SEARCHING FOR BLACK GIRLS: OLD TRADITIONS IN NEW MEDIA

BY

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DISSERTATION

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Critical information scholars continue to demonstrate how technology and its narratives are shaped by and infused with values, that is, that it is not the result of the actions of impartial, disembodied, unpositioned agents. Technology consists of a set of social practices, situated within the dynamics of race, gender, class, and politics. Critiques of technology include the rhetoric around the digital divide, as if access, skills and connectivity are the primary issues, as well as critiques of the alleged neutrality of technology. These critiques, however, largely serve to depoliticize the ways that social systems of power are embedded in technology practices. The present study addresses the issue of Internet search, a seemingly neutral and non-politicized technology, to look deeply at how Google mediates access to information on racialized and gendered identities in biased ways. Situated within critical race studies and critical information studies, from a Black feminist perspective, my research shows that Google's search engine monopoly privileges problematic race and gender representations of Black women and girls, from the very first page of search results. Through content and critical discourse analysis, I explore the ways that race and gender are structured in the Google commercial search engine and how the results from keyword searches on terms like "Black girls" are symbolic, harmful, and familiar misrepresentations derived from traditional mass media and popular culture. This research also traces how gender and race are socially constructed and mutually constituted through library and information science traditions from which current web indexing systems are derived, with a specific focus on how "neutral" technologies foster
dominant narratives that may reinforce oppressive social relations, particularly the pornification of Black women and girls.
This work is dedicated to my parents, Emma Ruth McCarthy and George L. Green.

Two births have occurred since your passing: your grandbaby Nico Umoja Noble

and this dissertation.

I hope to honor you with both creations.

And, of course, thank you for sending me Otis. That was good.
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My mother is the other person I want to fully acknowledge. It is she who charted the course, who cut a path to a life unimaginable for me. When she passed, over a decade ago, most of my reasons for living died with her. Every accomplishment in my life was to make her proud, and I had many dreams that we had cooked up together still to be fulfilled with her by my side. Her part in this work is at the core: she raised me as a Black girl, despite her not being a Black woman herself. Raising a Black girl was not without a host of challenges and opportunities, and she took the job of making me a strong, confident person very seriously. She was quite aware that racism and sexism were big obstacles that would confront me, and she educated me to embrace and celebrate my identity by
surrounding me with a community, in addition to a fantastically diverse family and friendship circle. Much of my life was framed by music, dolls, books, art, television, and experiences that celebrated Black culture, an intentional act on her part to ensure that I would not be confused or misunderstood by trying to somehow leverage her White identity as my own. She taught me to respect everybody, as best I could, but to understand that neither prejudice at a personal level or oppression at a systematic level is ever acceptable. She taught me how to critique racism, quite vocally, and it was grounded in our own real-life experiences together as a family. I am grateful that she had the foresight to know that I would need to feel good about who I am in the world, because I would be bombarded by images and stories and stereotypes about Black people, and Black women, that could tear me down and harm me. She wanted me to be a successful, relevant, funny woman – and she never saw anything wrong with me adding “Black” woman to that identity. She saw the recognition of the contributions and celebrations of Black people as a form of resistance to bigotry. She was never colorblind – she had a critique of that before anyone I knew. She knew “not seeing color” was a dangerous idea, because color was not the point, culture was. She saw a negation or denial of Black culture as a form of racism, and she never wanted me to deny that part of me, the part she thought made me beautiful and different, and special in our family. She was my first educator about race, gender and class. She would talk about the incredible survival skills we had because we were working-poor people, and that we would always make it in this world because we could make something from nothing. She made the places we lived beautiful by refurbishing thrift store finds – a talent she passed on to me. She always spoke of the natural brilliance of women, and
surrounded me with strong, smart, sassy women like my grandmother, Marie Thayer, and her best friend, my Aunt Darris, who modeled hard work, compassion, beauty and success.

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 CHAPTER 1: INTRODUCTION

The near-ubiquitous use of search engines in the United States demands a closer, inspection of what values are assigned to race and gender in classification and web indexing systems, and exploration into the source of these kinds of representations and how they came to be so fundamental to the classification of human beings. This study is theoretically concerned with using critical race theory and Black feminism to examine the commercial co-optation of keywords on Black identity in the largest and most powerful search engine to date, Google, whose brand was once predicated upon the motto, “Don’t Be Evil.”

This work is situated against the backdrop of a 12-year professional career in multicultural marketing and advertising where I was invested in building corporate brands and selling products and services to African-Americans and Latinos. I believed, like many urban marketing professionals, that companies must pay attention to the needs of people of color and demonstrate consumer respect by offering valuable services and resources in our communities as is done for most everyone else. I spent an equal amount of time doing risk management and public relations to insulate companies from any adverse risk to sales that they might experience from inadvertent or deliberate snubs to consumers of color who might perceive a brand as racist or insensitive.

In Fall 2010, I was as deeply impacted by an experience with a brand as I could be, for I experienced the perfect storm of insult and injury that I could not turn away from. I mulled over how it could be that while “Googling” things on the Internet that might be interesting to my stepdaughter and nieces I was overtaken by the results.
My search on the keywords "Black girls" yielded "HotBlackPussy.com" as the first hit.

Hit indeed.

Since that time, I have spent innumerable hours thinking about all the ways in which it could be that the genius of Google could implode when it came to providing reliable or credible information about women and people of color -- especially Black women and girls. In the following pages, I show how "Hot," "Sugary," or any other kind of “Black Pussy" could be the primary representation of Black girls and women on the first page of a Google search. I study the first page of search results as an Internet artifact – a snapshot in time, and then I discuss the implications of such an artifact. I have been almost singularly obsessed with unveiling all of the ways in which Black women and girls have been contained and constrained in classification systems like Google’s commercial search engine – the development of which was born from citation analysis metrics in library and information science. I have thought incessantly about the ways that marketing and advertising, my professional home base, have interrupted and in many ways corrupted, the ways that Black women and girls have come to be represented on the first page of a Google search. I have wondered how a seemingly neutral technology could be broken, and no one take notice.

Throughout this research, I want to emphasize one main point -- that there is a missing social context in some types of search, and that this matters for everyone reliant upon search engines for access to information. It is of particular concern for marginalized groups who are problematically represented in stereotypical or pornographic ways in search engines, and who have also struggled for non-stereotypical or non-racist and non-
sexist depictions in other classification systems. In my research, I am interested in knowing two things: what kinds of results does Google’s search engine provide about Black women and girls when keyword searching, and what do the results mean in historical and social contexts? I also want to know in what ways does Google reinforce hegemonic narratives. What I have found, and will discuss in subsequent chapters, is that there are a series of processes involved in Google’s PageRank™ search protocols that can include leveraging digital footprints¹ from users and using advertising and marketing interests to influence search results. In the case of Google and its mechanisms for prioritizing information results in search, which includes aspects of personalization² and the digital history of users’ searches, the results that surface for certain racialized and gendered identities are problematic – and much more so for some than for others.

My intention in asking these research questions is two-fold. On one level, we need interdisciplinary research and scholarship in Media Studies, Communications, Library and Information Science, Black Studies, and Gender and Women's Studies to

¹ The term “digital footprint,” often attributed to Nicholas Negroponte, refers to the online identity traces that are used by digital media platforms to understand the profiles of a user. The online interactions are often tracked across a variety of hardware (e.g., mobile phones, computers, Internet services) and platforms (e.g., Google’s Gmail, Facebook and various social media) that are on the World Wide Web. Digital traces are often used in the data mining process to profile users. A digital footprint can often include time, geographic location, past search results and clicks that have been tracked through websites and advertisements, including cookies that are stored on a device or hardware.

² Eli Pariser has extensively covered the impact of personalization on the Web in The Filter Bubble: What the Internet is Hiding From You so I will not cover it here; however; search results are not standard across all users in all locations at all times. This study does not do a comparison of user results across geography and time, but efforts to mitigate immediate personal effect upon the search results by logging out of Google and all other media platforms, as well as having another researcher, Sunah Suh, collect searches for the study, is a way of being cognizant of the effects of personalization and Google’s history of data mining Gmail, Calendar and other tools to affect the kinds of results that can surface in PageRank™. Pariser notes that this data profiling is part of a process of sorting through “click signal” (pg. 32).
better describe and understand how search engines are situated in a socio-historical context embedded with social relations, and function as expressions of power. Using a Black feminist theoretical approach allows for greater understanding of technology and its impact, and allows experts in social sciences and the humanities to dialogue with engineers, designers and information technologists, which could lead us to powerful new possibilities in the area of information access and knowledge generation. These insights about sexist or racist biases in search are important because information organizations, from libraries to schools and universities, are increasingly reliant upon or being displaced by web-based tools such as Google search, Gmail and other seemingly free tools. Further, this kind of research can directly influence and potentially unravel hegemonic representations of Black women so that the quality of life and the reflections of us in popular media and culture, as curated by Google, can be empowering. This active scholarship, in the tradition of critical race theory (Harris, 1995; Furner, 2007), means that my work is a practical project, the goal of which -- in short -- is to eliminate social injustice and change the ways in which Black women and girls are misrepresented in Google’s search engine.

This research also looks at how the outsourcing of information organization practices from the public sector facilitates privatization of what we previously thought of as the public domain (Schiller, 1996). My intent is that this work will enlighten information and media organizations that are overly reliant upon commercial search engines, and that communications, library and information researchers can impact the organization of information in these spheres, which, in the end, could have tremendous social benefit. It is of no benefit to organize information resources on the web through
processes that privilege racist and sexist depictions of people -- on that I am hopeful many will agree.

Google and Classification Bias

In reality, information monopolies like Google have the ability to prioritize web search results based on a variety of interests (Diaz, 2008; Segev, 2010; Nissenbaum and Introna, 2004). In this case, the clicks of users coupled with the commercial processes that allow paid advertising to be prioritized in search results mean that representations of women (particularly Black women and girls) are ranked on a search engine page in ways that underscore their lack of status in society. This is a direct mapping of old media traditions into new media design. This research will detail how this can come to pass. Problematic representations and biases in classifications are not new. Library science scholars have well documented the ways in which some groups are more vulnerable than others to misrepresentation and misclassification. Hope Olson (1998), Sanford Berman (1971), Patrick Wilson (1968) and Jonathan Furner (2007) have conducted extensive and important critiques of library cataloging systems and information organization patterns that demonstrate how notions of "the other", whether women, Black people, Asian-Americans, Jewish people or the Roma, have all suffered from the insults of misrepresentation and derision in the Library of Congress Subject Headings (LCSH) or through the Dewey Decimal System, which I will discuss in Chapter 5.

My goal is to introduce such critiques to the study of our modern tools. At the same time, the work of Lisa Nakamura (2002, 2008), Wendy Chun (2006), and Jessica Davis and Oscar Gandy (1999) underscores the myriad ways that social values around
race and gender are directly reflected in technology design. Their contributions have made it possible for me to think about the ways that race and gender are embedded in Google’s search engine and to have the courage to raise critiques of one of the most beloved and revered contemporary brands.

Search happens in a highly commercial environment, and a variety of processes shape what can be found; these results are then normalized as believable and often as factual. Alex Halavais (2009) points to the way that heavily used technological artifacts like the search engine have become such a normative part of our experience with digital technology and computers that it socializes us into believing that search engines also provide access to credible, accurate information -- depoliticized and neutral. He provides a cautionary view on the lack of neutrality of technologies, which he believes are expressly political (Halavais, 2009). Unlike the human labor curation processes of the early Internet that led to the creation of online directories like Lycos and Yahoo!, in the current Internet environment, information access has been left to the complex algorithms of machines to make selections and prioritize results for users (Halavais, 2009):

...[This book suggests that] those assumptions are dangerously flawed; that unpacking the black box of the search engine is something of interest not only to technologists and marketers, but to anyone who wants to understand how we make sense of a newly networked world. Search engines have come to play a central role in corralling and controlling the ever-growing sea of information that is available to us, and yet they are trusted more readily than they ought to be. They freely provide, it seems, a sorting of the wheat from the chaff, and answer our most profound and most trivial questions. They have become an object of faith (Halavais, 2009, pg. 1-2).
I agree with Halavais, and his is an important critique of search engines as a window into our own desires, which can have impact on the values of society (Halavais, 2009). Search is a symbiotic process that both informs, and is informed by users. Halavais suggests that every user of a search engine should know how the system works, how information is collected, aggregated and accessed. To achieve Halavais' vision, the public would have to have a high degree of computer programming literacy to engage deeply in the design and output of search. Alternatively, it could be said that, to draw an analogy, one need not know the mechanism of radio transmission, or television spectrum or how to build a Cathode Ray Tube in order to critique racist or sexist depictions in song lyrics played on the radio or shown in a film or television show. To be specific, the technical aspects of search and retrieval, in terms of critiquing the computer programming code that underlies the systems, are absolutely necessary to have profound impact. Simultaneously, it is important for Black women to be critical of the results that represent them in the first 10-20 results in a commercial search engine. Without question, I believe the core of Halavais’ argument about the political nature of search is a requisite articulation that demonstrates how algorithms are a fundamental invention of computer scientists who are human beings – and code is a language full of meaning and applied in varying ways to different types of information. Certainly, women and people of color could benefit tremendously from becoming programmers and building alternative search engines that are less disturbing. My work here is fully intended to support Halavais’ call that we reveal the practices embedded in search engines – from a variety of vantage points and skill levels. Helen Nissenbaum and Lucas Introna (2004) and Alejandro Diaz's (2008) arguments about search engine bias give full examination to the structured bias in
Google’s algorithms. At the core of these arguments is the way in which Google biases search to its own economic interests, its profitability and to bolster its market dominance. These scholars also illuminate the ways in which users trade their privacy, personal information and immaterial labor for “free” tools and services offered by Google (e.g. search engine, Gmail, Google Scholar, YouTube) while it profits from data mining its users. Recent research on Google by Siva Vaidhyanathan (2011) demonstrates its dominance over the information landscape and forms the basis of a central theme in this research. Elad Segev’s (2010) political economic critique of Google charges that we can no longer ignore the global dominance of Google and the implications of its power in furthering digital inequality, particularly as it serves as a site of fostering global economic divides.

Search is one of the most under-examined aspects of the discussions about how power is operating in debates over consumer protections online\(^3\) and regulation in the provision of information to the public through the Internet. There is value in expanding the discourse about search engine results beyond the sole emphasis placed upon algorithms and computer code. The present research contributes to such expansion by taking a deep look at a snapshot of the web, at a specific moment in time, and interpreting the results against the history of race in U.S. society. In the ensuing chapters, I will continue to probe the results that are generated by Google on a variety of keywords

like "Black girls" and several keyword combinations relating to racial and gender identity. What is valuable about this work is that it allows researchers with a commonsense understanding of race (Omi and Winant, 1994) to engage in practical critiques of racism with the goal of changing these processes by voicing counter-narratives (Bell, 1992; Delgado and Stefancic, 1999) about the neutrality of search. Critical race theorists in Library and Information Science (Dunbar, 2006; Furner, 2007), and Black feminists (Collins, 1991; hooks, 1992), among whom I situate myself, have much to offer theoretically to the discourse on technology and its effects. By seeing and discussing these intersectional power relations, we have a significant opportunity to transform the consciousness embedded in search engines, since it is in fact, in part, a product of our own collective creation.

**Denaturalizing Search from a Black Feminist Perspective**

The impetus for my work comes from theorizing Internet web search results from a Black feminist perspective; that is, I ask questions about the structure and results of web searches from the standpoint of a Black woman – a standpoint that drives me to ask different questions than have been previously posed about how Google search works. This study builds on previous research that looks at the ways in which both Whiteness and racialization are a salient factor in various engagements with digital technology represented in video games (Leonard, 2009), websites (Nakamura, 2002), virtual worlds (Kendall, 2002) and digital media platforms (Chun, 2006; Brock, 2009). A Black feminist perspective offers an opportunity to ask questions about the quality and content of racial hierarchies and stereotyping that appear in results from commercial search.
engines like Google’s; it contextualizes them by decentering Whiteness and maleness as the lens through which results about Black women and girls are interpreted. By doing this, I am purposefully theorizing from a feminist perspective, while addressing often overlooked aspects of race in feminist theories of technology. Harding (1987) suggests that there is value in identifying a feminist method and epistemology:

"Feminist challenges reveal that the questions that are asked — and, even more significantly, those that are not asked — are at least as determinative of the adequacy of our total picture as are any answers that we can discover. Defining what is in need of scientific explanation only from the perspective of bourgeois, white men's experiences leads to partial and even perverse understandings of social life. One distinctive feature of feminist research is that it generates problematics from the perspective of women's experiences (Harding, 1987, pg. 7)."

I would argue that using a feminist method to evaluate technological artifacts does precisely what Harding suggests – it offers an opportunity to denaturalize the domain of search engines as "normal." Traditionally, feminist scholars of the Internet have paid less attention to the intersectionality of Black identity and gender; to redress this lack, it is necessary to use Black feminist theories in digital media studies. By doing this, I am bringing together the deep knowledge base of feminist Internet theorists and of Black women to explore what kind of new learning or creativity can stem from both theorizing and designing socio-technical systems like commercial search engines from an intersectional perspective.
Rather than assert that problematic or racist results are impossible to correct, in the ways that the Google disclaimer suggests, I believe that a feminist lens coupled with racial awareness about the intersectional aspects of identity offers new ground and interpretations for understanding the implications of such problematic positions about the benign instrumentality of technologies. Black feminist ways of knowing, for example, can look at searches on terms like "Black girls" and bring into the foreground evidence about the historical tendencies to misrepresent Black women in the media. As Harding suggests, new epistemologies and methods are in order to reveal new ways of thinking and knowing about science and technology. I am building on the work of previous scholars of commercial search engines like Google (Segev, 2010; Vaidhyanathan, 2011; Diaz, 2008), but asking new questions that are informed by a Black feminist lens (Collins, 1991) that is concerned with social justice for people who are systemically oppressed, and with an eye toward complicating information assumed to be "fact" by virtue of its legitimation at the top of the information pile. This type of ranking hierarchy results in a de facto system of authority. Where scholars like Nissenbaum and Introna, Diaz and Vaidhyanathan have problematized search and Google in terms of its lack of neutrality and prioritization of its own commercial interests, their critiques fall short of addressing the racist and sexist bias in search. My work is explicitly an feminist, critical perspective that looks at how search results reinforce domination and oppression. By exploring these aspects of power and information in Information and Communication

\[4\] See chapter 2 for a detailed discussion of the "Jewish" disclaimer by Google.
Technologies (ICTs), this study contributes to theorizing about the design of socio-technical systems that inform our everyday experiences on the web.

**Race, Gender and Digital Technology**

These inquiries about racism and sexism on the web are not new (Nakamura, 2002, 2008; Chun, 2006; Daniels, 2009; Brock, 2009). Work on racism and hatred on the web (Daniels, 2009) via search engines (Rajagopal and Bojin, 2002), the effects of bias on Google's algorithm (Segev, 2010; Diaz, 2008), the commercialization and politics of the web (Nissenbaum and Introna, 2004), racial identity on the web (Nakamura, 2002, 2008), and the pornification of women on the web (Chun, 2006; Heider and Harp, 2002) have led to my own set of questions about how the intersecting realities of web structure in contemporary U.S. society affect keyword searches on Black women and girls. Brock (2011) has drawn attention to the cultural and technological biases of information communication technologies, specifically web browsers. I draw upon these scholars to explore more deeply the structure of the web and how it marginalizes some groups while reinforcing hegemonic power positions for others.

bell hooks’ canonical essay "Selling Hot Pussy" in *Black Looks: Race and Representation* (1992) turned a Black feminist theoretical tradition toward the marketplace of culture, ideas and representations of Black women in the United States and is the right lens for thinking about Black women and girls on the Internet. 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 (pg. 62). 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 (hooks, 1992). 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 exploitive vehicles and
expand upon them as a site of personal profit (pg. 65). It is in this tradition, then, that
studying the discursive realm of text and meaning that is prioritized in search using
critical discourse analysis can be beneficial to studying race and gender on the Internet.
This, coupled with a look at the advertising costs associated with racial and gender
identities brokered by Google can help make sense of the trends that make Black
women and girls’ sexualized bodies a lucrative marketplace on the web.

In many discourses of technology, the machine is turned to and positioned as a
mere tool, rather than focusing on how technology reflects human values, which are
embedded within the technology itself (Pacey, 1983; Winner, 1986; Warf and Grimes,
1997). Design is purposeful, in that it forges both pathways and boundaries in its
instrumental and cultural use (Pacey, 1983). Winner (1986) analyzes the forms of
technology, from the design of nuclear power plants that reflect centralized, authoritarian
state controls over energy, to solar power designs that facilitate independent, democratic
participation by citizens, and shows that design impacts social relations at economic and
political levels. Commercial search is a similar process, in that it structures and
prioritizes results predicated upon a variety of factors that are anything but objective or
value-free (Pacey, 1983; Winner, 1986; Sinclair, 2004). We might go so far as to say that
there is nothing to be taken for granted about the “naturalness” of the ways that we find
information on the web, and there are infinite possibilities for other ways of designing access to knowledge and information. Winner (1986) reminds us that the contexts for all technological development and narratives about technology serve the interests of power relations among humans. When looking closely at the values that may appear as “facts,” and that are expressed for female, Black children in the United States, the following are the priorities that are expressed under Google’s algorithmic configuration in 2011. These results point to the ways that power relations are explicitly expressed when keyword-searching Google on racial and gendered identities:
Figure 1: Search on the keywords Black Girls on September 18, 2011
My research is designed to understand discursively what it means to get such results. Although I am focusing on Black women and girls, I try to 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. Nakayama and Krizek (1995) discuss the possibilities for understanding how racial identities are constructed and otherized in relation to largely under-examined sites of White identity:

The risk for critical researchers who choose to interrogate whiteness, including those in ethnography and cultural studies, is the risk of essentialism. Whatever “whiteness” really means is constituted only through the rhetoric of whiteness. There is no “true essence” to “whiteness”; there are only historically contingent constructions of that social relation (Nakayama and Krizek, 1995, pg. 293).

Therefore, studying Blackness is, in part, guided by its historic construction against the Whiteness, and I only make comparisons in this study of Blackness to Whiteness 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 often structured around White-Americans. I do believe that the results of my study on identities like White men, boys, girls and women deserve their own separate treatment using the extensive body of scholarship in the social construction of Whiteness, using 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 are represented far less well than others.
The goal of studying representations of Black girls as 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 such people. What is more interesting and more responsible is to think about the ways in which search engine results perpetuate particular narratives that reflect historically uneven distributions of power in society and troublesome stereotypes.

**Black Feminism as Theoretical and Methodological Approach**

As a method of explicitly tracing the types of representations that currently exist in technological spaces like the first page of Google search results, I interpret the findings through Patricia Hill Collins’ notion of “the matrix of domination” (Collins, 1991) which is concerned with social, political and economic dimensions of hierarchy and power. This theoretical and methodological framework is the basis of my initial theory of a Black Feminist Technology Studies (BFTS) approach in Information and Communication Technology (ICT) research. I assert that we must study the types of representations which encode the dimensions of oppression and are readily visible in the first page of search, and that this is a priority based on the commodified status of women -- surely this is the main take-away lesson of the search scenario with which I opened this introduction.

This commodified online status of Black women and girls’ bodies deserves scholarly attention because, in this case, their bodies are defined by a technological system that does not take into account the broader social, political and historical
significance of racist and sexist representations, such that the very presence of Black women and girls in search results is misunderstood and clouded by dominant narratives of the authenticity and lack of bias of search engines. In essence, the social context or meaning of derogatory or problematic Black women’s representations in Google’s ranking is normalized by virtue of their placement, making it easier for some to believe that what exists on the page is strictly the result of the fact that more people are looking for Black women in pornography, on the basis of the notion that what rises to the top in search is either the most popular or the most credible, or both.

Yet, this does not explain why the word “porn” does not have to be included in keyword searches on “Black girls” to bring it to the surface as the primary data point about Black girls and women. The political and social meaning of such output is stripped away when Black girls are explicitly sexualized in search rankings without any explanation, particularly without adding the words “porn” or “pornography” to the keywords. This phenomenon, I argue, is replicated from offline social relations and deeply embedded in the materiality of technological output -- in other words, traditional misrepresentations in old media are made real once again online, and situated in an authoritative mechanism that is trusted by the public -- Google. The study of Google searches as an Internet artifact is telling. Black feminist scholars have already articulated the harm of such media misrepresentations (hooks, 1992; Harris-Perry, 2011; Ladson-Billings, 2009; Miller-Young, 2007; Sharpley-Whiting, 1999; West, 1995; Collins, 1991). Black feminism as a theoretical framework allows this phenomenon to be examined in its intersectionality: seeing how race, gender, class, power, sexuality and other socially constructed categories interact with one another in a matrix of social
relations that create conditions of inequality or oppression (Harris, 1995; Collins, 1991; hooks, 1992).

I use this epistemology because it provides an alternative view on commercial search engine results, and, as a theoretical framework and approach, it rendered this problem visible. Black feminist thought offers a useful and anti-essentializing lens for understanding how both race and gender are socially constructed and mutually constituted through historical, social, political and economic processes (Collins, 1991; hooks, 1992; Harris, 1995; Crenshaw, 1991), creating interesting research questions and new analytical possibilities. As a theoretical approach, it challenges the dominant research on race and gender, which tends to universalize problems assigned to race or Blackness as "male" (or the problems of men) and organizes gender as primarily conceived through the lenses and experiences of White women, leaving Black women in a precarious and understudied position (Hull, Bell-Scott, and Smith, 1982). Popular culture provides countless examples of black female appropriation and exploitation of negative stereotypes to either assert control over the representation or at least reap the benefits of it (hooks, 1992):

Bombarded with images representing black female bodies as expendable, black women have either passively absorbed this thinking or vehemently resisted it (hooks, 1992, pg. 65).

hooks' work is a mandate for Black women interested in theorizing in the new media landscape, and I use this as both inspiration and as a call to action for other Black women interested in engaging in critical information studies. In total, this research is informed by a host of scholars that have helped me make sense of the ways that technology
ecosystems — from traditional classification systems like library databases to new media technologies like commercial search engines — are structuring narratives about Black women and girls.

In this study, I demonstrate how commercial search engines like Google not only mediate, but are mediated by a series of profit-driven imperatives that are supported by information and economic policies that underwrite the commodification of women’s identities. Ultimately, it is designed to “make plain”, as we say in the Black church, just exactly how it can be that Black women and girls continue to have their image and representations assaulted in the new media environments that are not so unfamiliar or dissimilar to old, traditional media depictions. I intend to meaningfully articulate the ways that commercialization is the source of power that drives the consumption of Black women and girls’ representative identity on the web.

While primarily offering reflection upon the effects of search-engine-prioritized content, this research is at the same time intended to bring about a deeper inquiry and a series of strategies that can inform public policy initiatives focused on connecting Black people to the Internet, in spite of the research that shows the cultural barriers, norms and power relations that alienate Black people from the web (Brock, 2007). After just over a decade of focus on closing the digital divide⁵, the research questions raised here are meant to provoke a discussion about “what then?” What does it mean to have every

Black woman, girl, man and boy in the United States connected to the web if the majority of them are using a search engine like Google to access content — whether about themselves or other things -- only to find results like those with which I began this introduction? The race to digitize cultural heritage and knowledge is important, but it is often mediated by a search engine for the user who does not know precisely how to find it, much the way a library patron is reliant upon deep knowledge and skills of the reference librarian to navigate the vast volumes of information in the library stacks.

Ultimately then, the goal of this study is to examine the first page of results as an Internet artifact, and discuss them such that they be understood in a context, rather than ascribing their existence to a simple matter of neutral, algorithmic, technical output.

The Importance of Google

Google has become an almost ubiquitous entity that is synonymous with “the Internet.” From serving as a browser into the Internet to handling personal email, or establishing Wi-Fi networks and broadband projects in municipalities across the United States, Google, unlike traditional telecommunications companies, has unprecedented access to the collection and provision of data across a variety of platforms in a highly unregulated marketplace and policy environment. Scholars like Siva Vaidhyanathan (2011) are tracing the implications of engagement with commercial entities like Google and what makes them so desirable to consumers. This research shows that their use is not without consequences of increased surveillance and privacy invasions, and participation in hidden labor practices, and reveals the ways in which Google’s business model
reinforces its market dominance across a host of vertical and horizontal markets (Inside Google 2010, June 2):

![Webpage Screenshot]

Figure 2: Example of Google's prioritization of its own properties in web search
Source: Inside Google (2010)

The present research is timely. In 2011, the Federal Trade Commission started looking into Google’s near-monopoly status and market dominance, and the harm this could cause consumers. As of Friday, March 16th 2012, Google was trading on NASDAQ at $625.04 a share with a market capitalization of just over $203 billion dollars. Their latest income statement for December 2011 shows gross profit at $24.7 billion. They have $43.3 billion cash on hand and just $6.21 billion in debt. Google holds 66.2% of the search engine market industry in 2012.
Recent data from tracking surveys and consumer behavior trends by the comScore Media Metrix consumer panel conducted by the Pew Internet and American Life Project show that search engines are as important to Internet users as email. Over 60 million Americans engage in search, and for the most part, people report that they are satisfied with the results they find in search engines. The 2005 (Fallows, 2005) and 2012 Pew reports on “Search Engine Use” (Purcell, Brenner and Rainie, 2012) suggest that 73 percent of all Americans have used a search engine, and 59 percent report using a search engine every day. In 2012, 83% of search engine users use Google (Purcell, Brenner and Rainie, 2012).

Research Questions

The basic research question of this project is “what happens when keyword searching on “Black girls,” and what does it mean that there are so many pornographic and racist hits on the first page of results for these keywords?” Throughout this research, I want to emphasize the main point -- the missing social context of search, and why this matters, particularly for marginalized groups who are problematically represented in stereotypical or pornographic ways. This study is guided by two key research questions: How does Google provide and prioritize information, and what does that mean in historical and social context for Black women and girls? I examine the ways in which Google is reinforcing hegemonic narratives and I study the results produced in various keyword searches through Critical Discourse Analysis (CDA) (Fairclough, 2003). What I have found in my research is that Google is misrepresenting women, particularly Black women and girls, as pornographic commodities.
Search Results as Power

I thus explore herein the ways that search engine results discursively reflect hegemonic social power. More precisely, my research points toward a type of cultural hegemony (Gramsci, 1992) within Google’s results on racialized and gendered identities, which reflect the values and norms of its commercial partners and advertisers, rather than simple popularity. I will also argue that the dominant narratives about the objectivity and popularity of web search results make misogynist or racist search results appear to be natural or normal. Not only do they seem “normal,” but they seem completely unavoidable as well, because of the perceived “popularity” of sites as the factor that lifts them to the top of the results, and because of general belief in myths of digital democracy emblematized in Google and Google search results (Hindman, 2009). As a result, users of Google give consent to the algorithms’ results through their continued use of the product, despite its ineffective inclusion of social meaning, and wholesale abandonment of responsibility for its results.  

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6 A detailed discussion of this can be found in the Google disclaimer about the results that are surfaced when a user searches on the word “Jew:” http://www.google.com/explanation.html
Google’s monopoly status, as I will argue more specifically in Chapter 2, coupled with its algorithmic practices of biasing information toward the interests of the capital and social elites in the United States, has resulted in a provision of information that perpetuates the domination of women and girls through misogynist and pornified characterizations. Stated another way, it can be argued that Google functions in the interests of its most influential (i.e. moneyed) advertisers or through an intersection of popular and commercial interests. Yet Google’s users think of it as a public resource, generally free from commercial interest (Purcell, Brenner and Rainie, 2012). Further complicating the ability to contextualize Google’s results is the power of its social hegemony (Segev, 2010). Google benefits directly and materially from what can be called the “labortainment” of users, when users consent to freely give away their labor and personal data in the use of Google and its products, resulting in incredible profit for the company.

Search and Social Context

A closer look at the mechanics of search will help contextualize the ways that I make sense of Google’s search results on the keywords “Black girls.” This analysis is one of many possible critiques that show how over-reliance upon commercial search by

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7 "The Power of Google: Serving Consumers or Threatening Competition?" Senate Judiciary Committee Subcommittee on Antitrust, Competition Policy and Consumer Rights. September 21, 2011. See: http://www.judiciary.senate.gov/hearings/hearing.cfm?id=3d9031b47812de2592c3baeba64d93cb

8 A good discussion of the ways that Google uses crowdsourcing as an unpaid labor pool for projects like Google Image Labeler can be found in the blog, “Labortainment” at URL: http://labortainment.blogspot.com/ last accessed on June 20, 2012.
the public, including librarians, information professionals and knowledge managers – all of whom are susceptible to over-use of or even replacement by search engines -- is something that we must pay closer attention to in the future. Under the current algorithmic constraints or limitations, commercial search does not provide appropriate social, historical and contextual meaning to racialized and hyper-sexualized people. In the research presented in this study, the reader will find a more meaningful understanding of the kind of harm that such limitations can cause for users reliant upon the web as an artifact of both formal and informal culture (McCarthy, 1994).
CHAPTER 2: LITERATURE REVIEW

Google has become a central object of study for digital media scholars (Nissenbaum and Introna, 2004; Vaidhyanathan, 2011; Segev, 2010; Diaz, 2008) due to recognition on these scholars’ parts of the power and impact wielded by the necessity to begin most engagements with social media via a search process and the near-universality with which Google has been adopted and embedded into all aspects of the digital media landscape to respond to that need. This work is addressing a gap between scholarship on how search works and what it biases, public trust in search, the relationship of search to library science, and the ways in which Black people are mediated and commodified in Google. This chapter reviews the most relevant prior scholarship.

How Commercial Search Works

The research questions are: how did we get here? How did searching on “Black girls” retrieve “Black Booty on the Beach” and “Sugary Black Pussy” at the top of the pile, out of the trillions of web indexed pages that Google crawls? Google's PageRank™ is a system based on citation analysis and bibliometrics borrowed directly from library and information science, specifically citation analysis, so in this chapter, I pay close attention to the mechanics of this process by Google and by users. In Chapter 5, I will talk about the implications of the history of misrepresentations of women and Black people in library and information science, which theoretically undergirds the indexing and classification systems of today.
To start revealing some of the processes involved, it’s important to think about how results appear. Although one might believe that a query into a search engine will produce the most relevant and therefore useful information, it is actually predicated upon a matrix of ways in which pages are hyperlinked and indexed on the web, which has been carefully detailed by Levene (2006). Rendering web content (pages) findable via search engines is an expressly social, economic and human project (Vaidhyanathan, 2011) in which this goal is turned into a set of steps (algorithm) implemented by programming code, and then naturalized as “objective” because it is algorithmic, scientific and mathematical by virtue of the procedural and mechanistic practices of tracing links among pages, which is then termed “voting” (Brin and Page, 1998a). For the most part, many of these processes have been automated or they happen through Graphical User Interfaces (GUIs) that allow people who are not programmers (i.e. not working at the level of code) to engage in sharing links to and from websites.⁹

Research shows that users typically use very few search terms when seeking information in a search engine and rarely use Advanced Search queries, as most queries are different from traditional offline information seeking behavior (Spink et al., 2001; Jansen and Pooch, 2001; Wolfram, 2008). This front-end behavior of users appears to be simplistic, however the information retrieval systems are complex, and the formulation of users’ queries involve cognitive and emotional processes that are not necessarily reflected in the system design (Markey, 2007). In essence, while users use the most

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⁹ Blogger, Wordpress, Drupal and other digital media platforms make the process of building and linking to other sites as simple as the press of a button, rather than having to know code to implement.
simple queries they can in a search box because of the way interfaces are designed, this
does not always reflect how search terms are mapped against more complex thought
patterns and concepts that users have about a topic. This disjunction between, on the one
hand, user queries and their real questions, and, on the other, information retrieval
systems, makes understanding the complex linkages between the content of the results
that appear in a search, and their import as expressions of power and social relations of
critical importance.

The public generally trusts information found in search engines. Yet, much of
the content surfaced in a web search in a commercial search engine is linked to paid
advertising, in part, which helps drive it to the top of the page rank (Nissenbaum and
Introna, 2004), and searchers are not typically clear about the distinctions between
"real" information and advertising. Given that advertising is a fundamental part of
commercial search, the content analysis method is appropriate and consistent with the
articulation of feminist critiques of the images of women in print advertising
(Ferguson, Kreshel and Tinkham, 1990), which have shown the problematic ways that
women have been represented: as sex objects, incompetent, dependent upon men or
underrepresented in the workforce (Wasson, 1973; Courtney and Whipple, 1983).
Therefore, in this study I will provide a content analysis as a precursor to a closer
reading using critical discourse analysis.

The Mechanics of Google’s PageRank™

To understand search in the context of this study, it is important to look at Sergey
Brin and Larry Page's development of Google as outlined in "The Anatomy of a Large-
Scale Hypertextual Web Search Engine" (1998a, 1998b), which serves as the architectural frame for PageRank™. In addition, it is crucial to also look at the way that citation analysis, the foundational notion behind Brin and Page’s idea, works as an element of bibliometrics. Both of these dynamics are often misunderstood (Smith, 1981) because they do not account for the complexities of human intervention involved in vetting of information, nor do they pay attention to the relative weight or importance of certain types of information. For example, in the process of citing work in a publication, all citations are given equal weight in the bibliography, although their relative importance to the development of thought may not at all be equal (Smith, 1981). Additionally, no relative weight is given to whether a reference is validated, rejected, employed or engaged – complicating the ability to know what a citation actually means in a document.

Authors who have become so mainstream as to not be cited, such as not attributing modern discussions of class or power dynamics to Karl Marx, or the notion of the individual to the scholar of the Italian Renaissance, Jacob Burckhardt, mean that these intellectual contributions may undergird the framework of an argument, but move through works without being cited any longer. Concepts that may be widely understood and accepted ways of knowing are rarely cited in mainstream scholarship, an important dynamic that Smith (1981) argues is part of the flawed system of citation analysis that deserves greater attention, if bibliometrics is to serve as a legitimating force for valuing knowledge production.

Brin and Page saw the value in using works that others cite as a model for thinking about determining what is legitimate on the web, or at least to indicate what is popular based on many people pointing toward it. In terms of outright co-optation of the
citation, vis-à-vis the hyperlink, Brin and Page (1998b) were aware of some of the challenges I have described. They were clearly aware from the beginning of the potential for “gaming” the system by advertising companies or commercial interests, a legitimated process now known as “search engine optimization,” to drive ads or sites to the top of a results list for a query; since clicks on weblinks can be profitable, as are purchases gained by being vetted as “the best” by virtue of placement on the first page of PageRank™. In contrast with scientific or scholarly citations that once in print are persistent and static, hyperlinking is a dynamic process that can change from moment to moment (Bar-Ilan, 2007). As a result, the stability of results in Google ranking shifts and is prone to being affected by a number of processes that I will cover, primarily search engine optimization and advertising. This means that results shift over time, as they have done since this study was first started. The results of what is most hyperlinked using Google’s algorithm today will be different at a later date or from the time that Google’s web indexers move through the web until the next cycle.¹⁰

Optimizing and Co-opting Results in Search Engines

Google’s advertising tool or optimization product is AdWords™. AdWords™ allows anyone to advertise on Google’s search pages, and is highly customizable. With

¹⁰Google’s official statement on how often it crawls is as follow: “Google's spiders regularly crawl the Web to rebuild our index. Crawls are based on many factors such as PageRank™, links to a page, and crawling constraints such as the number of parameters in a URL. Any number of factors can affect the crawl frequency of individual sites. Our crawl process is algorithmic; computer programs determine which sites to crawl, how often, and how many pages to fetch from each site. We don't accept payment to crawl a site more frequently.” See URL: http://support.google.com/webmasters/bin/answer.py?hl=en&answer=34439. Last accessed on July 6, 2012.
this tool, an advertiser can set a maximum amount of money that they want to spend on a daily basis for advertising. The model for AdWords™ is that Google will display ads on search pages that it believes are relevant to the kind of search query that is taking place by a user. If a user clicks on an ad, then the advertiser pays, and Google incentivizes advertisers by suggesting that their ads will show up in searches and display, but the advertiser (or Google customer) only pays for the ad when a user (Google consumer) clicks on the advertisement, which is the Cost Per Click (CPC). The advertiser selects a series of “keywords” that it believes closely align with its product or service that it is advertising, and a customer can use a Keyword Estimator tool in order to see how much the keywords they choose to associate with their site might cost. This advertising mechanism is an essential part of how PageRank™ prioritizes ads on a page, and the association of certain keywords with particular industries, products and services derives from this process that works in tandem with PageRank™.

In order to make sense of the specific results in keyword searches, it’s important to know how Google’s PageRank™ works, what are the commercial processes involved in PageRank™, how search engine optimization companies have been developed to influence the process of moving results up (SEMPO, 2010), and how Google-bombing occurs on occasion.

11 Google-bombing is the process of co-opting content or terms and redirecting it to unrelated content. Internet lore attributes the creation of the term “Google-bombing” to Adam Mathes who associated the term “talentless hack” with a friend’s website in 2001. A website dedicated to the history of web memes attributes the pre-cursor to the term to Archimedes Plutonium, a Usenet celebrity, for creating the term “searchenginebombing” in 1997. See URL: http://knowyourmeme.com/memes/google-bombing for more information. Last accessed on June 20, 2012. Others still argue that the first Google-bomb was created by Black Sheep who associated the terms “French Military Victory” to a redirect to a mock-
Search Engine Optimization (SEO) is the process of “…using a range of techniques, including augmenting HTML code, web page copy editing, site navigation, linking campaigns and more, in order to improve how well a site or page gets listed in search engines for particular search topics" (SEMPO, 2004, p. 4), in contrast to “paid search” in which the company pays Google for their ads to be displayed when specific terms are searched. In order to better understand SEO in practice, I looked to the grey literature from the leading SEO non-profit trade association, the Search Engine Marketing Professional Organization (SEMPO), which conducts national research on its organizational membership of more than 1,500 advertising clients and their agencies who benefit from search related advertising, including Google. Their 2010 study included respondents from 68 countries and is the sixth such study of its kind; they note the following about search (SEMPO, 2010):

- The SEO industry alone was worth $14.6 billion dollars in 2010,\textsuperscript{12} up from $13.5 billion in 2008

- 97% of companies report using Google AdWords\textsuperscript{TM} (pg. 1)

- Half of responding companies (50%) use Yahoo! Search. This percentage has dropped from 68% in 2009 and 86% in 2008 (pg. 2)

\textsuperscript{12} SEMPO (2010) states in its report: “This valuation includes money spent on paid search marketing and search engine optimization (natural search), and also spending on search engine marketing technology. It excludes social media marketing spending” (page 1).
• More than half of advertisers (56%) and agencies (62%) say that Google AdWords™ have become more expensive over the last year. Meanwhile, only around a third of advertisers note an increase in Yahoo (32%) and Bing (29%) keyword costs (pg. 2).

• Half of companies (50%) surveyed expect to spend more on paid search in 2010 compared to 2009, compared to 16% who say they will spend less. The remainder (34%) expect spending on pay-per-click (PPC) this year to remain the same. (pg. 2)

• The number of companies who engage in search engine optimization (90%) has remained steady since 2007, while the proportion of companies carrying out paid search marketing (now 81%) has increased from 78% in 2009 and 70% in 2008. (pg. 3)

• Company respondents are most likely to say that the personalization of search results, among a range of trends and marketplace developments, is having an impact. Just under a third of companies (31%) say this is “highly significant” and a further 44% say it is “significant”. (pg. 3)

What is important to note about this report and these statistics is that search engine optimization is a multi-billion dollar industry that impacts the value of specific keywords; that is, marketers are invested in using particular keywords, and keyword combinations, to optimize their rankings.

As such, practices like Google-bombing (also known as Google-washing) are impacting both SEO companies and Google alike. While Google is invested in maintaining quality of search results in PageRank™ and policing companies that
attempt to “game the system” as Brin and Page foreshadowed, SEO companies do not want to lose ground in pushing their clients or their brands up in PageRank™\textsuperscript{13}.

Google-bombing is the practice of excessively hyperlinking to a website to cause it to rise to the top of PageRank™, but it is also seen as a type of “hit and run” activity that can deliberately co-opt terms and identities on the web for political, ideological and satirical purposes. Bar-Ilan (2007) has studied this practice to see if the effect of forcing results to the top of PageRank™ has lasting effect on the result’s persistence, which can happen in well-orchestrated campaigns. A recent media spectacle of this nature is the case of Republican Senator Rick Santorum of Pennsylvania, whose website and name was associated with insults in order to drive objectionable content to the top of PageRank™\textsuperscript{14}. Others who have experienced this kind of co-optation of identity or less than desirable association of their name to an insult include former President George W. Bush and pop singer Justin Bieber.

\textsuperscript{13} Brin and Page note that in the Google prototype, a search on "cellular phone" results in PageRank™ making the first result a study about the risks of talking on a cell phone while driving.

\textsuperscript{14} In 2003, radio host and columnist Dan Savage encouraged his listeners to go to a website he created: http://santorum.com/ and post definitions of the word “santorum” after the Republican Senator made a series of anti-gay remarks that outraged the public.
All of these practices of search engine optimization and Google-bombing can take place independently of and in concert with the process of crawling and indexing the web. In fact, being found gives meaning to a website and creates the conditions in which a ranking can happen:

“Without much exaggeration one could say that to exist is to be indexed by a search engine” (Nissenbaum and Introna, 2004, pg. 9).

Despite the widespread beliefs in the Internet as a democratic space where people have the power to dynamically participate as equals, the Internet is in fact organized to the benefit of powerful elites (Hindman, 2009; Zittrain, 2008; Vaidhyanathan, 2011), including corporations that can afford to purchase and redirect searches to their own sites. Hindman (2009) challenges the notion that users of the Internet have the ability to "vote" with their clicks and express interest in individual content and information desires resulting in democratic practices online. What is most popular on the Internet is not
wholly a matter of what users click on and how websites are hyperlinked -- there are a variety of processes at play, which my research is uncovering in an effort to discuss how women can be so commonly and easily linked to pornography in simple keyword searches.

Holloway states, “Similarly, with Google, when you click on a result – or, for that matter, don’t click on a result— that behavior impacts future results. One consequence of this complexity is difficulty in explaining system behavior. We primarily rely on performance metrics to quantify the success or failure of retrieval results, or to tell us which variations of a system work better than others. Such metrics allow the system to be continuously improved upon” (Steele and Illinsky, 2010, pg. 143). The goal then of combining search terms, in the context of the landscape of the search engine optimization logic and business practice, and visually representing the top sites, allows me to paint a broader picture of how pornography has monopolized the images and information about women on the Internet.

Search as an Expression of Corporate Power

Hindman (2009) has laid groundwork for helping the public to understand how the web is organized according to the interests of the most powerful. His research exposes the ways that political news and information in the blogosphere is mediated and directed such that major news outlets surface to the top of the information pile over less well-known websites and alternative news sites in the blogosphere, to the benefit of elites. In the case of political information-seeking, Hindman argues that Google directs web traffic to mainstream corporate news conglomerates, which increases their ability to
shape the political discourse. I argue that Google is also a mediating platform that at one moment in time, in September of 2011, allowed the porn industry to take precedence in the representations of Black women and girls over other possibilities among at least 11.5 billion documents that could have been indexed (Gulli and Signorini, 2005) -- and that that moment in 2011 is, however, emblematic of its ongoing dynamic.

As the Federal Communications Commission declares broadband “the new common medium”\footnote{Federal Communications Commission (2010). National broadband plan: Connecting America. Retrieved September 14, 2010 from http://www.broadband.gov/download-plan/} the role of search engines is taking on even greater importance to “the dissemination of the widest possible information from diverse and antagonistic sources…essential to the welfare of the public”\footnote{Diaz (2008) carefully traces the fundamental notion of deliberative democracy and its critical role in keeping the public informed, in the tradition of John Stuart Mill’s treatise, “On Liberty” that contends democracy cannot flourish without public debate and discourse from the widest range of possible points of view.} (Associated Press v. United States, 1945, pg. 20). Elizabeth Van Couvering (2004) details the political economy of search engines, and the tensions that exist between traditional advertisers and search engine optimization companies that operate in a secondary or grey market – often in opposition to Google, which has a vested interest in helping its own clients optimize rankings.

Zimmer (2009) provides an extensive review of the literature outlining the search engine industry scholarship from technical, ethical, cultural and legal perspectives. Extensive critiques of Google have been written on the political economy of search (Van Couvering, 2004, 2008; Diaz, 2008) and the way that the search engine industry market consolidations contribute to the erosion of public resources, in much the way that
McChesney and Nichols (2009) critique the consolidation of the mass media news markets. Others have spoken to the inherent democratizing effect of search engines, such that search is adding to the diversity of political organization and discourse because the public is able to access more information in the marketplace of ideas (Lev-On, 2008). This political economy of search engines is important to consider in understanding the meaning of search for the public, and serves as a basis for examining why information quality online is significant, while troubling the notion of Google as a public resource, particularly as institutions become more reliant upon Google for high-quality, contextualized, and credible information. This shift from public institutions like libraries and schools as brokers of information to the private sector, in projects like Google Books™, for example, is placing previously public assets in the hands of a multinational corporation for private exploitation. My object of study also serves to illuminate the commercial processes at play in the commodification of information, and makes plain the way that search engines function as information enclosures (Andrejevic, 2007) as well as the commercial interests that structure their design and accumulation strategies.

The Enclosure of the Public Domain through Search Engines

At the same time that search engines have become the dominant portal for information seeking by U.S. Internet users, the rise of commercial mediation to information in those same search engines is further enclosing the public domain. Decreases in funding for public information institutions like libraries and educational institutions and shifts of responsibility to individuals and the private sector have reframed the ways that the public conceives of what can and should be in the public domain. Yet
simultaneously, Google is conceived of as a public resource even though it is a multinational corporation. Boyle discusses the nature of these kinds of shifts, and how “things that were formerly thought of as either common property or uncommodifable are being covered with new, or newly extended, property rights” (Boyle, 2003, pg. 37), including texts of all kinds, scientific data and education.

These shifts of resources that were once considered public have been impacted by increased intellectual property rights, licensing and publishing agreements for companies and private individuals in the domain of copyrights, patents and other legal protections. The move of community-based assets and culture to private hands is problematic, but there are still possible strategies that can be explored for maintaining what can remain in the public domain. This research will clarify how community-based representations of identity have been commercialized through private sector information aggregators, shifting the landscape of identity-based information. Commercial control over the Internet, often considered a “commons,” has moved it away from the public through a series of national and international regulations, and intellectual and commercial borders that exist in the management of the network (Goldsmith and Wu, 2006). Beyond the Internet and the control of the network, public information -- whether delivered over the web or not -- continues to be outsourced to the private sphere, eroding the public information commons which has been a basic tenet of U.S. democracy. Schiller (1996) provides a detailed examination of the impact of outsourcing and deregulation in the spheres of communication and public information, and his work is still timely:

The practice of selling government (or any) information serves the corporate user well. Ordinarily individual users go
to the end of the dissemination queue. Profoundly antidemocratic in its effect, privatizing and/or selling information, which at one time was considered public property, has become a standard practice in recent years (Schiller, 1996, pg. 48).

What this critique shows is that the privatization and commercial nature of information has become so normalized that it not only becomes obscured from view, but as a result increasingly difficult to critique within the public domain. The Pew Internet and American Life Project (Fallows, 2005; Purcell, Brenner and Rainie, 2012) corroborates both that the public trusts multinational corporations that provide information over the Internet, and that there is a low degree of distrust of the privatization of information. Part of this process of acquiescence to the increased corporatization of public life can be explained by the economic landscape shaped by military-industrial projects like the Internet that have emerged over the past in the United States\(^\text{17}\), increasing the challenge of scholars who are researching the impact of such shifts in resources and accountability.

**User Trust in Search Engines**

In March, 2012 the Pew Internet and American Life Project issued an update to its 2005 “Search Engine User” study (Fallows, 2005). The 2005 and 2012 surveys

\(^{17}\) President Eisenhower forewarned of these projects in his farewell speech on January 17, 1961 when he said: “In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought, by the military-industrial complex. The potential for the disastrous rise of misplaced power exists and will persist.” See URL: http://www.ourdocuments.gov/doc.php?flash=true&doc=90
tracking consumer behavior trends from the comScore Media Metrix consumer panel show that search engines are as important to Internet users as email. In fact, the Search Engine Use 2012\(^{18}\) report (Purcell, Brenner and Rainie, 2012) suggests that the public is "more satisfied than ever with the quality of search results" (pg. 2). Further findings include the following:

- 73% of all Americans have used a search engine, and 59% report using a search engine every day
- 83% of search engine users use Google

Especially alarming is the way that search engines are increasingly positioned as a trusted public resource returning reliable and credible information. According to Pew, users report generally good outcomes and relatively high confidence in the capabilities of search engines:

- 73% of search engine users say that most or all the information they find as they use search engines is accurate and trustworthy.

Yet, at the same time that search engine users report high degrees of confidence in their skills and trust in the information they retrieve from engines, they have also reported that they are naïve about how search engines work (2005):

- 62% of search engine users are not aware of the difference between paid and unpaid results; that is, only 38% are aware, and only 8% of search engine

\(^{18}\)Pew reports these findings from a survey conducted from January 20-February 19, 2012 among 2,253 adults age 18 and over, including 901 cell phone interviews. Interviews were conducted in English and Spanish. The margin of error for the full sample is plus or minus 2 percentage points (Purcell et al., 2012).
users say they can always tell which results are paid or sponsored and which are not.

- In 2005, 70% of search engine users were fine with the concept of paid or sponsored results but in 2012, users report they are not okay with targeted advertising because they do not like having their online behavior tracked and analyzed (2012, pg. 2).

- In 2005, 45% of search engine users said they would stop using search engines if they thought the engines weren't being clear about offering some results for pay.

- In 2005, 64% of those who used engines at least daily said search engines are a fair and unbiased source of information; which increased to 66% in 2012.

Users in the 2012 Pew study also expressed concern about personalization:

- 73% report they would not be okay with a search engine keeping track of searches and using the information from such to personalize future search results. Participants report they feel this to be an invasion of privacy (2012, pg. 2).

In the context of these concerns, a 2011 study by Feuz, Fuller, and Stalder found that personalization is not simply a service to users, but rather a mechanism for better matching consumers with advertisers, and that Google’s personalization or aggregation is about actively matching people to groups, that is, categorizing individuals.

Personalization is, to some degree, giving people the results they want based on what Google knows about its users, but it is also generating results for viewers to see that Google calculates might be good for advertisers by means of compromises to the basic algorithm. This new wave of interactivity, without a doubt, is on the minds of both users and search engine optimizing companies and agencies and will be the site of further inquiry in the future. Google applications like Gmail or Google Docs and social
media sites like Facebook track identity and previous searches in order to surface targeted ads for users by analyzing users’ web traces.

So not only do search engines increasingly remember the digital traces of where we've been and what links we've clicked in order to provide more custom content (a practice that has begun to gather more public attention after Google announced it would use past search practices and link them to users in its privacy policy change in 2012\textsuperscript{19}), but search results will also vary depending on whether filters to screen out porn are enabled on computers.\textsuperscript{20} It is certain that information that surfaces to the top of the search pile is not exactly the same for every user in every location, and a variety of commercial advertising, political, social and economic decisions are linked to the way search results are coded and displayed. At the same time, they are generally quite similar, and complete search personalization—customized to very specific identities, wants and desires—had yet to be developed in 2011 when my searches were conducted. For now, this level of personal-identity personalization has less impact on a variation in results than generally

\textsuperscript{19} Google Web History is designed to track signed-in users’ searches in order to better track their interests. Considerable controversy followed Google’s announcement and many online articles were published with step-by-step instructions on how to protect privacy by ensuring that Google Web History was disabled. See the Washington Post at \url{http://www.washingtonpost.com/business/technology/how-to-clear-your-google-search-history-account-info/2012/02/29/gIQAXDcCiR_story.html} for more information on the controversy; URL last accessed on June 12, 2012. Google has posted official information about its project at: \url{http://support.google.com/accounts/bin/answer.py?hl=en&answer=54068&topic=14149&ctx=topic} URL last accessed on June 22, 2012.

\textsuperscript{20} Estabrook and Lakner (2000) have conducted a national study on Internet control mechanisms used by libraries, which primarily consist of policies and user education rather than filtering. These policies and mechanisms are meant to deter users from accessing objectionable content, including pornography, but also other material that might be considered offensive.
believed by the public (Feuz, Fuller, and Stalder, 2011), as the results of my own
searches show, the particulars of which are detailed in Chapters 3 and 4.

Finding Meaningful Content on the Web through PageRank™

As mentioned, citation importance is a foundational concept for determining
scholarly relevance in certain disciplines (Smith, 1981) and citation analysis has largely
been considered a mechanism for determining whether a given article or scholarly work
is important to the scholarly community. I want to revisit this concept, because it also has
implications for thinking about legitimation of information, not just citeability or
popularity. It is also a function of human beings who are engaged in a curation practice,
not entirely left to automation. Simply put, if scholars choose to cite a study or document,
they have signalled its relevance; thus human beings (scholars) are involved in making
decisions about a document’s relevance, although all citations in a bibliography do not
share the same level of meaningfulness (Smith, 1981). Building on this concept of
credibility through citation, PageRank™ is what Brin and Page call the greater likelihood
that a document is relevant "if there are many pages that point to it" versus "the
probability that the random surfer visits a page" (Brin and Page, 1998a, pg. 110). In their
research, Brin and Page discuss the possibility of monopolizing and manipulating
keywords through commercialization of the web search process (1998b). Their
information-retrieval goal was to deliver the most relevant or very best ten or so
documents out of the possible number of documents that could be returned from the web
(1998a, pg 109). The resulting development of their search architecture is PageRank™ –
a system that is based on "the objective measure of its citation importance that
corresponds well with people's subjective idea of importance" (Brin and Page, 1998a, pg. 110).

One of the most profound parts of their work (1998b) is in Appendix A, where they acknowledge the ways in which commercial interests can compromise the quality of search result retrieval. They state:

> It is clear that a search engine which was taking money for showing cellular phone ads would have difficulty justifying the page that our system returned to its paying advertisers. For this type of reason and historical experience with other media [Bagdikian 83], we expect that advertising funded search engines will be inherently biased towards the advertisers and away from the needs of the consumers (Brin and Page, 1998b, pg. 18).

Brin and Page outline a clear roadmap for how bias would work in advertising-oriented search, and the effects this would have, and directly suggest that it is in the consumer's interest to not have search compromised by advertising and commercialism (Brin and Page, 1998b). To some degree, PageRank™ was intended to be a measure of relevance based on popularity – including both what web surfers and web designers link to, from their sites. As with academic citations, Brin and Page decided that citation analysis could be used as a model for determining whether web links could be ranked according to their importance by measure of how much they were back-linked or hyperlinked to/from. Thus, the model for web indexing pages was born. However, in the case of citation analysis, a scholarly author goes through several stages of vetting and credibility-testing such as the peer-review process before work can be published and cited. In the case of
the web, such credibility checking is not a factor in determining what will be hyperlinked.

Another example of the shortcomings of removing this human curation or decision-making from the first page of results at the top of PageRank™, in addition to the results that I found for Black girls, can be found in the more public dispute over the results that were returned on searches for the word “Jew” which include a significant number of anti-Semitic pages. As can be seen by Google’s response to the results of a keyword search for “Jew,” (see Figure 4) Google takes little responsibility toward the ways that it provides information on racial and gendered identities, which are curated in more meaningful ways in scholarly databases. Siva Vaidhyanathan’s 2011 book, The Googlization of Everything (And Why We Should Worry) chronicles recent attempts by the Jewish community and Anti-Defamation League to challenge Google’s priority ranking to the first page of anti-Semitic, Holocaust-denial websites. So troublesome were these search results that in 2011 Google issued a statement about its search process, encouraging people to use “Jews” and “Jewish people” in their searches, rather than the seemingly pejorative term “Jew”-- claiming that they can do nothing about its co-optation by White supremacist groups:
An explanation of our search results

If you recently used Google to search for the word “Jew,” you may have seen results that were very disturbing. We assure you that the views expressed by the sites in your results are not in any way endorsed by Google. We’d like to explain why you’re seeing these results when you conduct this search.

A site’s ranking in Google’s search results relies heavily on computer algorithms using thousands of factors to calculate a page’s relevance to a given query. Sometimes subtleties of language cause anomalies to appear that cannot be predicted. A search for “Jew” brings up one such unexpected result.

If you use Google to search for “Judaism,” “Jewish” or “Jewish people,” the results are informative and relevant. So why is a search for “Jew” different? One reason is that the word “Jew” is often used in an anti-Semitic context. Jewish organizations are more likely to use the word “Jewish” when talking about members of their faith. The word has become somewhat charged linguistically, as noted on websites devoted to Jewish topics such as these:


Someone searching for information on Jewish people would be more likely to enter terms like “Judaism,” “Jewish people,” or “Jews” than the single word “Jew” in fact, prior to this incident, the word “Jew” only appeared about once in every 10 million search queries. Now it’s likely that the great majority of searches on Google for “Jew” are by people who have heard about this issue and want to see the results for themselves.

The beliefs and preferences of those who work at Google, as well as the opinions of the general public, do not determine or impact our search results. Individual citizens and public interest groups do periodically urge us to remove particular links or otherwise adjust search results. Although Google reserves the right to address such requests individually, Google views the comprehensiveness of our search results as an extremely important priority. Accordingly, we do not remove a page from our search results simply because its content is unpopular or because we receive complaints concerning it. We will, however, remove pages from our results if we believe the page (or its site) violates our Webmaster Guidelines, if we believe we are required to do so by law, or at the request of the webmaster who is responsible for the page.

We apologize for the upsetting nature of the experience you had using Google and appreciate your taking the time to inform us about it.

Sincerely,
The Google Team

P.S. You may be interested in some additional information the Anti-Defamation League has posted about this issue at http://www.adl.org/rumors/google_search_rumors.asp. In addition, we call your attention to Google’s search results on this topic.

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Figure 4: Explanation of Results by Google
Source: http://www.google.com/explanation.html
Google, according to its own disclaimer, will only remove pages that are considered unlawful, as is the case in France and Germany where selling or distributing neo-Nazi materials is prohibited. Without such limits on derogatory, racist, sexist or homophobic materials, Google allows its algorithm – which is, as we can see, laden with “sociopolitics” (Diaz, 2008) – to stand without debate while protesting its inability to remove pages.

The public as well as the Jewish communities’ interest in accurate information about Jewish culture and the Holocaust should be enough motivation to provoke a national discussion about consumer harm, to which my research shows we can add other cultural and gender-based identities that are misrepresented in search engines. However, Google’s assertion that its search results, though problematic, were computer-generated (and thus not the company’s fault) was apparently a good enough answer to the Anti-Defamation League (ADL), who were “extremely pleased that Google has heard our concerns and those of its users about the offensive nature of some search results and the unusually high ranking of peddlers of bigotry and anti-Semitism” (ADL.org, 2004). The ADL does acknowledge on its website its gratitude toward Sergey Brin, co-founder of Google and son of Russian Jewish immigrants, for his personal letter to the organization and his mea culpa for the “Jew” search term debacle. The ADL generously stated in its press release about the incident that Google, as a resource to the public, should be forgiven because, “Until the technical modifications are implemented, Google has placed text on its site that gives users a clear explanation of how search results are obtained.
account thousands of factors to calculate a page's relevance”
(http://www.adl.org/PresRele/Internet_75/4482_75.htm)

If there is a technical fix, then what are the constraints that Google is facing such that eight years later, the issue has yet to be resolved? A search for the word “Jew” in 2012 produces a beige box at the bottom of the results page from Google linking to its lengthy disclaimer about the results--which remain a mix of both anti-Semitic and informative sites (see Figure 5).

![Offensive Search Results](http://www.google.com/explanation)

Figure 5: Google's bottom of the page beige box ad regarding offensive results, which takes you to "An explanation of our search results." Source: http://www.google.com/explanation

That Google places the responsibility for bad results back on the shoulders of information searchers is a problem, since most of the results that the public gets on broad or open-ended racial and gendered searches are out of their control.

It’s important to note that Google has conceded the fact that anti-Semitism as the primary information result about Jewish people is a problem, despite its disclaimer that
tries to put the onus for bad results on the searcher. As previously noted, in Germany and France, for example, it is illegal to sell Nazi memorabilia and Google has had to put in place filters that ensure online retailers of such are not visible in search results. In 2002, Benjamin Edelman and Jonathan Zittrain at Harvard University's Berkman Center for Internet and Society concluded that Google was filtering its search results in accordance with local law, and precluding neo-Nazi organizations and content from being displayed (Zittrain and Edelman, 2002). While this indicates that Google can in fact remove objectionable hits, it is equally troubling, because it provided search results without informing searchers that information was being deleted. That is to say that the results were presented as factual and complete without mention of omission. Yahoo!, another leading U.S. search engine, was forced into a protracted legal battle in France for allowing pro-Nazi memorabilia to be sold through its search engine in violation of French law. What these cases point to is that search results are deeply contextual and manipulable, rather than objective, consistent, and transparent, and that they can be legitimated only in social, political and historical context.

The issue of unlawfulness over the harm caused by derogatory results is a question of considerable debate. For example, in the United States, where Free Speech protections are afforded to all kinds of speech, including hate speech and racist or sexist depictions of people and communities, there is a higher standard of proof required to show harm toward disenfranchised or oppressed people (Daniels, 2009). It is well known that traditional media have been rife with negative or stereotypical images of Black people (Corea, 1993; Dates, 1990; Mastro and Tropp, 2004; Stroman, Merrit, and Matabane, 1989), and the web as the locus of new media is a place where traditional
media interests are replicated. Those who have been inappropriately and unfairly represented in racist and sexist ways in old media have been able to cogently critique and demand expanded representations, protest stereotypes, and call for greater participation in the production of alternative non-stereotypical or oppressive representation. This is part of the brief of civil rights organizations like the Urban League\textsuperscript{21} and the National Association for the Advancement of Colored People, which monitor and report on minority misrepresentations, as well as celebrating positive portrayals of African-Americans in the media.\textsuperscript{22} At a policy level, these civil rights organizations have been concerned with media representations of African-Americans, and mainstream organizations like FreePress.org have been active in providing resources about the impact of the lack of diversity, stereotyping and hate speech in the media; indeed, some of these resources have been directed toward net neutrality issues and closing the digital divide.\textsuperscript{23} Media advocacy groups that focus on the pornification of women or the stereotyping of people of color might turn their attention toward the Internet as another consolidated media resource, particularly given the evidence showing Google’s information and advertising monopoly status on the web.

\textsuperscript{21} The Chicago Urban League has developed a Digital Media Strategy that is specifically concerned with the content and images of Black people on the Internet. See URL: \url{http://www.thechicagourbanleague.org/723210720154314593/site/default.asp} Last accessed on 4/15/2012.

\textsuperscript{22} See the NAACP Image Awards, which recognize positive images of Blacks in the media. URL: \url{http://www.naACP.org/pages/naacp-image-awards}.

\textsuperscript{23} FreePress.org has a dedicated page on the issues of Civil Rights and Media Justice. URL: \url{http://www.freepress.net/media_issues/civil_rights} last accessed on 4/15/12.
Bias in Search

Emerging grey literature underscores the work of Nissenbaum and Introna (2004), Segev (2010) and Diaz (2008) who have extensively covered the ways that Google biases information and the “sociopolitics of search” (Diaz, 2008, pg. 13). Recent reports like ConsumerWatchdog.org’s Inside Google report, “Traffic Report: How Google is Squeezing out Competitors and Muscling Into New Markets,” (June 2010) details how Google effectively blocks sites that it competes with and prioritizes its own properties to the top of the search pile (YouTube over other video sites, Google Maps over MapQuest, and Google Images over Photobucket and Flickr). The report highlights the process by which Universal Search is not a neutral and therefore, not universal process, but rather a commercial one that moves sites who buy paid advertising to the top of the pile.

Amidst these practices, buttressed by an FTC investigation, the media have suggested that these practices are not at all unethical or harmful because they are free services and Google has the right to run its business in any way it sees fit. Arguably, this is true, so true that the public should be thoroughly informed about the ways that Google biases information – toward largely stereotypic and decontextualized results – at least when it comes to certain groups of people. This research argues that stereotypic media images, like those brought to the top ten hits about Black women and girls in Google, are

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24 The Federal Trade Commission is looking into the privacy issues facing Americans over Google’s targeted and behavior-based advertising programs. It has also recently settled out of court over the Google book digitization project, which was reported in the media as a “monopolistic online land grab” over public domain orphan works. See URL: http://money.cnn.com/2009/10/21/technology/obama_google.fortune/
most definitely harmful. Commercial platforms like Facebook and YouTube go to great lengths to monitor uploaded user content by hiring web content screeners, who at their own peril screen illicit content that can potentially harm the public (Stone, 2010). The expectation of such filtering suggests that such sites vet content on the Internet based on some objective criteria that indicate that some content is in fact quite harmful to the public. New research being conducted by Sarah T. Roberts shows the ways that, in fact, content moderation is a very active part of determining what is allowed to surface on Google, Yahoo! and other commercial text, video, image and audio engines.  

Challenging Race- and Gender-neutral Narratives

These explorations of web results on the first page of a Google search also reveal the default identities that are protected on the Internet or are less susceptible to marginalization, pornification and commodification. Full contextualization of racialized and pornified identities necessitates a review of Whiteness and maleness as the default identities that define the culture of the web (Kendall, 2002; Brock, 2011), as well as considerations about deviations from such identities being made the “other.” Heider and Harp (2002) show that even though women now comprise just slightly over half of Internet users, women’s voices and perspectives are not as loud nor do they have as much

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25 Roberts’ work on video content moderation elucidates the ways that commercial digital media platforms currently outsource or in-source image and video content filtering to comply with their terms of use agreements. What is important about her work is that it reveals the processes by which content is already being screened and assessed according to a continuum of values that largely reflect U.S.-based social norms. See the following URL for more information: [http://illusionofvolition.com/behind-the-screen-the-hidden-digital-labor-of-content-moderators/](http://illusionofvolition.com/behind-the-screen-the-hidden-digital-labor-of-content-moderators/) last accessed on June 20, 2012.
impact online as those of men. Their research demonstrates how some users of the
Internet have more agency and can dominate the web, despite the utopian and optimistic
view of the web as a socially equalizing and democratic force (Gunkel and Gunkel, 1997;
Pavlik, 1996; Kellner, 1995; Barlow, 1996). Their recent research on the male gaze and
pornography on the web argues, consistent with Kuhn (1985), that the Internet is a
communications environment that privileges the male, pornographic gaze and
marginalizes women as objects (Heider and Harp, 2002). Consistent with other forms of
pornographic representations, Heider and Harp point to the ways that pornography both
structures and reinforces the domination of women (pg. 288) and that the images of
women in advertising and art are often “constructed for viewing by a male subject”
consistent with Berger’s canonical work which describes this objectification in this way
(1972):

> Women are depicted in a quite different way from men -- not because
the feminine is different from the masculine -- but because the ‘ideal’
spectator is always assumed to be male and the image of the woman
is designed to flatter him (Berger, 1972, p. 64).

The previous articulations of the male gaze continue to apply to other forms of
advertising and media – particularly on the Internet, and Heider and Harp’s work is
important because it expands the conversation about the pornification of women on the
web as an expression of racist and sexist hierarchies. When these images are present,
White women are the norm and Black women are over-represented, while Latinas are
under-represented (Mayall and Russell, 1993, pg. 295). Gardner characterizes the nature
of the depictions of Black women in pornography by noting, “pornography capitalizes on
the underlying historical myths surrounding and oppressing people of color in this
country which makes it racist” (Gardner, 1980, pg. 105-106). These characterizations translate from old media representations to new media forms. In the face of dominant narratives of the Internet as a mechanism for progress and advancement (Dicken-Garcia, 1998), and of increased pluralism through computer mediated communications (CMC) (Baym, 1995), both of which have been contested (Postmes, Spears and Lea, 1998), Gunkel and Gunkel warn of the structural inequalities of society being reproduced on the Internet, and that the quest for a race-, gender- and classless cyberspace could only “perpetuate and reinforce current systems of domination” (Gunkel and Gunkel, 1997, p.131).

More than fifteen years later, the present research corroborates these concerns. Women, particularly Black women, are manifested on the Internet in search queries against the backdrop of a White male gaze that functions as a monopoly on the Internet in the United States. Lipsitz (1998) highlights the “possessive investment in Whiteness” and the ways that the American construction of Whiteness is more “non-racial” or null. Whiteness is more than a legal abstraction formulated to conceptualize and codify notions of the Negro, “Black Codes” or the racialization of diverse groups of African peoples under the brutality of slavery – it is an imagined and constructed community uniting ethnically diverse European-Americans.

Through cultural gazes about “the other” in traditional media and entertainment such as minstrel shows, racist films and television produced in Hollywood, and Wild West narratives, Whiteness consolidated itself “through inscribed appeals to the solidarity of White supremacy” (Lipsitz, 1998, pg. 370). The cultural practices of our society – which I argue include representations on the Internet – are part of the ways in
which “race-neutral” narratives have increased investments in Whiteness. Lipsitz argues it this way:

As long as we define social life as the sum total of conscious and deliberate individual activities, then only individual manifestations of personal prejudice and hostility will be seen as racist. Systemic, collective, and coordinated behavior disappears from sight. Collective exercises of group power relentlessly channeling rewards, resources, and opportunities from one group to another will not appear to be “racist” from this perspective because they rarely announce their intention to discriminate against individuals. But they work to construct racial identities by giving people of different races vastly different life chances (Lipsitz, 1998, pg. 381).

What is important about Lipsitz’ research when applied to the world wide web, is that group identity as invoked by keyword searches reveals this profound power differential that is reflected in contemporary U.S. social, political and economic life. It begs the question that if the Internet is a tool for progress and advancement as has been argued by many media scholars, then cui bono – to whose benefit is it? Tracing these historical constructions of race and gender offline provides more information about the context in which technological objects like commercial search engines function as an expression of a series of social, political and economic relations -- relations often obscured and normalized in technological practices (Winner, 1986; Pacey, 1983).

Studying Google keyword searches on identity, and their results, helps further thinking about what this means in relationship to Black women and girls as marginalized groups in the United States. I take up Fairclough’s rationale for doing this kind of critique of the discourses that contribute to the meaning making process as a form of
“critical social science” (Chouliaraki and Fairclough, 1999; Morrow 1994). To contextualize my method and its appropriateness to my theoretical approach, I note here that scholars who work in Critical Race Theory and Black Feminist scholars often use a qualitative method like this that provides more than numbers to explain results, and that focuses instead on the material conditions upon which these results are predicated. The results of this approach show that search results are changing the subjectivities of users by prioritizing inaccurate, racist and sexist, and often pornified results about Black women and girls. This is analyzed and discussed in greater detail in Chapters 3 and 4.

**Challenging Cybertopias**

All of this leads to more discussion about ideologies that serve to stabilize and normalize the notion of commercial search, including the still popular and ever-persistent dominant narratives about the neutrality and objectivity of the Internet itself (Barlow, 1996) -- beyond Google -- and beyond utopian visions of computer software and hardware. Barlow's infamous "A Declaration of the Independence of Cyberspace" (1996), states:

> We are creating a world that all may enter without privilege or prejudice accorded by race, economic power, military force, or station of birth. We are creating a world where anyone, anywhere may express his or her beliefs, no matter how singular, without fear of being coerced into silence or conformity (Barlow, 1996).

Barlow's notion that the Internet is or could be a space free from race or station is fully disembodied and decontextualized from the locations and experiences that those who enter the world wide Web bring with them. In point of fact, the Web itself is also a
physical space made of brick, mortar, metal trailers, electronics containing magnetic and optical media, and fiber infrastructure. Access to it is predicated upon telecommunications companies, broadband providers and Internet Service Providers (ISPs). All of these are material entities located in the physical world. Its users live on earth in myriad human conditions that make them anything but immune from privilege and prejudice, and human participation in the web is mediated by a host of social, political and economic access points -- both locally in the United States and globally (Segev, 2010).

Some scholars challenge the utopian ideals associated with the rise of the Internet and its ability to free us like those espoused by Barlow (1996) to neoliberal notions of individualism, personal freedom and control (Nakamura, 2008). These linkages are important markers of the shift from public- or state-sponsored institutions, including information institutions like libraries and schools or universities, as the arbiters of social freedoms to the idea that free markets, corporations and individualized pursuits should serve as the locus of social organization. These ideas are historically located in notions of the universal human being, unmarked by difference, that serve as the framework for a certain strain of thinking about individual pursuits of equality, which Stepan (1998) aptly describes as an enduring feature of the past 270 years of liberal individualism re-invoked by Enlightenment thinkers during the rising period of modern capitalism:

Starting in the seventeenth century, and culminating in the writings of the new social contract philosophers of the eighteenth century, a new concept of the political individual was formulated – an abstract and innovative concept, an apparent oxymoron – the imagined universal individual who was the bearer of equal political rights. The genius of
this concept, which opened the door to the modern polis, was that it defined at least theoretically, an individual being who could be imagined so stripped of individual substantiation and specification (his unique self), that he could stand for every man. Unmarked by the myriad specificities (e.g., of wealth, rank, education, age, sex) that make each person unique, one could imagine an abstract, non-specific individual who expressed a common psyche and political humanity (Stepan, 1998, pg. 28).

Of course, these notions have been consistently challenged, yet they still serve as the basis for beliefs in an ideal of an unmarked humanity, non-racialized, non-gendered and without class distinction, as the final goal of human transcendence. This teleology of the abstracted individual is challenged by the inevitability of such markers and the ways that the individual particularities they signal afford differential realities and struggles, as well as privileges and possibilities. This subtext is an important part of the narratives of the personal liberties that can be accomplished through technology – its ability to supposedly strip of us our specificities.

In the context of today, Yochai Benkler’s work (2006) traces the more personal and cultural aspects of societal transformation associated with the rise of the information age: information, knowledge, and culture are central to human freedom and human development. How they are produced and exchanged in our society critically affects the way we see the state of the world as it is and might be; who decides these questions; and how we, as societies and polities, come to understand what can and ought to be done (Benkler, 2006). Nakamura (2008) extends our knowledge about how social relations are impacted by the rise of the information age, and specifically how the Internet is reshaping social discourse:
This emphasis on privacy, competition, lack of regulation, and “nondiscrimination” not only opened the door for the transition from an early-nineties understanding of the Internet as a utopian space for identity play, community building, and gift economies to a more privatized, profit-driven model, one in which the Internet came to function as a ‘commodity-delivery system for vastly expanded media companies,’ as Stratton puts it, but it also echoed the language of color blindness or ‘genteel’ racism (Nakamura, 2008, citing Jon Stratton, “Cyberspace and the Globalization of Culture.” In *The Cybercultures Reader*, Ed. David Bell and Barbara Kennedy, 721-731. New York: Routledge, 2000).

This political economy -- fueled by state subsidization, information policy and deregulation of ICT markets like telecommunications and communications networks, has led to increased control despite the discourse of increased freedom (Schiller, 2007; Mosco, 1988). Chun’s (2006) work helps describe the nature of these confluences:

The Internet, conflated with cyberspace, was sold as a tool of freedom, as a freedom frontier that by its nature could not be tamed: the Internet supposedly interpreted censorship as damage and routed around it. Further, by enabling anonymous communications, it allegedly freed users from their race, class, and sex, and more ominously, from social responsibilities and conventions (Chun, 2006, pg. 2).

Despite the rhetoric of freedom, the reorganization of economic and social relations in the shift from the industrial to information society has led to even more uneven distributions of capital around the globe, and a reconstitution of social and economic relations predicated upon “information haves and have nots” (Schiller, 2007; Mosco,
1988), the implications of which I will discuss in Chapter 4 as they face people of African/Black descent in the U.S. and abroad.

As I have suggested, there are many myths about the Internet, including the notion that what rises to the top of the information pile is strictly what is most popular as indicated by hyperlinking. Were that even true, what is most popular is not necessarily what is most true. It is on this basis that I contend there is work to be done to contextualize and reveal the many ways that Black women are embedded within the most popular commercial search engine -- Google-- and that this embeddedness warrants an exploration into the complexities of whether the content surfaced is a result of popularity, credibility, commerciality – or even a combination thereof. Using the flawed logic of "digital democracy" in web rankings, the outcome of the searches I conducted would suggest that both sexism and pornography are the most “popular” values on the Internet when it comes to women, especially Black women and Black female children. In reality, there is more to result-ranking than just how we "vote" with our clicks (Hindman, 2009) and various expressions of sexism and racism are related, as my research shows.

Keywords Searching for Black Girls

To understand representations of race and gender in new media, it is necessary to draw on research about how race is constituted and how people have come to be racialized, in the tradition of Omi and Winant (1994). These scholars point to the proactive practices 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" (pg 56). In their work, they describe the importance of furthering anti-racist practices that
are seeking to redress oppressive social relations, and advocate resisting projects that continue hegemonic domination. Omi and Winant 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 (pg. 67). This is an important framework against which to map the discourse of the Internet as a democratic landscape, and to deploy in thinking about the practices instantiated within commercial web search.

Group identity development and recognition in the United States is guided, in part, by ongoing social experiences and interactions, often organized around race, gender, education and other social factors that are also ideological in nature (Hall, 1989; Davis and Gandy, 1999; Omi and Winant, 1994). Addressing a series of research questions about representations of racial and gender identities in search engines is a specific effort to conceptualize the relationship between social justice, community identity, and information reliability. These issues are at the heart of a "politics of recognition" (Fraser, 1996), 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 the United States. In this work, I am claiming that you cannot have social justice and a politics of recognition without 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 (Alkalimat and Williams, 2001).

In order to understand the profound implications of search engine users' behavior and their belief in the reliability and relevance of search results, it is critical to look at how commercial interests affect the quality of information produced by search
engines. In general, search engine users are doing simple searches consisting of one or more natural-language terms submitted to Google, and they do not look into their queries to gather or contextualize information in a broad or deep manner. Nor are they looking past the first page or so of search engine results, as a general rule (Jansen and Spink, 2006). It is thus important to know what information is being made available on the very first page of results, when search terms include those referring to racial and gendered identities, and to Black women and girls in particular, relative to others who may or may not be represented in terms of the same values. Search results as artifacts have symbolic and material meaning.

Search also functions within the context of education: it is embedded in schools, libraries and educational support technologies. It functions in relationship to popular culture expressions like "Google it" and it serves to legitimate information and representations. It functions as an artifact of culture, akin to the ways that 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 (McCarthy, 1994, pg. 91).

The Internet is an artifact, then, both as an extension of the formal educational process, and as "informal culture," and thus is a “deployment of subjectivity.” This 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 Davis and Gandy:

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 (Davis and Gandy, 1999, pg. 368).

Davis and Gandy's work points out important dimensions of the ways that Black women and girls are represented in search engines, and, as my research shows, are used as a hegemonic device at their expense 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 who want to oppose the ways in which they are collectively represented, as Davis and Gandy suggest is possible.
Information monopolies like Google have the ability to bias and prioritize web search results based on a variety of interests, and scholars are increasingly turning a critical eye toward these practices (Nissenbaum and Introna, 2004; Segev, 2010; Diaz, 2008). Google’s enviable position as the market leader in the provision of information has allowed its organization of information and customization to be driven by its economic imperatives (Segev, 2010), and has instantiated itself as the creator and keeper of information culture on the web, which I am arguing is another form of White, male American imperialism that manifests itself as a “gatekeeper” (Barzilai-Nahon, 2006) on the web. I make this claim based on the detailed research of Segev on the political economy of Google for its role in furthering the international digital divide that elevates English-language and American values on the web over that of all other nation-states (Segev, 2010). His work fully documents how 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 (Segev, 2010; comScore, 2009; Kopytoff, 2007). His detailed critical analysis of the role of Google as a broker of cultural imperialism is arguably the most powerful expression of media dominance (Mosco, 1996; Hirst and Thompson, 1999) on the web we have yet to see (Segev, 2010).

The information inequality fostered by Google’s dominance as an American-owned force internationally only exacerbates the digital divide (Hargittai, 2000, 2003; Norris, 2001; DiMaggio, Hargittai, Neuman, and Robinson, 2001; Ciolek, 2003; Castells, 2004; Rogers, 2004; Barzilai-Nahon, 2006; Segev, 2010) but facilitates the widespread dissemination of American hegemony. I believe that Segev has done the most important work to date on the role of Google as an information monopoly from a global
perspective. An interrogation of American hegemony by examining the content of searches in my research shows how these values are not just global, but explicitly localized across sexually gendered and racialized bodies in the United States.

Methodically Looking for Black Girls in the Commercial 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 like AdWords™ are also used to optimize searches and page indexing based on terms that have a high likelihood of being queried. Information derived from tools like AdWords™ is used to help web designers develop strategies to increase traffic to their websites. Developing a research method that helps one understand how and why particular identities get connected to pornographic images is important to my study. 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 porn industry closely monitors the top searches for information or content, based on search requests across a variety of demographics. One of the most well-informed industries with sophisticated usage of Search Engine Optimization (SEO) is the porn industry. 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. 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.

26 See: http://zackwilliamson.com/porn-seo/
The following chart represents the main keywords searched for and optimized for in 2006:

<table>
<thead>
<tr>
<th>Search Term</th>
<th>2006 Search Requests</th>
<th>2006 % Change</th>
<th>2005 % Change</th>
<th>Web Pages Containing Keyword (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>75,608,612</td>
<td>7%</td>
<td>40%</td>
<td>414.00</td>
</tr>
<tr>
<td>Adult Dating</td>
<td>30,286,325</td>
<td>622%</td>
<td>80%</td>
<td>1.40</td>
</tr>
<tr>
<td>Adult DVD</td>
<td>13,684,713</td>
<td>53%</td>
<td>21%</td>
<td>1.82</td>
</tr>
<tr>
<td>Porn</td>
<td>23,629,211</td>
<td>-3%</td>
<td>29%</td>
<td>88.80</td>
</tr>
<tr>
<td>Sex Toys</td>
<td>15,955,256</td>
<td>4%</td>
<td>1%</td>
<td>2.65</td>
</tr>
<tr>
<td>Teen Sex</td>
<td>13,982,729</td>
<td>36%</td>
<td>25%</td>
<td>2.10</td>
</tr>
<tr>
<td>Free Sex</td>
<td>13,484,769</td>
<td>0%</td>
<td>20%</td>
<td>2.42</td>
</tr>
<tr>
<td>Adult Sex</td>
<td>13,382,995</td>
<td>301%</td>
<td>51%</td>
<td>1.58</td>
</tr>
<tr>
<td>Sex Ads</td>
<td>13,230,137</td>
<td>382%</td>
<td>40%</td>
<td>0.28</td>
</tr>
<tr>
<td>Group Sex</td>
<td>12,964,651</td>
<td>88%</td>
<td>33%</td>
<td>2.07</td>
</tr>
<tr>
<td>Free Porn</td>
<td>12,984,651</td>
<td>-10%</td>
<td>54%</td>
<td>2.74</td>
</tr>
<tr>
<td>XXX</td>
<td>12,065,000</td>
<td>25%</td>
<td>14%</td>
<td>181.00</td>
</tr>
<tr>
<td>Sex Chat</td>
<td>11,861,035</td>
<td>97%</td>
<td>36%</td>
<td>2.21</td>
</tr>
<tr>
<td>Anal Sex</td>
<td>9,960,074</td>
<td>76%</td>
<td>21%</td>
<td>2.95</td>
</tr>
<tr>
<td>Cyber Sex</td>
<td>8,502,524</td>
<td>-20%</td>
<td>3%</td>
<td>1.24</td>
</tr>
<tr>
<td>XXX Videos</td>
<td>7,411,220</td>
<td>71%</td>
<td>40%</td>
<td>1.44</td>
</tr>
<tr>
<td>Playboy</td>
<td>6,641,209</td>
<td>-5%</td>
<td>24%</td>
<td>43.20</td>
</tr>
<tr>
<td>Teen Porn</td>
<td>6,130,265</td>
<td>7%</td>
<td>38%</td>
<td>1.97</td>
</tr>
<tr>
<td>Nude</td>
<td>5,487,925</td>
<td>-26%</td>
<td>14%</td>
<td>71.30</td>
</tr>
<tr>
<td>Sexy</td>
<td>4,344,924</td>
<td>21%</td>
<td>33%</td>
<td>198.00</td>
</tr>
</tbody>
</table>

Figure 6: Pornography Search Requests

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 (http://www.seomoz.org, 2008).

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.

Table 1: Countries by pages of pornography produced

<table>
<thead>
<tr>
<th>Country</th>
<th>Porn Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.</td>
<td>244,681,900</td>
</tr>
<tr>
<td>Germany</td>
<td>10,630,200</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>8,506,800</td>
</tr>
<tr>
<td>Australia</td>
<td>5,655,800</td>
</tr>
<tr>
<td>Japan</td>
<td>2,700,800</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>1,883,800</td>
</tr>
<tr>
<td>Russia</td>
<td>1,080,800</td>
</tr>
<tr>
<td>Poland</td>
<td>1,049,900</td>
</tr>
<tr>
<td>Spain</td>
<td>852,800</td>
</tr>
</tbody>
</table>

One of the reasons that I have chosen to study keyword combinations in the context of U.S. racial identifiers is that it seems that language and terms from the United States dominate the porn industry, as evidenced by the market domination of the United States in the previous chart. If the U.S. has such a stronghold in supplying pornographic content, then the search for such content is deeply contextualized with 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.

Morville (2005) 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 (Morville, 2005, pg. 4).

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
Commercial Search Engine Results: Representation and Context

The intersection of racialized and pornified identities for Black women and girls is an issue that matters for everyone concerned about information quality and reliability in the first page of search results on people and communities, particularly because they do not draw down on the tremendous economic and social power as others. At the moment, U.S. commercial search engines like Google, Yahoo! and Bing hold tremendous power in defining how information is indexed and prioritized. Important research on search shows that there is increasing concern about understanding bias in search engines (Nissenbaum and Introna, 2004; Van Couvering, 2004; Diaz, 2008; Vaidhyanathan, 2011). This work has looked at the ways that compromised social power and powerful stereotypes foster hegemonic narratives about gendered and racial identities in the United States, as in the case of searching for Jewish people but finding Holocaust-denial sites (Daniels, 2009). Such search results are deeply problematic and are often presented without any alternatives to change them except through search refinement, or changes to

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27 I used a search engine called Million Short at www.millionshort.com, which is designed to give a user all of the results they might find if they didn’t get the first million results. This is a considerable gap to cross for the majority of search engine users who typically don’t look past the first 5-10 results as previously discussed (Spink et al., 2001; Jansen and Pooch, 2001; Wolfram, 2008). Many of the results are the same and similar in both search engines, and after a million results are allegedly scraped from the top of the information pile, sexualized or pornographic results still abound for both Black women and girls.
Google’s default filtering settings, which currently are “moderate” for users who don’t 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 (West, 1995; hooks, 1992) only further debase and erode efforts for social, political and economic recognition and justice and harken to the Foucauldian “regime of truth” (1972), which uses various mechanisms and knowledge structures (which could include the Internet) as a means of exercising domination or power over Black women and girls (Ladson-Billings, 2009; Foucault, 1972). These practices instantiate limited, negative portrayals of Black womanhood in the media (Yarbrough and Bennett, 2000), which from a critical race perspective, helps explain them as a defining and normative feature of American racism (Bell, 1992; Delgado and Stefancic, 1999). Scholars like Gandy have studied ways in which the public is directly impacted by these negative portrayals (Davis and Gandy, 1999; Gray, 1989; Matabane, 1988; Wilson, Gutierrez, and Chao, 2003). In the case of television, Dates’ (1990) work shows that negative images of Blacks or African-Americans can adversely alter the perception of them in society. Punyanunt-Carter (2008) has specifically researched media portrayals of African-Americans’ societal roles, which confirms previous studies about the effects of media images of Blacks on college students. Ford (1997) found that both Blacks and Whites who view Blacks negatively on television are more likely to hold negative perceptions of them. Fujioka (1999) notes that in the absence of positive first-hand experience, stereotypical media portrayals of Blacks on television are highly likely to affect perceptions of the group.
Nissenbaum and Introna (2004) contend that technologies are “resting precariously on a number of political, economic, and technical factors” (pg. 8). They point to a number of pressures, most notably commercial interests that shape the design and content of search engines. 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 with something to say and offer, as well as to those wishing to hear and find. Leading search engines give prominence to popular, wealthy, and powerful sites -- via the technical mechanisms of crawling, indexing, and ranking algorithms, as well as through human-mediated trading of prominence for a fee at the expense of others (Nissenbaum and Introna, 2004). Their findings show that search is political, and, at the same time, search engines can be quite innocently helpful when 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 searching for information like phone numbers and local eateries, search engines help people easily find the nearest services, restaurants, and customer reviews.

Relevance is a 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, in searching for racial and gendered identities this now reflects a set of commercial and advertising practices that bias particular ideas – such as pornographic websites or stereotyping sites that foster hegemonic narratives. As Nissenbaum and Introna argue, those industries and interests that are powerful, influential, or highly capitalized are often prioritized to the detriment of others.
Critical Race Theory and Library & Information Science

Jonathan Furner (2007) and Anthony Dunbar (2006) have issued powerful calls to action for library and information science to embrace critical race theory (CRT) to help inform library and information science practices in both classification and archival discourse. Furner’s work is essential to thinking about how to reconceptualize classification practices from a CRT perspective. His case study of the Dewey Decimal Classification (DDC) system underscores the problematic conceptualizations of race and culture and efforts to “deracialize” the library and classification schemes (pg. 147). Furner suggests that information institutions and systems, which I argue include the Internet, are participating in “legitimizing the ideology of dominant groups” (pg. 148) to the detriment of people of color.

Furner offers several strategies for thinking about how to address these issues using CRT as the guiding theoretical and methodological model, which I believe are of great value to thinking about the application of CRT to the issues at hand in this research. These concerns include:

• “admission on the part of designers that bias in classification schemes exists, and indeed is an inevitable result of the ways in which they are currently structured;

• recognition that adherence to a policy of neutrality will contribute little to eradication of that bias, and indeed can only extend its life; [and]

• construction, collection and analysis of narrative expressions of the feelings, thoughts, and beliefs of classification-scheme users who identify with particular racially-defined populations.” (2007, pg. 169)
While the web indexing process is not the same as classification systems like DDC, the application of the theoretical model is still valid for thinking about conceptualizing algorithms and indexing models that could actively intervene upon the default normativities of racism and sexism in web results for some keyword identity searches.
CHAPTER 3: CONTENT ANALYSIS METHOD

Making Meaning of Search Results

This research is designed to elucidate the answers to the following questions: what kind of results does Google, the leading search engine of the moment, provide about Black women and girls, and what do the results mean in historical and social context? As a precursor to Critical Discourse Analysis (CDA) I conducted a Content Analysis (CA) of the data in order to understand the kind of information that is presented in the web search results that I collected. In this chapter, I will describe the ways in which I coded and analyzed the search results using Content Analysis as a method. In chapter 4, I will analyze and interpret these results using CDA as a method. The combination of these two approaches allows for a richer discussion of search. I chose CDA to understand not only what is represented, as shown through Content Analysis, but also how these results must be informed by a more comprehensive context. CDA allows me to specifically address the second line of inquiry – what do the results that surface mean? This mixed methods approach offers an opportunity to think more comprehensively about the keywords in this study.

Content analysis “entails a systematic reading of a body of texts, images, and symbolic matter” (Krippendorff, 2004, pg. 10). Critiques of content analysis practice in traditional advertising include problems with the decontextualization of images alone, suggesting that definitions and “readings” of images are sexist because the “mode of presentation produces its reading as sexist” (Cowie, 1977, p. 20). Content analysis alone
can be purely descriptive, which would be a limit to understanding why particular words or narratives exist about racialized and gendered identities. Therefore, the historical contextualization of the search results is critical to understanding what the results mean, and will be addressed in detail in Chapter 4.

**Keyword Selection**

The racial identities used in this study were taken from a common racial categorization scheme, the United States Census. I am focused on the ways that Black and White women specifically are represented, which is why this study looks at searches on these identities only.

**Table 2: Keyword Terms Used in Google Searches Along the U.S. Race and Gender Binaries**

<table>
<thead>
<tr>
<th>Sex by Age</th>
<th>Black</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women</td>
<td>Black women</td>
<td>White women</td>
</tr>
<tr>
<td>Girls</td>
<td>Black girls</td>
<td>White girls</td>
</tr>
</tbody>
</table>

These keywords reflect the dominant naming conventions for racial and gender categories, defined by the State and used in a variety of legal, educational, employment, health, media and entertainment reporting categorizations.

**Women vs. Girls**

Online, as in other forms of media, the subjectivities of women are often characterized as girls. This is a reflection of the broader patriarchal culture in the United
States. When I coded the data, I looked at each result to see if it reflected the subjectivities of adult women, or of children and adolescent girls. I recognize that the terms “woman” and “girl” are essentialized notions of gender and that gender is fluid and includes a variety of transgendered identities (Sedgwick, 1990). I am limited, as is my research, by the common vernacular, and as such, I am also invested in analyzing these categories that perpetuate hegemonic power relations. I particularly want to call attention to the ways in which “girl” is used to address women, as a pejorative and sexist means of attributing such terminology to what appear to mostly be women in the case of some of the searches. It is my intent that these categories further a discussion about how search engines facilitate representations that are contextualized within such sexist practices. The search terms are not intended to reify these socially constructed identity categories, but rather, are intended to help researchers better understand the social biases that are reconstituted in the technological device of search itself. For the purposes of this study, the scope is limited to the historical racial and gender characterizations in the United States, and gesture toward further research into the additional categorizations along various matrixed and trans-identities.

This study is also specifically concerned with the commodified status of women online, and as such, I did not include searches on men and boys in the analysis.

Black vs. African-American

In preparation for this study, I performed a number of data and text analyses that would inform the analysis and codes associated with this research. Several questions arose, and I spent time thinking through the racialized terms I would use for this study.
Why Black? Why not African-American, Afro-American, Negro, etc.? How might I deal with the multiple varieties of Black-identity, which extend beyond African-Americans to people from throughout the diaspora living in the United States? Group identity in the United States is complicated; yet I sought to study the ways in which Black people define *themselves* in more personal ways. In a recent market research report (Newport, 2007) that polled Black/African-Americans, respondents report that they prefer "Black" as a self-identity in informal or in-group settings, and "African-American" in more formal settings or when non-Blacks are addressing them. The same Gallup\(^{28}\) poll notes that 61% of Black/African-American people say that they have no preference about being identified by one term over the other, and are roughly split between the two terms, for the 39% who do care.

Andrew Hacker’s (1992) canonical work, *Two Nations: Black and White, Separate, Hostile, Unequal*, characterizes the racial politics of the United States:

> America is inherently a "white" country: in character, in structure, in culture. Needless to say, black Americans create lives of their own. Yet, as a people, they face boundaries and constrictions set by the white majority. America’s version of apartheid, while lacking overt legal sanction, comes closest to the system even now being reformed in the land of its invention (Hacker, 1992, pg. 19).

Hacker’s discussion of the racial binary is distinctly tied to the privileges and affordances due to Whites in the United States and Great Britain, predicated upon the historical and contemporary subjugation of Blacks:

As James Baldwin has pointed out, white people need the presence of black people as a reminder of what providence has spared them from becoming.... In the eyes of white Americans, being black encapsulates your identity. No other racial or national origin is seen as having so pervasive a personality or character (Hacker, 1992, pg. 55).

However complex the history of the racial binary in the U.S. that scholars like Hacker point to, racial and gender categorizations are not intended to be scientific or biological, but rather, reflect the social construction of race (Omi and Winant, 1994) and gender (Sedgwick, 1990; Collins, 1991). Lipsitz (1998) and Jensen (2005) characterize these kinds of racial interventions as necessary based on systems of white privilege that traditionally do not underscore differences or make them visible to ensure opportunity for specific groups, namely White Americans, at the expense of continued marginalization of people of color. In this way, racial categorizations reflect the social, economic and political dimensions of power relations, and the use of the associated racial terms of historical invention – such as “Black” and “White” -- are expressions of racial constructs that are formative to race relations both in the United States and diasporically:
I drew conclusions about focusing on Black as the racial identity term to research, based on the study of racial formation in the canonical work of Omi and Winant (1994) as well as critical Whiteness studies and critical race theory, which support the notions of examining racial identity in the Black-White binary (Lipsitz, 1998; Jensen, 2005). This is further supported as evidenced by research indicating the term of preference for in-group identification of Black people being “Black” (Miller and Kemp, 2005).

My research should not be construed as reifying these categories, nor am I making a gesture toward instantiating the concept of biological "race" which is a social construction (Omi and Winant, 1994). I do, however, recognize that the process of racialization in the United States has complicated use of the word “race,” although Blackness and African-Americanness are expressions of group identity through political and social movements and these terms reflect upon cultural commonality. Many Black people in the U.S. are not the descendants of Africans who were enslaved in the U.S. yet are part of the Black diaspora that includes people of African descent from around the world. "Racialization" and "gendering" are hegemonic processes that include the socialization of people of color and women as "other" to the dominant norm that is
defined primarily by the social construction of Whiteness (Lipsitz, 1998) and maleness, which are often enacted as expressions of legal and authoritative power over non-Whites and women (Jensen, 2005).

Racial and ethnic categorizations are often used in employment and educational environments to address past discrimination by ensuring that groups of people who have traditionally been underrepresented are not systematically and continually excluded from opportunities. Increasingly, they are used in medical research and pharmaceutical drug development because of the strong linkages between U.S. Census Bureau data and National Institutes of Health (NIH) research funding. For example, Braun and colleagues (2007) discuss the implications of the role of the State in further entrenching racial categories:

Since 2001, NIH-funded researchers have been required to categorize study participants into the five racial or ethnic categories defined by US Office of Management and Budget Directive No. 15 … Thus, state-sanctioned but ill-defined categories of race have entered medical research and practice with the admirable intent of ensuring full racial and gender inclusion in clinical trials, but with unanticipated consequences for health outcomes. . . . It thus becomes almost “natural” to use these same variables in the subsequent analysis and theoretical framing of the research, even though there is nothing particularly “natural” about the census categories (Braun et al., 2007, pg. e271; original notes omitted).

Therefore, the terms used in this study, which focus primarily on conceptions of culture as either "White" or "Black," serve as representations of complex cultural identities that may include people who are bi- and multi-racial but who identify socially and politically
as Black or as White when they check a box on a formal application, when registering for school or when required or encouraged to do so on legal forms. Again, I emphasize that I drew the terms directly from the U.S. Census Bureau because it reflects the authority of the State in instantiating racial categories that are inherited by the public through continued and required use in official State business including education and employment. I do not mean to suggest that State definitions of race are definitive nor that this necessarily reflects subjective identity-making processes of non-White people in the United States. However, I am using naming conventions that reflect "common sense" notions of race and racialization (Omi and Winant, 1994), as well as gender. The limitations of using these keywords are that they may or may not reflect the agency or identity of various communities or individuals who self-identify in other ways, and that they do not extend across a range of additional intersectionalities like sexual orientation, disabilities (according to the Americans with Disabilities Act [ADA] definitions), faith/religion, ethnicity or national origin or newer conceptions of bi- and multi-racial identity.

Keyword Searches

During the data gathering process, I conducted searches on the following combinations of racial and gender identities:

White women       White girls       Black women       Black girls

My contention is that women’s representation is highly sexually objectified on the Internet, as it is in other types of traditional media, and that this is a reflection of women’s status in
U.S. society under patriarchy. This is made more complex in a highly racially stratified society that privileges whiteness as normative. These categories will further a discussion about how search engines facilitate representations that are contextualized within social exclusion or oppression. The search terms are explored to better understand the social biases that are reconstituted in the technological device of search itself. For the purposes of this study, the scope is limited to the historical racial and gender representations among Black and White people in the United States, but additional categorizations along various matrixed identities will be the focus of future research.

Data Collection

The Google searches analyzed here were collected with the technical guidance of a graduate researcher, Sunah Suh, in Internet Explorer 8 on a computer logged out of all customized services like Facebook, Gmail or any other types of websites that might alert the search engine to the identity of the person conducting the search. All efforts were taken to ensure that cookies and any additional user search history were not affecting the search results.

Certainly, there are different ways to search on terms (e.g., putting keywords in quotations or not), but preliminary pre-test searches indicated that there was very little variance in the first five to eight results on the page, although the last few could indeed vary. I collected data on keywords without quotation marks, which is the common convention for Internet search, and the way that Google recommends users use its search box. For less knowledgeable users, Google provides suggestions to users on how best to maximize results, which include keeping queries as simple as possible:
To best perform the search as an “average” user, I followed Google's recommendations about limiting the number of words in a search and not using quotations, to replicate the kind of real-world search of an average user, particularly if they do not have specific knowledge of how Boolean search operators work. Google's default Boolean operator is AND, so all queries were retrieving Black AND girls, or white AND women, etc.

Ultimately, this research was conducted by running searches in Google on intersecting or matrixed racial and gendered identities (Collins, 1991), over the course of five hours on September 18, 2011 from the residential location in Champaign, Illinois of another researcher, Sunah Suh, not involved in this work. Limitations of this method
include that the data was collected at a specific point in time, which does not reflect the shifting dynamics of web information over time, and data was collected from one IP address.

I did not conduct searches in any other commercial search engine. I am looking specifically at whether Google biases information in its searches on racial and gendered identities, as it has control of the current commercial search market. The majority of searchers use and trust Google, as previously addressed.

Coding the Data

To begin, I imported all of the content on the first page of results on the keyword search in Google, and I started implementing codes in the Dedoose content analysis software\(^{29}\) on the types of information that were present. First, I looked at every search result and I clicked on the URLs of each of them in order to determine what kind of content was present. I kept a list of types of content, which I then grouped into categories ensuring things of a similar nature were grouped together\(^{30}\). Once the categories were established to code the data, I set each code up in the software and tagged each search result on the first page of results for each keyword search.

\(^{29}\) Dedoose is a mixed-methods software designed for qualitative researchers who want to evaluate some of their data quantitatively. More information about the software can be found in the User Guide at: http://wiki.dedoose.com/index.php?title=Main_Page&oldid=319

\(^{30}\) See Table 3 for a list of categories.
Figure 9: Screenshot of imported page in Dedoose after being converted to a text file: Black Girls

I used the following codes, which I created and entered into a content analysis software program:

Table 3: Dedoose Table of Codes and their Descriptions

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pornographic/Sexual Content - Dating and Hook-ups</td>
<td>Contains content of a sexually explicit, sexually provocative or arousing material</td>
</tr>
<tr>
<td>News, Wiki, B/Vlog, Resources, Organizations, Businesses</td>
<td>Informational</td>
</tr>
<tr>
<td>Entertainment, Band, Movie Clip, Fashion, Games</td>
<td>Non-sexual: games, music, film, television</td>
</tr>
<tr>
<td>Advertising: porn or sex</td>
<td>Porn, dating, hook-up or sex for sale</td>
</tr>
<tr>
<td>Advertising: product or service</td>
<td>Person, resource, product, business or organization</td>
</tr>
<tr>
<td>Adult related content</td>
<td>Subject of site or content is adult-oriented</td>
</tr>
<tr>
<td>Child or Adolescent Content</td>
<td>Subject of site or content is child- or adolescent-oriented</td>
</tr>
<tr>
<td>Non-Racial Site</td>
<td>&quot;White's Electric,&quot; or &quot;Howard Black's Music Store&quot;</td>
</tr>
<tr>
<td>Non-Gendered Site</td>
<td>Does not represent women or girls - unrelated to gender identity</td>
</tr>
</tbody>
</table>
Figure 10: Screenshot of Dedoose software used for Mixed Methods data analysis: Codes created for analysis
I use the results of the content analysis from each keyword search to make inferences about the messages within the websites that appear on the first page of Google search results. This method is consistent with accepted content analysis methods (Berelson, 1952; Busha & Harter, 1980).

Data Analysis

Level of Analysis

The level of analysis was identified from the URL, Headline on the page and the two-sentence description of the site. For each website featured and the approximately two lines of text that show in the search result, the concept relating to a category was coded:

Figure 11: Data Analysis of a single search result

I also coded the ads for analysis, which I will discuss in this chapter, because this has a relationship to advertising value in Google’s AdWords™. I clicked on each site if it was ambiguous as to the content, in order to code the data. I carefully delineated content that might not be apparent from the URL, sentences or headline. In the case such words did
not make the website content readily apparent, I clicked on the link to determine what type of site the search result surfaced, and coded it based on its apparent intent.

**Demographic Category Descriptors**

After establishing the category codes (1. Pornographic/Sexual Content - Dating and Hook-ups; 2. News, Wiki, B/Vlog, Resources, Organizations, Businesses; 3. Entertainment, Band, Movie Clip, Fashion, Games; 4. Advertising: porn or sex; 5. Advertising: product or service; 6. Adult related content; 7. Child or Adolescent Content; 8. Non-Racial Site; 9. Non-Gendered Site), I linked each document, which is the first page of search results in Google, to demographic variables, which are defined by the content analysis software as Descriptors:

![Figure 12: Descriptor set screen by Race (Black, White)](image-url)
Code Frequency by Descriptor Bubble Plot

Using Dedoose, the Code Frequency by Descriptor Bubble Plots allow for a four-dimensional presentation of the results, based on the frequency with which particular codes were applied to excerpts that I coded from the searches across the selected descriptors. In the following two graphics, the bubbles represent either race or sex by age. The size of the bubbles represents the frequency with which the “Pornography” code was applied to excerpts within each sub-group. The X and Y axes represent the frequency with which the “Porn Advertising” and “News” codes were applied respectively. This is a mixed-method chart that captures the frequency of coding porn and news by race. In this chart, results that
reflect Black identity are more frequently associated with “Porn, Sex, Dating and Hook-ups,” while White identity is more frequently associated with “News, Wikis, Blogs, Vlogs (Video Blogs), Resources, Organizations and Businesses.”

Figure 14: Code Frequency by Descriptors Bubble Plot of the frequency of association of two codes (Porn, Sex, etc. with News, Wiki, Blogs etc.) by Black or White demographic descriptors

Figure 15: Code Frequency by Descriptors Bubble Plot of the frequency of association of two codes (Porn, Sex, etc. with News, Wiki, Blogs, etc.) by Women or Girls demographic descriptors
Figure 16: Detail of Frequency by Descriptors Bubble Plot of the frequency of association of two codes (Porn or News) by Women or Girls demographic descriptors

Figure 17: Detail of Frequency by Descriptors Bubble Plot of the frequency of association of two codes (Porn or News) by Black or White demographic descriptors
These graphics show that Black girls are most likely to be represented through pornographic content, while White women are most likely to be represented by news, blogs, organizations or other informational sites.

*Black Women and Girls by Code*

What is most interesting about using the content analysis is seeing how often the headline, URL and sentence descriptions are matched to various codes. The Descriptor Field by Descriptor Field chart is a cross-tab analysis of the relative frequency of content in each sub-group plotted for two descriptor fields—one nested within the other. In this cross-tab, I use the Sex by Age descriptor first, and then the Race field. This will show the degree to which Race is impacting the frequency of certain codes being associated with the data. This data will serve as a pivotal aspect of the discussion about the pornification of Black women, also defined as “girls” online, and how this racialization yields even more problematic results for Black women and girls. Without a doubt, Black and White women are associated with explicit content on the first page of Google’s search; however, in varying degrees:

![Descriptor x Descriptor x Code Chart](image)

*Figure 18: Detail of Frequency of Sex by Age and Race by the Code “Adult-related Content”*
The above chart demonstrates that content in the first page of search reflects adult-oriented content in association with the term “girls”: 52.4% of the coded data, the word “girls” may be used but the content is not for children or adolescents. Similarly, content for “White Girls” also is not targeted in message for children or adolescents, with 47.6% of such material being appropriate for adults.

Figure 19: Detail of Frequency of Sex by Age and Race by the Code “Entertainment, etc.”

The above chart demonstrates that content in the first page of search reflects frequency of entertainment-oriented content in association with the Descriptors:

- Black women are not associated with Entertainment, Band, Movie Clips, Fashion, Games (Non-sexual: games, music, film, television) on the first page of the Google search collected
- White women are always associated with Entertainment topics on the first page of the Google search collected
- White girls (66.7%) are twice as likely to have their identity associated with the Entertainment code than Black girls (33.3%)
The above chart demonstrates that content in the first page of search reflects frequency of news and information-oriented content in association with the Descriptors:

- Black girls are the least frequently associated (30%) with news, information, resources or organizations on the first page of the Google search
- White girls are most frequently associated (70%) with news, information, resources or organizations on the first page of the Google search
- Black and White women are associated with news, information, resources or organizations on the first page of the Google search at 57.1% and 42.9%, respectively
The above chart demonstrates that content in the first page of search reflects frequency of advertising for pornography or sexual encounters in association with the Descriptors:

- Black women and girls are the most frequently associated (70%) with pornographic advertising on the first page of the Google search
- White women and girls are also associated with pornographic advertising, although less frequently associated (30%) on the first page of the Google search

Black women are often the subject of adult-targeted content, are characterized as girls, and are profoundly more pornographically represented in content and advertising on the first page of the Google searches analyzed:
Black girls are sexualized or pornified in half (50%) of the first ten results on the keyword search “Black girls.”

Three of ten results (30%) are blogs focused on aspects of social or cultural life for Black women and girls.

One of the first ten results is a U.K. music band comprised of White men, and is coded as non-racial and non-gendered.

---

Figure 22: Analysis of the top 10 results on the term Black girls
Analyzing the Value of Black Girls as Advertising

To better understand the commercial aspects of keywords, I used Google’s tools, which allow me to assess the scale and volume of trillions of web pages. I want to understand the volume of pages of pornography that exist as a representation of Black women and girls, compared to other types of information that are available on the terms women and men. The following ads are on the first page of results that I collected:

A website
Hot Black Dating
www.blackkenya.com
Hook Up Tonight & Get Busy with a Hot Black Girl Near You, Join Free

Local Ebony Sex
www.xnmdew.com
The Sexiest Ebony Dating Online. Chat, Browse and Get Laid. Free Join

Black Woman Seeking Man
www.blacksexmatch.com
Find Black Women Near You Who Want a Lover In Only 5 min!

Big Booty Black Porn
www.bigtubeporn.com
A must see black booty porn site. Watch uncensored videos - 100% Free

Black XXX - uncensored
www.dailyporn.com/BlackPornTube.com
Hardcore Black Porn tube videos. Extremely good - 100% Free.

Black Girls
www.esox.net
Watch black Adult PayPerView. Choose From Over 100,000 Porn Films

Naughty Black Wives
www.DATE4U.com/Black
Husband Out For Work You In For Naughty Pleasures Free. Join For Free.
See your ad here >

Figure 23: Pornographic advertising linked to searches for Black Girls

A way to think about the relationship of keywords to advertising is by starting with the Google Trends™ tool. Google Trends™ is a tool that allows users to see how much searching has taken place by users on search terms over time. This is of critical importance because this is part of the basis upon which value is derived for certain words – the more certain word combinations are looked for, the more valuable they are for Google as an
advertiser to sell. For example, the screen shot below shows how many times people have searched on the terms “Black girls porn” followed by a screen shot for how many times the terms “Black girls” alone (without porn) have been searched:

Figure 24: Google Trends™ for the keywords “Black girls porn”

Figure 25: Google Trends™ screenshot for keyword searches on “Black girls” [without quotes]
These Google Trends™ charts demonstrate that there is a fairly similar amount of traffic on searches for Black girls and porn but it is insufficient and imprecise. Another way to demonstrate the links between words in searches and the commodified value of certain types of search terms on Google is to use another tool, Google AdWords™, to see what the price points for various terms are. By conducting a query on AdWords™, I can see what the monetary values of certain keywords are on the web. When I conducted a series of searches on the web, I found quickly that women are almost entirely commodified rather than men, with Black women being more powerfully commodified than explicit searches for “White women.” Suggested word combinations to increase web traffic are provided by Google, which also capture the “value” of how best to position these keywords in search:

Figure 26: Google AdWords™ screenshot showing the number of searches per month for Black girls, and the estimated daily clicks and daily cost
Figure 27: Google AdWords™ screenshot showing the number of searches per month for White girls, and the estimated daily clicks and daily cost.

Figure 28: Google AdWords™ screenshot showing the number of searches per month for the term girls, and the estimated daily clicks and daily cost – significantly more lucrative is the generic “girls” term, although often linked with other identity markers.
Given a $1.00 cost per click to an advertiser, Black girls are more lucrative on the web than White girls, but “girls” is the most lucrative. It is not possible for me to know if “girls” is the aggregate of all kinds of words that are also linked to the word “girls” so this led me to inquire about how Google recommends strategies to advertisers that might help them garner better word linkages to optimize results. Google AdWords™ also offers a service to show what kinds of word combinations are valuable on the web:
Figure 29: First page of Google AdWords™ screenshot showing the recommended word combinations for the word “girls”
### Find keywords

Based on one or more of the following:

<table>
<thead>
<tr>
<th>Word or phrase</th>
<th>White girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Website</td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td></td>
</tr>
</tbody>
</table>

- Only show ideas closely related to my search terms
- Advanced Options and Filters: Locations: United States, Languages: English, Devices: Desktops and laptops

Sign in with your AdWords login information to see the full set of ideas for this search.

---

#### Search terms (100)

<table>
<thead>
<tr>
<th>Keyword</th>
<th>Competition</th>
<th>Global Monthly Searches</th>
<th>Local Monthly Searches</th>
</tr>
</thead>
<tbody>
<tr>
<td>white girls</td>
<td>Low</td>
<td>1,000,000</td>
<td>550,000</td>
</tr>
<tr>
<td>white girls lyrics</td>
<td>Low</td>
<td>6,600</td>
<td>4,400</td>
</tr>
<tr>
<td>white girls dresses</td>
<td>High</td>
<td>33,100</td>
<td>22,200</td>
</tr>
<tr>
<td>white girl</td>
<td>Low</td>
<td>1,000,000</td>
<td>673,000</td>
</tr>
<tr>
<td>pretty white girls</td>
<td>Low</td>
<td>4,400</td>
<td>2,400</td>
</tr>
<tr>
<td>skinny white girls</td>
<td>Low</td>
<td>5,400</td>
<td>4,400</td>
</tr>
<tr>
<td>white girl shoes</td>
<td>High</td>
<td>8,100</td>
<td>5,400</td>
</tr>
<tr>
<td>white girls shoes</td>
<td>High</td>
<td>12,100</td>
<td>8,100</td>
</tr>
<tr>
<td>black and white girls dresses</td>
<td>High</td>
<td>2,900</td>
<td>2,400</td>
</tr>
<tr>
<td>i m through with white girls</td>
<td>Low</td>
<td>1,300</td>
<td>880</td>
</tr>
<tr>
<td>how to get a white girl</td>
<td>Low</td>
<td>32,200</td>
<td>14,600</td>
</tr>
<tr>
<td>black and white girl</td>
<td>Low</td>
<td>246,000</td>
<td>165,000</td>
</tr>
<tr>
<td>white girl sundress</td>
<td>High</td>
<td>1,300</td>
<td>1,000</td>
</tr>
<tr>
<td>white girl soundtrack</td>
<td>Low</td>
<td>720</td>
<td>260</td>
</tr>
<tr>
<td>white girl problem</td>
<td>Low</td>
<td>27,100</td>
<td>22,200</td>
</tr>
<tr>
<td>white girls movie</td>
<td>Low</td>
<td>8,100</td>
<td>4,400</td>
</tr>
<tr>
<td>black and white girls</td>
<td>Low</td>
<td>246,000</td>
<td>135,000</td>
</tr>
<tr>
<td>pictures of white girls</td>
<td>Low</td>
<td>14,800</td>
<td>8,100</td>
</tr>
<tr>
<td>thick white girls</td>
<td>Low</td>
<td>18,100</td>
<td>14,800</td>
</tr>
<tr>
<td>white cotton girls dress</td>
<td>High</td>
<td>1,000</td>
<td>880</td>
</tr>
<tr>
<td>hot white girls</td>
<td>Low</td>
<td>18,100</td>
<td>12,100</td>
</tr>
</tbody>
</table>

---

**Figure 30:** First page of Google AdWords screenshot showing the recommended word combinations for the word “White girls”
Figure 31: Google Front page of AdWords™ screenshot showing the recommended word combinations for the word “black girls”

Google's AdWords™ product gives advertisers a sense of how much particular keywords cost because of their "sellable" features. I looked up various keywords mentioned in this study to see the value of each word. What the following table shows is that some words
yield far more profit for Google than others because advertisers pay a premium to be able to optimize their sites with certain words. By using the Google AdWords™ Keyword estimator, one can glean a sense of the relative value of some racial and gender terms:

![Figure 32: Google AdWords™ Traffic estimator for various racial and gendered terms on March 22, 2012. Source: https://adwords.google.com/]

What is important to note is that if an advertiser is willing to pay up to $1.00 per click (by an internet surfer clicking a paid ad on the side of the page, or on a web URL) the total daily cost that an advertiser might spend is significantly more for Black girls, than the identities of Jews or Latinas. Based on this data from Google, it is apparent that searching and clicking on advertising for Black girls is certainly more lucrative for Google than searches for men and boys.

In the searches I collected on Black girls, the following paid advertising is associated with this identity and appears around the search results:
Figure 33: 100% of the advertising that accompanied a keyword search on “Black girls” are selling Black girls as pornographic or sexualized objects for consumption.
What these results also point to is the commodified nature of Black and Brown women's bodies on the web – and the little agency that Black female children (girls) have in securing non-pornified narratives and ideations about their identities. It may be that this commodified status, and the profitable base that it provides for Google as an advertiser, complicates the reasons why Google can offer a disclaimer for "Jews" – a low revenue advertising stream, relative to other identities.
CHAPTER 4: CRITICAL DISCOURSE ANALYSIS AND DISCUSSION

Critical Discourse Analysis Method

For this work, Fairclough’s approach is useful because I am locating the discourse about Black women and girls in the terrain of Schiller’s informationalized capitalism (2007), wherein the Internet is a site of increasing production, ownership and control of information by private companies, not fundamentally different from the wage relationships of the manufacturing and industrial era (Schiller, 2007). The study of representation in the context of both Schiller’s critique of the Information Age (and Information Age theorists) as a panacea and Fairclough’s critical discourse analysis allows for a deeper understanding of what it means for identity to be in the dialectical tension obtaining between the struggle for social justice organized around collective identities and histories, and the commercialization of such identities to sell products, services and ideologies in an effort to accumulate greater profits. I will discuss the content of the search results using critical discourse analysis, critical race theory and Black feminism as a way of making sense of the results.

The study of the texts and images and discursive ways they are used to represent people is important because it has direct impact on what we believe:

In sum, texts have causal effects upon, and contribute to changes in, people (beliefs, attitudes, etc.), actions, social relations, and the material world. It would make little sense to focus on language in new capitalism if we didn't think that texts have causal effects of this sort, and effects on social change… Texts can have causal effects without them necessarily being regular effects, because many other factors in
the context determine whether particular texts actually have such effects, and can lead to a particular text having a variety of effects, for instance on different interpreters (Fairclough, 2003, pg. 8).

As Fairclough asserts, texts can affect social reality, and are a highly significant part of the shaping of social constructions of identity. This is not to say that people don't have agency in re-shaping and re-constituting identity through texts, institutions, organizations, political action and other such engagements. However, what he stresses is the causal effect of texts on beliefs – as they “contribute to establishing, maintaining and changing social relations of power, domination and exploitation” (Fairclough, 2003, pg. 9). This critical view on ideology is a fundamental part of understanding how to evaluate texts beyond the descriptive content analysis methods that can report the kinds of words that appear in a URL, sentence description or advertisement, but fall short of being contextualized in terms of power or domination among various social groups (Fairclough, 2007). Bakhtin (2006) elucidates this idea that “utterances” are deeply embedded in specific cultural contexts:

The linguistic significance of a given utterance is understood against the background of language, while its actual meaning is understood against the background of other concrete utterances on the same theme, a background made up of contradictory opinions, points of view and value judgments—that is, precisely that background that, as we see, complicates the path of any word toward its object (pg. 281).

I argue that utterances can also be characterized as the text and image on a web page. In my analysis, I demonstrate how Google’s search technology is situated in a range of cultural contexts that include patriarchy, and the devaluation and historical subjugation of
Black people, namely, Black women. Search is also shaping the commercial sphere online as previously discussed by Diaz (2008), Nissenbaum and Introna (2004), and the production of information – texts, videos, images and otherwise -- are new accumulation strategies predicated on old capitalist models (Schiller, 2007). This is part of the backdrop against which priorities and biases are made.

Understanding the power relations embedded in texts includes understanding the actors involved. In the case of looking at search, I concede that there are a number of actors and artifacts: the producers of websites, the words or text chosen for the URL, sentence descriptions and advertisements, search engine optimizers, media conglomerates, advertisers, and search engine users who come across search results – all of which are involved in the production of meaning (Fairclough, 2007). Published text on the web can have a plethora of meanings, so I focus 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 on the web page. I further contend that by comparing these to broader social narratives about Black women and girls in the dominant, hegemonic discourses about them in U.S. popular culture, we can see the ways in which search engine technology replicates and instantiates these notions. These discourses include narratives of Black women as a series of stereotypes such as the Jezebel, Sapphire and Mammy media stereotypes (West, 1995) that are both met with resistance by Black women, and woefully internalized.

**Discursive Representations**

There are theoretical ways to contextualize what it means to be characterized through texts and images, and how this is located in power relations. Foucault (1972) offers
a meaningful way to think about discursive representations and the ways that discourse is located in “external conditions of existence, for that which gives rise to the chance series of these events and fixes its limits” (Foucault, 1972, pg. 229). As such, I do not look deeply at what advertisers or Google are “intending” to do, but instead, I focus on the social conditions that surround the lives of Black women living in the United States, the descendants of former-slaves in the Americas, as they have been affected by myriad conditions that allow such representations to come to the fore. In order to more fully comprehend the Foucauldian call for an examination of the “external conditions of existence” (pg. 229), Warf and Grimes (1997) explore the counterhegemonic discourses of the Internet by noting the stable hegemonic notions of the web, which have persisted, and are part of the external logic that buttresses and obscures social aspects of 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 (Warf and Grimes, 1997, pg. 260).

Brock adds that “the rhetorical narrative of ‘Whiteness as normality’ configures
information technologies and software designs” (2011, pg. 1088) and is reproduced through digital technologies. This research describes the ways that hegemonic discourses about the hypersexualized Black woman, which exist offline in traditional media, are instantiated online.

One way of evaluating the quality of search results on identity is to try to make sense of identity markers and results against what Foucault might characterize as part of the logic of the web. Brock (2011) 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 (Brock, 2011, pg. 1088).

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 ICTs.

Using critical race theory as a framework for implementing Fairclough’s critical discourse analysis (1995) focuses on the signifiers that make up a text, the specific
linguistic selections that are apparent, the way in which they are juxtaposed, the sequencing and layout on the page and so on. In my analysis I applied Fairclough's (1995) model for CDA, which involves the following steps:

- text analysis (description)
- processing analysis (interpretation)
- social analysis (explanation)

**Text Analysis/Description**

To look at the dimensions of discourse on the first page of Google search, I looked at the page of search results and I clicked on the links to understand more deeply the content that these headlines, URLs and sentences are describing, which I have already analyzed using content analysis, but am analyzing more closely:

![Figure 34: First results on the first page of a keyword search for Black girls in Google](image)

In the text for the first result, the word “pussy,” as a noun, is used (4) times to describe Black girls. Other words in the lines of text include: sugary (2), black (12), hairy (1), sex (1), booty/ass (2), teen (1), big (1), porn star (1), hot (1), girl/s (2), hardcore (1), action (1), galeries [sic] (1).
Processing Analysis/Interpretation

This method also includes an examination of the process by which the object is being produced and received. I have been evaluating and describing these processes throughout this research by showing, primarily, how Google’s ranking algorithm works, and by also looking at the advertising aspects of search.

Another way of processing meaning and interpreting the text as described above is to click on the links to see if the content of the site being described is accurately reflected in the description, URL and headline:

Figure 35: First page (partial) of results on Black girls in a Google Search with first result detail and advertising
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 side bar where advertisers who are willing to spend money though Google AdWords™ are able to have their content appear in relationship to these search queries. All advertising in relationship to Black girls is hyper-sexualized and pornographic, even if it portends to be just dating or social in nature.

Additionally, some of the results like the rock band “Black Girls” lack any relationship to Black women and girls. This is an interesting co-optation of identity, and because of their fan following, and possible search engine optimization strategies, they are able to find strong placement for the band fan site on the front page of Google.

**Social Analysis/Explanation**

Finally, CDA includes a discussion about the socio-historical conditions that undergird or govern these processes. I evaluated the types of advertising that co-exist on a page with the first 10 results, and now I will situate them in a socio-historical context. This method allows me to make sense of the results and to tie them to the conditions of possibility, which created them, as discussed previously. These conditions include the historical legacy of white domination over Black people in the United States (Harris, 1995; hooks, 1992; Collins, 1991, Lipsitz, 1998; Jensen, 2005; Dyer, 1997), the entrapments of

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31 See Chapter 2 for a detailed explanation of Google AdWords™.

32 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.
rape culture under patriarchy (Dorsey, 2003), and the commodification of women as pornographic objects (hooks, 1992; Kappeler, 1986). Taken together, they tend toward the commercial viability of Black girls as web commodities.

Because this method depends upon social analysis, I want to contextualize the results in relationship to broader popular and stereotypical narratives of Black women and girls, which I offer must be critiqued and rejected.

Discussion

Search engine optimization strategies and budgets are rapidly increasing to sustain momentum and status for websites in Google search. Harvey (2005) and Fairclough (2007) point to the ways that the political project of neoliberalism has created new conditions and demands upon social relations in order to open new markets. I assert that this has negative consequences for maintaining and expanding upon 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. Fairclough argues that these trends in the unequal distribution of wealth and resources have contributed to a closure of public debate and a weakening of democracy (Fairclough, 2006).

He notes the importance of the impact of what he calls “new capitalism,” a concept I closely link to Schiller’s “informationalized capitalism” (Schiller, 2007), 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 (Boyle, 2003; Schiller, 1996). This expansion of capitalism into the web has been a
significant part of 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.

Critical Discourse Analysis (CDA) provides a flexible approach to mapping content found in the search results to historical representations of women and Black/African-Americans when analyzing the text on the first page of search results. This type of discourse analysis is largely concerned with “how particular phenomena are represented” (Krippendorf, 2004, pg. 22). Answering the research questions using this approach allows for the identification of emergent themes that are present in the historical data about the political economy of the Internet, the social construction of technology and the historical and dominant narratives of Black women in the United States. Using this approach, I am able to integrate Black feminist standpoint theory as central to the identification of categories and themes to be identified, rather than just using fixed categories for search results to be measured against.

In this analysis, I am a positioned viewer, and am not making any assumption that my discussion of these search results reflects a perspective that universally fits all viewers of these results. The goal of this method is rather to uncover new ways of thinking about search results and the power that such results have on our ways of knowing and relating.

Black Girls as Commodity Object in the Search Engine

Gilda Lerner (1986) 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 systemically disenfranchised. Patriarchy, racism and rape culture are part of the confluence of social practices that normalize Black women and girls as sexual commodity, alienated and angry/pathetic other, or subservient caretaker and helpmate to White psycho-social desires.

Part of the socialization of Black women as sexual object, as evidenced at present in the commercial search engine, 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. Dorsey (2003) characterizes rape culture as a deviation from basic human sexual instinct, such that existing essentialist gender binaries posit the masculine as powerful or aggressive in opposition to female passivity and docility. His research examines the constitution of rape as culture, which he locates as an historical tendency formed during the enslavement of Africans in the Americas. Dorsey describes the intersection of patriarchy, slavery and violence as the framework that established "rape as a culture within a culture" (pg. 296). He notes that rape culture is formed by key elements which include: 1) the condoning of "aggressive male sexual violence as natural," 2) a society where "legal practices suggest that sexual violence is a normal activity," 3) a society "whose legal practices differentiate the Subject and Object of sexual violence according to race, class and gender," or 4) a society "whose ethics system allows space for the promotion of the image of heterosexual coitus based on models of violent behavior" (Dorsey, 2003, pg. 296).
For Black women, rape has flourished under models of colonization or enslavement and what Dorsey calls "radically segmented social structures" (pg. 296). I argue that these segmented social structures persist, at a historical moment in the United States when Black women and children are part of the permanent underclass and represent the greatest proportion of citizens living in poverty (U.S. Census Bureau, 2008). The relative poverty rate in the United States—the distance between those living 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 in 2007 of Blacks was nearly twice that of Whites.\(^{33}\) Black people are 3 times more likely to live in poverty than Whites, with 27.4% of Black people living below the poverty line compared to 9.9% of Whites (U.S. Census Bureau, 2007). 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.\(^{34}\)

\(^{33}\) U.S. Census Bureau. Current Population Survey. People in Families by Family Structure, Age, and Sex, Iterated by Income-to-Poverty Ratio and Race: 2007, 5.4% of White married people 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.

\(^{34}\) 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/](http://psidonline.isr.umich.edu/)
Dorsey’s (2003) critiques could be applied to the textual pages depicting Black women and girls online in the search results that I collected in September of 2011. The narrative of Black girls as pornographic object keeps all women and girls from prioritizing feminist knowledge and power on our own behalf in commercial search. The potency of commercial search using Google is that it functions as the dominant "symbol system" (Lerner, 1986) of society due to its prominence as the most popular search engine to date, and its market dominance.

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 (Lerner, 1986, pg. 223).

Lerner characterizes the ways in which making sense of alternative identity constructions can be a tenuous process for women due to the erasures of other views of the past within hegemonic discourses.

**Historical Categorizations of Racial Identity**

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 the entertainment and biological evidence of racial difference and subordination
of African people (Sharpley-Whiting, 1999; Hobson, 2008). 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 fairs and expositions are important sites that predate the Internet by several hundred years, 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). It is from these practices that stereotypes can be derived that focus on biological, genetic and medical homogeneity (Braun et al., 2007). Braun and colleagues point to the ways in which scientific classifications have played an important role in the development of racialization that persists through contemporary times:

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 (Braun et al., 2007, pg. e271; original notes omitted).
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 where classifications like “Colored”, “Black” and “White” have been part of racial purification processes in countries like South Africa (Braun et al., 2007). Gender categorizations are no less problematic and paradoxical. Feminist scholars point to the ways that, at the same time 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 (Stepan, 1998).

**A Deeper Reading of Search: Interpreting Search Results as Black Stereotypes**

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. Their 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

35 See Jezebel stereotype at URL: http://www.ferris.edu/news/jimcrow/jezebel.htm
means of subjugation, predating slavery in North America in the eighteenth century. They highlight the two main narratives that have continued to besiege Black women: the exotic other, the Jezebel whore; and the pathetic other, the Mammy (Gray White, 1999). 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, they note how seventeenth-century White European travelers to Africa found semi-nude people, indigenous practices and customs, and misinterpreted various cultures as lewd, barbaric and less than human, certainly a general sign of their own xenophobia (Jim Crow Museum of Racist Memorabilia, 2012).

Researchers at the Jim Crow Museum of Racist Memorabilia at Ferris State University have conducted an analysis of Jezebel images and found that Black female children are often sexually objectified as well, a fact that validates looking at representations of Black Girls on the web. During the Jim Crow era, for example, Black girls are caricatured with the faces of pre-teenagers and are 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 Picaninnies in traditional media began to wane as new notions of Black people emerged as Brutes and Bucks while 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 2012, 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 (Miller-Young, 2005; Harris-Perry, 2011).

"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, Sapphire and the Mammy (West, 1995), 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 been violated in society and the media even though they have organized and resisted this on many levels.

**Reading the Pornographic Representation**

The scope of this study is limited to exploring representation in Google search, and does not evaluate the range of representations and cultural production that exists on the Internet for Black women and girls. I am problematizing the nature of representation in commercial search as primarily pornographic for Black women, and I want to clarify that I am not making pornography synonymous with expressions of sexuality. Pornography is a specific type of representation that denotes male power, female powerlessness, and sexual violence. This study is concerned with a closer reading of the ways that Black women are objectified and commodified through pornographic representations. Representations like these of women and people of color in the traditional mass media have been problematized by many scholars (Chun, 2006; Kilbourne, 2000; Cortese, 2008; O'Barr, 1994) and the Internet is part of the landscape of new media where race and representation is being investigated (Nakamura, 2002, 2008; Nakamura and Chow-White, 2011; Everett, 2009; Brock, 2009; Brock, Kvansy and Hales, 2010). What this analysis points to is that biased traditional media processes are being replicated, if not more aggressively, around Black and White women's representations in search engines.

When looking at the top hit for a search on the term “Black girls” the results were not what one might expect, which is to see information, resources, entertainment or products that reflect the interests of children, girls or adolescents, of Black or African-
American descent. What these searches show is a preponderance of pornography featuring Black women. It is therefore impossible to avoid an explicit discussion of pornography, which could be argued to be a unique and defining feature of both early and modern Internet culture. Chun’s (2006) work detailing pornography on the Internet and the panics of cyberporn is an important contribution to any research on race, pornography and the Internet. Her work outlines the precarious boundaries between the Internet as a public resource and the web as a site of privatized, commercial power (pg. 79). It is thus important to situate search engine results in this nuanced zone between legitimate information resource and site of commerce, in order to contextualize what it means to find pornographic representations in identity searches. Here I am equally focused on “the pornography of representation” (Kappeler, 1986), 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 (Kappeler, 1986, pg. 3).

Some argue that pornography has been understudied given its commercial viability and persistence (Paasonen, 2011). Certainly, the technical needs of the pornography industry have contributed to many developments on the web, including credit card payment protocol, advertising and promotion, video, audio and streaming technologies, among
others (Paasonen, 2011; Bennett, 2001; Filippo, 2000; O’Toole, 1998; Perdue, 2002). In library science studies, discussions of filtering of pornographic content out of public libraries and schools are mainstream professional discourse, particularly in the context of information seeking behavior and filters that impact legitimate information or freedoms to read and access knowledge (Estabrook and Lakner, 2000). 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 it as content freely available.

Black Feminist scholars are increasingly looking at how Black women are portrayed in the media across a host of stereotypes, including pornography (Hobson, 2008; Nash, 2008). Nash 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 (Nash, 2008, pg. 53).

Nash (2008) focuses on the ways in which Black feminists have aligned with anti-pornography rhetoric and scholarship. While my own project is not a specific study in the nuances of Black women’s agency in netporn which Miller-Young (2005) has covered in detail, or the virtues or problematics of pornography, this literature 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, much of the research interest and concern of scholars about harm in imagery and content online has been framed around the social and technical aspects of addressing Internet pornography, but less so about the existence of commercial porn:

The relative invisibility of commercial pornography in the field has more to do with cultural hierarchies and questions of taste: as a popular genre, pornography has considerably low cultural status as that which, according to various US court decisions, lacks in social, cultural, or artistic value. Furthermore, the relatively sparse attention to porn is telling of an attachment to representations and exchanges considered novel over more familiar and predictable ones… (Paasonen, 2010, pg. 418).

As such, Black women and girls are both under-studied by scholars, but also associated with “low culture” forms of representation as Paasonen describes.

The porn industry was $96 billion in 2006 and there are an estimated 420 million pages of porn on the Internet, 4.2 million websites dedicated to porn and 68 million search engine requests for porn every day (Dines, 2010). 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 (Dines, 2010, pg. 48). Dines discusses this web of
relations that she characterizes as stretching “from the backstreet to Wall Street” (Dines, 2010, pg. 47):

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 (Dines, 2010, pg. 48).

Dines’ research particularly underscores the ways in which Black women are more racialized and stereotyped in pornography – explicitly playing off of the media misrepresentations of the past, and leveraging the notion of the Black woman as “hoe” through the most graphic types of porn in the genre. Miller (2007) 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 (Miller, 2007, pg. 267).

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 (hooks, 1992) and operates as a profitable site of taboo sexuality.
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 (hooks, 1992, pg. 65).

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” (pg. 262).

It is in this tradition, then, that studying the discursive realm of text and meaning that is prioritized in search using critical discourse analysis can be beneficial to studying race and gender on the Internet. This, coupled with a look at the advertising costs associated with racial and gender identities brokered by Google can help make sense of the trends that make Black women and girls’ sexualized bodies a lucrative marketplace on the web. I argue that Dines (2010) and Schiller (2007) help contextualize porn on the Internet as an expansion of 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.
Providing Legitimate Information about Black Women and Girls

This study is timely because the Internet as common medium implies that there may be an expectation of increased legitimacy of information to be found there, information which may or may not be credible (Greer, 2003; France, 1999; Tucher, 1997). Recognizing the credibility of online information is itself no small task because commercial interests are not always apparent (Markowitz, 1999) and typical measures of credibility are seldom feasible due to the complexity of the web (Burbules, 2001). 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 in cyberspace. One can argue, as I am, that social identity is both a process of individual actors participating in the creation of identity, but also a matter of social categorization that happens at a socio-structural level and as a matter of personal definition and external definition (Barth, 1966; Jenkins, 1994). According to Herring, Jankowski and Brown, Black identity is defined by an individual's experience of common fate with others in the same group (1999, pg. 363). The questions of specific property rights to naming and owning content in cyberspace is an important topic (Vaidhyanthan, 2011; Gandy, 2011). I argue that racial markers are a social categorization that is both imposed and adopted by groups (Jenkins, 1994), 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 (Harris, 1995). This is a way of thinking about how mass media has co-opted the external definitions of identity (Jenkins, 1994) – 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 (Davis and Gandy, 1999, pg. 367).

What Davis and Gandy argue is that 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 (Jenkins, 1994). 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 which are more social and interactive. Taking these old and new media together, it can be argued, as Davis and Gandy do, that the Internet has significant influence on forming opinions on race and gender.

What We Find Is Meaningful

Because most of Google’s revenues are derived from advertising, it is important to consider the ways in which advertising is generally considered a media practice that has tremendous power in shaping culture in society (Ferguson et al., 1990; Pease, 1985; Potter, 1954). 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 relationship to men, family or their sexuality (Ferguson et al., 1990; Tuchman, 1979). Research shows how stereotypical depictions of women and minorities in advertising impact the behavior of those who consume it (Rudman and Borgida, 1995; Kenrick, Gutierrez, and Goldberg, 1989; Jennings, Geis, and Brown, 1980). 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.

Jean Kilbourne (2000) 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 perspectives, regardless of a consumer’s belief that they are “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 (Kilbourne, 2000, pg. 27).

In the case of Google, its purpose is to “pull eyeballs” toward products and services, as evidenced in their products like 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, particularly when this study shows the ways in which people’s very identities are turned into sexual commodities for sale on the web.

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 challenges feminist thinkers to interrogate gender, race and representation in her essay *The Power of the Image: Essays on Representation and Sexuality* (1985):

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?’ (Kuhn 1985, p. 128; cited in hooks, 1992).
In this research, I have shown how women, particularly Black women, are manifested on the Internet in search results. Whiteness functions as a monopoly on the Internet, and more broadly in the U.S., which serves as the lens through which women and racialized groups are represented at a structural level. By tracing these historical constructions of race and gender offline, the present research shows how such images are further instantiated on the Internet in keyword searches on identities.

My analysis leads me to additional questions about whether it is possible that search engines, including Google, are shaping representations as much as representations are shaping the web itself. In the area of software development, for example, Eglash shows how programmers’ cultures do not always map well onto cultures like Native Americans and African-Americans. In his work on ethnomathematics, he shows how virtual reality simulations in games intended for Native Americans replicate the oppressive nature of the reservation rather than the indigenous migration patterns across seasons that are more reflective of the Shoshone tribe (Eglash, 2007), which was an unintended consequence reflective of the values and experiences of White software developers involved in programming his project.

By rendering people of color as non-technical, the domain of technology “belongs” to Whites, and reinforces problematic conceptions of African-Americans (Sinclair, 2004; Everett, 2009; Nelson et al., 2001; Nakamura, 2008; Weheliye, 2003; Eglash, 2002). The Internet has also been a contested space where the possibility of organizing women along feminist values in cyberspace has had a long history (Paasonen, 2011; Gillis, 2004; Sollfrank, 2002; Haraway, 1991). Wajcman (1991) contributes a feminist framework for theorizing the ways in which information and communication technologies are posited as
the domain of men, marginalizing not only the contributions of women to ICT development, but in using these narratives to further instantiate patriarchy. For Wajcman, men have used their control and monopoly over the domain of technology to further consolidate their social, political and economic power in society: “Instead of treating artefacts as neutral or value-free, social relations (including gender relations) are materialised in tools and techniques. Technology was seen as socially shaped, but shaped by men to the exclusion of women” (Wajcman, 1991, pg. 5).

The work of Wajcman and Everett outlines the historical development of narratives about women and people of color, specifically African-Americans. Each of their projects points to the specific ways in which technological practices prioritize the interests of men and Whites. For Wajcman (2010), “people and artefacts 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” (2010, pg. 150). Adding to the historical tracings that she provides about early African-American contributions to cyberspace, Everett notes that these contributions have been obscured by “colorblindness” in mainstream and scholarly media (pg. 149).

Institutional relations predicated upon gender and race situate women and people of color outside of the power systems from which technology arises. Dominance is mutually constituted within technologies, and the marginalization of women and non-Whites is a byproduct of such entrenchments, design choices, and narratives about technical capabilities (Everett, 2009).
Fouché (2006) underscores the importance of Black culture in shaping the technological systems that help organize our images and lives to “be more responsive to the realities of black life in the United States” by organizing around the sensibilities of the Black community (Fouché, 2006, pg. 640). 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 (Fouché, 2006, pg. 640).

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. These types of representations can only be situated as a priority based on the commodified status of women framed within a system that devalues or ignores the broader social, political and historical significance of racist and sexist representations, and the matrix of oppression (Collins, 1991) replicated from offline social relations to the materiality of technological output resulting from search. The value of this exploration is in showing how gender and race are socially constructed and mutually constituted through science and technology, with a specific focus on how “neutral” technologies foster dominant narratives that may reinforce oppressive social relations. The universalizing features of search engines for users demand a closer inspection of what values are assigned to race and gender in classification and web indexing systems, as well as ranking algorithms.
CHAPTER 5: IMPLICATIONS FOR LIBRARY AND INFORMATION SCIENCE

This chapter is concerned with three main ideas, from which web indexing and commercial search derive: the problems with classifying people and cultures, the importance of representation, and how these systems serve as a source of reality-making. In this chapter, I am using critical race theory and critical information studies as a lens to explore these practices within the field of Library & Information Science, which can help to reframe the current classification and cataloging practices from which other technical systems like search borrow and attempt to improve upon. By studying an Internet artifact like Google search results, there is an opportunity to see how some search results can be problematic, no matter how normative and trusted Google has become. While people trust Google to provide credible information, the commercial processes that include advertising and search engine optimization allow for gross misrepresentations of people, cultures and communities.

One key issue in search engine design is the use of algorithms that do not yet account for historical marginalization, oppression and misrepresentations. If search is predicated upon library science practices like citation analysis, then a deeper look at library science cataloging and classification is in order. Search output matters, and information or content to be found in search engines is expressly a social, economic and human project (Vaidhyanathan 2011). Therefore, a more critical engagement of library science practices using critical theories and methods could lead to research questions and new insights that can be informed by other disciplines outside of the field like Black studies, gender and women’s studies and media studies.
Problems in Classifiying People

The idea of classification as a social construct is not new. A. C. Foskett (1971) suggests that classificationists are the products of their times (Olson, 1998). In Hudson’s work on the origins of racial classification in the 18th century, he suggests that during the Enlightenment, Europeans began to construct "imagined communities," to cite Benedict Anderson’s term. He says, “This mental image of a community of like-minded individuals, sharing a ‘general will’ or a common national ‘soul,’ was made possible by the expansion of print-culture, which stabilized national languages and gave wide access to a common literary tradition” (Hudson, 1996; Anderson, 1991).

Classification systems are part of the scientific approach to understanding people and societies, and hold the power biases of those that are able to instantiate such systems. The invention of print culture accelerated the need for information classification schemes, which were often developing in tandem with the expansion of popular, scholarly and scientific works. Traces of previous works defining the scientific classification of native peoples as “savage” and claims about European “superior race's” based on prior notions of peoples, and nations, began to emerge and be codified in the 18th century. Forbes (1990) offers an extensive history of how racial classification emerged in the 18th and 19th centuries in North America as a paradigm of differentiation that would support the

exclusion of Native and African people from social and political life. By the 19th century, the processes involved in the development of racial classification stood to mark biological rather than cultural difference, and was codified to legally deny rights to property ownership and citizenship. These historical practices undergird the formation and instantiation of racial classification, which are both assumed and legitimated in classification systems. Without an examination of the historical forces at play in the development of such systems, the replication and codification of people of African descent to the margins goes uncritically examined. This process can be seen in knowledge organization that both privileges and subordinates through information hierarchies like catalogues and classification systems. The field of library science has been implicated in the organization of people and critiqued for practices that perpetuate power by privileging some sectors of society at the expense of others.

The Importance of Representation to Library and Information Science Processes

Traditional LIS organization systems like subject cataloging and classification are an important part of understanding the landscape of how information science has inherited and continues biased practices in current system designs, especially on the web. Opportunities abound for the interdisciplinarity of LIS to extend more deeply into cultural and feminist studies, because these social science fields provide powerful and important social context for information about people that can help situate and frame the ways that information about people is organized and made available. But to date, much of the attention to information organization, storage and retrieval processes has been influenced, and more importantly, funded by scientific research needs stemming from World War II
and the Cold War (Saracevic, 2009). The adoption of critical race theory as a stance in the field would mean examining the beliefs about the neutrality and objectivity in LIS, and moving toward un-doing racist classification practices. Such a stance would be a major contribution that could have impact on the development of new approaches to organizing and accessing knowledge about marginalized groups like Black women and girls.

If the information retrieval priorities of making access to recorded information efficient and expedient are the guiding processes in the development of technical systems, from databases to web search engines, then what are the distinguishing data markers that define information about racialized people and women in the United States, particularly in commercial search engines? While the present research is not explicitly focused on the technical aspects of information retrieval, or user studies in querying information, these are important elements that help guide a broader understanding of how I have arrived at Google’s commercial search engine results. What has primarily been missing from the field of information science, and to a lesser degree library science, are the issues of representation that are most often researched in communications and increasingly in digital media studies. Critical race theory offers an approach for thinking about information organization as a matter of socio-political and historical processes that serve particular interests, rather continuing to be a matter of unexamined privileges.

Problematic Representations in LIS

In order to understand how racial and gender representations in Google search express the same traditional bias that exists in other organizational systems, an overview of how women and non-Whites have been historically represented in information
categorization environments is in order. The issue of misrepresentations of women and people of color in classification systems has been significantly critiqued (Berman, 1971; Olson, 1998). Olson’s (1998) theories of the social construction of classification are important because she too brings attention to the ways that classification systems reflect bias. Those who have the power to design systems – classification or technical – hold the ability to prioritize hierarchical schemes that privilege certain types of information over others. An example of these biases include the cataloging of people as subjects in the Library of Congress Subject Headings (LCSH), which serve as a foundational and authoritative framework for categorizing information in libraries in the United States. The LCSH has been noted to be fraught with bias, and Berman (1971) details the ways that this bias has reflected Western perspectives:

Since the first edition of *Library of Congress Subject Headings* appeared 60 years ago, American and other libraries have increasingly relied on this list as the chief authority—if not the sole basis—for subject cataloging. There can be no quarrel about the practical necessity for such labor-saving, worry-reducing work, nor abstractly—about its value as a global standardizing agent, as a means for achieving some uniformity in an area that would otherwise be chaotic… But in the realm of headings that deal with people and cultures—in short, with humanity—the LC list can only “satisfy” parochial, jingoistic Europeans and North Americans, white-hued, at least nominally Christian (and preferably Protestant) in faith, comfortably situated in the middle-and higher-income brackets, largely domiciled in suburbia, fundamentally loyal to the Established Order, and heavily imbued with the transcendent, incomparable glory of Western Civilization” (Berman, 1971, pg. 15).
Eventually the LCSH abolished labels like “Yellow Peril” and “Jewish Question” or made substitutions in the catalog changing “Race Question” or “Negroes” to “Race Relations” and “Afro-Americans” (pg. 5) but the establishment of such headings and the subsequent decade long struggles to undo them, underscored Berman’s point about Western racial bias. Patriarchy, like racism, has also been the fundamental organizing point of view in the LCSH. The ways in which women were often categorized was not much better, using terms like “Women as Accountants” in lieu of the now preferred “Women Accountants” wherein women were consistently an aberration to the assumed maleness of a subject area (Berman, 1971, pg. 5; Palmer and Malone, 2001).

Furthermore, efforts at self-identity from the perspective of marginalized and oppressed groups like the Roma or Romanies cannot escape the stigmatizing categorization of their culture as “Gypsies” even though their “see also” designation to “rogues and vagabonds” was finally dropped from the LCSH (Berman, 1971, pg. 5). A host of other problematic naming conventions, including “Oriental” instead of “Asian” and the location of Christianity at the top of the religious hierarchy with all deviations moving toward the classification of “Primitive” suggests that there is still work to be done in properly addressing and classifying groups of people around identity (Berman, 1971, pg. 5). Olson (1998) says, “the problem of bias in classification can be linked to the nature of classification as a social construct. It reflects the same biases as the culture that creates it” (Olson, 1998, pg. 233).

These types of biases are often seen in offline information practices where conquest is a means of erasing the history of one dynasty or culture by the subsequent regime (Olson, 1998, pg. 234). Olson’s research has already shown that classifications reflect the
philosophical and ideological presumptions of dominant cultures over subordinate cultures or groups. For example, in traditional Dewey Decimal Classification (DDC), over 80% of its religion section is devoted exclusively (pg. 234-235) to Christianity even though there are greater numbers of other religious texts and literature. Olson points to the Library of Congress Classification (LCC) and its biases toward North American and European countries in volumes on the law, with far fewer allocations of space for Asia, Eurasia, Africa, Pacific Area and Antarctica, reflecting the discourse of the powerful and the presumption of marginality for all others (pg. 235).

As Olson suggests, what is most important in the literature on classification is the idea that when classification occurs in an ordered fashion, that it is “useful for classification to reflect the relationships perceived in the wider society” (Olson, 1998, pg. 235). In this respect, the ordering of information provided in classification schemes “tends to reflect the most mainstream version of these relationships” (pg. 235) because “classificatory structures are developed by the most powerful discourses in a society. The result is the marginalization of concepts outside the mainstream” (pg. 235). Classification systems have boundaries and limits, and are often defined in whole by what is included and what is excluded (Cornell, 1992; Olson, 1998). Cornell notes that no system can be wholly inclusive, and that systems are dynamic because they are socially constructed (pg. 2). Search engines, like other databases of information are equally bounded, limited to only providing information based on what is in the database itself, or in the case of the Internet, within the network. Who has access to provide information in the network certainly impacts whether information can be found and surfaced to anyone looking for it.
Building on the work of classification scholars like Olson, Zipf who looks at core word occurrences, Lotka who engages with a core of published authors and Bradford who evaluates the core of journals, all show a distribution of concentric circles that reflect the spatial relationship of classification:

![Diagram of concentric circles representing mainstream, margins, and limits.](image)

Figure 37: The Spatial Representations of Information in Relation to the Mainstream in Information Systems (based on Olson, 1998)

Further, Olson’s research points to the ways that some discourses are represented with more power, even if their social classifications are relatively small:

In North American society, taking away women, African Americans, Hispanic Americans, French Canadians, Native peoples, Asian Americans, lesbians and gay men, people with disabilities, anyone who is not Christian, working class and poor people, and so forth, one is left with a very small “core.” An image that shows the complexity of these overlapping categories is that of a huge Venn diagram with many sets limited by Boolean ANDs. The white AND male AND straight AND European AND Christian AND middle-class AND able-bodied AND Anglo mainstream becomes a very small minority…and each set
implies what it is not. The implication of this image is that not every person, not every discourse, not every concept, has equal weight. Some discourses simply wield more power than others (Olson, 1998, pg. 237).

Olson also theorizes that cataloguing exists as a network of “interactions and intersections” (pg. 237), where some representations are moved to the margins, and that the spatial representations of knowledge are the framework of classifying representations. Olson describes the use of cultural metaphor as the basis of the construction of classification systems (Olson, 1998). These cultural metaphors are profoundly represented in the notions of the “Jewish Question” or the “Race Question” that suggests both an answer, and a point of view from which the problems of Jews and Race are presupposed. Berman (1971) notes that in the case of both Jews and the representations of race that these depictions are not without social context:

For the image of the Jew to arouse any feelings, pro or con, he [sic] had to be generalized, abstracted, depersonalized. It is always possible for the personal, individual case to contradict a general assertion by providing living, concrete proof to the contrary. For the Jews to become foils of a mass movement, they had to be converted into objectified symbols so as to become other than human beings (Berman, 1971, citing Mosse, G. L., 1966. Nazi culture: Intellectual, cultural, and social life in the Third Reich. New York: Grosset & Dunlap).

In the case of Google, because it is a commercial enterprise, the discussions about its information practices are situated under the auspices of Free Speech and protected corporate speech, rather than being posited as an information resource that is working in the public domain, much like a library.
Using a critical perspective on this kind of corporate behavior in the mediation of information for the public means that an alternative possibility could be that corporate “free speech” in the interests of advertisers could be re-prioritized against the harm that sexist and racist “speech” on the Internet could have on those who are harmed by it. This is the value of using critical race theory – considering that free speech may in fact not be a “neutral” notion, but rather, a conception that when implemented in particular ways, silences many in the interests of a few. Yet, in terms of keyword searching on certain terms, Google takes little responsibility for the ways that it provides information without social context.

Not unlike the disclaimer by Google in its disavowal of the problems of searching for the word “Jew” in its search engine, the results are surprisingly similar to the construction of Jewish identity in the LC subject headings and reflect the oppressed nature of their relationship to non-Jewish Europeans and North Americans. This linkage between the indexing practices of the World Wide Web and the traditional classification systems of knowledge structures like the LC is important. Both systems rely upon human decisions, whether given over en masse to artificial intelligence and algorithms or left to human beings to categorize. The representation of people and cultures in information systems clearly reflects the social context within which the subjects exist. In the case of search engines, not unlike cataloging systems, the social context, histories of exploitation or objectification, are both determining and yet not taken into explicit consideration -- rather, they are disavowed. What can be retrieved by information seekers is mediated by the technological system – be it a catalog or an index of web pages, by the system design that
otherizes. In the case of the Web, old cataloging and bibliometric practices are brought into the modern systems design.

Wilson suggests that bibliographic and naming controls are central to making knowledge discoverable (Wilson, 1968, pg. 6). Berman cites Joan Marshall’s critiques of the underlying philosophy of the LC subject cataloging practices and the ways that they constitute an audience by the biased organizational practices, wherein a “majority reader” is established as a norm, and in the case of the Library of Congress, is often “white, Christian (usually Protestant) and male” (Berman, 1971, pg. 19, citing Marshall, personal communication, June 23, 1970). Berman makes note of the influence that categorization systems have on knowledge organization and access, and references Algerian psychologist Franz Fanon’s articulation of the mechanics of cultural “brain washing” (Berman, 1971, pg. 20), that the problems of racial representation and racism are deeply connected to words and images, and that the racist worldview is embedded in LC cataloging practices that serve to bolster the image and domination of Western values and people (White European and North Americans over that of people of African descent).

The Construction of Black Identity in Knowledge Schemes

By examining the ways that Black people specifically have been constructed in the knowledge schemes, Cornel West aptly describes the positionality of how this community is not seen or valued in the West:

Black people as a problem-people rather than people with problems;
black people as abstractions and objects rather than individuals and persons; black and white worlds divided by a thick wall (or a ‘Veil’)…
black rage, anger, and fury concealed in order to assuage white fear and anxiety; and black people rootless and homeless on a perennial journey to discover who they are in a society content to see blacks remain the permanent underdog (Henry Louis Gates Jr. and Cornel West, *The Future of the Race* (New York: Alfred A. Knopf, 1996), 84, cited in Fouché, 2006).

Marshall points to how this was expressed in the LC when the use of “Niggers” was a legitimate subject category, reflecting the “social backgrounds and intellectual levels” of users, concretizing oppressive race relations (Berman, 1971, pg. 18). Difference, in the case of LC, is in direct relation to Whiteness as the norm.

Searching for “Black girls” and finding problematic results is not a far stretch from a troubled history of representation in library subject cataloging and classification systems, which are faithful reflections of the problematic representations in the general culture outlined above. Our ability to recognize these challenges can be enhanced by asking questions about how technological practices are embedded with values, and often obscure the social realities within which representations are formed. The interface of the search engine as a mechanism for accessing the Internet is not immune, nor impartial, to the concerns of embedded value systems. The practical orientation of the present research is directed to having an impact on this complex array of issues.

**Search as a Source of Reality**

Search is more than the specific mathematical algorithms used by computer scientists and software engineers to index upwards of a trillion pages of information and move it from the universal data pile to the first page of results on a computer screen. The
interface on the screen presents an information reality, while the operations are rendered increasingly invisible (Galloway, 2008). Galloway destabilizes the idea that digital technologies are transparent, benign windows or doors providing a view or path to somewhere, and in itself insignificant – the digital interface is a material reality structuring a discourse, embedded with historical relations, working often under the auspices of ludic capitalism where a kind of playful engagement of labor is masked in vital digital media platforms like Google (Galloway, Lovink, and Thacker, 2008). Search does not merely present pages, but structures knowledge, and the results retrieved in a commercial search engine create their own particular material reality. Ranking is itself information that also reflects the political, social and cultural values of the society that search engine companies operate within, a notion that is often obscured in traditional information science studies.

Further, Galloway suggests that new digital technologies may constitute containers for old media discourses (2008), and that the boundary between the Web interface (like a plain Google search box) is a transitional format for previous media forms. Certainly in the case of digital technology like the commercial search engines, the interface converges with the media itself (Galloway, 2008). Commercial search, in the case of Google, is not simply a harmless portal or gateway, it is in fact a creation or expression of commercial processes that are deeply rooted in social and historical production and organization processes.

John Battelle (2005) describes search as the product of our needs and desires, aggregated by companies:

   Link by link, click by click, search is building possibly the most lasting, ponderous, and significant cultural artifact in the history of humankind: the Database of Intentions. The Database of Intentions is simply this:
the aggregate results of every search ever entered, every result list ever
tendered, and every path taken as a result. … this information
represents the real-time history of post-Web culture – a massive
clickstream database of desires, needs, wants, and preferences that can
be discovered, subpoenaed, archived, tracked and exploited for all sorts
of ends (Battelle, 2005, pg. 6).

Battelle suggests that search is also pivotal in the development of artificial intelligence. In
many ways, Google search is an attempt to use computer science as a basis for sorting and
making decisions about the relevance and quality of information rather than human sorting
and Web indexing practices – practices that search engine companies like Yahoo! and
those of the past invested in heavily and which were both expensive to implement, limited
and less responsive in real-time (Brin and Page, 1998a).

Providing Context for Information about People

In a narrow sense, information is a series of signals and messages that can be
expressed through mathematics, algorithms and statistical probabilities (Saracevic, 1999,
pg. 1054). In a broader sense, however, Saracevic suggests that information is constituted
through “cognitive processing and understanding” (1999, pg. 1054). He emphasizes that
the pivotal relationship between information and users is dependent upon human
understanding. It is this point that I want to emphasize in the context of information
retrieval – that the information provided to a user is deeply contextualized, and stands
within a frame of reference. For this reason, it is important to study the social context of
those organizing information, and the potential impacts of the judgments inherent in
informational organization processes. Saracevic (1999) suggests that information be treated
in a context, and that “it involves motivation or intentionality, and therefore it is connected
to the expansive social context or horizon, such as culture, work, or problem-at-hand”
(1999, pg. 1054), and that this is fundamental to the origins of information science and to
information retrieval (1999, pg. 1054). Information Retrieval (IR) as a practice has
become a highly commercialized industry, predicated upon federally-funded experiments
and research initiatives, leading to the formation of profitable ventures like Yahoo! and
Google, and a focus on information relevance continues to be of importance to the field.

Information science is essentially deeply entwined with the history of library
science, and has primarily been concerned with the collection, storage and retrieval, and
access to and use of information (Saracevic, 2009). Saracevic notes how “the domain of
information science is the transmission of the universe of human knowledge in recorded
form, centering on manipulation (representation, organization, and retrieval) of
information, rather than knowing information” (Saracevic, 2009, pg. 2570). This
foregrounds the ways that representations in search engines are decontextualized in one
specific type of information retrieval process, Google search, particularly for groups whose
images, identities and social histories are framed through forms of systemic domination.
Although there is a long, broad and historical context for addressing categorizations, the
impact of learning from these traditions has not yet been fully realized in search (Bowker
and Star, 1999).

Saracevic’s attention to “the universe of human knowledge” is suggestive for
contextualizing information retrieval practices this way, leading to inquiries into the ways
current information retrieval practices on the Web, via commercial search engines, make
some types of information available and suppress other forms of information. The present
focus on the types of information presented in identity searches shows that they are removed from the social context of the historical representations and struggles over disempowering forms of representation that have been prevalent in other media practices. Whether human beings believe that the information delivered in search is relevant has consistently been the basis of judgment about information quality (Saracevic, 2009), but what is under-discussed is that the retrieval of information in commercial platforms like Web-based search engines is not unique to the individual searcher. A Web-based commercial search engine does not entirely “know” who a user is, such that the customization and clarity of intent in the search process is so explicit as to provide the search engine with the full context of what a user might not want to retrieve.

**Finding Culturally-Situated Information on the Web**

The field of LIS is significantly engaged in information classification and organization work, which can inform the framework for thinking about developing ICTs that are focused on surfacing prioritized results, like the search engine. Furner’s research (2007) on using critical race theory in this process of developing information organization tools is of great value, particularly when thinking about the phenomenon of excessive recall of documents on the Web that are irrelevant or decontextualized.

Responses to the kinds of problematic biases in large commercial search engines is part of the growing motivation bolstering a host of culturally-situated search engines that are emerging, particularly Blackbird, a Mozilla Firefox browser designed to help surface content of greater relevance to African-Americans. Blackbird has been met with mixed reviews from support and interest to wholesale rejection (Brock, 2011). However,
organizations and individuals are responding to the limits of traditional commercial search engines through the development of such search engines. Identity-focused websites, a combination of Web-based browsers and Web directories, are emerging to prioritize the interests of specific communities based on the human-curated practices of the past, and can be seen in search engines like BlackWebPortal (http://www.blackwebportal.com/), GatewayBlackPortal (http://gatewayblack.com/), which is based on international models like JGrab, a Jewish search engine, BlackFind.com (http://blackfind.com/) and Blackbird (www.blackbirdhome.com), a Web-based browser like Google designed for African-Americans. Sites such as Jewogle (http://www.jewogle.com/), serves as an online encyclopedia of the accomplishments of Jewish people, Jewish.net (http://jewish.net/) to “search the Jewish Web,” JewGotIt (http://www.jewgotit.com/), Maven Search, which catalogues over 15,000 Jewish websites (http://www.maven.co.il/) have emerged, some tongue in cheek, in the hundreds, across religion, culture and national origin. Much of this is a response to the ways in which communities are seeking control over relevant content and representation, as well as access to quality information within racial or group identity.

One of the fundamental challenges to these culturally-situated search engines is the way in which they make visible the contradictions and biases in search engines, which Brock (2011) discusses in relationship to Blackbird, an African-American-centric Web browser. He notes how “Blackbird’s features highlighting African American content were seen as an imposition on the universal appeal of the internet, highlighting the perception of the browser as a social structure limited by Black representation” (Brock, 2011, pg. 1101)
Brock’s work indicates that though there is a demand for culturally-relevant Internet browsing that will help surface content of interest to Black people, the value of it against instantiated norms on the Web makes this problematic.

Reproducing Social Relations Through Information Technologies

Online racial disparities cannot be ignored because it is part of the context within which information communication technologies proliferate, and the Internet is both reproducing social relations and creating new forms of relations based on our engagement with it. Technologies and their design do not dictate racial ideologies, rather, they reflect the current climate. As users engage with technologies like search engines, they dynamically co-construct content and the technology itself (Fuchs, 2009). Online information and content available in search is also structured systemically by the infusion of advertising revenue and the surveillance of user searches, over which the subjects of such practices have very little ability to reshape or reformulate. Lack of attention to the current exploitative nature of online keyword searches only further entrenches the problematic identities in the media for women of color, identities that have been contested since the advent of commercial media like broadcast, print and radio. Noticeably absent in the discussions of Google’s near-monopoly status is the broader, social and technical interplay that exists dynamically in how technology is increasingly mediating public access to information, from libraries to the search engine.

Now, more than ever, a new conception of information access and quality rooted in historical, economic and social relations could have a transformational effect on the role and consequences of search engines. This is the egalitarian goal of critical race theorists –
to ensure that traditionally underrepresented ideas and perspectives are included in the shaping of the field – to surface counter-narratives that would allow for a questioning of the normalization of such practices. Rather than prioritize the dominant narratives, specifically sexist representations of women, Internet search platforms could allow for greater expression and serve as a democratizing tool for the public. This is rendered impossible with the current commercial practices. What we need are public search engine alternatives, united with public-interest journalism and librarianship, to ensure that the public has access to the highest quality information available.
CHAPTER 6: THE FUTURE OF INFORMATION CULTURE

In March 2010, the U.S. Federal Communications Commission (FCC) put forward its ten-year broadband plan, wherein it called for high speed Internet to become the common medium of communications in the United States (FCC, 2010). As the common medium, the FCC envisions that the Internet would potentially displace current telecommunications and broadcast television systems as the primary communications vehicle in the public sphere. According to the report, “almost two-thirds of the time users spend online is focused on communication, information searching, entertainment or social networking” (Federal Communications Commission, 2010). The plan calls for increased support for broadband connectivity to facilitate Americans’ ability to access vital information, and it is focused on infrastructure, devices, accessibility and connectivity.

However, the plan makes no mention of the role of search engines in the distribution of information to the public, with the exception of noting that the plan itself will be archived and made available in perpetuity in the archives of the Internet. Primary portals to the Internet, whether connecting through the dwindling publicly funded access points in libraries and schools, or at home, serve as a gateway to information and cannot be ignored. Access to high quality information, from journalism to research, is essential to a healthy and viable democracy (McChesney and Nichols, 2009). As information moves from the public sphere to private control by corporations, a critical juncture in the quality of information available, and the public’s ability to sift and use it is at stake:

The American economy is now hostage to a relatively small number of giant private companies, with inter-locking connections, that set the
national agenda. This power is particularly characteristic of the communication and information sector where the national cultural-media agenda is provided by a very small (and declining) number of integrated private combines. The development has deeply eroded free individual expression, a vital element of a democratic society (Schiller, 1996, pg. 44).

An increasingly de- and un-regulated commercially-driven Internet raises significant issues about how information is accessed and made available. As quality information typically provided by the public sector moves into more corporate and commercial spaces, it erodes the ability of the public to ensure protections that are necessary in a democracy due to the cost of access, as previously noted by Schiller. McChesney and organizations like FreePress.org are showing how the rise of advertising and commercial interests have bankrupted the quality and content of journalism, heretofore considered a fundamental and necessary component of a democratic society. They have noted in great historical detail and with abundant concrete evidence the importance of information in a democratic society -- free from commercial interests (McChesney and Nichols, 2009; Schiller, 1996). McChesney and Nichols (2009) have demonstrated that the rapid shift over the past decade from the public-interest journalism environment prior to the 1990s, along with the corporate takeover of U.S. news media, have eroded the quality of information available to the public. Similarly, the move of the Internet from a publicly-funded, military-academic project to a full-blown commercial endeavor has also impacted how information is made available on the Web.
Media Consolidation and Search

Media stereotypes, which I argue include search engine results, not only mask the unequal access to social, political and economic life in the United States as broken down by race, gender and sexuality, they maintain it (Harris-Perry, 2011; hooks, 1992). This suggests that search engines like Google, in order to opt out of such traditional racist representations, might want to do something on par with at minimum a "disclaimer" and at maximum a "technical fix" to problematic search results especially those that appear racist or sexist. Veronica Arreola wondered as much on the Ms. blog in 2010 when Google Instant, a new search enhancement tool, initially did not include the words "Latinas," "lesbian," and "bisexual" because of their X-rated front-page results: "You're Google. [...] I think you could figure out how to put porn and violence-related results, say, on the second page?" (Arreola, 2010).

It is these kinds of practices that mark the consequences of the rapid shift over the past decade from public-interest information to the corporate takeover of U.S. news media, which has made locating any kind of alternative information increasingly difficult (McChesney and Nichols, 2009) and pushed the public toward the Web. Equally, media consolidations have contributed to the erosion of professional standards like fact checking, not misrepresenting people or situations, avoiding imposing cultural values on a group and distinguishing between commercial and advertising interests versus editorial decisions – all
of which can be applied to information provision on the Web. As the search arena is consolidated under the control of a handful of corporations, it’s even more crucial to pay close attention to the types of processes that are shaping the information prioritized in search engines. In practice, the higher a web page is ranked, the more it’s trusted. Unlike the vetting of journalists and librarians, who are entrusted to fact check and curate information for the public, the legitimacy of websites ranking and credibility is simply taken for granted. The take-home message is that, when it comes to online commercial search engines, it is no longer enough to simply share news and education on the Web – we must ask ourselves how the things we want to share are found, and how the things we find have appeared.

**Google’s Monopoly on Information**

Little attention has been paid to Google’s monopoly on information in the most recent debates about network control. The focus on net neutrality in the U.S. is largely invested in concerns over the movement of packets of data across the commercial networks owned by the telecommunications giants, which include AT&T, Verizon and Comcast, among others. Much of the debate has focused on maintaining an open Internet, free from traffic routing discrimination. In this context, discrimination refers to the movement of data and the rights of content providers to not have their traffic delayed or managed across the network regardless of size or content. Focus on content prioritization processes should

enter the debates over net neutrality and the openness of the Web when mediated by search engines, especially Google.

Over the past few years, consumer watchdog organizations have been enhancing their efforts to provide data about Google’s commercial practices to the public, and the Federal Trade Commission is investigating everything from Wi-Fi data harvesting of consumer data, to its horizontal ownership and dominance of web-based services like YouTube, AdSense, GoogleMaps, Blogger, Picasa, Android, Feedburner, etc. Net neutrality lobbyists have been set back by the recent U.S. Court of Appeals decision to protect the rights of Comcast cable company over the Federal Communications Commission (FCC) stance on protecting net neutrality. The decision upholds the ability for Comcast to prioritize or discriminate in traffic management over their networks. Lobbying organizations like the Open Internet Coalition have been at the fore in lobbying Congress for protections over the prioritization of certain types of lawful Internet traffic that multinational telecommunications companies are able to promote, while simultaneously blocking access to their networks by competitors. Quietly, companies like Google, Facebook and Twitter who have high volumes of traffic have backed the Open Internet Coalition in an effort to ensure that they will have the necessary bandwidth to support their web-based assets that draw millions of users a day to their sites with tremendous traffic.

At this point, less attention has been focused on content about representations of people and culture, an important aspect of Google’s control over information in the public sphere, an important site for future research and inquiry.
Representations of Material Culture and Google

Outside of the United States, Google has faced a host of complaints about representations of material culture (Jeanneney, 2007) and identity. In the realm of public information, Darnton (2009) outlines the problematic issues that are arising from the Google book digitization project. In this project, Google is digitizing millions of books, over 10 million as of the close of 2009, opening up considerable speculation about the terms over which readers will be able to access these texts. The legal issues at play include potential violations of antitrust law, and whether public interests will prevail against monopolistic tendencies inherent in one company's control and ownership of such a large volume of digital content (Jeanneney, 2007). Proponents of Google's project suggest that the world's largest library will make previously out of print and unavailable texts accessible to a new generation of readers/consumers. Opponents are fearful that Google will control the terms of access, unlike public libraries, based on shareholder interests. Further challenges to this project include France and Germany who rejected the ownership of their material culture by a U.S based company, claiming it is impinging on their national and cultural works (Jeanneney, 2007). They suggest that the digitization of works by their national citizens of the past is an infringement on the public good, which is threatened by Google's monopoly on information (Jeanneney, 2007). Darnton’s (2009) critique underscores the power of Google's capital and its influence to the detriment of nations that cannot withstand its move to create the largest digital repository in the world, which includes the ability to own, categorize and determine the conditions or terms of access to such content. In support of their position before the European Commission, concerns were
presented that "a large portion of the world's heritage books in digital format will be under the control of a single corporate entity" (Darnton, 2009, pg. 2).

Closer to home, with the exception of the Anti-Defamation League’s previously mentioned protests, many protests of Google’s information and website representation, for example, have not been based on the way cultural identities are presented, but rather focus has been on commercial interests in patents, intellectual property and even page ranking. For example, in 2003, an early lawsuit against Google focused on their prioritization of high-paying advertisers who were competing against small businesses and entities that do not index pages based on the pay per click advertising model that has come to dominate experiences of the Internet in the United States. The lawsuit by Search King and PR Network against Google alleged that Google decreased the page rank of its clients (U.S. District Court, 2003) in a direct effort to annihilate competition. Since Bob Massa, President of Search King and PR Ad Network, issued a statement against Google’s biased ranking practices, issues surrounding Google’s business practices have increased, both in the U.S. and globally.

Given the controversies over commercial, cultural and ethnic representations of information in PageRank™, the question that the Federal Trade Commission might ask, however, is whether search engines like Google should be regulated over the values they assign to racial, gendered and sexual identities as evidenced by the types of results that are retrieved. At one time, the Federal Communications Commission (FCC) enforced decency standards over media content, particularly in television, radio and print. Many political interventions over indecency and pornography on the Web have occurred since the mid-1990s, with the 1996 Communications Decency Act (CDA) being the most visible and
widely contested, particularly Section 230 with respect to immunity for online companies who cannot be found liable for content posted by third-parties. Section 230 is specifically designed to protect children from online pornography, while granting the greatest rights to freedom of expression (Dickinson, 2010), which it does by not holding harm toward Internet service providers, search engines or any other Internet site that is trafficking content from other people, organizations or businesses – companies like Google, Facebook, Verizon, AT&T, Wordpress or Wikipedia – all of which are exempt from liability under the Act (Dickinson, 2010). Dickinson describes the important precedents set by a court ruling against Internet service provider, Prodigy. He suggests that the court’s interpretation of Prodigy’s market position was that of a “family-friendly, carefully controlled and edited Internet provider” which engaged in processes to filter or screen offensive content in its message boards. As such, it “had taken on the role of a newspaper-like publisher rather than a mere distributor and could therefore be held liable” (Dickinson, 2010, pg. 866). He underscores the importance of the court ruling in Stratton Oakmont, Inc. v. Prodigy Services Co. that Prodigy’s engagement in some levels of filtering content of an objectionable nature meant that Prodigy was responsible and liable. This, he argues, was not Congress’ intent – to hold harmless any platform providing content that is obscene, pornographic, or objectionable by community standards of decency.

Google, at present, has been able to hide behind its disclaimers asserting they are not responsible for what happens in their search engine technologies. Dickinson’s study of the law with respect to Internet service provider Prodigy raises interesting legal issues that could be explored in relationship to search engines, particularly Google, now that it has admitted to engaging in filtering practices. What is mostly apparent since the passage of
the CDA in 1996, is that decency standards on the Web and in traditional media have been fodder for “the culture wars” and, by all apparent measures, indecency is sanctioned by Congress, the FCC and media companies themselves. These protections of immunity are mostly upheld by the Zeran v. America Online, Inc. ruling in the U.S. Court of Appeals for the Fourth Circuit, which found that companies are not the responsible parties or authors of problematic material distributed over their hardware, software or infrastructure, even though Section 230 was intended to have these companies self-censor indecent material. Instead, the courts have ruled that they cannot hold companies liable for not self-censoring or removing content. Complicating the issues in the 1996 Act is the distinction between “computer service providers” (non-mediated content) and “information providers” (mediated content) (Dickinson, 2010).

During the recent Congressional hearings that led to the Federal Trade Commission investigation, reporter Matthew Ingram suggested in a September 2011 Businessweek.com article, that “it would be hard for anyone to prove that the company’s free services have injured consumers.” But Ingram is arguably defining “injury” a little too narrowly. Searching for “Latinas,” or “Asian women,” has results that focus on porn, dating, and fetishization. What is strikingly similar in the case of searching for “Jew” or “Black girls” is that objectionable results materialized in Google’s page ranking algorithm – results that might not reflect the social or historical context of the lives of each group. However,

40 See: A Google Monopoly Isn’t the Point. URL: http://www.businessweek.com/technology/a-google-monopoly-isnt-the-point-09232011.html
strikingly dissimilar is the fact that in the case of Black girls, there is far less social, political or economic agency on par with the Anti-Defamation League. At this moment, when the Congressional Antitrust Subcommittee has turned over the case of Google to the Federal Trade Commission, a clear need exists for research on the ways that companies like Google are presenting racialized and gendered identities in their rankings, as well as the implications of these representations. What is needed is a deeper understanding of how identities are instantiated online through commercial search engines, and searching for culturally-based identities, as I do here, opens up avenues to explore and assess the quality of group identity information available to the public.

The Web as a Source of Opportunity for Black People

The Web is characterized as a source of opportunity for Black people, with tremendous focus put upon closing the hardware, software and access gap to the Internet for this community. Among the most prevalent ideas about the political aspects of technology disenfranchisement and opportunity are theories that center on the concept of the “digital divide,” a term coined in a series of speeches and surveys by the Clinton-Gore administration and the National Telecommunications Infrastructure Administration (Alkalimat and Williams, 2001). Digital Divide narratives have focused on three key aspects of disempowerment that have led to technological deficits between Whites and Blacks: access to computers and software, development of skills and training in computer technologies, and Internet connectivity -- most recently characterized by access to broadband (Alkalimat and Williams, 2001; Wilhelm, 2006).
However true the disparities between Whites and non-Whites or men and women in the traditional articulations of the digital divide, often missing from this discourse is the framework of power relations that precipitate such unequal access to social, economic and educational resources (Sinclair, 2004). Thus, the context for discussing the digital divide in the U.S. is a narrow framework that focuses on the skills and capabilities of people of color and women, rather than questioning the historical and cultural development of science and technology and representations prioritized through digital technologies, as well as the global distribution of resources and labor that make the digital divide narrative an important conceptual framework that creates new sites of profit for multinational corporations (Luyt, 2004). Closing the digital divide through ubiquitous access, training, and the provisioning of hardware and software does address the core criticisms of the digital technology “have and have-not” culture in the U.S.; but much like the provisioning of other technological goods like the telephone, it has not altered the landscape of power relations by race and gender as evidenced in the kind of information that is prioritized and curated to the top of the ranking in a commercial search engine.

Search needs to be reconciled within the discourse about the critical necessity of closing the digital divide, since search is such a significant part of mediating the online experience. Digital divide scholars have argued that increased culturally relevant engagements with technology, web presence and skill building will contribute to greater inclusion, and to greater social, political and economic agency for historically underrepresented, marginalized and oppressed groups (van Dijk and Hacker, 2003; Pinkett, 2000; Alkalimat and Williams, 2001). These approaches do not account for the political economy and corporate mechanisms at play in specific technological artifacts, and we must
ask how communities can intervene to directly shape the practices of market-dominant and well-established search engines that are often mediating aspects of web interaction (Rifkin, 2000). They also often under-examine the diasporic labor conditions facing Black women who are engaged in the raw mineral extraction process to facilitate the manufacture of computer and mobile phone hardware. I raise this issue because research on the global digital divide, and Google’s role in it (Segev, 2010), must continue to expand to include a look at the ways that Black people in the U.S. and abroad are participating, and in the case of the United States, not participating to a significant degree (Rifkin, 1995), in information and communication technology industries. This makes calls for “prosumer” participation41 (Toffler, 1970, 1980; Tapscott, 1996; Ritzer and Jurgenson, 2010) as a way of conceptualizing how Black people can move beyond being simple consumers of digital technologies to producers of technological output, a far more complex discussion.

Ritzer and Jurgenson (2010) characterize this emphasis of merging the consumptive and productive aspects of digital engagement as “a trend toward unpaid rather than paid labor and toward offering products at no cost, and the system is marked by a new abundance where scarcity once predominated” (Ritzer and Jurgenson, 2010, pg. 14). Smythe (1981; 2006) describes this type of prosumerism as “the audience as commodity,” where users are sold to advertisers as a commodity, and in return for “free” services, users

41 The term prosumer is a portmanteau for “producer” and “consumer” that is often used to indicate a higher degree of digital literacy, economic participation and personal control over the means of technology production. The term is mostly attributed, in this context, to Alvin Toffler, a futurist who thought that the line between traditional economic consumer and producer would eventually blur through engagements with technology, and that this participation would generally lead to greater mass customization of products and services by corporations.
are explicitly exposed to advertising. Fuchs (2011) discusses this accumulation strategy, bolstered by Google’s users, as a process of both prosumer commodity and audience commodity by virtue of the decentralized nature of the Web. The intensive activities of people in the uploading, downloading, sharing, tagging, browsing, community-building and content-generation participation allows for mass distribution and one-to-many or many-to-many engagements in a way that traditional media could not due to its centralized nature (Fuchs, 2011). In Fuchs’ work on the political economy of Google, he characterizes the unpaid, user-generated content provided by its users as the basis for Google’s ability to conduct keyword searching because it indexes all user-generated content and “thereby acts as a meta-exploiter of all user-generated content producers” (pg. 43). Surplus labor is created for Google through users’ engagements with its products, from Gmail to Google Scholar, the reading of blogs in Blogger/Blogspot to use of maps or Google Earth, or the watching of videos on YouTube (pg. 43) among many of its services. The vertical offerings of Google⁴² are so great, coupled with their prioritization of their own properties in keyword searches, that mere use of any of these “free” tools creates billion-dollar profits for Google – profits generated from both unpaid labor from users and the deliverance of audiences to advertisers. Fuchs’ work explicitly details how Google’s commodities are not its services like Gmail or YouTube – its commodities are all content creators on the Web that Google indexes (the prosumer commodity), and users of their services that are exposed to advertising (audience commodity) (Fuchs, 2011).

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⁴² A list of Google’s global assets and subsidiaries can be found in its SEC filings: http://www.sec.gov/Archives/edgar/data/1288776/000119312507044494/dex2101.htm
These aspects of human intervention that characterize software and hardware development are important, and decreased engagements of women and people of color in the high-tech design sector,\textsuperscript{43} coupled with increased marginalized participation in the most dangerous and volatile parts of the information and communication technology labor market, have impact on the artifacts like search results themselves. According to U.S. Department of Labor work-force data obtained by the Mercury News through a Freedom of Information request, of the 5,907 top managers in the Silicon Valley offices of the 10 largest high-tech companies in 2005, 296 were Black or Hispanic, a 20 percent decline from 2000. Though the scope of this study does not include a formal interrogation of Black manufacturing labor job migration to outsourced information and communication technology manufacturing outside of the United States, it is worth noting that this phenomenon has implications for participation in industries that shape everything from hardware to software design, of which Google is playing a primary role.

Google is both a powerful and important resource for organizing information and facilitating social cooperation and contact, while it is simultaneously reinforcing hegemonic narratives and exploiting its users. Fuchs characterizes this dialectic as having less to do with Google’s technologies and services and more to do with the organization of labor and the capitalist relations of production (Fuchs, 2011). I would add to Fuchs’ points

\textsuperscript{43} See recent news coverage discussing U.S. Department of Labor data and the significant decline of Black, Latino and women in the Silicon Valley technology industries: “Blacks, Latinos and women lose ground at Silicon Valley tech companies” by Mike Swift at the San Jose Mercury News. URL: http://www.mercurynews.com/ci_14383730.
about the political economic framework of Google that the potential for Google as a
democratizing force is certainly laudable, but the contradictions inherent in the information
it provides must be contextualized in the historic conditions that both create, and are
created by, oppression along racialized and gendered lines. The lack of a diverse and
critically-minded workforce on issues of race and gender in Silicon Valley impacts its
intellectual output in search algorithms such that that currently, social realities are divorced
from search results. Lack of compensation for much of the productive labor engaged in
generating Google’s profits, coupled with hegemonic narratives that exploit women and
Black people when keyword searching on racialized women’s identities, means that the
Google is also discursively (and practically) supporting narratives upon which it greatly
profits. Thinking about the specifics of who benefits from these hegemonic practices –
from hiring to search results, and how its algorithms create results that demean and
marginalize, is an important addition to the arguments about how Google is engaged in
forms of exploitation. These problems are not equally experienced across race and gender
lines. Instead, these practices exist dialectically alongside its profound, and transformative
services on the Web, pointing to the great complexity that exists in discussing Google and
its contradictions.

What scholars like Schiller, Fuchs, Rifkin, and Segev stress is that, in the
Information Age, or what Rifkin calls “the Age of Access,” there are varying degrees of
contact with cyberspace and the hyper-commercialization of all spheres of public and
cultural life (Rifkin, 2000). At the same time, the expansion of the commercial sector, often
buttressed with digital divide narratives (Luyt, 2004), serves as a site of profit and labor
throughout the networked economy – where some serve as laborers, including child and
forced laborers,\textsuperscript{44} in places like the Democratic Republic of Congo, mining ore called Columbite-tantalite (abbreviated as “Coltan”) to provide minerals and raw materials for companies such as Nokia, Intel, Sony and Ericsson\textsuperscript{45} that need such minerals in the production of components such as tantalum capacitors used to make microprocessor chips for computer hardware like phones and computers\textsuperscript{46}. Others in the digital divide network serve as supply-chain producers for hardware companies like Apple\textsuperscript{47} or Dell (Fields, 2004), and this outsourced labor from the U.S. goes to low-bidders that provide the cheapest labor under economic globalization policies.

This is complicated by the need for Black people, and Black women in the United States in particular, to play a more meaningful role in the production of new images and

\textsuperscript{44} See Department of Labor, Office of the Secretary, “Notice of Final Determination Revising the List of Products Requiring Federal Contractor Certification as to Forced or Indentured Child Labor Pursuant to Executive Order 13126” that prohibits coltan that has been produced by child labor into the United States.


\textsuperscript{46} Coltan-mining is significantly under-studied by Western scholars but has been documented in many Non-Governmental Organizations’ reports about the near-slavery economy in the Congo that is the result of Western dependence on “conflict minerals” like Coltan that has been the basis of ongoing wars and smuggling regimes that have extended as far as Rwanda, Uganda and Burundi. See reviews in the New York Times as well as a detailed overview of the conditions in the Congo due to mining by Anup Shah at \url{www.globalissues.org}, which asserts that an elite network of multinational companies, politicians and military leaders have essentially kept the issues from the view of the public.

\textsuperscript{47} While less formal scholarship has been dedicated to this issue, considerable media attention in 2011 and 2012 has been focused on the labor conditions in parts of China where Apple manufactures its products. While some of the details of the journalistic reporting have been prone to factual error in location and dates, there is considerable evidence that labor conditions by Apple’s supplier, Foxconn, are precarious and rife with human rights abuses. See New York Times article, “In China, Human Costs Are Built Into an iPad” at URL: \url{http://www.nytimes.com/2012/01/26/business/ieconomy-apples-ipad-and-the-human-costs-for-workers-in-china.html}
ideas about Black people. Michele Wallace (1990) calls forth the crisis in lack of management, design and control that Black people have over the production of commercial culture. She states that under these conditions, Black people will be “perpetual objects of contemplation, contempt, derision, appropriation, and marginalization” (Wallace, 1990, pg. 98). Hobson draws important attention to Wallace’s commentary on Black women as creative producers and in the context of the information age, suggests this this confluence of media production on the Web is part of the exclusionary terrain for Black women, who are underrepresented in many aspects of the information industry (Hobson, 2008). I would add to her argument that while it is true that the Web can serve as an alternative space for conceiving of and sharing empowered conceptions of Black people, this happens in a highly commercially mediated environment, as this study illuminates. I argue that it is simply not enough to be “present” on the Web, we must consider the implications of what it means to be on the Web in the “Long Tail” or mediated out of discovery by other Black women because of the ways in which search engines bias information.

Social Inequality as a Feature of the Political-Economic Landscape

A sharp focus on the individual as the source of remedy and fault for economic failure has been part of the political project stemming from the Reagan administration. New conceptions of individual freedoms are positively supported in direct opposition to group protections found in organizing and ensuring collective rights, evident in the past thirty years of active anti-labor policies put forward by several administrations (Harvey, 2005). These pro-individual (which I argue are pseudo-individuals because there is no such abstracted human being) ideologies have been central to the anti-democratic, anti-
affirmative action, anti-welfare, and anti-race discourse that seeks to place any culpability for individual failure on the person, not policy decisions and social systems (Jensen, 2005; Brown, 2003; Burdman, 2008). Discussions of institutional discrimination and systemic marginalization of whole classes and sectors of society have been shunted from public discourse for remediation. Instead, society is moving toward greater acceptance of technological processes that are seemingly benign and decontextualized. Collective efforts to regulate or provide social safety nets through public or governmental intervention are rejected. In this conception of society individuals make choices of their own accord in the free market, which is normalized as the only legitimate source of social change (Harvey, 2005). It is in this broader social and political environment that the Federal Communications Commission and Federal Trade Commission have been reluctant to regulate the Internet environment, with the exception of the Children’s Internet Protection Act and the Child Safe Viewing Act of 2007. Attempts to regulate decency have largely been unaddressed by the FCC, which placed the onus for proving harm on individuals.

The reliability of public information online is in the context of real, lived experiences of Americans who are increasingly entrenched in the shifts that are occurring in the information age. An enduring feature of the American experience is gross systemic

48 The Children’s Internet Protection Act (CIPA) was adopted by the FCC in 2001 and is designed to address filtering of pornographic content from any computers in federally-funded agencies like schools and libraries. The Act is designed to incentivize such organizations with Universal E-Rate discounts for using filters and providing Internet safety policies. See URL: [http://www.fcc.gov/guides/childrens-internet-protection-act](http://www.fcc.gov/guides/childrens-internet-protection-act)

poverty, whereby the largest percentages of people living below the poverty line suffering from un- and under-employment are women and children of color. The economic crisis continues to disproportionately impact poor people of color, especially Black/African-American women, men and children\(^5\).

Furthermore, Black and White wealth gaps have become so acute that a recent report by Brandeis University found that this gap quadrupled between 1984 and 2007, making Whites five times richer than Blacks in the U.S. (McGreal, 2010). These dramatic shifts are occurring in an era of U.S. economic policy that has accelerated globalization, moved real jobs offshore, and decimated labor interests (Harvey, 2005).

Claims that the society is moving toward greater social equality are undermined by data that show a substantive decrease in access to home ownership, education, and jobs -- especially for Black Americans (Jensen, 2005; McGreal, 2010). In the midst of the changing social and legal environment, inventions of terms and ideologies of “color-blindness” disingenuously portend a more humane and non-racist worldview (Neville, Coleman, Falconer and Holmes, 2012) alongside celebrations of “multiculturalism” and “diversity,” which obscure structural and social oppression in fields like the information sciences that are shaping technological practices (Pawley, 2006). Making race the problem of those who are racially objectified, particularly when seeking remedy from

\[^5\] The National Urban League reported in 2010 startling statistics about the economic crisis, specific to African-Americans: 1) less than half of black and Hispanic families own a home (47.4% and 49.1%) compared to three quarters of white families; and 2) Blacks and Hispanics are more than three times as likely as whites to live below the poverty line (National Urban League, 2010).
discriminatory practices, obscures the role of government and the public to solve systemic issues (Brown, 2003; Crenshaw, 1991).

Central to these “color-blind” ideologies is a focus on the inappropriateness of “seeing race.” In sociological terms, color-blindness precludes the use of racial information and does not distinguish any classifications or distinctions (Lipsitz, 1998; Brown, 2003; Burdman, 2008). Yet, despite the claims of color-blindness, research shows that those who report higher racial color-blind attitudes are more likely to be White, and more likely to condone or not be bothered by derogatory racial images viewed in online social networking sites (Tynes and Markoe, 2010). In the midst of re-energizing the effort to connect every American, and to stimulate new economic markets and innovations that the Internet and global communications infrastructures will afford, the real lives of those on the margin are being re-engineered with new terms and ideologies that make a discussion about such conditions problematic, if not impossible, and place the onus of discriminatory actions on the individual rather than situating problems affecting racialized groups in social structures (Brown, 2003).

Formulations of post-racialism presume that racial disparities no longer exist, within which the color-blind ideology finds momentum (Brown, 2003). Lipsitz (1998) suggests that the challenge to recognizing racial disparities and the social (and technical) structures that instantiate them is a reflection of the possessive investment in Whiteness – which is the inability to recognize how White hegemonic ideas about race and privilege mask the ability to see real social problems (Lipsitz, 1998; Jensen, 2005). Despite these conventions and ideologies that attempt to obscure the salience of race in the United States, a critical look at how women are searched for online tells a different story about representation and
the forms of legitimacy that are conferred upon women’s identities. What is crucial about keyword searching is that Blacks’ and women’s status offline is reflected in the constructs of the Internet.

Unveiling Current Values and Designing for Others

If using Google’s default settings, it is possible to believe that it is normal to only see a list of ten results on the first page of a search, but this “normal” is a direct result of the way that human beings have consciously designed both software and hardware to function this way and no other. Imagine instead that all of our results were delivered in a visual rainbow of color that symbolized a controlled set of categories such that everything on the screen that was red was pornographic, everything that was green was business or commerce related, everything orange was entertainment, and so forth. In this kind of scenario, we could see the entire indexable Web and click on the colors we are interested in and go deeply into the shades we want to see. Indeed, we can and should imagine search with a variety of other possibilities. Access to information on the Web could be designed akin to the color picker tool, where users could find nuanced shades of information and easily identify the borderlands between news and entertainment, or entertainment and pornography, or journalism or news information and scholarship. In this scenario, I might also be able to quickly identify the blogosphere and personal websites. Such imaginings are helpful in an effort to denaturalize and re-conceptualize how information could be provided to the public vis-à-vis the search engine.
The Monopolization of Culture and Human Experience

Rifkin (2000) has carefully traced the impact of capitalism on public life. He suggests that culture and norms that once preceded markets have now given way to being structured by markets that are sold to the public. In this new reorganization of society, heavily mediated by media organizations, he warns of the gatekeeping effects that will affect the means by which societies will access one another. He forecasts that in the future, human culture will be mediated by corporations, and the way that we conceive of freedom and power will be of paramount importance (Rifkin, 2000, pg. 11).

As recently as June 27, 2012 Google settled a claim by the French anti-racism organization, the International League Against Racism, over Google’s use of ethnic identity – Jew – in association with popular searches. Under French law, racial identity markers cannot be stored in databases and the auto-complete techniques used in the Google search box links names of people to the word “Jew” based on past user searches. What this recent case points to is another effort to redefine distorted images of people in new media.

Conclusion

In this research, I sought to critique the political economic framework and representative discourse that surrounds racial and gendered identities on the Web. I am particularly mindful of the push for digital technology adoption to Black/African-

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51 On June 27, 2012 online news outlets The Local and The Raw Story reported on the Google settlement based on concerns over linking the word “Jew” with popular personalities. URL last accessed on June 28, 2012 at: http://www.thelocal.fr/3629/20120627/
Americans. I have tried to show how traditional media misrepresentations have been instantiated in digital platforms like search engines, and that search itself has been interwoven into the fabric of American culture. Although rhetorics of the Information Age broadly seek to disembody users, or at least minimize the White/majority hegemonic framework and backdrop of the technological revolution, African-Americans have embraced, modified and contextualized technology into significantly different frameworks despite the relations of power expressed in the socio-algorithms that privilege certain representations about Blackness and gender over others (e.g., a search of “Black girls”). I believe this study can open up a dialog about radical interventions on socio-technical systems in a more thoughtful way that does not reinscribe racist and sexist images of women. Search is, and will continue to be, contextually relevant with culture and gender leading these identity formations among people of color in the United States.

The timeliness of this work in the context of the national push for broadband adoption is important, because relevance appears to be the most significant reason why African-Americans and Latinos who are not online, are not adopting computers and the Internet (Gant, Turner-Lee, Li and Miller, 2010). The latest report from the Joint Center for Political and Economic Studies (the largest and oldest African-American public policy think tank), entitled National Minority Broadband Adoption: Comparative Trends in Adoption, Acceptance and Use (Gant et al., 2010), revealed interesting findings about African-Americans and the Internet.

Most notably, the report states:

- 91% of African Americans earning more than $50,000 regularly use the Internet as compared to 89% of Hispanics earning more than $50,000
• More than 75% each of African Americans and Hispanics earning between $20,000 and $50,000 also report regular use of the Internet

• 98% of Hispanics and 94% of African Americans with a college education report regular Internet use and over 80% of respondents from each group with some college are regular Internet users

• 82% of Hispanics and 79% of African Americans earning more than $50,000 report a home broadband connection. More than 60% each of African Americans and Hispanics, with annual incomes between $20,000 and $50,000, also report having a home based broadband connection

What is even more telling is the report’s findings about what non-Internet users have to say about why they aren’t online, mostly due to lack of interest and a sense of relevance of the Internet to their lives. What then, is the role of culturally situated search in shaping the experiences of the Internet and computers to non-Internet users such that there is value in being online?

This study opens up new lines of inquiry using a Black Feminist Technology Studies (BFTS) approach in Information and Communication Technology (ICT) research. Black feminist technology studies could be theorized as an epistemological approach to researching gendered and racialized identities in digital and analog media studies, and offers a new lens for exploring power as mediated by intersectional identities. More research on the politics, culture and values embedded in search can help frame a broader context of African-American digital technology usage and early-adoption, which is largely under-examined, particularly from the perspectives of women and girls. BFTS is a way to bring more learning beyond the traditional discourse about technology consumption -- and
lack thereof, among Black people. Future research using this framework can surface counter-narratives about Black people and technology, and can include how African-American popular cultural practices are influencing non-African American youth (Tate, 2003). By looking at both the broader community context and technology acculturation processes as they are differentiated by both racial and gendered experiences, a clearer picture emerges of how under-valuing culturally situated and gendered-IT only moves us further from the broadest possibilities of participation with technology. Our goal is certainly the inverse.

Discourses about African-Americans and women as technologically illiterate are nothing new but dispelling the myth of Blacks/African-Americans as marginal to the broadest base of digital technology users can help us define new ways of thinking about motivations in the next wave of technology innovation and design. A future research agenda should include an examination of how search facilitates or obscures culture and how this both creates and reflects user desires for technology. The scope of such an ambitious project could not be undertaken in this effort, but hopefully this specific look at racial and gendered bias in search serves as a start in a series of contributions to the emerging field of critical information and technology studies.

Impulses in the United States to support market-driven information portals like Google search have consequences for finding high-quality information on the Internet about people and communities, since this is the primary pathway to navigating the Web. This is one of the many contradictions of the current for-profit search and cloud-computing industry. Future research efforts might address questions that can help us understand the role of the design of platforms, interfaces, software and experiences as practices that are
culturally and gender-situated, and often determined by economic imperatives, power and values. Such an agenda could forward a commitment to ensuring that pornographic or exploitive websites do not stand as the default identification for women on the Web. Despite a climate wherein everything driven by market interests is considered the most expedient and innovative way of generating solutions, we see the current failings of such a process in the results produced by keyword searching online. Calling attention to these practices, however unpopular they might be, is necessary to foster a climate where information can be trusted and found to be reliable in the dominant search engine. What is needed is a decoupling of advertising and commercial interests from the ability to access high-quality information on the Internet, especially given its increasing prominence as the common medium in the United States. Without public funding and adequate information policy that protects the rights to fair representation online, an escalation in the erosion of the availability of quality information to inform the public may continue.

Epilogue

Since I began the pilot study in 2010 and collected data in 2011, some things have changed. I wrote an article for *Bitch Magazine*, which covers popular culture from a feminist perspective, after some convincing from my students that this topic is important to all people – not just Black women and girls. I argued that we all want access to credible information that doesn’t foster racist or sexist views of one another. I cannot say that the article had any influence on Google in any definitive way, but I have continued to search for Black girls on a regular basis, at least once a month.
Within about six weeks of the article hitting newsstands, I did another search for Black girls, and I can report that Google has changed its algorithm to some degree. After more than two years of featuring pornography as the primary representation of Black girls, Google has made modifications to its algorithm and the following are the results as of the conclusion of this research:
Figure 38: Google Search on Black Girls • July 7, 2012
Google has shifted some, in terms of the prioritization of porn in searches for Black girls, but not significantly.

However, Google has begun to respond to pressures to change their algorithm. On August 10, 2012 Google announced on its blog\(^52\) that it would be pushing websites with valid complaints about copyright infringement down further in its ranking. Google suggested that this would help users find more credible and legitimate content from the Web. This decision was met with much commendation from powerful media companies – many of which are Google’s advertising customers. These companies want to ensure their copyrighted works are prioritized, and that pirated works are not taking prominence in Google’s web results.

What this signals is that Google is certainly moving in the direction of rethinking its algorithm and the consequences of what it prioritizes. The next priority should be a reconsideration of how women are represented in Google search.

\(^{52}\) See: http://insidesearch.blogspot.com/2012/08/an-update-to-our-search-algorithms.html
BIBLIOGRAPHY


ComScore. (2009). Google Sites Ranks as Top Internet Property Worldwide. Last accessed on January 23, 2012 from URL:


Google Books Library Project. Retrieved from
http://www.google.com/googlebooks/library.html


Hull, G. T., Bell-Scott, P., and Smith, B. (1982). *All the Women are White, All the Blacks are Men, But Some of Us are Brave: Black Women's Studies*. Old Westbury, NY: Feminist Press.


*Geographical Review, 87*(2), 259-274.


