

# Race After the Internet

Edited by Lisa Nakamura and Peter A. Chow-White

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## Race After the Internet

In this collection, Lisa Nakamura and Peter A. Chow-White bring together interdisciplinary, forward-looking essays that explore the complex role that digital media technologies play in shaping our ideas about race. *Race After the Internet* contains essays on the shifting terrain of racial identity and its connections to social media technologies like Facebook and MySpace, popular online games like World of Warcraft, YouTube and viral video, genetic ancestry testing, and DNA databases in health and law enforcement. Contributors aim to broaden the definition of the "digital divide" in order to convey a more nuanced understanding of access, usage, meaning, participation, and production of digital media technology in light of racial inequality.

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and  
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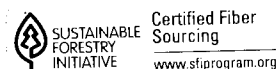
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## Introduction—Race and Digital Technology

*Code, the Color Line, and the Information Society*

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### Postracial America, Digital Natives, and the State of the Union

The current generation of young people is the first to have always had access to the Internet; these so-called digital natives are both hailed as omnipotently connected and decried as fatally distracted (see Palfrey and Gasser 2008). They are also the first to enter adulthood with a African American president in office. Yet digital natives are not an equally privileged bunch; like “natives” everywhere, they are subject to easy generalizations about their nature that collapses their differences. In contrast to former President Bill Clinton, who was colloquially known as the first black president, Obama was the first “wired” president. Unlike his opponent in the presidential election, John McCain, who fatally revealed that he didn’t know how to use email, Obama was both our first black president and our first digital Commander in Chief, a harbinger of a new age in more ways than one. However, Obama’s presidency coincides with some of the most racist immigration legislation seen in recent years, as well as a prison industrial complex that continues to thrive and target black males, and a financial and housing crisis that has disproportionately harmed black and Latino Americans. The paradox of race after the Age of the Internet, a period that some have defined as “postracial” as well as “postfeminist,” lies in such seeming contradictions.

As the shift from analog to digital media formats and ways of knowing continues apace, continued social pressure is brought to bear on the idea of race as a key aspect of identity and an organizing principle for society. Yet no matter how “digital” we become, the continuing problem of social inequality along racial lines persists. As our social institutions and culture become increasingly digitally mediatized, regularly saturated with new platforms, devices, and applications that enable always-on computing and networking, digital media bursts the bounds of the Internet and the personal computer. The pervasiveness of the digital as a way of thinking and of knowing as well as a format for producing and consuming information forces intellectuals and scholars to produce new

## Roots and Revelation

### *Genetic Ancestry Testing and the YouTube Generation*

ALONDRA NELSON

*Columbia University*

JEONG WON HWANG

Just wanted to take ya'll through the steps of me doing my paternal African roots . . . I'm going to send you all on a trip with me. And, hopefully . . . ya'll will have positive feedback about my results . . . Give me questions, give me comments, share this video with your friends and family, because I want ya'll to do this, too.

*(yeemie, genetic genealogist on YouTube)<sup>1</sup>*

As is widely acknowledged, parallel developments in computing and molecular biology precipitated the genomics era. A noteworthy extension of this interdependence of bytes and genes is the budding role played by social network sites (SNS) on the terrain of consumer genetics.<sup>2</sup> The Google-backed personal genomics company 23andMe that sells consumers genetic inferences about their “health, disease and ancestry,” for example, was launched in 2007 as an e-business with a social networking component.<sup>3</sup> As envisioned, this feature allows 23andMe’s clients to tap into the wisdom of the crowd by sharing and aggregating data about their respective genetic analyses. Virtual communities have also risen up more organically around other types of direct-to-consumer (DTC) genetic testing in the form of listservs and blogs through which users disclose and discuss the SNPs (“snips”), Y-chromosome DNA (Y-DNA), mitochondrial DNA (mt-DNA) and haplotype group results they purchased from various enterprises toward the end of conjecturing identity, familial origins or disease predisposition.<sup>4</sup> In this essay, we examine another iteration of the interplay between on-line community and DTC genetics—the use of the video-sharing SNS *YouTube (Broadcast Yourself)*<sup>TM</sup> by African American genealogists, who have purchased DNA testing to learn about their ancestry. With this phenomenon, the authoritative “imprimatur” of genetic science and the practice of genealogy are married to the media cultures of Web 2.0 and reality television.<sup>5</sup> These broadcasts that predominantly feature men and women in

their twenties and thirties suggest the centrality of social networking to community formation among young adults. This phenomenon also suggests the broadening demographic appeal of genetic root-seeking; interest in genealogy, a practice that has long been the provenance of older adults and retirees, may be growing in a younger generation, owing in part to the recent technological mediation of root-seeking.

SNSs such as Facebook, Twitter, Flickr and YouTube capture the public's imagination because of their capacity to facilitate the creation of community. These sites share Web 2.0 features such as information sharing, interaction and customization. But YouTube, established in February 2005, is unique among SNSs for the ease with which it can be used to upload and circulate videos. In just a few years' time, YouTube has become the most important virtual space for the sharing of music videos and songs; news segments and current events; memorable moments from movies and television shows; how-to demonstrations and homemade viewer videos, as well as opinions about this posted material. The prominence of this SNS is reflected in the ability of its videos to rapidly draw the eyes of millions of viewers: that is, in the language of social media, "to go viral."

The founding of YouTube followed by just a few years the emergence of DTC genetics. Recently a genre of broadcasts that we describe as *roots revelations* has emerged on this SNS. With these videos, genealogists use YouTube's functions to disseminate and court reactions to their root-seeking journeys.<sup>6</sup> In these tightly shot, almost confessional videos, genealogists describe the genetic ancestry testing process and their reactions to it. They try on genetically derived identities. Using image, sound and text, they perform the new or elaborated selves made available to them through genetic ancestry testing.

The practice of genealogy was popularized in the late 1970s after the publication of Alex Haley's book *Roots: The Saga of an American Family* and, soon after, the debut of the eponymous television mini-series.<sup>7</sup> The roots journey involves the reconstruction of family history, principally through the use of archival documentation dutifully assembled by the root-seeker over many years or decades. More recently, a spate of genealogy-themed, unscripted (or "reality") television shows, such as prominent Harvard University academic Henry Louis "Skip" Gates Jr's successful *African American Lives* franchise, have highlighted the ease and immediacy with which the roots endeavor can currently be undertaken, be it carried out for a root-seeker by another individual (e.g. a certified genealogist) or a company (such as Gates' African DNA that sells traditional and genetic ancestry tracing). On this novel family history landscape, the apex of the roots journey is "the reveal"—to borrow a concept from reality television—the revelation of new or surprising information, often based upon genetic test results, to a subject who expresses astonishment or elation or both before an audience. Thus, in the post-Haley era, the practice of root-seeking might be said to now require not simply the reconstruction of a

familial narrative or excavation, but also the performance of one's response to this genealogical account, as well as the presence of an audience to observe it. Broadcasting oneself on YouTube is one means to these ends.

Moreover, as an SNS, YouTube is inherently a vehicle through which the audience can express its opinions about roots revelations back to the videos' creators. These broadcasts provide not only a way for genealogists to circulate their genetic test results, but also an audience with whom to share their experiences and, potentially, with whom to develop affiliations. In the words of *yeamie*, from the epigram that begins this essay, genetic genealogists use the site, in part, to generate "positive feedback about [their] results." A diverse array of viewers differently bears witness to the roots journey: Viewers' reactions indeed include "positive" responses. Audience members claiming ties to the ethnic groups or countries to which a root-seeker has been associated by a testing service, for example, may enthusiastically receive (and thus authenticate) a broadcaster's results. At the same time, some in the audience may reflect skepticism about genetic ancestry testing and, implicitly, also about the presuppositions about kinship and community that undergird it. In both instances, the circulation of roots revelations offers a small window on public perception of the growing use of genetic ancestry testing.

As Nelson has described previously, "affiliative self-fashioning"—the constitution of individual identity, through and toward the goal of association with others, including ancestors and DNA "kin"—is a significant aspiration for consumers of genetic ancestry testing.<sup>8</sup> As we detail here, roots revelations are one manner in which this affiliative identification and interchange is achieved. The videos thus serve not only as a forum for the evaluation of new selves by a multifaceted social network, but also a vehicle of self-making. In other words, although prompted by the consumption of genetic ancestry testing, our root-seekers and their viewers interrogate and assess identity and community membership via social network interaction. More specifically, drawing on the work of the anthropologist John L. Jackson, roots revelations might be understood as enactments of "racial sincerity"—that is, a race-based yet non-essentialist form of negotiated, interactional identity.<sup>9</sup>

### Genes and Bytes

DTC genetic genealogy testing has burgeoned over the last several years. This commercial enterprise evolved from techniques developed in molecular genetics, human population genetics, and biological anthropology.<sup>10</sup> With this form of analysis, a consumer's ancestry or family history is inferred from the comparison of his or her DNA with a company's proprietary database of genetic samples.<sup>11</sup> Several types of tests are offered by the growing number of purveyors of DNA analysis for genealogical purposes:<sup>12</sup> "Racio-ethnic composite" testing—such as the *Ancestry Painting* evaluation sold by 23andMe—yields to a customer percentages of African, Asian and European ancestry.

A second type of testing, haplogroup analysis, of which the Genographic Project is paradigmatic, informs a consumer of distant ancestry, typically thousands or tens of thousands of years in the past.<sup>13</sup>

A third common category of genetic genealogy is “ethnic lineage” testing—analysis of Y-chromosome DNA and mitochondrial DNA (mt-DNA). Y-DNA is passed inter-generationally from fathers to sons. Through examination of these sex-linked genes, a direct line of male ancestors (patrilineage) can be traced. mtDNA, the energy mechanism of cells, is inherited by sons and daughters from their mothers; it contains characteristic “hypervariable” regions that can be assayed to discern genetic matrilineage. A hypothetical ethnic lineage result, based on analysis purchased from the African Ancestry company, might suggest that a root-seeker’s Y-DNA traced to the Yoruba people, who reside in many countries in contemporary West Africa. Or, using the Oxford Ancestors service, it might be inferred that a client’s mtDNA showed commonality with residents of Central and Western Eurasia.<sup>14</sup> For genealogists, part of the appeal of ethnic lineage testing is that it intimates “mothers” and “fathers” and generates a specific contemporary region, nation-state or community to which a consumer can trace origins (rather than, say, an association with a historically and/or temporally distant population). This third type of testing might be said to be the form of genetic analysis that best approximates the narrative arc of Haley’s *Roots*, in which “lost” national and racio-ethnic identity and kin were recovered.

Haley’s family tree was refashioned from the author’s own (and subsequently somewhat controversial) research. Twenty-first-century genealogy, on the other hand, relies largely on technical developments that make the practice accessible to the general public as a product. Both the digitization of documents necessary to root-seeking practice via websites such as Ancestry.com and the cottage industry of DTC genetic testing companies that promise to uncover family history with DNA analysis have contributed to growing interest in genealogy. In the process, the reduction of genealogical labor for individual root-seekers—relative to the more arduous *Roots* example—has also become possible.

### Reveal Yourself

Traditional, digital and genetic methods of ancestry tracing are prominent in the recent spate of genealogy-themed, reality television shows. “The reveal” is an essential element of genealogy programs such as *Motherland: A Genetic Journey* (2003), *Motherland: Moving On* (2006) and *Who Do You Think You Are?* (2004—) on Britain’s BBC and, in the U.S., celebrity-driven shows such as PBS’s *African American Lives* (2006), *Oprah’s Roots* (2007), *African American Lives II* (2008), and *Faces of America* (2010), and NBC’s *Who Do You Think You Are?* (2010—).<sup>15</sup> Media studies scholar June Deery writes that “the reveal” functions “both to uncover and to display. . . to a dual audience of subject and TV viewers.”<sup>16</sup> With televised genealogy shows, furthermore, what is uncovered

or displayed—most often to a root-seeker via a host—is information about a notable predecessor, a significant historical event, or unexpected affiliations. The poignancy of these televised reveals is manifested by our root-seekers as heightened emotion or with the flat affect of shock. For example, in *African American Lives*, a show that featured the genealogy of prominent blacks, genetic genealogy results destabilized long and dearly held ideas about ancestry and identity: Social scientist Sara Lawrence-Lightfoot, who self-identifies as African American and American Indian, was stunned when host Skip Gates disclosed that racio-ethnic composite testing suggests she has “no Native American” ancestry whatsoever. Astronaut Mae Jemison, the first black woman to travel to space, on the other hand, was pleasantly surprised to learn that her composite includes an inference of 13 percent “East Asian” ancestry. Similarly, during a striking moment in *African American Lives II*, the comedian Chris Rock was brought to the brink of tears when he learned from host Skip Gates that a previously unknown forebear bootstrapped his way up from slavery to two stints in the South Carolina legislature.<sup>17</sup>

In the post-Haley era, genealogical labor can thus be at a remove from the interested root-seeker. Genealogists may accordingly take on a new role: No longer solely family history archeologists engaged in the lonely pursuit of excavating vital records and census documents, they can become performers whose job it is to react to genealogical information that is revealed to them. Perhaps unsurprisingly then, less prominent root-seekers than those featured on televised genealogy programs have taken to YouTube to perform and broadcast their reveals and to disseminate their reflections on the genetic genealogy testing experience. Below we describe and analyze several of these roots revelations.

As of October 2010, a search for the terms “genealogy,” “genetics” and “DNA” resulted in several hundred videos. Many of these can be described as “roots revelations” videos because they feature some aspect of the genetic genealogy trajectory from the collection of the DNA sample to the results reveal. Here we focus on a small subset of black genealogists because we are specifically interested in genetic ancestry testing and African diasporic identity.<sup>18</sup> We accordingly employed purposive sampling and sought out videos that conveyed blacks’ experiences with genetic genealogy.<sup>19</sup> (Our sample is therefore and purposely not representative of all genealogy videos on YouTube or of all African American root-seeking practice; moreover, our discussion of the roots revelation phenomenon is impressionistic and our conclusions are necessarily provisional.)

We arrived at this sample by searching the YouTube site for combinations of the keywords or search terms “African,” “ancestry,” “roots,” and “black” in addition to “genetics,” “DNA,” and “genealogy.” Of more than 500 videos, twenty-two met our criteria. However, nine of these were explicitly promotional: that is, they were intended to advertise the services of one or more genetic



ancestry testing companies. Here, we examine thirteen roots revelations uploaded to the SNS by ten root-seekers between 2007 and 2009.<sup>20</sup> The videos spanned from five to ten minutes in length. We viewed each of these videos several times and also transcribed them. We then coded these transcripts as well as the associated “comments” sections (i.e. the social network audience’s written responses to the videos). The “tags” that root-seekers assigned to their videos were also recorded; as we note below, tagging is one strategy that YouTube users employ to shape the audience for their videos. As well, we made note of the broadcasters’ descriptions of their videos; these brief writings offered additional perspective on why our root-seekers purchased genetic genealogy testing.

Five of the root-seekers are women and five are men. They are all young adults. Although we do not know any of the broadcasters personally, all appear to be under forty years of age; the majority are younger than thirty. Because genealogy has typically been time- and resource-intensive, it has traditionally been the provenance of older adults or retirees with leisure time. But genealogy’s intersections with cutting-edge DTC genetic testing and social network technologies have helped to increase its popularity among a younger demographic. Although it is considered a hobby, ancestry tracing can be a serious undertaking for this new generation of genealogists. One root-seeker, an African American male, who appeared to be in his late teens and used the name *NurturingOurRoots101*, stressed in his video that genealogy was no mere recreational pursuit for him. The goal of his broadcast, he stated, was to help other “students to see where they come from in Africa, to know their ancestors and genealogy.” He continued,

some . . . [ask] about genealogy being a hobby. It’s not a hobby, definitely not a hobby, because a hobby is something you do for relaxation and pleasure. But we do not do [it] for pleasure . . . Genealogy . . . is a necessity [for] knowing who you are and everything you hope to be.<sup>21</sup>

Notably many had also been tagged with terms that signaled the history and politics of black experience like “racism” and “slavery.” Discussing public and private spheres on YouTube, media studies scholar Patricia Lange explains that broadcasters may deliberately “calibrate access to their videos” and “create larger or smaller media circuits by using technical features such as . . . strategic tagging.”<sup>22</sup> Tagging refers to designating keywords for videos. Tags may serve to hail viewers based upon common language or shared racial, sexual, religious, or national identities; in turn, tagging may help to foster the formation of affinity groups and feelings of community between broadcasters and the audience.

Another way that these root-seekers shaped their audience was by placing their videos into YouTube’s “Education” category (rather than in the more

expected “People & Blogs” category). This was true of *vegasview77*, who assigned “education” as both a category and a tag to his reveal. In a written statement appended to his video, this root-seeker declared: “Always remember that DNA has memory . . . I’m so pleased my results came back as 100% certain, yeah that’s right 100%!”<sup>23</sup> This categorization was likely utilized by this root seeker to impute gravitas and validity to both the root-seeking journey and genetic genealogy testing.

### Roots Revelations

Roots revelations depict genealogists’ receipt of genetic information about their ancestry. Although we found considerable variation among the videos, they share several qualities. Most broadcasts suggest why root-seekers embark upon genetic genealogical testing and why they were prompted to create their videos. Videos may feature detailed step-by-step descriptions of the genetic genealogy testing process, from purchase to results. *yeamie*, for example, filmed himself collecting the DNA sample that he would send to the African Ancestry company for analysis:

These are the test kit instructions right here for the “premium ancestry kit.” [He holds a piece of paper containing instructions up to the camera.] I’ll just read them to you. “Number one, fill out the specimen information form . . .” Check . . . I’m gonna swab my cheeks right now with these swabs. But, first, I wanna get some water to rinse my mouth. [Rinses his mouth and spits the water out.] [Again, reading directions.] “Remove cotton swab from package. Swab firmly along the inside of each of your cheeks, approximately 20 times per cheek.” [Counts 1, 2, 3, 4, etc., as he wipes the inside of each cheek.]<sup>24</sup>

A few of the other roots revelations we documented also include display or discussion of the collection of DNA samples. However, the broadcasts more often than not center on the moment of “the reveal” and the genealogists’ reactions to this new genetically derived information.

### The Reveal

Roots revelations customarily involve the public disclosure of one’s often previously unknown genetic affiliation (i.e. racial composite, ethnicity, haplotype group, etc.). Although a few of the genealogists we followed performed or recalled their reveals post hoc, most allowed the audience to witness the climactic moment when their genetic ancestry test results were opened. The root revelations we examined appear to be self-filmed with the exception of that of *JasmyneCannick*, who had her reveal documented by a friend with whom she converses in her video. Whether or not the results are revealed “live” on camera, the root-seekers consistently share their results with theatrical flair.



Figure 12.1a *jasmynecannick's* reveal filmed by a friend



Figure 12.1b In a celebratory gesture, *jasmynecannick* holds up the map and certificate of ancestry that she received from African Ancestry. These documents indicate her inferred African ethnicity.

*yeamie*, who identifies as a black man, filmed himself opening the envelope containing the results of the Y-DNA test he purchased from African Ancestry. Before the camera, he slowly reads from the letter containing his results: "The Y chromosome that we determined from your sample has European ancestry . . . We understand this information may be diffi—" At this point, *yeamie* interjects, "No, it's not. That's what they say, but I already know I got white in me." Carrying on reading the results letter where he left off, he says, ". . . difficult to accept, especially if you are not aware of any European men on your paternal line . . ." Again, *yeamie* inserts his perspective between the lines of the company's result letter: "That I know; that's why I did my father's [the paternal line]." Towards the end of his broadcast, the root-seeker endeavors to demonstrate to the audience that the results were anticipated: "I am not surprised . . . I'm not shocked to get any results because I pretty much know my make-up already." Wrapping up, he musters the following statement of bittersweet fulfillment: "I'm very proud to know what I am. I am European and proud of it. So, all the Europeans out there and my Europeans in YouTube land, I'll check you out later. Peace! Black power!"<sup>25</sup>

With *yeamie's* broadcast, viewers witness the very moment when he learns his test results and discovers, furthermore, that his Y-DNA traces to Europe rather than Africa. Proclaiming his prior awareness of and, moreover, his satisfaction with this news of European ancestry, *yeamie* seeks to downplay the fact that his results may have been surprising. The exclamation of "Black power!" after his expression of European pride is perhaps intended to be ironic. It may also be a subtle negation of the test results, evidence of *yeamie's* recognition that "European DNA" does not make him a white person.



Figure 12.2 *yeamie's* reveal. Here he displays the map of Europe that was included in his results package. In keeping with his Y-DNA result, the map is titled "Europe" (the continent of Asia also appears prominently on this map)

A broadcaster going by the name of *cocopuff236* also permitted the YouTube audience to observe him as he read for the first time the results of a genetic genealogy test he had purchased.

I'm just going to jump into it . . . These are the results of my mother's maternal lineage from AfricanAncestry.com. And, the results are . . . "It's a great pleasure that our report on the Matriclan analysis had identified your maternal genetic ancestry. The sequence that we determined from your sample is of Middle Eastern ancestry. The sequence belonged to the haplo-group N1C, a non-African lineage."<sup>26</sup>

He continues, describing elements of his results package: "There is a map that says haplo-group N1 is most commonly found among the Ashkenazi Jewish population in Central and Eastern Europe."<sup>27</sup>

In contrast to *yeamie*, who tried to minimize the extent to which his shock was apparent to the social network audience by repeatedly interrupting the narrative flow of African Ancestry's results letter, *cocopuff236*'s reveal is more a straightforward reckoning with unanticipated information. Nevertheless, *cocopuff236* almost immediately follows his reveal with qualification: "Now, like they say further in the letter, it doesn't mean that we're not African American. That's just . . . one side of the family, one portion."<sup>28</sup> He surmises that "it goes to show that you can't always go by hearing from your family members, because in our family we were told that we were mixed with Native Americans. But I guess the DNA test shows otherwise."<sup>29</sup>

#### *Born Again*

The "Certificate of Ancestry" that African Ancestry gives to its clients as part of their results packages is featured prominently in several of the roots revelations we analyzed. This document, signed by the company's chief executive officer, Gina Paige, and its chief science officer, Rick Kittles, illustrates a customer's genetic ancestry designation in attractive detail. African Ancestry's "certification" is of symbolic importance to root-seekers like *JasmyneCannick*, who declared that she felt "complete" after receiving documentation that affiliated her with both the Bubi people in Bioko Island, Equatorial Guinea, and the Tikar tribe and Fulani people of Cameroon.<sup>30</sup> The power of the certificate was also evident in a video posted by a root-seeker named *CameroonStar*, who articulated the certificate's influence in this way, "I'm extremely excited because I've known this for years 'inside,' but to actually have it on paper, coming from your DNA . . .!"

African Ancestry contributes to the valorization of its ancestry certificates by advising root-seekers to put the documents on show in their homes. *yeamie*, reading from his results letter, conveyed the company's recommendation in his video: "We have also enclosed a certificate of ancestry *authenticating* that your polymorphisms match with people living in Europe. You can display it among

other important family documents."<sup>31</sup> Indeed, in several videos, genealogists announced their intention to frame their certificates, store them with other cherished possessions or exhibit them in a prominent place. One root-seeker stated, for example, "I'm going to get a frame for it! But not before I scan and send it to everybody in the family!"<sup>32</sup>

For some, these documents authoritatively confer identity. *KILLcolorstruck*'s reveal included quotes from his Certificate of Ancestry: "'African Ancestry hereby certifies that Johnson Martin shares maternal genetic ancestry with the Mafa, Hide and Tikar people living in Cameroon.' And it's signed by the person who did this thing." Holding up this document and looking into the camera, *KILLcolorstruck* continued, declaring somberly, "This is my African-ness." Root-seekers clearly placed high value on documentation of their genetic ancestry results. One person regarded her certificate not only as a mark of identity but furthermore as analogous to an official vital record. During her roots revelation, *JasmyneCannick* exclaimed, "I have a new birth certificate! . . . Now, when people ask me where I'm from, I can say, '[Do you mean] pre- or post- Middle Passage?'"<sup>33</sup> Reacting to this roots revelation, YouTube viewer *xbkzfineztx* wrote,

Congratulations on finally knowing YOU. I did [my genetic ancestry testing] recently, which prompted me to look at [your video] . . . I want to take one more test by a different company, which will be African Ancestry. *I want my birth certificate too, shoot!*<sup>34</sup>

Results kit artifacts become props in roots revelation videos. Indexical to the root-seeker's own DNA, this documentation also stands in for YouTube genealogists' "true" origins.

#### Roots Commentariat

Tell me what you guys think.  
(*cocopuff236*)<sup>35</sup>

As the above dialogue between *JasmyneCannick* and *xbkzfineztx* suggests, interactions between root-seekers and their audience are a key facet of roots revelations. Transmission of these videos on YouTube enable genetic genealogists' association with an expansive network of persons, both unknown and known. On the one hand, like genealogy-themed television shows, the audience for these videos may be amorphous and wide-ranging. On the other, the SNS's features allow video-makers to prescribe their viewership or to categorize their videos in ways that will attract the most desired audience.<sup>36</sup>

In turn, the social network audience, which may be strategically cultivated, offers root-seekers feedback about their reveals. Each of the videos we analyzed elicited audience commentary. Recall from this chapter's epigram that

root-seeker *yeamie* hoped for “positive” reactions to his reveal broadcast. Expressions of affirmation and support were the overwhelming reaction to *yeamie*’s two videos. Positive observations were additionally the most common response to the other roots revelations we considered.

However, as *yeamie*’s case also exemplifies, the audience had a wider range of reactions too. Acknowledging that *yeamie* seemed visibly shocked by his genetic ancestry results despite assertions to the contrary, his viewers also extended commiseration. *TevyeWill* replied, “Yeah, Id’ve [*sic*] been disappointed . . . very interesting my Black European friend, just goes to show how little DNA matters/relates to our physical differences.” Similarly, a viewer named *skylabx2000* offered, “I salute your bravery brother, don’t let it bug you.” Another with the moniker *CVGodfather* remarked, “It[']s not really bad news cuz I know you were kind of expecting this. It’s obvious that your African traits dominate your [E]uropean traits. lol.” *lerinhar*, who was both a root-seeker and a commenter in our sample, replied: “interesting video bro! I[']m sorry you got those results but at least you know your paternal ancestry.”<sup>37</sup>

#### *Audience and Diaspora*

SNSs encourage a sense of proximity between broadcasters and commenters, in spite of the temporal and spatial distance characteristic of virtual exchange. On YouTube this familiarity is partly achieved through filming technique and style: Close-angle views and *sotto voce* tones are employed on roots revelations that approximate the “confessional” interludes on reality TV shows such as *The Real World* and *Survivor*. These videos create intimacy despite the fact that they can be grainy and poorly lit. Media scholar Patricia Lange explains that on YouTube interaction may be privileged over aesthetics. She suggests that “quality is not necessarily the determining factor in terms of how videos affect social networks.”<sup>38</sup> Rather, Lange suggests, broadcasters “creat[e] and circulat[e] video” in order to “enact social relationships between those who make [them] and those who view” them.<sup>39</sup>

Building from Lange’s observation, in addition, the SNS-enabled social interactions we observed could have a specifically diasporic valence because the audience for black American root-seekers’ videos was comprised in part of viewers who professed African nationality (and residence on the continent or abroad). Audience members claiming affiliation with the group, ethnicity or nation to which a root-seeker was matched by DNA often celebrated the identities unfurled on the videos. After viewing *JasmyneCannick*’s reveal, in which the genealogist learned that her matrilineage traced to contemporary West Africa, commenter *CrisJones77* replied, “BE PROUD OF UR HERITAGE AND DON’T FORGET TO GO TO CAMEROON[.] I[']m from Congo[.] by the way[.]”<sup>40</sup> *lerinhar* received a similarly agreeable response to his roots revelation from *Akok98*, who wrote, “Although I’m not American[.] I understand the struggles of all African diaspora nations. I’m from Sudan. But nonetheless I see

how that bridge . . . with ancestry was broken during slavery . . . I’m proud of you and others.”<sup>41</sup>

Members of the social network audience claiming African ethnicity or nationality also warmly received root-seekers into motherland identities and communities. *vegasview77*’s genetic ancestry results suggested a link to the Akan group. In reply to this video, viewer *termanology85* wrote: “my mother is Akan (Guan ppl.) big ups and welcome.” In response to *CameroonStar*’s reveal that made public her genetic assignment to Cameroon, *Estorpai* noted, “Welcome home. You are from a great country,” while *LeClubMJJ* similarly greeted her by writing, “I’m from Cameroon, from the Bamileke tribe. I live in California . . . Congratulations to Afro-Americans interested in their roots. Welcome HOME sisters and brothers.”

In a recent meditation on heritage tourism in Ghana, cultural theorist Saidiya Hartman proposes that salutations and familial invocations between West Africans and black Americans—underpinned as they are by “redemptive narratives,” “promises of filiation,” “fantasies of origin” and even economic interests—may be instrumental or insincere.<sup>42</sup> Unlike the case of Ghanaian tourism, exchanges that take place around roots revelations may not produce tangible benefits for “African” commenters. Affective benefits can accrue to genealogists, however, through social network interactions with viewers who sanction their genetic ancestry results from a privileged “African” vantage point.<sup>43</sup> In this way, roots revelations may condition “affiliative self-fashioning,” constituting genetic genealogists’ identities through technology, sentiment and sociality.<sup>44</sup>

On the other hand, “African” audience members also challenged root-seekers’ claims of affiliation—ancestry certificates and performative reveals notwithstanding. In the comments that accompanied *JasmyneCannick*’s roots revelation, a debate ensued about African American root-seeking. A viewer using the Nguni name *bongiwe* expressed deep skepticism of black Americans’ genealogical aspirations and was dismissive of the measures to which they were willing to go in pursuit of African ancestry. *bongiwe* complained,

[a]s an African I find it sad and forever tragic the legacy of slavery and the impact it has left on Black Americans. Constantly in search of an identity. There are endless salesmen and business [*sic*] willing to sell you an identity if you are desperate enough and willing to buy it.<sup>45</sup>

Another commenter argued that affiliation with Africa had to be established through action, rather than inferred through DNA analysis. *Shoshaloza1*, whose moniker described a genre of South African call-and-response folksongs and was thus especially fitting for this debate, retorted:

African American? No, no, no, no, no, no. It’s American black! The only Africans in America are the ones who were born in Africa! If they consider themselves so African, they should come to Africa and use their

talents here to strengthen the reputation of Africa! Instead, they . . . strengthen the reputation of America! . . . Now it is time for American blacks to come back to help Africa. Otherwise, they shouldn't even call themselves African!<sup>46</sup>

Somewhat in agreement, *9revolta* contended that an "African American is someone who has come from Africa, and has gained citizenship in America."<sup>47</sup> On the surface, the discussion that transpired in reaction to this video appeared to be a dispute over nomenclature. Yet it was also a contest over the stakes of black Americans' claims to African identity. For *Shoshaloza1*, in particular, there was recognition that genetic genealogy testing, for all its feel-good potential for U.S. blacks, was an asymmetrical exchange, offering little material gain for this viewer and other self-declared "Africans" in the social network.

Other doubts conveyed by viewers about roots revelations were related to the accuracy of genetic analysis. *cocopuff236*'s reservations paradoxically led him to consider *additional* testing. This root-seeker received results that associated him with Northern Europe. But *cocopuff236* "was not happy about" this because he had hoped that the test would reveal his "African tribe."<sup>48</sup> In the comments section below his video, he wrote that he planned to get "another test from a different company to see if my haplogroup is African."<sup>49</sup> *cocopuff236* was not distrustful of genetic genealogy technology; rather, he was dissatisfied because the genealogical aspiration that prompted his purchase of a DNA test—i.e. evidence of his African ancestry—remained unfulfilled. However, some commenters did highlight the potential limitations of genetic genealogy. *philgdev* recommended to *cocopuff236* that he should not regard his results as conclusive because "just one branch of your family" was tested.<sup>50</sup> *TRUTHTEACHER2007* had little faith in DTC testing purveyors. In response to *yeamie*'s roots revelation, this viewer carped, "I have a big problem with these companies because they are not telling the truth. DNA can't tell you your total lineage."<sup>51</sup>

Skepticism about genetic genealogy was sometimes couched in a discourse of value. Responding to roots revelations, viewers frequently asked our root-seekers about the cost of the tests. In reply to one such query, *vegasview77* wrote that "the cost is about \$350[,] but the database is HUGE." The genealogist clearly intended to communicate that the expense he incurred was justified by the accuracy of the results demonstrated by the company's extensive reference database of DNA samples. Given that price information about genetic genealogy testing is readily available to internet-savvy YouTube viewers via a basic search engine inquiry, the persistence of the question "How much did it cost?" should also be regarded as a question of value beyond strictly economic concerns. "How much does it cost?" might be understood to also mean "Is it worth it?" This latter question exceeds a cost-benefit analysis and points to consideration of the emotional or moral value of the pursuit of roots through consumption. This question about price could also suggest that acquiescence to a genetic view of kinship brought with it both benefits and sacrifices (that is, "costs" of another type).

This second sense of the potential costs of genetic genealogy was on display during a poignant episode in *Jasmynecannick*'s roots revelation. Immediately following her reveal, she is filmed excitedly calling her grandmother to share her results. In response to the news that their family may have West African ancestry, *Jasmynecannick*'s grandmother intoned, "We're from South Carolina." The granddaughter root-seeker countered,

Our family is from Equatorial Guinea and Cameroon . . . and not South Carolina! [She faces her friend who is videotaping her reveal.] Grandma is saying that she has "been fine" for 87 years not knowing where she comes from and is saying that . . . "those genetic genealogy test companies can tell people anything."<sup>52</sup>

With notable exasperation and in the hopes that documentation of the results might quell her grandmother's suspicions, *Jasmynecannick* says, "I'll show you the certificate [of Ancestry] when I come over tomorrow."

### Broadcast Your (Racial) Self

Sincerity demands its performance.  
(John L. Jackson, *Real Black*)<sup>53</sup>

In 2008, Access DNA was founded.<sup>54</sup> This internet-based company does not sell genetic testing; rather, it provides genetics education and genetic counseling to members of the public interested in better understanding the results they have received via DTC DNA testing services. A company offering such information is only necessary—and potentially profitable—in a context in which there are few opportunities for consumers to get feedback about their test results, because federal regulations require such consultation only in medical settings.

In part, roots revelations reflect and fill a similar need for comment and counsel following "recreational" genetic testing. Using YouTube, genealogists disseminate videos and receive audience feedback about their experiences. Viewers' responses range from emotional reaction to technical considerations. While the "positive" responses sought by *yeamie* and other root-seekers were prevalent in our sample, such reactions are not guaranteed in the interactive space of the social network site. Reception to the videos included celebration, endorsement, commiseration and outright skepticism. Although contention is characteristic of SNS (e.g. the "trolling" phenomenon), critical responses to roots revelations suggest that the veracity and significance of genetic genealogy testing may come under particular scrutiny, sometimes arising from both broadcasters' and viewers' evident discomfort with scientific analysis as the arbiter of identity. In other instances, reservations emerge from viewers' knowledge of the technological limitations of the analysis. Reveals may also be

contested by the putative symbolic communities in which these African American root-seekers seek membership.

Such critiques notwithstanding, affirming interactions with the social network audience may help these root-seekers to fulfill their genealogical aspiration of establishing novel genetically derived, historically denied identities. Developments in computer science and molecular biology offer new avenues for the construction and performance of racial identity. Roots revelations videos suggest that African American genealogists' identities can be drawn not only from genetic ancestry results but also from the networked interaction that occurs between broadcasters and their audiences. Like heritage tourism, YouTube facilitated our root-seekers' association with others from their new genetic "family" or community.

These interactions might be regarded as enactments of what John Jackson describes as "racial sincerity."<sup>55</sup> "Racial authenticity," its opposite, is a process of subjectification in which one's identity is shaped from without by "social phenotypes" and rigid expectations—including genetic determinism—that "delimit individuals' social options."<sup>56</sup> The concept of racial sincerity, on the contrary, captures a more dynamic process in which a subject is an agent in his or her racial self-making, negotiating and evaluating external cues—including, for example, the identificatory call-and-response available via YouTube—instead of being shaped absolutely by them. As Jackson notes further, unlike the subject-object relation of "authenticity" in which racialized persons are fastened to and by stereotypes, sincerity is "a liaison between subjects," between "social interlocutors."<sup>57</sup> Expanding a continuum of African diasporic cultural politics, roots revelations, we argue, are an instantiation of this type of racial sincerity, conveyed through the divulgence and performance of genetic ancestry results and subsequent interaction with a social network audience. Additionally, sincerity, in its most literal meaning, underscores the earnestness on display in many of these YouTube broadcasts as these root-seekers search for answers to one of life's most imperative questions—"Who am I?"<sup>58</sup>

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### Notes

- 1 [www.youtube.com/watch?v=kpoygNwIFUQ&feature=video\\_response](http://www.youtube.com/watch?v=kpoygNwIFUQ&feature=video_response) (accessed February 11, 2010).

- 2 Some important examinations of the imbrication of SNS and genetics include Sandra Soo-Jin Lee and LaVera Crawley, "Research 2.0: Social Networking and Direct-to-Consumer (DTC) Genomics," *The American Journal of Bioethics* 9 (2009): 35–44; Lynette Reid, "Networking Genetics, Populations, and Race," *The American Journal of Bioethics* 9 (2009): 50–52; and Ainsley J. Newsom, "Personal Genomics as an Interactive Web Broadcast," *The American Journal of Bioethics* 9 (2009): 27–29, as well as several other contributors to this recent, personal genomics-focused issue of *AJB*. With the exception of Newsom, these authors do not address the subject of this chapter—the use of the SNS YouTube by consumers of DTC genetic testing services.
- 3 [www.23andme.com](http://www.23andme.com). See also Lee and Crawley, "Research 2.0."
- 4 For one example of the proliferation of blogs dedicated to ancestry tracing, see Maureen A. Taylor, "Fab Forty: 40 Best Genealogy Blogs," *Family Tree Magazine*, May (2010): 42–47. Single nucleotide polymorphisms (SNPs or "snips") are sites in the DNA where common variations occur: that is, where the bases that comprise chromosomes may differ. SNPs are coded onto computer chips (SNP chips) to facilitate ready comparison of individual genomes. Haplotype groups are sets of SNPs on a region of a single chromosome that are typically inherited together; these groupings can be used to map population migration and, it is hoped, disease risk.
- 5 Troy Duster, *Backdoor to Eugenics*, second edition (New York: Routledge, 2003 [1990]), 156.
- 6 Nelson thanks C.A. Miranda for bringing the presence of the AfricanAncestry.com channel and root-seekers videos on YouTube to her attention. Although we focus on the broadcasts of African American root-seekers, this phenomenon is broadly common on the SNS.
- 7 Alex Haley, *Roots: The Saga of an African Family* (New York: Dell, 1976).
- 8 The idea of "affiliative self-fashioning" is introduced in Alondra Nelson, "Bio Science: Genetic Genealogy Testing and the Pursuit of African Ancestry," *Social Studies of Science* 38 (2008): 771–774 and Nelson, "The Factness of Diaspora: The Social Sources of Genetic Genealogy," in B. Koenig, S. Lee, and S. Richardson, eds., *Rethinking Race in a Genomic Era* (New Brunswick, NJ: Rutgers University Press), 258–259.
- 9 John L. Jackson, Jr., *Real Black: Adventures in Racial Sincerity* (Chicago: University of Chicago Press, 2005).
- 10 See, for example, Luigi Cavalli-Sforza, Paolo Menozzi and Alberto Piazza, *The History and Geography of Human Genes* (Princeton, NJ: Princeton University Press, 1994); Mark Jobling and Chris Tyler-Smith, "Fathers and Sons: The Y Chromosome and Human Evolution," *Trends in Genetics* 11.11: 449–55.
- 11 For a discussion of types of genetic genealogy testing from the perspective of what social possibilities they yield for consumers, see Nelson, "Bio Science," 765–767.
- 12 Racio-ethnic composite testing involves analysis of one's full nuclear DNA in order to make claims about ancestry. A subject's genetic sample is compared with panels of proprietary, "ancestry informative" SNPs. The end result is an "admixture" of three or four statistically constituted categories—African, Native American, East Asian, and European—based on the presence of genetic markers said to be predominant among each of these "original" populations. Notably, these markers are present across the spectrum of human groups. A hypothetical customer might learn his racio-ethnic composite to be 60 percent East Asian, 32 percent African and 8 percent Native American. This form of analysis was developed by the now defunct DNAPrint Genomics company. However, it is still in use by genetic genealogy companies, including 23andMe.
- 13 <https://genographic.nationalgeographic.com/genographic/index.html> (accessed March 20, 2010).
- 14 See the Oxford Ancestors website on its "Matriline DNA Service": [www.oxfordancestors.com/component/page,shop.product\\_details/flypage,flypage/product\\_id,17/category\\_id,6?option,com\\_virtuemart/Itemid,67/](http://www.oxfordancestors.com/component/page,shop.product_details/flypage,flypage/product_id,17/category_id,6?option,com_virtuemart/Itemid,67/) (accessed March 19, 2010). On the African Ancestry company's "African Lineage Database," see: [www.africanancestry.com/database.html](http://www.africanancestry.com/database.html) (accessed March 19, 2010). The ethnic lineage testing offered by Oxford Ancestors is popular among persons of European descent because this company guarantees customers who fit this profile a match to one of the mitochondrial "daughters of Eve" with 95 percent certainty. Similarly, African Ancestry is popular among persons of African descent, in part because this black-owned company boasts the largest reference database of African DNA.
- 15 The *Motherland* series also aired on cable television in the U.S on the Sundance Channel.

- 16 June Deery, "Interior Design: Commodifying Self and Place in 'Extreme Makeover,' 'Extreme Makeover: Home Edition,' and 'The Swan,'" in Dana Alice Heller, ed., *The Great American Makeover: Television, History, Nation* (New York: Macmillan, 2006), 169. On the history and affective significance of "the reveal" in television, see Anna McCarthy, "'Stanley Milgram, Allen Funt, and Me': Postwar Social Science and the 'First Wave' of Reality TV," in Laurie Ouellette and Susan Murray, eds., *Reality TV: Remaking Television Culture* (New York: New York University Press, 2004) 19–39.
- 17 Lawrence-Lightfoot and Jemison appear in *African American Lives*, producers Henry Louis Gates, Jr., Williams R. Grant, and Peter W. Kunhardt. DVD. Public Broadcasting Service, 2005. Chris Rock's family genealogy is featured in *African American Lives II*, producers Henry Louis Gates, Jr., Williams R. Grant, Peter W. Kunhardt, and Dyllan McGee. DVD. Public Broadcasting Service, 2007.
- 18 Nelson is presently at work on a book about the circulation of genetic ancestry testing in African diasporic culture.
- 19 Michael Patton, *Qualitative Research and Evaluation Methods*, third edition (Thousand Oaks, CA: Sage, 2002), 238–239.
- 20 In analyzing the data, we decided to discard the data for one of the video clips we gathered, which was an interview of a male root-seeker posted by AfricanAncestry.com on YouTube. We have come to a consensus that the formation of the video clip could have been controlled to a great extent as it may serve an indirect advertisement purpose to encourage a specific group of viewers to take the genetic genealogy test from AfricanAncestry.com. Therefore, it was concluded that the specific video clip might impede an accurate assessment of the YouTube video's impact on the responses to genetic genealogy tests. Indeed, AfricanAncestry.com has its own YouTube channel; this suggests that roots revelation videos might also endeavor to re-create the narrative arc of the "testimonials" about genetic genealogy constructed by the company.
- 21 <http://www.youtube.com/watch?v=aYf4J9Ga-U> (accessed February 11, 2010).
- 22 Patricia G. Lange, "Publicly Private and Privately Public: Social Networking on YouTube," *Journal of Computer-Mediated Communication* 13.1 (2007): article 18. Available at: <http://jcmc.indiana.edu/vol13/issue1/lange.html> (accessed November 12, 2009).
- 23 [www.youtube.com/watch?v=x-4TPC5NMQ4](http://www.youtube.com/watch?v=x-4TPC5NMQ4)
- 24 [www.youtube.com/watch?v=kpyogNwIEUQ&feature=video\\_response](http://www.youtube.com/watch?v=kpyogNwIEUQ&feature=video_response) (accessed February 11, 2010).
- 25 [www.youtube.com/watch?v=8OiiNdlxxvo](http://www.youtube.com/watch?v=8OiiNdlxxvo).
- 26 [www.youtube.com/watch?v=putwL69UNpY&feature=related](http://www.youtube.com/watch?v=putwL69UNpY&feature=related).
- 27 [www.youtube.com/watch?v=putwL69UNpY&feature=related](http://www.youtube.com/watch?v=putwL69UNpY&feature=related).
- 28 [www.youtube.com/watch?v=putwL69UNpY&feature=related](http://www.youtube.com/watch?v=putwL69UNpY&feature=related).
- 29 [www.youtube.com/watch?v=putwL69UNpY&feature=related](http://www.youtube.com/watch?v=putwL69UNpY&feature=related).
- 30 [www.youtube.com/watch?v=hZzQU3dT9DA&feature=related](http://www.youtube.com/watch?v=hZzQU3dT9DA&feature=related).
- 31 [www.youtube.com/watch?v=8OiiNdlxxvo](http://www.youtube.com/watch?v=8OiiNdlxxvo) (emphasis added).
- 32 [www.youtube.com/watch?v=hZzQU3dT9DA&feature=related](http://www.youtube.com/watch?v=hZzQU3dT9DA&feature=related).
- 33 [www.youtube.com/watch?v=hZzQU3dT9DA&feature=related](http://www.youtube.com/watch?v=hZzQU3dT9DA&feature=related) (emphasis added).
- 34 Ibid. (emphasis added).
- 35 [www.youtube.com/watch?v=putwL69UNpY&feature=related](http://www.youtube.com/watch?v=putwL69UNpY&feature=related).
- 36 Patricia G. Lange, "Publicly Private and Privately Public: Social Networking on YouTube," *Journal of Computer-Mediated Communication* 13.1: article 18. Available at: <http://jcmc.indiana.edu/vol13/issue1/lange.html> (accessed November 12, 2009).
- 37 All comments are in response to this video: [www.youtube.com/watch?v=8OiiNdlxxvo](http://www.youtube.com/watch?v=8OiiNdlxxvo). *lerinhar* is both a root-seeker and a commentator.
- 38 Lange, "Publicly Private and Privately Public," 11.
- 39 Lange, "Publicly Private and Privately Public," 11.
- 40 [www.youtube.com/watch?v=hZzQU3dT9DA&feature=related](http://www.youtube.com/watch?v=hZzQU3dT9DA&feature=related).
- 41 [www.youtube.com/watch?v=8OiiNdlxxvo](http://www.youtube.com/watch?v=8OiiNdlxxvo).
- 42 Saidiya Hartman, "The Time of Slavery," *South Atlantic Quarterly* 101.4 (Fall 2002): 759.
- 43 For a comprehensive, critical discussion of recent scholarship on race, racism and technology, see Jessie Daniels, "Race and Racism in Internet Studies: A Review and Critique," unpublished manuscript. The rich imbrication of diaspora and technology is explored in Emily Noelle Ignacio's *Building Diaspora: Filipino Cultural Community Formation on the Internet* (New Brunswick, NJ: Rutgers University Press, 2005). We follow her argument that new media and the internet can both solidify, create and reconstitute the definition and meaning of diasporic community.
- 44 The idea of "affiliative self-fashioning" is discussed in Alondra Nelson, "Bio Science: Genetic Genealogy Testing and the Pursuit of African Ancestry," *Social Studies of Science* 38 (2008): 771–774 and Nelson, "The Factness of Diaspora," 258–259.
- 45 [www.youtube.com/watch?v=hZzQU3dT9DA&feature=related](http://www.youtube.com/watch?v=hZzQU3dT9DA&feature=related). Thanks to Michael Yarbrough for helping to illuminate the meaning of the name "bongiwe."
- 46 [www.youtube.com/watch?v=hZzQU3dT9DA&feature=related](http://www.youtube.com/watch?v=hZzQU3dT9DA&feature=related).
- 47 [www.youtube.com/watch?v=hZzQU3dT9DA&feature=related](http://www.youtube.com/watch?v=hZzQU3dT9DA&feature=related).
- 48 [www.youtube.com/watch?v=putwL69UNpY&feature=related](http://www.youtube.com/watch?v=putwL69UNpY&feature=related).
- 49 [www.youtube.com/watch?v=putwL69UNpY&feature=related](http://www.youtube.com/watch?v=putwL69UNpY&feature=related).
- 50 [www.youtube.com/watch?v=putwL69UNpY&feature=related](http://www.youtube.com/watch?v=putwL69UNpY&feature=related).
- 51 [www.youtube.com/watch?v=kpyogNwIEUQ&feature=video\\_response](http://www.youtube.com/watch?v=kpyogNwIEUQ&feature=video_response) (accessed February 11, 2010).
- 52 [www.youtube.com/watch?v=hZzQU3dT9DA&feature=related](http://www.youtube.com/watch?v=hZzQU3dT9DA&feature=related).
- 53 Jackson, *Real Black*, 14.
- 54 [www.accessdna.com/useraccount/default.aspx](http://www.accessdna.com/useraccount/default.aspx).
- 55 Jackson, *Real Black*.
- 56 Ibid. 13, 227.
- 57 Ibid. 15 (emphasis added).
- 58 Keith Wailoo, "Who Am I? Genetics and the Crisis of Historical Identity," in Keith Wailoo, Alondra Nelson, Catherine Lee, eds., *Genetics and the Unsettled Past: The Collision of DNA, Race, and History* (New Brunswick, NJ: Rutgers University Press, 2012).

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# 13

## Genomic Databases and an Emerging Digital Divide in Biotechnology

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To use this flood of knowledge, which will pour across the computer networks of the world, biologists not only must become computer-literate, but also change their approach to the problem of understanding life. The next tenfold increase in the amount of information in the databases will divide the world into haves and have-nots, unless each of us connects to that information and learns how to sift through it for the parts we need.

(Walter Gilbert)<sup>1</sup>

In the mid-1990s, a group of American and British scientists met at a seaside resort in the Caribbean to discuss ownership of the DNA data they were generating from the Human Genome Project (HGP). They felt that the information from this emerging technology was too valuable for any one person or organization to own and decided genome data should be treated as a public good. This was a laudable goal and a revolutionary one in terms of scientific norms regarding information access. Traditionally, scientists keep data close to the lab and share with colleagues they work with or through close friendship networks. In interviews I conducted from 2005 to 2009 with stakeholders in genomic research, a geneticist explained that the principle of open access scientists agreed to in the Bermuda meetings was part of a larger social movement in science.

Genomics exemplifies a shift in the cultural practices of science from the protection of data to the sharing of it. A geneticist I interviewed referred to this change in practice among scientists as "democratizing the data" where data sets would be available to researchers on an international scale and, as he says "open, as in belonging to the public." The most important technologies to apply what the scientists called the Bermuda Accord (also known as the Bermuda Principles) are the Internet and digital databases to facilitate global access to genome data sets. As the Nobel laureate and genetic scientist Walter Gilbert predicts in the epigraph above, at stake would be the potential of a global digital divide in genomic information. For genome scientists, creating a culture of