love line to whom, are again asked to choose an emoji that represents how they feel about the love line, and are instructed to identify one of three relational communication rationales, for example, communicative aggression, perpetual conflicts, or relational uncertainty that describe what is problematic about the love line. Identifying emotions remains important because oftentimes individuals feel as if something is not right in their relationships but cannot articulate exactly what is wrong. Successful interactions with the game will begin to link player emotional intelligence with relational intelligence. Increasing unfamiliar relational communication vocabulary is made easier when linked to existing emotions. Salovey and Mayer define emotional intelligence as "the recognition and use of one's own and others' emotional states to solve problems and regulate behavior" (1990, 189). Emotional intelligence is an essential skill for conflict resolution which is necessary in the upcoming levels.

Levels 1 and 2 both offer the player "cheat sheets." At any point during play, selecting cheat sheet opens a pop up with a definition of the rationale and a demonstrative dialogue between fictional characters. Cheat sheets are intentionally diverse encompassing varied ethnic names, relationship types, and sexual orientations. Designed by the *Love Lines* pedagogical curator, Dr. Rachel N. Hastings, who not only has years of experience teaching interpersonal communication but also holds a PhD in performance studies, the cheat sheets epitomize edutainment while remaining committed to heterogeneity.

Level 3: "Discovery" requires players to practice problem-solving by becoming the primary communicator in a relationship with a chatbot. Players are presented with a love line and the perspective in terms of who says what to whom. Then players are instructed to use their knowledge from levels 1 and 2's relationship rationales and type responses in the text box to address the relationship conflict. The game is programmed to respond to input until the player decides the conflict has been resolved and they would like to move on, the conflict cannot be resolved and they would like to move on, or the conflict cannot be resolved and they would like to break up. Moving on presents new love lines and other issues that must be addressed until the player has successfully resolved a predetermined number of interactions. Ending the relationship progresses to level 4.

In level 4: "Decision Time," players apply their knowledge to real time communication between romantic partners. Upon entering a username and selecting chat, players are randomly paired with another player. Similar to level 3, players receive a love line with the perspective of who says what to whom. Then they attempt to resolve a relationship conflict with another player who has also completed the previous levels and is concurrently online. Level 4 includes the same move on and breakup options as level 3. Moving on and breaking up present new love lines and other issues that must be addressed until the player has successfully resolved a predetermined number of interactions. Profanity is restricted, and instructors can access student chat histories to prohibit malfeasance. The final level 5: "Personal Reflection" asks players to make personal assessments about their communication in relationships and how their communication may be improved. Based on their responses, players are directed to third-party websites with curated content for relational maintenance success.

While *Love Lines*'s content comes from qualitative research, its design participates in the Afrofuturist tradition of techno-vernacular creativity. Gaskins argues that techno-vernacular creativity includes art and technology produced from the African diaspora that "accepts technological meaning is culturally and historically grounded" and identifies its three methods as reappropriation, improvisation, and reinvention (2016, 31). Reappropriation requires reclaiming cultural artifacts, and while no aspect of *Love Lines* has to be specifically taken back, it does appropriate the traditions of literary hypertext, interactive fiction, chatbots, and games. *Love Lines* incorporates the literary hypertext tradition of a non-sequential narrative when clicking on hyperlinks to determine the game's progression akin to Juhana Leinonen's exemplary literary hypertext *Ex Nihilo* where player choice of feelings about exploring an unfamiliar environment determines the fate of that world. It also appropriates the interactive fiction (IF) model of a simulated world that provides reader-players with an immersive role-playing game experience where the goal is creative problem-solving and not necessarily winning. Similar to *Mimesis*, an inspirational interactive narrative game that raises awareness about microaggressions, the *Love Lines* goal is to achieve mastery at identifying new concepts (Harrell et al. 2014). Furthermore, *Love Lines* appropriates gaming tradition's simulation of the real world in order to accelerate learning in a safe space where players are free to fail and learn from their mistakes without dire consequences. Additionally, players are free to succeed and feel a sense of accomplishment having overcome a challenge and/or solved a particular problem. Game mechanics incorporated into *Love Lines* include levels, level completion badges, a status bar, a heart meter to support progression, conflict to create tension and demand problem-solving, replay to encourage failure, feedback for self-reflection, and cheat sheets that extend play by keeping players from getting stuck or quitting.

In the spirit of improvisation, "creating, problem-solving, or reacting in the moment to one's environment and inner feelings" (Gaskins 2016, 30), *Love Lines* marries the mastery of IF with game mechanics to create something new. Moreover, improvisation continues through the incorporation of the chatterbot, colloquially

known as a chatbot "where the computer takes a proactive role in shaping the narrative" (De Angeli 2005). Chatbots can be found in toys like Hello Barbie, voice recognition programs on smartphones like Google Assistant, Siri, Cortana, and Alexa, social media like Facebook, and myriad online customer service representatives. The chatbot experience is popular not only because of its ubiquity but also because chatbot small talk fills a basic human need to connect and is perceived as a novel, intriguing, and enjoyable pastime because one is curious about how the nonhuman chatbot will respond to human attempts to communicate.

In a relationship simulation where players are tasked to resolve conflict with a chatbot who does not always understand and is (at this point) incapable of accessing emotions, requires introspection about the best ways to negotiate conflict with a recalcitrant or furious (face-to-face or electronically mediated) partner who refuses to listen or appropriately respond. The frustration that develops while trying to resolve an issue with someone who is limited either by emotional maturity or by his or her technology is very real. It also requires players to practice knowing when to end a conflict that cannot be resolved. Improvisation plays an even more important role in the human-to-human chat level 4. Players have no idea with whom they will be matched and must immediately improvise replies. Because the system will time out after too many minutes of inactivity, being expeditious is an additional improvisational requirement.

The final techno-vernacular component is reinvention. *Love Lines* creates room for reinvention through the personal reflection level 5 where even if players chose not to use their names in game play, they are asked about their personal romantic relationship communication patterns and provided with opportunities for social support. One of the greatest benefits of the internet is its social support communities where individuals can privately access resources and community.

Love Lines is techno-vernacular creativity. *Love Lines* is a game. But primarily *Love Lines* is educational technology for interpersonal communication. Each level of play is accompanied by assessments including tutorials, discussion forums, quizzes, and surveys. Instructors who adopt *Love Lines* (in whole or part) receive access to an administrator view that displays the results of each player's session to determine how well pedagogical outcomes have been achieved and whether any inappropriate content has been used during the chat sessions. The instructional manual includes lecture outlines, activities, writing assignments, and discussion prompts to be used alongside gameplay. All assignments are designed to be self-reflective as well as measure the following *Love Lines* outcomes: (1) emotional intelligence integration, (2) improved relational communication, (3) conflict resolution competence, and (4) relationship termination aptitude.

REFLECTIONS

Discussing the future of *Love Lines* requires a reflective look back to my personal history. In 2014, I was frustrated by conventional pedagogical approaches

yet increasingly interested in technology. The more I read about innovation and careers of the future, the more I feared my students were not learning applicable skills. For the next semesters, no matter what I was assigned to teach, I taught about technology. Popular culture and communication became pop culture and communication technologies. Gender and family research became intimacy and technology. The graduate seminar on communication in popular culture became a seminar on futurism. I wanted to push my majority students of color to see themselves as innovators on par with the popular images of Silicon Valley's white male "tech guys." Final projects were to conceptualize communication technologies with specific attention to race, class, gender, sexual orientation, ethics, sustainability, and accessibility. Instead of a final exam, my colleagues from the tech community came to class to evaluate student work. The courses are challenging for students who do not perceive themselves as technologically savvy innovators, but by semester's end, student responses as well my tech colleagues' evaluations have been tremendously motivating.

I knew that I could not ask my students to commit to this activity if I were not willing to do so myself. Through my process, I fully embody the internal conflict that comes with bringing an idea to fruition in front of an unfamiliar audience. While writing, I've wondered, will readers of this chapter find my ideas crudely unsophisticated? Will I find these ideas crudely unsophisticated by the time I hold this book in my hands? Will *Love Lines* receive enough funding to be in existence a year post this publication? Am I the best person to bring *Love Lines* to fruition? If not, how do I find the right person, and more importantly, how do I afford to pay her or him? What if someone reads my idea and brings it to market faster and better?

The future of *Love Lines* and the future of innovative technological design reside with those willing to risk reputation, finances, competition, and whatever else lies in the eerily intimidating unknown of developing something new. The technology world is oft comprised of white men because of the attendant privileges of white masculinity that minimize the risks of innovation. When white masculinity is all the representation one needs to be accepted and perceived as competent, when friends and family rounds are easily in the high hundreds of thousands, when mentors are willing to pay to be on the team, and when competition can be stalled by expensive attorneys, the risks are significantly reduced. On the other hand, a less networked, less privileged person of color entering the tech world must weigh whether risking anything is viable when one's livelihood and family depend on her for everything.

As an African American woman creating technology, my intrapersonal conflicts are informed by social conflicts rooted in race and economy. Traditionally, there are too few models and mentors of black female techno-vernacular creativity. However, as Afrofuturism moves toward a more applied, transdisciplinary, and technocultural movement, black membership in technoscape increases. *Love Lines* works to redefine technology not as a source of conflict for African Americans but as a source of reconciliation and possibility not just for couple communication and conflict resolution but for more research on intimacy and technology as well as more technology-based tools to address relational and social problems while fostering self-reflection.

Dery writes that through Afrofuturism, "African American voices have other stories to tell about culture, technology, and things to come" (1994, 182). *Love Lines* is my story. It is a story of my past and present. It is a story about our collective futures. Afrofuturism reminds us that improving intimacy within the African American community is an act of love. Communicating with romantic partners is among the most important interactions humans undertake, and yet, most romantic partners receive little to no training on how to effectively do so especially when mired in the relational conflicts of economic insecurity, imbalanced sex ratios, and infidelity.

I designed *Love Lines* to address this problem. I design with the intention of answering fundamental questions about the human experience with intimacy and technology by focusing on the African American experience. I design out of love and respect for the strangers who trusted me with not just their stories but oftentimes their secrets. I design out of love for a community of students who need to learn in tech-savvy ways. I design alongside an Afrofuturist techno-vernacular tradition of black people who understand that technology design with the African diaspora in mind is a labor of love.

REFERENCES

Aborampah, Osei-Mensah. 1989. "Black Male-Female Relationships: Some Observations." *Journal of Black Studies* 19(3): 320–42.

Atwood, Jeff. 2015. "Learning to Code Is Overrated: An Accomplished Programmer Would Rather His Kids Learn to Read and Reason." *New York Daily News*, September 27, 2015. http://www.nydailynews.com/opinion/jeff-atwood-learning-code-overrated-article-1.2374772.

Baym, Nancy K. 2010. *Personal Connections in the Digital Age*. Cambridge: Polity Press.

Centers for Disease Control and Prevention. 2012. "New HIV Infections in the United States." December 2012. http://www.cdc.gov/nchhstp/newsroom/docs/2012/HIV-Infections-2007-2010.pdf.

———. 2014. "Health Disparities in HIV/AIDS, Viral Hepatitis, STDs, and TB." March 20, 2014. http://www.cdc.gov/nchhstp/healthdisparities/AfricanAmericans.html.

———. 2016. "HIV Among African Americans." August 16, 2016. http://www.cdc.gov/hiv/group/racialethnic/africanamericans/index.html.

Chatman, Dayna E. 2014. "In Reply: My Reflections on Comments about Our Research on Black Twitter." Last modified September 4, 2014. https://dchatman3.wordpress.com/2014/09/04/in-reply-my-reflections-on-comments-about-our-research-on-black-twitter/.

Dauria, Emily F., Lisa Oakley, Kimberly Jacob Arriola, Kirk Elifson, Gina Wingood, and Hannah, L. F. Cooper. 2015. "Collateral Consequences: Implications of Male Incarceration Rates, Imbalanced Sex Ratios and Partner Availability for Heterosexual Black Women." *Culture, Health and Sexuality* 17(10): 1190–206.

De Angeli, Antonella. 2005. "To the Rescue of a Lost Identity: Social Perception in Human-Chatterbot Interaction" (presentation, Joint Symposium on Virtual Agents, University of Hertfordshire, Hatfield, UK), April 12–15, 2005. http://aisb.org.uk/publications/proceedings/aisb2005/10_Virt_Final.pdf#page=20.

Dery, Mark. 1994. "Black to the Future: Interviews with Samuel R. Delany, Greg Tate, and Tricia Rose." In *Flame Wars*, edited by Mark Dery, 179–222. Durham, NC: Duke University Press.

Eglash, Ron. 2002. "Race, Sex, and Nerds: From Black Geeks to Asian American Hipsters." *Social Text* 20(2): 49–64.

Everett, Anna. 2002. "The Revolution Will Be Digitized: Afrocentricity and the Digital Public Sphere." *Social Text* 20(2): 125–46.

Feifer, Jason. 2014. "Fear and Loathing of Silicon Valley." *Fast Company*, November, 25–28.

Frommer, Dan. 2008. "BlackPlanet Parent Community Connect Sells to Radio One for $38 Million." *Business Insider: Tech*, April 11, 2008. http://www.businessinsider.com/2008/4/blackplanet-parent-community-connect-sells-to-radio-one-for-38-million#ixzz1I5PmhhDv.

Fundawear. 2016. "The Future of Foreplay." Accessed September 10, 2016. http://wearableexperiments.com/fundawear/.

Gaskins, Nettrice R. 2016. "Afrofuturism on Web 3.0: Vernacular Cartography and Augmented Space." In *Afrofuturism 2.0: The Rise of Astro-Blackness*, edited by Reynaldo Anderson and Charles E. Jones, 27–44. Lanham, MD: Lexington Books.

Harrell, D. Fox, Chong-U Lim, Jia Zhang, Sonny Sidhu, Jason Lipshin, and Ayse Gursoy. 2014. "Playing Mimesis: Engendering Understanding Via Experience of Social Discrimination with an Interactive Narrative Game." *Electronic Book Review*, November 2, 2014. http://www.electronicbookreview.com/thread/electropoetics/mimesis.

Hocker, Joyce L., and William W. Wilmot. 2014. *Interpersonal Conflict*. New York: McGraw Hill.

Hwang, Wei-Chin. 2013. "Who are People Willing to Date? Ethnic and Gender Patterns in Online Dating." *Race and Social Problems* 5(1): 28–40.

Koh, Yoree. 2014. "Twitter Users' Diversity Becomes an Ad Selling Point; Microblogging Social-Media Site Trying to Capitalize on Its Demographics." *Wall Street Journal* (online), January 20, 2014.

Laurenceau, Jean-Philippe, Lisa Feldman Barrett, and Michael J. Rovine. 2005. "The Interpersonal Process Model of Intimacy in Marriage: A Daily-Diary and Multilevel Modeling Approach." *Journal of Family Psychology* 19(2): 314–23.

Leinonen, Juhana. n.d. "Ex Nihilo." Accessed September 10, 2016. http://nitku.net/if/exnihilo/.

Levy, David. 2008. *Love + Sex with Robots: The Evolution of Human-Robot Relationships*. New York: HarperCollins.

Merchant, Brian. 2014. "The Robot that Makes Virtual Sex Feel Real." *Motherboard*, February 14, 2014. http://motherboard.vice.com/blog/real-sex-virtual-reality-oculus-rift-tenga.

Newitz, Annalee. 2014. "What Happens When Scientists Study "Black Twitter?" *Gizmodo*, September 4, 2014. http://io9.gizmodo.com/what-happens-when-scientists-study-black-twitter-1630540515.

Ramsey, Donovan X. 2015. "The Truth about Black Twitter." *The Atlantic*, April 10, 2015. http://www.theatlantic.com/technology/archive/2015/04/the-truth-about-black-twitter/390120/.

Salovey, Peter, and John D. Mayer. 1990. "Emotional Intelligence." *Imagination, Cognition and Personality* 9(3): 185–211.

Slater, Dan. 2013. *Love in the Time of Algorithms: What Technology Does to Meeting and Mating*. New York: Penguin.

Smith, Aaron. 2014. "African Americans and Technology Use: A Demographic Portrait." *Pew Research Center: Internet, Science, and Tech,* January 6, 2014. http://www.pewinternet.org/2014/01/06/african-americans-and-technology-use/.

Smith, Aaron, and Janna Anderson. 2014. "AI, Robotics, and the Future of Jobs." *Pew Research Center: Internet, Science, and Tech*, August 6, 2014. http://www.pewinternet.org/2014/08/06/future-of-jobs/.

Sullins, John P. 2012. "Robots, Love, and Sex: The Ethics of Building a Love Machine." *IEEE Transactions on Affective Computing* 3(4): 398–409.

Turner, Lynn H., and Richard West. 2013. *Perspectives on Family Communication*. New York: McGraw Hill.

Utley, Ebony A. 2011. "When Better Becomes Worse: Black Wives Describe Their Experiences with Infidelity." *Black Women, Gender, and Families* 5(1): 66–89.

———. 2015. "Digital Indiscretions: Infidelity in the Age of Technology." In *Gender, Sex, and Politics: In the Streets and Between the Sheets in the 21st Century*, edited by Shira Tarrant, 155–68. New York: Routledge.

———. 2016. "Rethinking the Other Woman: Exploring Power in Intimate Heterosexual Triangular Relationships." *Women's Studies in Communication* 39(2): 177–92.

———. 2017. "Infidelity's Coexistence with Intimate Partner Abuse: An Interpretive Description of Women Who Experienced Multiple Hurtful Communications from a Partner's Affair." *Western Journal of Communication* 81(4): 426–45.

Walther, Joseph B. 1996. "Computer-Mediated Communication: Impersonal, Interpersonal, and Hyperpersonal Interaction." *Communication Research* 23(1): 3–43.

14

Performing Black Imagination

The Critical Embodiment of Transfuturism

Amber Johnson

Black gyrls, womyn, and bois carry the weight of the world's oppression in our skin, hair, breath, and gait. Our mere existence is an act of invisible labor in a world that treats us as hyperinvisible—where the stereotypes attached to our bodies are so powerful that they inform how others treat us. In a world full of canonical exception—or the rules determined by whiteness that dictate which minorities get to be included versus excluded, or deserve justice, love, and humanity, versus violence, hatred, and death—we struggle to transgress these stereotypes while loving ourselves, caring for ourselves, and caring for the world that does not care for us. If loving ourselves is a constant struggle, then imagining the body into a future without domination is an even larger one. Afrofuturism is the antidote to the canonical exception and hyperinvisibility bequeathed upon the black body that makes imagining futures a revolutionary act. However, I want to take it a step further, and look at the embodiment of transidentities as antidotes that push the boundaries of Afrofuturism.

This chapter begins with two theoretical frameworks, hyperinvisibility and canonical exception. Then using Afrofuturism as a departure point, I tease out the aesthetic and social constructions of gender and race through Transfuturism—an aesthetic antidote to systemic oppression. Because as Sun-Ra reminds us, "The possible has been tried and failed. Now it's time to try the impossible."

HYPERINVISIBILITY

To render something visible is to give our sense of sight an experience (Brighenti 2010). But seeing is only a part of the equation, for how we see, what we see, and the frequency with which we see something matter. It is hard to imagine a time before the internet when we had to share physical space to see others, or "see the