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why are black women so



ALGORITHMS OF OPPRESSION

why are black women so angry
why are black women so loud
why are black women so mean
why are black women so attractive
why are black women so lazy
why are black women so annoying
why are black women so confident
why are black women so sassy
why are black women so insecure

ALGORITHMS

HOW SEARCH ENGINES
REINFORCE RACISM

SAFIYA UMOJA NOBLE

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NEW YORK UNIVERSITY PRESS
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Algorithms of Oppression *How Search Engines Reinforce Racism*

Safiya Umoja Noble

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References to Internet websites (URLs) were accurate at the time of writing. Neither the author nor New York University Press is responsible for URLs that may have expired or changed since the manuscript was prepared.

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For Nico and Jylian

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ABOUT THE AUTHOR

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responsible for solving the problems of racist exclusion and misrepresentation in Silicon Valley or in biased product development is not the answer. Commercial search prioritizes results predicated on a variety of factors that are anything but objective or value-free. Indeed, there are infinite possibilities for other ways of designing access to knowledge and information, but the lack of attention to the kind of White and Asian male dominance that Guynn reported sidesteps those who are responsible for these companies' current technology designers and their troublesome products. Few voices of African American women innovators and tech-company leaders in Silicon Valley have emerged to reframe the "diversity problems" that keep African American women at bay. One essay that grabbed the attention of many people, written for *Recode* by Heather Hiles, the former CEO of an educational technology e-portfolio company, Pathbrite, spoke directly to the limits for Black women in Silicon Valley:

I'm writing this post from the Austin airport, headed home to Oakland from SXSW. Before pulling out my laptop to compose this, I read a post on Medium that named me as one of three black women known to have raised millions in venture capital. The article began with the startling fact that less than .1 percent of venture capital in the United States is invested in black women founders. I'm not sure what sub-percentage of these are women in tech, but it doesn't really matter when the overall numbers are so abysmal. The problem isn't a lack of compelling women of color to invest in; it's a system in Silicon

Valley that isn't set up to develop, encourage and create pathways for blacks, Latinos or women. Don't just take my word for it—listen to industry leaders interviewed for a USA Today story on the Valley's lack of commitment to diversity. Jessica Guynn reports that "venture capitalists tell [Mitch Kapor] all the time that they are 'color blind' when funding companies. He's not sure they are ready to let go of a deeply rooted sense that Silicon Valley is a meritocracy."²

Hiles goes on to discuss the exclusionary practices of Silicon Valley, challenging the notion that merit and opportunity go to the smartest people prepared to innovate. Despite her being the only openly gay Black woman to raise \$12 million in venture capital for her company, she still faces tremendous obstacles that her non-Black counterparts do not. By rendering people of color as nontechnical, the domain of technology "belongs" to Whites and reinforces problematic conceptions of African Americans.³ This is only exacerbated by framing the problems as "pipeline" issues instead of as an issue of racism and sexism, which extends from employment practices to product design. "Black girls need to learn how to code" is an excuse for not addressing the persistent marginalization of Black women in Silicon Valley.

Who Is Responsible for the

as “pipeline” issues instead of as an issue of racism and sexism, which extends from employment practices to product design. “Black girls need to learn how to code” is an excuse for not addressing the persistent marginalization of Black women in Silicon Valley.

Who Is Responsible for the Results?

As a result of the lack of African Americans and people with deeper knowledge of the sordid history of racism and sexism working in Silicon Valley, products are designed with a lack of careful analysis about their potential impact on a diverse array of people. If Google software engineers are not responsible for the design of their algorithms, then who is? These are the details of what a search for “black girls” would yield for many years, despite that the words “porn,” “pornography,” or “sex” were not included in the search box. In the text for the first page of results, for example, the word “pussy,” as a noun, is used four times to describe Black girls. Other words in the lines of text on the first page include “sugary” (two times), “hairy” (one), “sex” (one), “booty/ass” (two), “teen” (one), “big” (one), “porn star” (one), “hot” (one), “hardcore” (one), “action” (one), “galleries [sic]” (one).

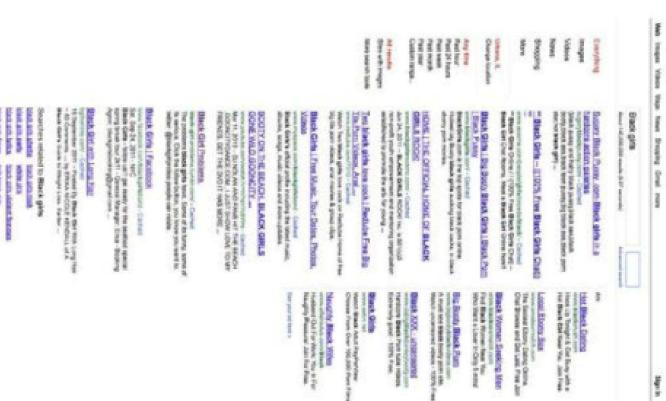


Figure 2.1. First page of search results on keywords “black girls,” September 18, 2011.



Figure 2.2. First page (partial) of results on “black girls” in a Google search with the first result’s detail and advertising.

► [SugaryBlackPussy.com-Black girls in a hardcore action galleries](#)

(sugaryblackpussy.com/
black pussy and hairy black pussy,black sex,black booty/black ass,black teen pussy,big
black ass,black porn star,hot black girl) ...

Figure 2.3. First results on the first page of a keyword search for “black girls” in a Google search.

In the case of the first page of results on “black girls,” I clicked on the link for both the top search result (unpaid) and the first paid result,

which is reflected in the right-hand sidebar, where advertisers that are willing and able to spend money through Google AdWords have their content appear in relationship to these search queries.¹⁵ All advertising in relationship to Black girls for many years has been hypersexualized and pornographic, even if it purports to be just about dating or social in nature. Additionally, some of the results such as the UK rock band Black Girls lack any relationship to Black women and girls. This is an interesting co-optation of identity, and because of the band’s fan following as well as possible search engine optimization strategies, the band is able to find strong placement for its fan site on the front page of the Google search.



Figure 2.4. Snapchat faced intense media scrutiny in 2016 for its “Bob Marley” and “yellowface” filters that were decried as racist stereotyping.

Published text on the web can have a plethora of meanings, so in my analysis of all of these results, I have focused on the implicit and explicit messages about Black women and girls in both the texts of results or hits and the paid ads that accompany them. By comparing these to broader social narratives about Black women and girls in dominant U.S. popular culture, we can see the ways in which search engine technology replicates and instantiates these notions. This is no surprise when Black women are not employed in any significant numbers at Google. Not only are African Americans underemployed at Google, Facebook, Snapchat, and other popular technology companies as computer programmers, but jobs that could employ the expertise of people who understand the ramifications of racist and sexist stereotyping and misrepresentation and that require undergraduate and advanced degrees in ethnic, Black / African American, women and gender, American Indian, or Asian American studies are nonexistent.

One cannot know about the history of media stereotyping or the nuances of structural oppression in any formal, scholarly way through the traditional engineering curriculum of the large research universities from which technology companies hire across the United States. Ethics courses are rare, and the possibility of formally learning about the history of Black women in relation to a series of stereotypes such as the Jezebel, Sapphire, and Mammy does not exist in mainstream engineering programs. I can say that when I teach engineering students at UCLA about the histories of racial stereotyping in the U.S. and how these are encoded in computer programming projects, my students leave the class stunned that no one has ever spoken of these things in their courses. Many are grateful to at least have had ten weeks of discussion about the politics of technology design, which is not nearly enough to prepare them for a lifelong career in information technology. We need people designing technologies for society to have training and an education on the histories of marginalized people, at a minimum, and we need them working alongside people with rigorous training and preparation from the social sciences and humanities. To design technology for people, without a detailed and rigorous study of people and communities, makes for the many kinds of egregious tech designs we see that come at the expense of people of color and women.

In this effort to try and make sense of how to think through the complexities of race and gender in the U.S., I resist the notion of essentializing the racial and gender binaries; however, I do acknowledge that the discursive existence of these categories, “Black” and “women/girls,” is shaped in part by power relations in the United States that tend to essentialize and reify such categories. Therefore, studying Blackness is, in part, guided by its historical construction against Whiteness as a social order and those who have power given their proximity to it. I make comparisons in this study of Blackness to Whiteness only for the purposes of making more explicit the discursive representations of Black girls’ and women’s identities against an often unnamed and unacknowledged background of a normativity that is structured around White-American-ness. I do believe that the results of

my study on identities such as White men, boys, girls, and women deserve their own separate treatment using the extensive body of scholarship in the social construction of Whiteness and a critical Whiteness lens. This study does not deeply discuss those searches in this way. I am not arguing that Black women and girls are the only people maligned in search, although they were represented far worse than others when I began this research. The goal of studying representations of Black girls as a social identity is not to use such research to legitimize essentializing or naturalizing characterizations of people by biological constructions of race or gender; nor does this work suggest that discourses on race and gender in search engines reflect a particular “nature” or “truth” about people.

It is more interesting to think about the ways in which search engine results perpetuate particular narratives that reflect historically uneven distributions of power in society. Although I focus mainly on the example of Black girls to talk about search bias and stereotyping, Black girls are not the only girls and women marginalized in search. The results retrieved two years into this study, in 2011, representing Asian girls, Asian Indian girls, Latina girls, White girls, and so forth reveal the ways in which girls’ identities are commercialized, sexualized, or made curiosities within the gaze of the search engine. Women and girls do not fare well in Google Search—that is evident. My goal is not to inform about this but to uncover new ways of thinking about search results and the power that such results have on our ways of knowing and relating. I do this by illuminating the case of Black girls, but undoubtedly, much could be written about the specific histories and contexts of these

various identities of women and girls of color; and indeed, there is much still to question and advocate for around the commercialization of identity in search.

In order to fully interrogate this persistent phenomenon, a lesson on race and racialization is in order, as these processes are structured into every aspect of American work, culture, and knowledge production. To understand representations of race and gender in new media, it is necessary to draw on research about how race is constituted as a social, economic, and political hierarchy based on racial categories, how people are racialized, how this can shift over time without much disruption to the hierarchical order, and how White American identity functions as an invisible “norm” or “nothingness” on which all others are made aberrant.

Figure 2.5. Google search on “Asian girls,” 2011.

Web Images Videos Maps News Shopping Gmail more

Sign in

Latin girls

Search

About 800,000 results (0.07 seconds)

Latin girls

Search

About 11,200,000 results (0.07 seconds)

American Indian girls

Search

About 11,200,000 results (0.07 seconds)

American Indian girls

The first screenshot shows search results for 'Latin girls'. The top result is 'Latina Girls Fucking Videos > Most Recent' from www.sexymodels.com. Other results include 'Mexican Latina girls fucking movie for that Hot sexy big ass' and 'Latina Girls Fucking on web Latas.com - Censored'.

The second screenshot shows search results for 'American Indian girls'. The top result is 'American Girls | American Girl' from www.americangirl.com. Other results include 'American Indian Girl - EVA - You Tube' and 'Native American Indian Girl (American Indian Girl)'.

Figure 2.8. Google search on “Latina girls” in 2011.

Figure 2.9. Google search on “American Indian girls” in 2011.

Search

White girls

About 50,500,000 results (in 1.1 seconds)

Everything
white girls define black men
Images
white girls sex
Maps
white girls map
Videos
white girls dancing
News
white girls news
Shopping
white girls shopping
Discussions
white girls discussion
More
white girls movies

Urban, IL
Change location

Any time
1988-Now
Past week
Past month
Past year
Current range:...

All results
Sites with image
More search tools

Related searches: white girls define black men, white girls sex, we love white girls

White Chicks (2004) - IMDb
www.imdb.com/title/tt0375401/
White Chicks (2004) - Wikipedia

Two disaffected FBI agents do whatever it takes to prevent now-reformed mob boss Steven from a kidnapping plot.
Directed by Kenan Ivory. Written by Steven Wayans, Shawn Wayans, Betsy Phillips.
Starring Wayans, Betsy Phillips.
Full cast and crew. Memorable quotes. Photo gallery.
White Chicks poster

The 50 Hottest White Girls With Ass | Complex
www.complex.com/lists/2011/07/the-50-hottest-white-girls-with-ass/ - Cached
July 27, 2011 — Some girls, it's ok don't. We take a look at the hottest you dig! Complex.com: "The original tgirl's guide for men."

Urban Dictionary: white girl
www.urbandictionary.com/define.php?term=white+girl+-+C+cached
slang name for cocaine more often used in school as teachers seem to sum what you're talking about.

Misusing white woman syndrome - Wikipedia, the free encyclopedia
en.wikipedia.org/w/Misusing white woman syndrome - Cached
Misusing white woman syndrome - Cached
Misusing white woman syndrome (MWS) or misusing pretty girl syndrome is a vernacular term used by some media and social critics to describe the seemingly ...

Marty Casey: White Girls - YouTube
www.youtube.com/watch?v=7yvPdsgyBqo - Cached
May 5, 2010 — Time is GET WITH THE PROGRAM!
http://www.martycasey.com
http://www.martycasey.com

Black Guys with White Girls
james-williams-including.com - All Topics : Chandler and Relationships
What's going on with all the black guys with white girls?
Going through the airport the other day I saw stuck by the number of white women who breastfeed children ...

2.10. Google search on “white girls” in 2011.

Figure 2.10. Google search on “white girls” in 2011.

The leading thinking about race online has been organized along either theories of racial formation⁵ or theories of hierarchical and

Figure 2.11. Google search on “African American girls” in 2011.

structural White supremacy.² Scholars who study race point to the aggressive economic and social policies in the U.S. that have been organized around ideological conceptions of race as “an effort to reorganize and redistribute resources along particular racial lines.”³ Vilna Bashi Treitler, a professor of sociology and chair of the Department of Black Studies at the University of California, Santa Barbara, has written extensively about the processes of racialization that occur among ethnic groups in the United States, all of which are structured through a racial hierarchy that maintains Whiteness at the top of the social, political, and economic order. For Treitler, theories of racial formation are less salient—it does not matter whether one believes in race or not, because it is a governing paradigm that structures social logics. Race, then, is a hierarchical system of privilege and power that is meted out to people on the basis of perceived phenotype and heritage, and ethnic groups work within the already existent racial hierarchy to achieve more power, often at the expense of other ethnic groups. In Treitler’s careful study of racialization, she notes that the racial binary of White versus Black is the system within which race has been codified through legislation and economic and public policy, which are designed to benefit White Americans. It is this system of affording more or less privileges to ethnic groups, including White Americans as the penultimate beneficiaries of power and privilege, that constitutes race. Ethnic groups are then “racialized” in the hierarchical system and vie for power within it. Treitler explains the social construction of race and the processes of racialization this way:

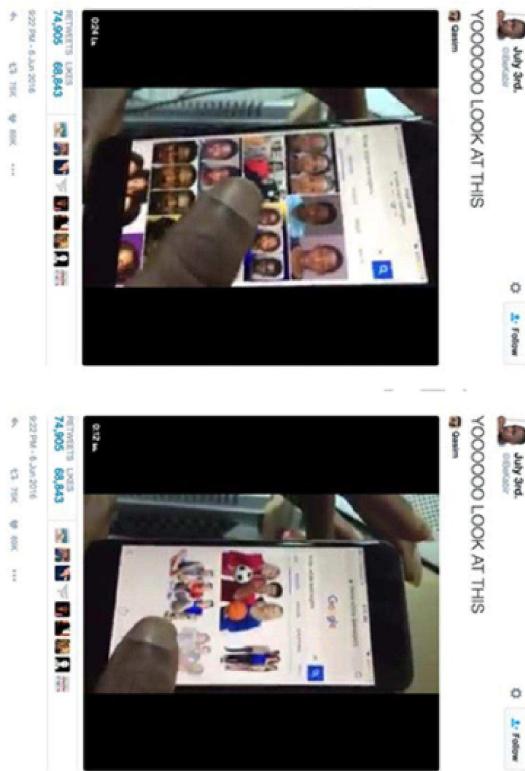
Racial identities are obtained not because one is unaware of the choice of ethnic labels with which to call oneself, but because one is not allowed to be without a race in a racialized society. Race is a sociocultural hierarchy, and racial categories are social spaces, or positions, that are carved out of that racial hierarchy. The study of racial categories is important, because categories change labels and meanings, and we may monitor changes in the racial hierarchy by monitoring changes in the meaning and manifestations of racial categories.²

Treitler’s work is essential to understanding that the reproduction of racial hierarchies of power online are manifestations of the same kinds of power systems that we are attempting to dismantle and intervene in—namely, eliminating discrimination and racism as fundamental organizing logics in our society. Tanya Golash-Boza, chair of sociology at the University of California, Merced, argues that critical race scholarship should expand the boundaries of simply marking where racialization and injustice occur but also must press the boundaries of public policy so that the understanding of the complex ways that marginalization is maintained can substantially shift.¹⁰ Michael Omi and Howard Winant, two key scholars of race in the United States, distinguish the ways that racial rule has moved “from dictatorship to democracy” as a means of masking domination over racialized groups in the United States.¹¹ In the context of the web, we see the absolving of workplace practices such as the low level of employment of African Americans in Silicon Valley and the products that stem from it, such as algorithms that organize

information for the public, not as matters of domination that persist in these realms but as democratic and fair projects, many of which mask the racism at play. Certainly, we cannot intervene if we cannot see or acknowledge these types of discriminatory practices. To help the reader see these practices, I offer here more examples of how racial algorithmic oppression works in Google Search.

On June 6, 2016, Kabir Ali, an African American teenager from Clover High School in Midlothian, Virginia, tweeting under the handle [@iBekabir](#), posted a video to Twitter of his Google Images search on the keywords “three black teenagers.” The results that Google offered were of African American teenagers’ mug shots, insinuating that the image of Black teens is that of criminality. Next, he changed one word—“black” to “white”—with very different results. “Three white teenagers” were represented as wholesome and all-American. The video went viral within forty-eight hours, and Jessica Guynn, from *USA Today*, contacted me about the story. In typical fashion, Google reported these search results as an anomaly, beyond its control, to which I responded again, “If Google isn’t responsible for its algorithm, then who is?” One of Ali’s Twitter followers later posted a tweak to the algorithm made by Google on a search for “three white teens” that now included a newly introduced “criminal” image of a White teen and more “wholesome” images of Black teens.

Figure 2.12. Kabir Ali’s tweet about his searching for “three black teenagers” shows mug shots, 2016.



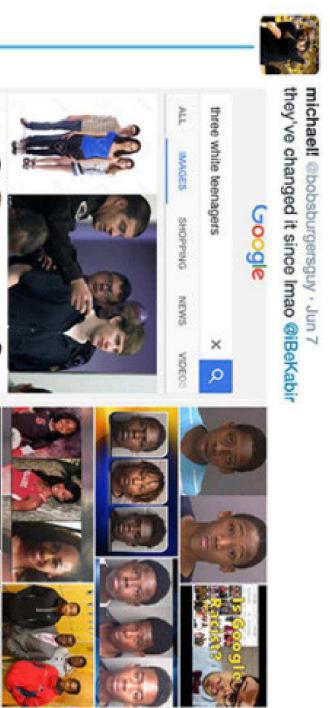


Figure 2.13. Kabir Ali's tweet about his searching for "three white teenagers" shows wholesome teens in stock photography, 2016.

What we know about Google's responses to racial stereotyping in its products is that it typically denies responsibility or intent to harm, but then it is able to "tweak" or "fix" these aberrations or "glitches" in its systems. What we need to ask is why and how we get these stereotypes in the first place and what the attendant consequences of racial and gender stereotyping do in terms of public harm for people who are the targets of such misrepresentation. Images of White Americans are persistently held up in Google's images and in its results to reinforce the superiority and mainstream acceptability of Whiteness as the default "good" to which all others are made invisible. There are many examples

of this, where users of Google Search have reported online their shock or dismay at the kinds of representations that consistently occur. Some examples are shown in figures 2.14 and 2.15. Meanwhile, when users search beyond racial identities and occupations to engage concepts such as "professional hairstyles," they have been met with the kinds of images seen in figure 2.16. The "unprofessional hairstyles for work" image search, like the one for "three black teenagers," went viral in 2016, with multiple media outlets covering the story, again raising the question, can algorithms be racist?

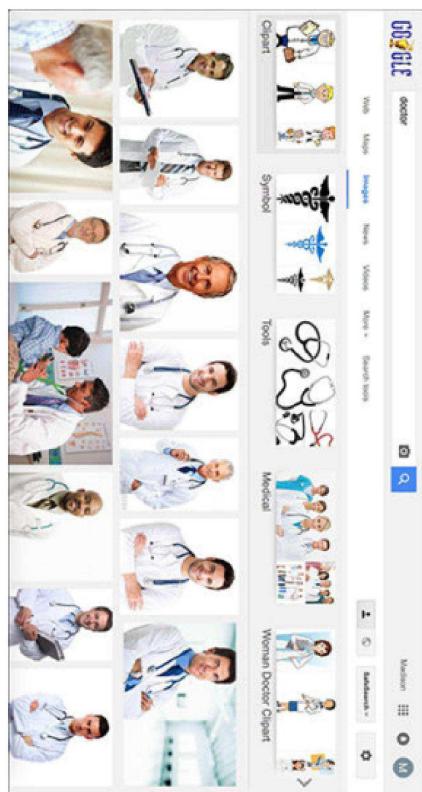


Figure 2.14. Google Images search on "doctor" featuring men, mostly White, as the dominant representation, April 7, 2016.



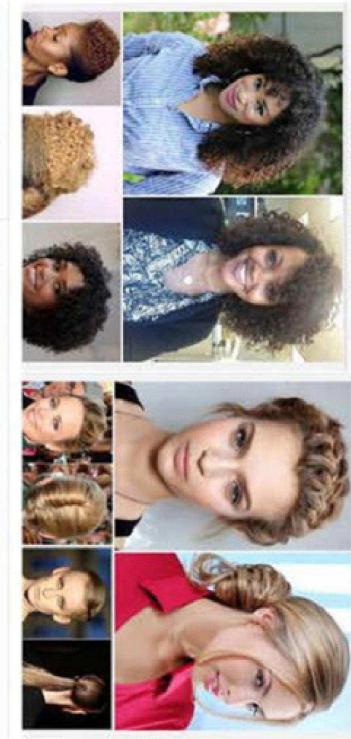
Figure 2.15. Google Images search on “nurse” featuring women, mostly White, as the dominant representation, April 7, 2016.

 **Rosalia**
@BonKamona

I saw a tweet saying "Google unprofessional hairstyles for work". I did. Then I checked the 'professional' ones 😊😊😊😊

••••• Mscmom 11:01 PM
unprofessional hairstyles for work

• professional hairstyles for work



141 RETWEETS 41 LIKES

2:04 PM - 5 Apr 2016



Figure 2.16. Tweet about Google searches on “unprofessional hairstyles for work,” which all feature Black women, while “professional hairstyles for work” feature White women, April 7, 2016.

Understanding technological racialization as a particular form of algorithmic oppression allows us to use it as an important framework in which to critique the discourse of the Internet as a democratic landscape and to deploy alternative thinking about the practices instantiated within commercial web search. The sociologist and media studies scholar Jessie Daniels makes a similar argument in offering a key critique of those scholars who use racial formation theory as an organizing principle for thinking about race on the web, arguing that, instead, it would be more potent and historically accurate to think about White supremacy as the dominant lens and structure through which sense-making of race online can occur. In short, Daniels argues that using racial formation theory to explain phenomena related to race online has been detrimental to our ability to parse how power online maps to oppression rooted in the history of White dominance over people of color.¹⁸

Often, group identity development and recognition in the United States is guided, in part, by ongoing social experiences and interactions, typically organized around race, gender, education, and other social factors that are also ideological in nature.¹⁹ These issues are at the heart of a “politics of recognition,”²⁰ which is an essential form of redistributive justice for marginalized groups that have been traditionally maligned, ignored, or rendered invisible by means of disinformation on the part of the dominant culture. In this work, I am claiming that you cannot have social justice and a politics of recognition without an acknowledgment of how power—often exercised simultaneously through White supremacy and sexism—can skew the

delivery of credible and representative information. Because Black communities live in material conditions that are structured physically and spatially in the context of a freedom struggle for recognition and resources, the privately controlled Internet portals that function as a public space for making sense of the distribution of resources, including identity-based information, have to be interrogated thoroughly.

In general, search engine users are doing simple searches consisting of one or more natural-language terms submitted to Google; they typically do not conduct searches in a broad or deep manner but rather with a few keywords, nor are they often looking past the first page or so of search engine results, as a general rule.²¹ Search results as artifacts have symbolic and material meaning. This is true for Google, but I will revisit this idea in the conclusion in an interview with a small-business owner who uses the social network Yelp for her business and also finds herself forced from view by the algorithm. Search algorithms also function within the context of education: they are embedded in schools, libraries, and educational support technologies. They function in relationship to popular culture expressions such as “just Google it,” which serves to legitimate the information and representations that are returned. Search algorithms function as an artifact of culture, akin to the ways that Cameron McCarthy describes informal and formal educational constructs:

By emphasizing the relationality of school knowledge, one also raises the question of the ideological representation of dominant and subordinate groups in education and in the

popular culture. By “representation,” I refer not only to mimesis or the presence or absence of images of minorities and third-world people in textbooks; I refer also to the question of power that resides in the specific arrangement and deployment of subjectivity in the artifacts of the formal and informal culture.¹⁴

The Internet is an artifact, then, both as an extension of the formal educational process and as “informal culture,” and thus it is a “deployment of subjectivity.” This idea offers another vantage point from which to understand the ways that representation (and misrepresentation) in media are an expression of power relations. In the case of search engine results, McCarthy’s analysis opens up a new way of thinking about the ways in which ideology plays a role in positioning the subjectivities of communities in dominant and subordinate ways.

This concept of informal culture embodied in media representations of popular stereotypes, of which search is an instance, is also taken up by the media scholars Jessica Davis and Oscar Gandy, Jr., who note,

Media representations of people of color, particularly African Americans, have been implicated in historical and contemporary racial projects. Such projects use stereotypic images to influence the redistribution of resources in ways that benefit dominant groups at the expense of others. However, such projects are often typified by substantial tension between

control and its opposition. Racial identity becomes salient when African American audiences oppose what they see and hear from an ideological position as harmful, unpleasant, or distasteful media representations.¹⁵

These tensions underscore the important dimensions of how search engines are used as a hegemonic device at the expense of some and to the benefit of dominant groups. The results of searches on “Jew,” as we have already seen, are a window into this phenomenon and mark only the beginning of an important series of inquiries that need to be made about how dominant groups are able to classify and organize the representations of others, all the while neutralizing and naturalizing the agency behind such representations. My hope is that this work will increase the saliency of African American women and other women of color who want to oppose the ways in which they are collectively represented.

Google’s enviable position as the monopoly leader in the provision of information has allowed its organization of information and customization to be driven by its economic imperatives and has influenced broad swaths of society to see it as the creator and keeper of information culture online, which I am arguing is another form of American imperialism that manifests itself as a “gatekeeper”¹⁶ on the web. I make this claim on the basis of the previously detailed research of Elad Segev on the political economy of Google. The resistance to efforts by Google for furthering the international digital divide are partially predicated on the English-language and American values exported

through its products to other nation-states,²² including the Google Book Project and Google Search. Google's international position with over 770 million unique visitors across all of its properties, including YouTube, encompasses approximately half of the world's Internet users. Undoubtedly, Google/Alphabet is a broker of cultural imperialism that is arguably the most powerful expression of media dominance on the web we have yet to see.²³ It is time for the monopoly to be broken apart and for public search alternatives to be created.

How Pornification Happened to

“Black Girls” in the Search Engine

Typically, webmasters and search engine marketers look for key phrases, words, and search terms that the public is most likely to use. Tools such as Google's AdWords are also used to optimize searches and page indexing on the basis of terms that have a high likelihood of being queried. Information derived from tools such as AdWords is used to help web designers develop strategies to increase traffic to their websites. By studying search engine optimization (SEO) boards, I was able to develop an understanding of why certain terms are associated with a whole host of representational identities.

First, the pornography industry closely monitors the top searches for

information or content, based on search requests across a variety of demographics. The porn industry is one of the most well-informed industries with sophisticated usage of SEO. A former SEO director for FreePorn.com has blogged extensively on how to elude Google and maximize the ability to show up in the first page of search results.²⁴ Many of these techniques include long-term strategies to co-opt particular terms and link them over time and in meaningful ways to pornographic content. Once these keywords are identified, then variations on these words, through what are called “long tail keywords,” are created. This allows the industry to have users “self-select” for a variety of fetishes or interests. For example, the SEO board SEOMoz describes this process in the following way:

Most people use long tail keywords as an afterthought, or just assume these things will come naturally. The porn world though, actually investigates these “long tails,” then expands off them. They have the unique reality of a lot of really weird people out there, who will search for specific things. Right now, according to Wordze, the most popular search featuring the word “grandma” is “grandma sex,” with an estimated 16,148 searches per month. From there, there’s a decent variety of long tails including things like “filipino grandma sex.” For the phrase “teen sex,” there are over 1000 recorded long tails that Wordze has, and in my experience, it misses a lot (it only shows things with substantial search volume). The main reason they take home as much traffic and profit at the end of the day as

they do is that they actively embrace these long tail keywords, seeking them out and marketing towards them. Which brings us to reason #2... When there is complete market saturation for a topic, the only way to handle it is to divide it into smaller, more easily approached niches. As stated above, they not only created sites with vague references to these things, but they targeted them specifically. If someone is ranking for a seemingly obscure phrase, it's because they went out there and created an entire site devoted to that long tail phrase.²²

Furthermore, the U.S. dominates the number of pages of porn content, and so it exploits its ability to reach a variety of niches by linking every possible combination of words and identities (including grandmothers, as previously noted) to expand its ability to rise in the page rankings. The U.S. pornography industry is powerful and has the capital to purchase any keywords—and identities—it wants. If the U.S. has such a stronghold in supplying pornographic content, then the search for such content is deeply contextualized within a U.S.-centric framework of search terms. This provides more understanding of how a variety of words and identities that are based in the U.S. are connected in search optimization strategies, which are grounded in the development and expansion of a variety of “tails” and affiliations.

The information architect Peter Morville discusses the importance of keywords in finding what can be known in technology platforms:

The humble keyword has become surprisingly important in recent years. As a vital ingredient in the online search process, keywords have become part of our everyday experience. We feed keywords into Google, Yahoo!, MSN, eBay, and Amazon. We search for news, products, people, used furniture, and music. And words are the key to our success.²³

Morville also draws attention to what cannot be found, by stressing the long tail phenomenon on the web. This is the place where all forms of content that do not surface to the top of a web search are located. Many sites languish, undiscovered, in the long tail because they lack the proper website architecture, or they do not have proper metadata for web-indexing algorithms to find them—for search engines and thus for searchers, they do not exist.

Such search results are deeply problematic and are often presented without any alternatives to change them except through search refinement or changes to Google’s default filtering settings, which currently are “moderate” for users who do not specifically put more filters on their results. These search engine results for women whose identities are already maligned in the media, such as Black women and girls,²⁴ only further debase and erode efforts for social, political, and economic recognition and justice.²⁵ These practices instantiate limited, negative portrayals of people of color in the media²⁶—a defining and normative feature of American racism.²⁷ Media scholars have studied ways in which the public is directly impacted by these negative portrayals.²⁸ In the case of television, research shows that negative

images of Blacks can adversely alter the perception of them in society.²⁹ Narissa M. Punyanunt-Carter, a communications scholar at Texas Tech University, has specifically researched media portrayals of African Americans' societal roles, which confirms previous studies about the effects of negative media images of Blacks on college students.³⁰ Thomas E. Ford found that both Blacks and Whites who view Blacks negatively on television are more likely to hold negative perceptions of them(selves).³¹ Yuki Fujioka notes that in the absence of positive firsthand experience, stereotypical media portrayals of Blacks on television are highly likely to affect perceptions of the group.³²

As we have seen, search engine design is not only a technical matter but also a political one. Search engines provide essential access to the web both to those who have something to say and offer and to those who wish to hear and find. Search is political, and at the same time, search engines can be quite helpful when one is looking for specific types of information, because the more specific and banal a search is, the more likely it is to yield the kind of information sought. For example, when one is searching for information such as phone numbers and local eateries, search engines help people easily find the nearest services, restaurants, and customer reviews (although there is more than meets the eye in these practices, which I discuss in the conclusion). Relevance is another significant factor in the development of information classification systems, from the card catalog to the modern search system or database, as systems seek to aid searchers in locating items of interest. However, the web reflects a set of commercial and advertising practices that bias particular ideas. Those industries and interests that

are powerful, influential, or highly capitalized are often prioritized to the detriment of others and are able to control the bias on their terms.

Inquiries into racism and sexism on the web are not new. In many discourses of technology, the machine is turned to and positioned as a mere tool, rather than being reflective of human values.³³ Design is purposeful in that it forges both pathways and boundaries in its instrumental and cultural use.³⁴ Langdon Winner, Thomas Phelan Chair of Humanities and Social Sciences in the Department of Science and Technology Studies at Rensselaer Polytechnic Institute, analyzes the forms of technology, from the design of nuclear power plants, which reflect centralized, authoritarian state controls over energy, to solar power designs that facilitate independent, democratic participation by citizens. He shows that design impacts social relations at economic and political levels.³⁵ The more we can make transparent the political dimensions of technology, the more we might be able to intervene in the spaces where algorithms are becoming a substitute for public policy debates over resource distribution—from mortgages to insurance to educational opportunities.

Blackness in the Neoliberal Marketplace

Many people say to me, “But tech companies don’t *mean* to be racist; that’s not their intent.” Intent is not particularly important. Outcomes and results are important. In my research, I do not look deeply at what advertisers or Google are “intending” to do. I focus on the social conditions that surround the lives of Black women living in the United States and where public information platforms contribute to the myriad conditions that make Black women’s lives harder. Barney Warf and John Grimes explore the discourses of the Internet by naming the stable ideological notions of the web, which have persisted and are part of the external logic that buttresses and obscures some of the resistance to regulating the web:

Much of the Internet’s use, for commercialism, academic, and military purposes, reinforces entrenched ideologies of individualism and a definition of the self through consumption. Many uses revolve around simple entertainment, personal communication, and other ostensibly apolitical purposes . . . particularly advertising and shopping but also purchasing and marketing, in addition to uses by public agencies that legitimate and sustain existing ideologies and politics as “normal,” “necessary,” or “natural.” Because most users view themselves, and their uses of the Net, as apolitical, hegemonic discourses tend to be reproduced unintentionally. . . . Whatever blatant perspectives mired in racism, sexism, or other equally unpalatable ideologies pervade society at large, they are carried into, and reproduced within, cyberspace.¹⁵

André Brock, a communications professor at the University of Michigan, adds that “the rhetorical narrative of ‘Whiteness as normality’ configures information technologies and software designs” and is reproduced through digital technologies. Brock characterizes these transgressive practices that couple technology design and practice with racial ideologies this way:

I contend that the Western internet, as a social structure, represents and maintains White, masculine, bourgeois, heterosexual and Christian culture through its content. These ideologies are translucently mediated by the browser’s design and concomitant information practices. English-speaking internet users, content providers, policy makers, and designers bring their racial frames to their internet experiences, interpreting racial dynamics through this electronic medium while simultaneously redistributing cultural resources along racial lines. These practices neatly recreate social dynamics online that mirror offline patterns of racial interaction by marginalizing women and people of color.¹⁶

What Brock points to is the way in which discourses about technology are explicitly linked to racial and gender identity—normalizing Whiteness and maleness in the domain of digital technology and as a presupposition for the prioritization of resources, content, and even design of information and communications technologies (ICTs).

Search engine optimization strategies and budgets are rapidly increasing to sustain the momentum and status of websites in Google Search. David Harvey, a professor of anthropology and geography at the Graduate Center of the City University of New York, and Norman Fairclough, an emeritus professor of linguistics at Lancaster University, point to the ways that the political project of neoliberalism has created new conditions and demands on social relations in order to open new markets.¹⁸ I assert that this has negative consequences for maintaining and expanding social, political, and economic organization around common identity-based interests—interests not solely based on race and gender, although these are stable categories through which we can understand disparity and inequality. These trends in the unequal distribution of wealth and resources have contributed to a closure of public debate and a weakening of democracy. Both Harvey and Fairclough separately note the importance of the impact of what they call “new capitalism,” a concept closely linked to the “informationalized capitalism” of Dan Schiller, retired professor from the University of Illinois at Urbana-Champaign, when viewed in the context of new media and the information age. What is important about new capitalism in the context of the web is that it is radically transforming previously public territories and spaces.¹⁹ This expansion of capitalism into the web has been a significant part of the neoliberal justification for the commodification of information and identity. Identity markers are for sale in the commodified web to the highest bidder, as this research about keyword markers shows. It is critical that we engage with the ways that social relations are being transformed by new distributions of

resources and responsibilities away from the public toward the private. For example, the hyperreliance on digital technologies has radically impacted the environment and global labor flows. Control over community identities are shifting as private companies on the web are able to manage and control definitions, and the very concept of community control on the web is increasingly becoming negligible as infusions of private capital into the infrastructure of the Internet has moved the U.S.-based web from a state-funded project to an increasingly privately controlled, neoliberal communication sphere.

Black Girls as Commodity Object

Part of the socialization of Black women as sexual object is derived from historical constructions of African women living under systems of enslavement and economic dependency and exploitation—systems that included the normalization of rape and conquest of Black bodies and the invention of fictions about Black women.²⁰ The constitution of rape culture, formed during the enslavement of Africans in the Americas, is at the intersection of patriarchy, slavery, and violence.²¹ bell hooks's canonical essay “Selling Hot Pussy” in *Black Looks: Race and Representation* turned a Black feminist theoretical tradition toward the marketplace of culture, ideas, and representations of Black women. Her work details the ways in which Black women’s bodies have been

commodified and how these practices are normalized in everyday experiences in the cultural marketplace of our society.⁴² Women's bodies serve as the site of sexual exploitation and representation under patriarchy, but Black women serve as the deviant of sexuality when mapped in opposition to White women's bodies.⁴³ It is in this tradition, then, coupled with an understanding of how racial and gender identities are brokered by Google, that we can help make sense of the trends that make women's and girls' sexualized bodies a lucrative marketplace on the web.

For Black women, rape has flourished under models of colonization or enslavement and what Joseph C. Dorsey, a professor of African American studies at Purdue University, calls "radically segmented social structures."⁴⁴ Rape culture is formed by key elements that include asserting male violence as natural, not making sexual violence illegal or criminally punishable, and differential legal consideration for victims and perpetrators of sexual violence on the basis of their race, gender, or class. Rape culture also fosters the notion that straight/heterosexual sex acts are commonly linked to violence.⁴⁵ I argue that these segmented social structures persist at a historical moment when Black women and children are part of the permanent underclass and represent the greatest proportion of citizens living in poverty.⁴⁶ The relative poverty rate in the United States—the distance between those who live in poverty and those at the highest income levels—is greatest between Black women and children and White men. Among either single or married households, the poverty rate of Blacks is nearly twice that of Whites.⁴⁷ Black people are three times more likely to live in poverty than

Whites are, with 27.4% of Black people living below the poverty line, compared to 9.9% of Whites.⁴⁸ The status of women remains precarious across all social segments: 47.1% of all families headed by women, without the income, status, and resources of men, are living in poverty. In fact, Black and White income gaps have increased since 1974, after the gains of the civil rights movement. In 2004, Black families earned 58% of what White families earned, a significant decrease from 1974, when Black families earned 63% of what Whites earned.⁴⁹

The feminist scholar Gilda Lerner has written the canonical documentary work on Black and White women in the United States. Her legacy is a significant contribution to understanding the racialized and gendered dynamics of patriarchy and how it serves to keep women subordinate. One of many conditions of a racialized and gendered social structure in the United States, among other aspects of social oppression, is the way in which Black women and girls are systematically disenfranchised. Patriarchy, racism, and rape culture are part of the confluence of social practices that normalize Black women and girls as a sexual commodity, an alienated and angry/pathetic other, or a subservient caretaker and helpmate to White psychosocial desires. Lerner points to the consequences of adopting the hegemonic narratives of women, particularly those made normative by the "symbol systems" of a society:

Where there is no precedent, one cannot imagine alternatives to existing conditions. It is this feature of male hegemony which has been most damaging to women and has ensured

their subordinate status for millennia. . . . The picture is false . . . as we now know, but women's progress through history has been marked by their struggle against this disabling distortion.¹⁰

Making sense of alternative identity constructions can be a tenuous process for women due to the erasures of other views of the past, according to Lerner. Meanwhile, the potency of commercial search using Google is that it functions as the dominant "symbol system" of society due to its prominence as the most popular search engine to date.¹¹

people.¹² Of course, this is a troubling aspect of museum practice that often participated in the curation and display of non-White bodies for European and White public consumption. The spectacles of zoos, circuses, and world's fairs and expositions are important sites that predate the Internet by more than a century, but it can be argued and is in fact argued here that these traditions of displaying native bodies extend to the information age and are replicated in a host of problematic ways in the indexing, organization, and classification of information about Black and Brown bodies—especially on the commercial web.

Western scientific and anthropological quests for new discoveries have played a pivotal role in the development of racialization schemes, and scientific progress has often been the basis of justifying the mistreatment of Black women—including displays of Baartman during her life (and after). From these practices, stereotypes can be derived that focus on biological, genetic, and medical homogeneity.¹³ Scientific classifications have played an important role in the development of racialization that persists into contemporary times:

Racial Identity: Old Traditions Never Die

European fascination with African sexuality is well researched and heavily contested—most famously noted in the public displays of Sara Baartman, otherwise mocked as “The Venus Hottentot,” a woman from South Africa who was often placed on display for entertainment and biological evidence of racial difference and subordination of African

Historically created racial categories often carry hidden meanings. Until 2003 medical reports were cataloged in PubMed/MEDLINE and in the old Surgeon General's Index Catalogue using 19th century racial categories such as Caucasoid, Mongoloid, Negroid and Australoid. Originally suggesting a scale of inferiority and superiority, today such groupings continue to connote notions of human hierarchy. More importantly, PubMed's newer categories, such as

continental population group and ancestry group, merely overlay the older ones.²¹

Inventions of racial categories are mutable and historically specific, such as the term “mulattoes” as a scientific categorization against which information could be collected to prove that “hybrid” people were biologically predisposed to “die out,” and of course these categories are not stable across national boundaries; classifications such as “Colored,” “Black,” and “White” have been part of racial purification processes in countries such as South Africa.²² Gender categorizations are no less problematic and paradoxical. Feminist scholars point to the ways that, at the same time that women reject biological classifications as essentializing features of sex discrimination, they are simultaneously forced to organize for political and economic resources and progress on the basis of gender.²³

These conceptions and stereotypes do not live in the past; they are part of our present, and they are global in scope. In April 2012, Lena Adelsohn Liljeroth, the culture minister of Sweden, was part of a grotesque event to celebrate Sweden’s World Art Day. The event included an art installation to bring global attention to the issue of female genital mutilation. However, to make the point, the artist Makode Aj Linde made a cake ripped straight from the headlines of White-supremacist debasement of Black women. Dressed in blackface, he adorned the top of a cake he made that was a provocative art experiment gone wrong, at the expense of Black women. These images are just one of many that make up the landscape of racist misogyny.

After an outpouring of international disgust, Liljeroth denied any possibility that the project, and her participation, could be racist in tone or presentation.²⁴

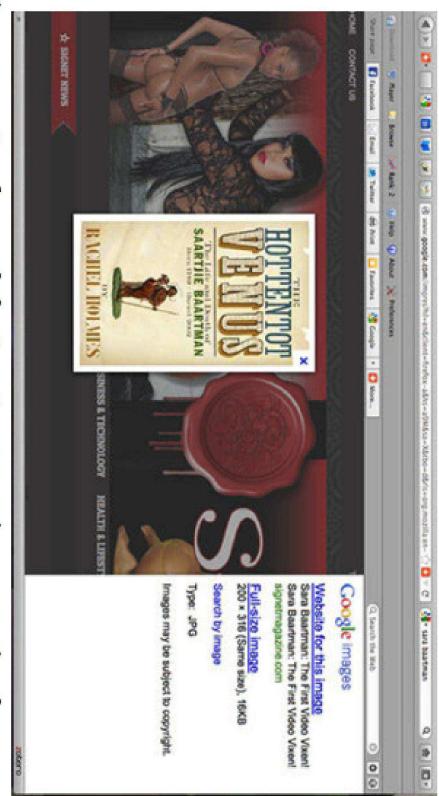


Figure 2.17. Google search for Sara Baartman, in preparation for a lecture on Black women in film, January 22, 2013.



Figure 2.18. Lena Adelsohn Liljeroth, Swedish minister of culture, feeds cake to the artist Makode Aj Linde in blackface, at the Moderna Museet in Stockholm, 2012.



Figure 2.19. Makode Aj Linde's performance art piece at Moderna Museet. Source: www.forharriet.com, 2012.

During slavery, stereotypes were used to justify the sexual victimization of Black women by their property owners, given that under the law, Black women were property and therefore could not be considered victims of rape. Manufacture of the Jezebel stereotype served an important role in portraying Black women as sexually insatiable and gratuitous. A valuable resource for understanding the complexity and problematic of racist and sexist narratives is the Jim Crow Museum of Racist Memorabilia at Ferris State University. The museum's work documents all of the informative and canonical writings about the ways that Black people have been misrepresented in the media and in popular culture as a means of subjugation, predating slavery in North America in the eighteenth century. It highlights the two main narratives that have continued to besiege Black women: the exotic other, the Jezebel whore; and the pathetic other, the Mammy.¹⁵ Notably,

the pathetic other is too ugly, too stupid, and too different to elicit sexual attraction from reasonable men; instead, she is a source of pity, laughter, and derision. For example, the museum notes how seventeenth-century White European travelers to Africa found seminude people and indigenous practices and customs and misinterpreted various cultures as lewd, barbaric, and less than human, certainly a general sign of their own xenophobia.¹²

Researchers at the Jim Crow Museum have conducted an analysis of Jezebel images and found that Black female children are often sexually objectified as well, a fact that validates this deeper look at representations of Black girls on the web. During the Jim Crow era, for example, Black girls were caricatured with the faces of preteenagers and were depicted with adult-sized, exposed buttocks and framed with sexual innuendos. This stereotype evolved, and by the 1970s, portrayals of Black people as mammies, toms, tragic mulattoes, and picanninies in traditional media began to wane as new notions of Black people as Brutes and Bucks emerged; meanwhile, the beloved creation of the White imagination, the Jezebel, persists. The Jezebel has become a mainstay and an enduring image in U.S. media. In 2017, these depictions are a staple of the 24/7 media cycles of Black Entertainment Television (BET), VH1, MTV, and across the spectrum of cable television. Jezebel is now known as the video vixen, the "ho," the "around the way girl," the porn star—and she remains an important part of the spectacle that justifies the second-class citizenship of Black women.¹³ "Black women" searches offer sites on "angry Black women" and articles on "why Black women are less attractive." These narratives

of the exotic or pathetic Black woman, rooted in psychologically damaging stereotypes of the Jezebel,¹⁴ Sapphire, and Mammy,¹⁵ only exacerbate the pornographic imagery that represents Black girls, who are largely presented in one of these ways. The largest commercial search engine fails to provide culturally situated knowledge on how Black women and girls have traditionally been discriminated against, denied rights, or violated in society and the media even though they have organized and resisted on many levels.



Figure 2.20. One dominant narrative stereotype of Black women, the Jezebel Whore, depicted here over more than one hundred years of cultural artifacts. Source: Jim Crow Museum of Racist Memorabilia at Ferris State University, www.ferris.edu.

Reading the Pornographic Representation

This study highlights misrepresentation in Google Search as a detailed example of the power of algorithms in controlling the image, concepts, and values assigned to people, by featuring a detailed look at Black girls.

I do not intend to comprehensively evaluate the vast range of representations and cultural production that exists on the Internet for Black women and girls, some portion of which indeed reflects individual agency in self-representation (e.g., selfie culture). However, the nature of representation in commercial search as primarily pornographic for Black women is a distinct form of sexual representation that is commercialized by Google. Pornography is a specific type of representation that denotes male power, female powerlessness, and sexual violence. These pornographic representations of women and people of color have been problematized by many scholars in the context of mass media.⁴⁵ Rather than offer relief, the rise of the Internet has brought with it ever more commodified, fragmented, and easily accessed pornographic depictions that are racialized.⁴⁶ In short, biased traditional media processes are being replicated, if not more aggressively, around problematic representations in search engines. Here, I am equally focused on “the pornography of representation,”⁴⁷ which is less about moral obscenity arguments about women’s sexuality and more about a feminist critique of how women are represented as pornographic objects:

Representations are not just a matter of mirrors, reflections, key-holes. Somebody is making them, and somebody is looking at them, through a complex array of means and conventions. Nor do representations simply exist on canvas, in books, on photographic paper or on screens: they have a continued existence in reality as objects of exchange; they have a genesis in material production.⁴⁸

Some people argue that pornography has been understudied given its commercial viability and persistence.⁴⁹ Certainly, the technical needs of the pornography industry have contributed to many developments on the web, including the credit card payment protocol; advertising and promotion; video, audio, and streaming technologies.⁵⁰

In library studies, discussions of the filtering of pornographic content out of public libraries and schools are mainstream professional discourse.⁵¹ Tremendous focus on pornography as a legitimate information resource (or not) to be filtered out of schools, public libraries, and the reach of children has been a driving element of the discussions about the role of regulation of the Internet.

Black feminist scholars are also increasingly looking at how Black women are portrayed in the media across a host of stereotypes, including pornography. Jennifer C. Nash, an associate professor of African American studies and gender and sexuality studies at Northwestern University, foregrounds the complexities of theorizing Black women and pornography in ways that are helpful to this research:

Both scholarly traditions pose the perennial question “is pornography racist,” and answer that question in the affirmative by drawing connections between Baartman’s exhibition and the contemporary display of black women in pornography. However, merely affirming pornography’s alleged racism neglects an examination of the ways that pornography mobilizes race in particular social moments, under particular technological conditions, to produce a historically contingent set of racialized meanings and profits.²¹

Nash focuses on the ways in which Black feminists have aligned with antipornography rhetoric and scholarship. While my own project is not a specific study of the nuances of Black women’s agency in net porn, the Black feminist media scholar Mireille Miller-Young has covered in detail the virtues and problematics of pornography.²² This research is helpful in explaining how women are displayed as pornographic search results. I therefore integrate Nash’s expanded views about racial iconography into a Black feminist framework to help interpret and evaluate the results.

In the field of Internet and media studies, the research interest and concern of scholars about harm in imagery and content online has been framed mostly around the social and technical aspects of addressing Internet pornography but less so around the existence of commercial porn:

As such, Black women and girls are both understudied by scholars and also associated with “low culture” forms of representation.²³ There is a robust political economy of pornography, which is an important site of commerce and technological innovation that includes file-sharing networks, video streaming, e-commerce and payment processing, data compression, search, and transmission.²⁴ The antipornography activist and scholar Gail Dines discusses this web of relations that she characterizes as stretching “from the backstreet to Wall Street”:

Porn is embedded in an increasingly complex and extensive value chain, linking not just producers and distributors but also bankers, software, hotel chains, cell phone and Internet companies. Like other businesses, porn is subject to the discipline of capital markets and competition, with trends toward market segmentation and industry concentration.²⁵

The relative invisibility of commercial pornography in the field

Dines’s research particularly underscores the ways in which Black

women are more racialized and stereotyped in pornography—explicitly playing off the media misrepresentations of the past and leveraging the notion of the Black woman as “ho” through the most graphic types of porn in the genre.

Miller-Young underscores the fetishization of Black women that has created new markets for porn, explicitly linking the racialization of Black women in the genre:

Within this context of the creation and management of racialized desire as both transgressive and policed, pornography has excelled at the production, marketing, and dissemination of categories of difference as special subgenres and fetishes in a form of “racialized political theater.”

Empowered by technological innovations such as video, camcorders, cable, satellite, digital broadband, CD-ROMs, DVDs, and the internet, the pornography business has exploited new media technology in the creation of a range of specialized sexual commodities that are consumed in the privacy of the home.²⁵

hooks details the ways that Black women’s representations are often pornified by White, patriarchally controlled media and that, while some women are able to resist and struggle against these violent depictions of Black women, others co-opt these exploitative vehicles and expand upon them as a site of personal profit: “Facing herself, the black female

realizes all that she must struggle against to achieve self-actualization. She must counter the representation of herself, her body, her being as expendable.”²⁶ Miller’s research on the political economy of pornography, bolstered by the hip-hop music industry, is important to understanding how Black women are commodified through the “pornification” of hip-hop and the mainstreaming and ‘diversification’ of pornography.²⁷

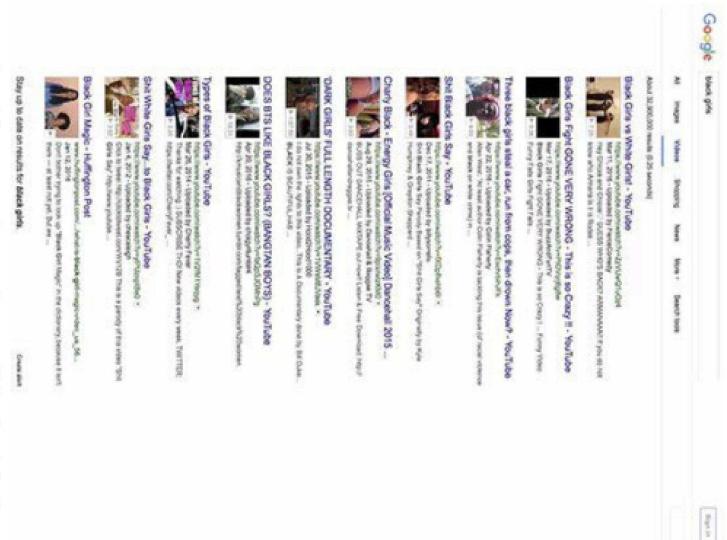


Figure 2.21. Google video search results on “black girls,” June 22, 2016.

Although Google changed its algorithm in late summer 2012 and suppressed pornography as the primary representation of Black girls in its search results, by 2016, it had also modified the algorithm to include more diverse and less sexualized images of Black girls in its image

search results, although most of the images are of women and not of children or teenagers (girls). However, the images of Black girls remain troubling in Google’s video search results, with narratives that mostly reflect user-generated content (UGC) that engages in comedic portrayals of a range of stereotypes about Black / African American girls. Notably, the White nationalist Colin Flaherty’s work, which the Southern Poverty Law Center has described as propaganda to incite racial violence and White anxiety, is the producer of the third-ranked video to represent Black girls.

Porn on the Internet is an expansion of neoliberal capitalist interests. The web itself has opened up new centers of profit and pushed the boundaries of consumption. Never before have there been so many points for the transmission and consumption of these representations of Black women’s bodies, largely trafficked outside the control and benefit of Black women and girls themselves.

Providing Legitimate Information about Black Women and Girls

Seeing the Internet as a common medium implies that there may be an expectation of increased legitimacy of information to be found there.²⁵ Recognizing the credibility of online information is no small task

because commercial interests are not always apparent,¹² and typical measures of credibility are seldom feasible due to the complexity of the web.¹³ If the government, industry, schools, hospitals, and public agencies are driving users to the Internet as a means of providing services, then this confers a level of authority and trust in the medium itself. This raises questions about who owns identity and identity markers in cyberspace and whether racialized and gendered identities are ownable property rights that can be contested. One can argue, as I do, that social identity is both a process of individual actors participating in the creation of identity and also a matter of social categorization that happens at a socio-structural level and as a matter of personal definition and external definition.¹⁴

According to Mary Herring, Thomas Jankowski, and Ronald Brown, Black identity is defined by an individual's experience of common fate with others in the same group.¹⁵ The question of specific property rights to naming and owning content in cyberspace is an important topic.¹⁶ Racial markers are a social categorization that is both imposed and adopted by groups,¹⁷ and thus racial identity terms could be claimed as the property of such groups, much the way Whiteness has been constituted as a property right for those who possess it.¹⁸ This is a way of thinking about how mass media have co-opted the external definitions of identity—racialization—which also applies to the Internet and its provision of information to the public: “Our relationships with the mass media are at least partly determined by the perceived utility of the information we gather from them. . . . Media representations play an important role in informing the ways in which we understand social,

cultural, ethnic, and racial difference.”¹⁹ Media have a tremendous impact on informing our understandings of race and racialized others as an externality, but this is a symbiotic process that includes internal definitions that allow people to lay claim to racial identity.²⁰ In addition, the Internet and its landscape offer up and eclipse traditional media distribution channels and serve as a new infrastructure for delivering all forms of prior media: television, film, and radio, as well as new media that are more social and interactive. Taking these old and new media together, it can be argued that the Internet has significant influence on forming opinions on race and gender.

What We Find Is Meaningful

Because most of Google’s revenue is derived from advertising, it is important to consider advertising as a media practice with tremendous power in shaping culture and society.²¹ The transmission of stereotypes about women in advertising creates a “limited ‘vocabulary of intention,’” encouraging people to think and speak of women primarily in terms of their relationship to men, family, or their sexuality.²² Research shows how stereotypical depictions of women and minorities in advertising impact the behavior of those who consume it.²³ Therefore, it is necessary to cast a deeper look into the effects of the content and trace the kinds of hegemonic narratives that situate these results.

The feminist media scholar Jean Kilbourne has carefully traced the impact of advertising on society from a feminist perspective. She researches the addictive quality of advertising and its ability to cause feelings and change perspectives, regardless of a consumer's belief that he or she is "tuning out" or ignoring the persuasiveness of the medium:

Advertising corrupts relationships and then offers us products, both as solace and as substitutes for the intimate human connection we all long for and need. Most of us know by now that advertising often turns people into objects. Women's bodies, and men's bodies too these days, are dismembered, packaged, and used to sell everything from chain saws to chewing gum. But many people do not fully realize that there are terrible consequences when people become things. Self-image is deeply affected. The self-esteem of girls plummets as they reach adolescence, partly because they cannot possibly escape the message that their bodies are objects, and imperfect objects at that. Boys learn that masculinity requires a kind of ruthlessness, even brutality. Violence becomes inevitable.²²

In the case of Google, its purpose is to "pull eyeballs" toward products and services, as evidenced in its products such as AdWords and the ways in which it has already been proven to bias its own properties over its competitors. This complicates the way to think about search engines and reinforces the need for significant degrees of digital literacy for the

public.

Using a Black feminist lens in critical information studies entails contextualizing information as a form of representation, or cultural production, rather than as seemingly neutral and benign data that is thought of as a "website" or "URL" that surfaces to the top in a search. The language and terminologies used to describe results on the Internet in commercial search engines often obscure the fact that commodified forms of representation are being transacted on the web and that these commercial transactions are not random or without meaning as simply popular websites. Annette Kuhn, an emeritus professor of film studies at Queen Mary University of London, challenges feminist thinkers to interrogate gender, race, and representation in her book *The Power of the Image: Essays on Representation and Sexuality*:

In order to challenge dominant representations, it is necessary first of all to understand how they work, and thus where to seek points of possible productive transformation. From such understanding flow various politics and practices of oppositional cultural production, among which may be counted feminist interventions. . . . There is another justification for a feminist analysis of mainstream images of women: may it not teach us to recognize inconsistencies and contradictions within dominant traditions of representation, to identify points of leverage for our own intervention: cracks and fissures through which may be captured glimpses of what in other circumstances might be possible, visions of "a world outside

the order not normally seen or thought about”?²⁴

In this chapter, I have shown how women, particularly Black women, are misrepresented on the Internet in search results and how this is tied to a longer legacy of White racial patriarchy. The Internet has also been a contested space where the possibility of organizing women along feminist values in cyberspace has had a long history.²⁵ Information and communication technologies are posited as the domain of men, not only marginalizing the contributions of women to ICT development but using these narratives to further instantiate patriarchy.²⁶ Men, intending to or not, have used their control and monopoly over the domain of technology to further consolidate their social, political, and economic power in society and rarely give up these privileges to create structural shifts in these inheritances. Where men shape technology, they shape it to the exclusion of women, especially Black women.²⁷

The work of the feminist scholars Judy Wajcman and Anna Everett is essential to parsing the historical development of narratives about women and people of color, specifically African Americans in technology. Each of their projects points to the specific ways in which technological practices prioritize the interests of men and Whites. For Wajcman, “people and artifacts co-evolve, reminding us that ‘things could be otherwise,’ that technologies are not the inevitable result of the application of scientific and technological knowledge. . . . The capacity of women users to produce new, advantageous readings of artefacts is dependent upon the broader economic and social circumstances.”²⁸ Adding to the historical tracings that Everett provides about early

African American contributions to cyberspace, she notes that these contributions have been obscured by “colorblindness” in mainstream and scholarly media that erases the contributions of African Americans.²⁹ Institutional relations predicated on gender and race situate women and people of color outside the power systems from which technology arises. This is how colorblind ideology is mechanized in Silicon Valley: through denial of the existence of both racial orders and contributions from non-Whites.

This fantasy of postracialism has been well documented by Jessie Daniels, who has written about the problems of colorblind racism in tech industries.³⁰ This tradition of defining White and Asian male dominance in the tech industries as a matter of meritocracy is buttressed by myths of Asian Americans as a model minority. The marginalization of women and non-Whites is a by-product of such entrenchments, design choices, and narratives about technical capabilities.³¹ Rayvon Fouché, the American studies chair at Purdue University, underscores the importance of Black culture in shaping the technological systems. He argues that technologies could “be more responsive to the realities of black life in the United States” by organizing around the sensibilities of the Black community. Furthermore, he problematizes the dominant narratives of technology “for” Black people:

Americans are continually bombarded with seemingly endless self-regenerating progressive technological narratives. In this capitalist-supported tradition, the multiple effects that

technology has on African American lives go underexamined. This uplifting rhetoric has helped obfuscate the distinctly adversarial relationships African Americans have had with technology.¹²²

3

Searching for People and Communities

In this work on the politics of search engines and their representations of women and girls of color, I have documented how certain searches on keywords point information seekers to an abundance of pornography using the default “moderate” setting in Google Search, and I have offered more examples of how Silicon Valley defends itself by continuing to underemploy people who have expertise in these important fields of ethnic and gender studies. The value of this exploration is in showing how gender and race are socially constructed and mutually constituted through science and technology. The very notion that technologies are neutral must be directly challenged as a misnomer.

Whether or not one cares about the specific misrepresentations of women and girls of color or finds the conceptual representations of teenagers, professors, nurses, or doctors problematic, there is certain evidence that the way that digital media platforms and algorithms control the narrative about people can have dire consequences when taken to the extreme.

On the evening of June 17, 2015, in Charleston, South Carolina, a twenty-one-year-old White nationalist, Dylan “Storm” Roof, opened fire on unsuspecting African American Christian worshipers at “Mother” Emanuel African Methodist Episcopal Church in one of the most heinous racial and religious hate crimes of recent memory.¹³ His racist terrorist attack led to the deaths of South Carolina state senator Rev. Clementa Pinckney, who was also the pastor of the church, along with librarian Cynthia Hurd, Tywanza Sanders, Rev. Sharonda Singleton, Myra Thompson, Ethel Lance, Susie Jackson, Rev. Daniel Simmons Sr., and Rev. DePayne Middleton Doctor. There were three survivors of the attack, Felicia Sanders, her eleven-year-old granddaughter, and Polly Sheppard. The location of the murders was not chosen in vain by Roof; Emanuel AME stood as one of the oldest symbols of African American

93. See Barlow, 1996.
94. See Segev, 2010.
95. Stepan, 1998, 28.
95. #Gamergate was an incident involving a group of anonymous harassers of women in the video-gaming industry, including Zoë Quinn and Brianna Wu, as well as the writer and critic Anita Sarkeesian, who faced death threats and threats of rape, among others. In response to challenges of white male supremacy, sexism, racism, and misogyny in video-game culture, many women video-game developers, feminists, and men supporting women in gaming were attacked online as well as stalked and harassed.
12. See Hall, 1989; Davis and Gandy, 1999.
14. See Fraser, 1996.
15. Jansen and Spink, 2006.
16. McCarthy, 1994, 91.
17. Davis and Gandy, 1999, 368.
18. Barzilai-Nahon, 2006.
19. See Segev, 2010.
20. Ibid.
21. See Williamson, 2014.
22. XMCP, 2008.
23. Morville, 2005, 4.
24. See C. M. West, 1995; hooks, 1992.
25. See Ladson-Billings, 2009.
26. See Yarbrough and Bennett, 2000.
27. See Treitler, 2013; Bell, 1992; Delgado and Stefancic, 1999.
28. See Davis and Gandy, 1999; Gray, 1989; Matabane, 1988; Wilson, Gutierrez, and Chao, 2003.
29. See Dates, 1990.
30. Punyanunt-Carter, 2008.
31. Ford, 1997.
32. Fujjoka, 1999.
33. Pacey, 1983; Winner, 1986; Warf and Grimes, 1997.
34. See Pacey, 1983.
35. Winner, 1986.
36. Warf and Grimes, 1997, 260.
37. Brock, 2011, 1088.
38. Harvey, 2005; Fairclough, 1995.
39. See Boyle, 2003; D. Schiller, 2007.
40. See Davis, 1972.
41. See Dorsey, 2003.
42. See hooks, 1992, 62.
43. Ibid.
44. Dorsey, 2003.
45. Ibid.
46. U.S. Census Bureau, 2008.
47. According to the U.S. Census Bureau (2007), 5.4% of White married people

CHAPTER 2. SEARCHING FOR BLACK GIRLS

1. See Guyan, 2016.
2. See Hiles, 2015.
3. See Sinclair, 2004; Everett, 2009; Nelson, Tu, and Hines, 2001; Daniels, 2015; Weheliye, 2003; Egash, 2002; Noble, 2012.
4. See chapter 2 for a detailed explanation of Google AdWords.
5. To protect the identity of subjects in the websites and advertisements, I intentionally erased faces and body parts using Adobe Photoshop while still leaving enough visual elements for a reader to make sense of the content and discourse of the text and images.
6. See Omi and Winant, 1994.
7. See Daniels, 2009.
8. Ibid., 56.
9. Treitler, 1998, 966.
10. See Golash-Boza, 2016.
11. Omi and Winant, 1994, 67.
12. See Daniels, 2013.

- live in poverty, compared to 9.7% of Blacks and 14.9% of Hispanics. Among single people, 22.5% of Whites live in poverty, compared to 44% of Blacks and 33.4% of Hispanics.
48. Ibid.
49. See the "Panel Study of Income Dynamics," reportedly the longest running longitudinal household survey in the world, conducted by the University of Michigan: <http://psidonline.isr.umich.edu>.
50. Lerner, 1986, 223.
51. Ibid.
52. See Sharpley-Whiting, 1999; Hobson, 2008.
53. See Braun et al., 2007.
54. Ibid., e271 (original notes omitted).
55. Ibid.
56. See Stepan, 1998.
57. See L. Harding, 2012.
58. See White, [1985] 1999.
59. See the museum's website: www.ferris.edu/jimcrow.
60. See Miller-Young, 2005; Harris-Perry, 2011.
61. See White, 1985/1999, 29. White's book is an excellent historical examination of the Jezebel portrayal, especially chapter 1, "Jezebel and Mammy" (27–61).
62. See C. M. West, 1995.
63. See Kilbourne, 2000; Cortese, 2008; O'Barr, 1994.
64. See Everett, 2009; Brock, 2009; Brock, Kvasny, and Hales, 2010.
65. See Kappeler, 1986.
66. Ibid., 3.
67. See Paasonen, 2011.
68. See ibid.; Bennett, 2001; Filippo, 2000; O'Toole, 1998; Perdue, 2002.
69. See Estabrook and Läkner, 2000.
70. Nash, 2008, 53.
71. Miller-Young, 2014.
72. Paasonen, 2010, 418.
73. Ibid.
74. Dines, 2010, 48.
75. Ibid., 47, 48.
76. Miller-Young, 2007, 267.
77. See hooks, 1992, 65.
78. Miller-Young, 2007, 262.
79. See Greer, 2003; France, 1999; Tucher, 1997.
80. See Markowitz, 1999.
81. See Burbules, 2001.
82. See Barth, 1996; Jenkins, 1994.
83. See Herring, Jankowski, and Brown, 1999, 363.
84. See Vaidyanathan, 2011; Gandy, 2011.
85. See Jenkins, 1994.
86. See Harris, 1995.
87. See Jenkins, 1994.
88. Davis and Gandy, 1999, 367.
89. See Jenkins, 1994; Davis and Gandy, 1999.
90. See Ferguson, Kreshel, and Tinkham, 1990; Pease, 1985; Potter, 1954.
91. See Ferguson, Kreshel, and Tinkham, 1990; Tuchman, 1979.
92. See Rudman and Borgida, 1995; Kenrick, Gutierrez, and Goldberg, 1989; Jennings, Geis, and Brown, 1980.
93. Kilbourne, 2000, 27.
94. Kuhn 1985, 10; quoted in hooks, 1992, 77.
95. See Paasonen, 2011; Gillis, 2004; Solifrank, 2002; Haraway, 1991.
96. See Wajcman, 2010.
97. See Wajcman, 1991, 5.
98. Wajcman, 2010, 150.
99. See Everett, 2009, 149.
100. See Daniels, 2015.
101. See Everett, 2009.
102. Fouché, 2006, 640.

CHAPTER 3. SEARCHING FOR PEOPLE AND COMMUNITIES

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