

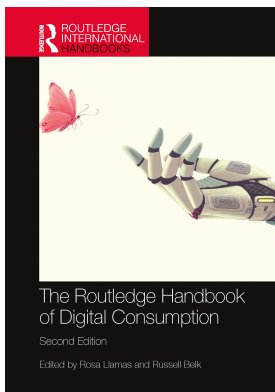
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### The double edge of diversity in a digital world

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# THE DOUBLE EDGE OF DIVERSITY IN A DIGITAL WORLD

*Akon E. Ekpo*

## **Curious case of digital technology as panacea**

The love of digital technology has a long history of being framed as the answer to many societal problems. From being viewed as a panacea for unequal access to information, to being framed as an objective and neutral space to help right the divide between those who have access and power in society and those who do not. It is no doubt that digital technology has created hope for those whose experiences have deviated from what society has deemed as the norm. If someone experiences instances of discrimination or are part of a stigmatized group, digital technology has served up ecommerce as a solution, providing consumers a tool to be leveraged and allowing them to shop while avoiding discriminatory treatment. E-tailers, in particular, have assisted circumvention of service failures due to employee-to-customer interactions, providing consumers reprieve through the convenience of purchasing products online and receiving them at their doorstep (Ekpo, DeBerry-Spence, Henderson, & Cherrian, 2018). Similarly, if someone observes and experiences retail redlining, where retailers systematically fail and/or refuse to serve neighborhoods with significant ethnic and/or racial composition, digital technology has served up ecommerce as a means for tapping into the services that would be lost due to lack of proximity (Henderson, Hakstian, & Williams, 2016).

Digital technology has offered up other solutions besides ecommerce as a remedy for unequal access and capabilities. For example, if weary consumers have grown tired of misrepresentation or lack of representation in the media, and seek unbiased and objective news sources, digital technology has served up search engines and blogs that are accessible to anyone with an internet connection and available 24/7. Such technologies are premised on the idea that information is accessible to all and that peer-to-peer sources are somehow less biased and more credible when it comes to the quality of information available. Luckily, we live in the world of Google, where its algorithm does the heavy lifting of finding keyword-optimized information that is sure to break the barriers to information access and most importantly provide us with the most relevant information for our needs (Noble, 2018). Furthermore, consumers looking to connect to a community similar to their identity (or not) and without regard to their physical proximity, can connect with others globally, since digital technology offers social networking platforms and its predecessor, AOL, and other online community forums/discussion boards. Such platforms promise the opportunity

for consumers to readily try on desired identities in online environments as means to escape, connect, and/or enhance one's self-concept to build a virtual utopia for oneself (Lindridge, Henderson, & Ekpo, 2014). Yet, even with the promises of digital technology comes the concern that its negative consequences are multifaceted and may reproduce or even

Table 32.1 Overview of Themes Comprising the Duality of Diversity in a Digital World

<i>Theme</i>	<i>How this <u>inhibits</u> diversity &amp; inclusion</i>	<i>How this <u>facilitates</u> diversity &amp; equity</i>
Digital technologies simultaneously mimic and influence the social world. It is neither neutral nor bias-free.	Digital technology may further marginalize already disadvantaged consumers through the same structuring forces (i.e., racial, ethnic, and/or gender stereotyping; discrimination; or weblining) that create inequity. As such, digital technologies often reproduce the same imbalances in equity among consumers.	Digital technology is an appropriate site for exploring, investigating, and revealing the realities of society, and is especially suited for bringing to light the voices, experiences, and realities of those often marginalized in the marketplace.
Digital technology constitutes power and status, structuring everyday life for all.	Digital technology has created a false sense of power among unsuspecting consumers, especially among already disadvantaged consumers. Creating a dependence on such technologies while simultaneously luring consumers into disclosing more (trackable) personal information about consumption habits that is ultimately packaged, sold, and often used to the disadvantage of marginalized consumers.	Digital technology possesses agentic qualities that facilitate and amplify consumers' ability to successfully leverage extracted value (often as perceived power) as means to resist, circumvent, or counteract oppressive forces that may constitute everyday life for marginalized consumers.
The extracted value from digital technologies differs in its ability to be leveraged and the extent to which it can be leveraged.	Attempts to extract value from the use of digital technology often create additional labor burdens on the already marginalized consumer. Without supplementary resources to manage such outcomes, marginalized consumers most often must perform additional labor to realize any benefit.	The use of digital technologies continues to be site for contesting oppressive societal forces. Such contestations may serve to liberate marginalized consumers through shifts in current and/or creation of new forms of social order.
Digital technologies' design and data become critical markers and makers of diversity and equity as they shape how bias is propagated in the market.	Bias enters (via data) and is built (via design) into the digital technologies that consumers have increasingly become reliant on. Because of the reliance on digital technologies, it becomes impossible to escape the inequities that such biases create. Ultimately, such incessant inescapability impacts consumer well-being and society.	Digital technologies can be utilized to help detect, identify, and conceivably counteract inequities produced by biases through continued monitoring and sensitizing of various forms of biases that pervade the marketplace.

Source: Own elaboration.

exacerbate inequities that disproportionately impact diverse consumers. Table 32.1 provides an overview of the contemporary themes that reveal a duality of diversity in a digital world, which are presented in the following sections.

### **Mimicking while influencing the social world**

A major conundrum with framing digital technology as a kind of cure-all is that the very technology that consumers seek to navigate the transgressions of the marketplace, assist in their everyday social and cultural activities, or even neutralize the ills of society is the same technology that often perpetuate and at times aggravate those problems. The digital marketplace reflects society as much as it impacts it. This also means that the digital world is not neutral. In fact, the digital marketplace is politicized by such factors as race, gender, ability, and class. Harcourt (2015) provides a glimpse into how the myth of a neutral and unbiased digital world ignores the hidden ways in which digital culture continues to reinforce the sociocultural milieu of society – good or bad. To understand such dynamics, one has to understand that technology is embedded within society. It is subject to the same social forces and orders that enable and hinder consumers as they use such technology. When we think about technologies such as the internet and the digital culture it has brought, its use can be described as constitutive of new social dynamics. Yet, it can also be described as a mechanism that reproduces the same social conditions it is embedded within. Because technology is embedded in the racialized, gendered, and classist context that is society, the very notions of power, resistance, hierarchy, and inequality are baked into the design of these technologies and their use.

For example, Ekpo et al. (2018) note that due to discrimination experienced in offline marketplaces, systemically discriminated consumers, such as African Americans, use technology as a means to resist such treatment by frequently abandoning offline marketplace activities in favor of shopping online. From simply using the internet to voice complaints about personal experiences with discriminatory treatment, to seeking temporary refuge and retribution from biased sales personnel. Or even, to avoid surveillance and threats to one's life from loss prevention and security personnel, discriminated consumers have sought the perceived sanctuary of digital technology as means to assist in their regaining their dignity as a consumer. Conversely, such use of technology also points to the reality of the inequities that exist in the marketplace, especially as it relates to diverse populations. The plethora of research that has highlighted and pointed to resulting marginalization of diverse populations as a result of marketplace discrimination has pervaded many aspects of everyday life of such consumers. Namely, marketplace discrimination produces inequitable distribution of economic resources, exercise of social, cultural, and political power in everyday life, and ultimately opportunities in consumption choices and practices (Crockett, Grier, & Williams, 2003; Crockett & Wallendorf, 2004; Harris, Henderson, & Williams, 2005; Kahn, Moore, & Glazer, 1987; Ozanne & Saatcioglu, 2008; Thompson, 2004). Thus, it makes sense that such consumers would turn to the resource available to them that has promised to level the playing field and provide unbiased marketplace sanctuary for those who experience systemic marginalization. This underscores the shared idea that digital technologies are power-granting resources at the immediate hand of those who can access and utilize it. Furthermore, the idea of routinizing its use facilitates liberation, seemingly achieving the social and cultural capital that would provide marginalized consumers access to an unbiased marketplace where they are able to benefit. After all, digital technology has been successful in its ability to equally distribute power amongst users such that marginalized consumers can benefit economically

and socially from its usage (Zettelmeyer, Morton, & Silva-Risso, 2006). Yet, after decades of the internet's availability for public use, its promise of democratization has not materialized to the extent initially hoped. Rather, it has only continued to perpetuate the same uneven playing field that constitute power and status in everyday life.

### **Attenuating value that can be leveraged**

Technology adoption has indeed increased and dramatically changed the culture around its use, ultimately shaping the way in which its benefits accrue. In fact, there are intervening factors that may prevent equal distribution of benefits and thus attenuate the ability to leverage the advantages of digital technology. It was initially thought that access to digital technologies created inequity in the benefits sought from the power of information technologies. In fact, it was posited that a division existed between two types of consumers of technology: those with access and those without access. Dubbed the digital divide, extant research illuminated the issue of the inequities inherent in our digital world, where fundamentally those without access are automatically limited in their ability to realize and leverage the power of digital technology (Schement, 1998; Sparrow & Vedantham, 1995; Williams & Hadden, 1992). Interestingly, such divide systematically showed that race, gender, income, education, and geographic location were among many factors that played a role in whether consumers experienced such a divide (Chen & Wellman, 2005; Hoffman & Novak, 1998; Mansell, 2002; Nakamura, 2004; Norris, 2001; Sparrow & Vedantham, 1995; Warschauer, 2004). Namely, the issue of disparate access stemmed from the likelihood of certain consumers owning personal computers, thus hindering internet access and requiring alternative means to gain access the wealth of information that the internet purported to provide.

With such a sizeable market experiencing difficulty with online access, this meant that marketers were unable to fully capitalize on the benefits of ecommerce and digital marketing (e.g., increased reach in brand awareness) while targeting such consumers (Morrison, 2015). Furthermore, this also meant that consumers who sat on the inaccessible side of the divide were increasingly missing out the ability to use digital technology to have a positive impact on various aspects of their everyday lives, such as shopping, hobbies, connecting with others, and even seeking healthcare information (Horrigan & Rainie, 2006; Madden, 2006). Thus, the social impact that digital technology has on the daily consumption and routines of many consumers is considerable, especially given that such technologies also serve as a site to engage within society. As such, early responses to the digital divide yielded a multitude of programs and interventions geared toward reversing the issue of accessibility, largely by finding ways to increase access (Compaine, 2001; McConnaughey, Lader, & Chin, 1998; Norris, 2001; Smith, 2002). However, it soon became apparent that researchers needed to reconceptualize what was meant by "digital divide" and thus take into account that digital technology also shapes the social aspects of everyday life, ultimately breeding social inequality (Light, 2001). In fact, there was a significant increase in digital technology adoption from 2000 to 2011 (Pew Research Center, 2019). Such an increase necessitated an understanding how usage differed given the increased traction in technology adoption and accessibility.

A 2011 study conducted by the Center on Media and Human Development at Northwestern University found that the types of media, the amount of time spent in various media activity, the types of media platforms and devices owned, and the media environment within households varied significantly among children of diverse backgrounds (Rideout,

Lauricella, & Wartella, 2011). This seemed to underscore efforts around initiatives aimed to address the digital divide, providing impetus to understand the differences in technology usage among diverse populations. Yet, what such reports also highlighted was that missing from the conversations was *why* these differences occur, *how* these differences affected everyday life, and possibly the role of marketing in shaping such usage.

Paradoxically, digital technology presents a double-edged sword that burdens the already marginalized consumer of having to manage the outputs of its usage, for example having to manage the supply chain to coordinate securely receiving their packages (Ekpo et al., 2018). Often inherent in such mundane activity is the issue of (un)availability of someone, such as a doorman or neighbor, to receive one's package to avoid theft. The very nature of this unavailability may point to multiple issues. Such as, due to redlining, such consumers are not afforded the opportunity to reside at a residence with concierge service that would receive packages on their behalf (Bone, Christensen, & Williams, 2014; D'Rozario & Williams, 2005; Kwate, Loh, White, & Saldana, 2013). Or, due to gentrification, *communitas* that constituted the trusted neighbor no longer exists for such consumers and thus no longer affords the opportunity to rely on the trusted neighbor (Grier & Perry, 2018). Thus, it seems that what was supposed to be the answer to bias in the offline marketplace continues to contribute to the reproduction of systemic bias.

### **Propagating bias through design**

Encapsulated within application programming interfaces (APIs), biased code is easily packaged and deployed within major businesses' products and services that we utilize daily without thinking about it. Such biased code is then repeatedly run as scripts that perpetually exacerbate oppressions for marginalized groups. What makes this situation dangerous is when such deployment moves beyond the online world and systematically infiltrates the everyday life of already marginalized groups. Unfortunately, this creates phenomena where oppressed people are exploited because of their differences from the dominant group while those who fall on the privileged side gain and maintain power.

The nature of some burdens are ones that may lend itself to some level of control by the consumer, however this is not always the case. Rather, digital technology may exacerbate the very marginalization that consumers have sought to avoid either through digital technology use and/or the design of such technology (Ekpo et al., 2018). To understand the ways in which digital technology has contributed to the further oppression of marginalized consumers, it must be re-emphasized that digital technologies are shaped by the societal, cultural, and economic structurations of the marketplace experiences with which their design and use is embedded. As such, designers of digital technologies imbue their values, attitudes, thoughts, and biases within the technologies they create, which often are steeped in stereotypical depictions of diverse (often marginalized) people (Noble, 2018). As a result, such biases manifest themselves in the code, algorithms, and overall design of digital technology that we are so heavily reliant on. And, worst yet, such biases are deployed rapidly and universally, creating systemic oppressions for marginalized groups (O'Neil, 2016). Take for example, Facebook had added a feature to its advertising platform where it allowed advertisers the option to target (and exclude) users with their ads by race, which they called "Ethnic Affinities" (Angwin & Parris Jr., 2016). In 2016, journalists from ProPublica tested the feature in which they created and deployed an ad on Facebook's platform, where they explicitly excluded African American, Hispanic (US-Spanish dominant), and Asian American users. Furthermore, the journalists classified their test ad in the housing section of Facebook, which

should have set off alarms in relation to The Fair Housing Act of 1968. The Fair Housing Act makes it illegal

to make, print, or publish, or cause to be made, printed, or published any notice, statement, or advertisement, with respect to the sale or rental of a dwelling that indicates any preference, limitation, or discrimination based on race, color, religion, sex, handicap, familial status, or national origin

*(Fair Housing Act, 1968)*

Yet, the ad was approved within 15 minutes of submitting it on the platform. This raised the question: how could such flagrant racial exclusion be sanctioned by multiple parties? Unfortunately, Facebook's response to this issue was to deny that the feature was based on racial exclusion and that they were going to relocate the option from the demographics section to another location (Angwin & Parris Jr., 2016).

Such stances in technology design highlight a willful ignorance by technology designers, marketers, and managers who collectively permit the perpetuation of potentially discriminatory and oppressive acts. Yet, this situation only highlights the symptom of a bigger problem. This was a systemic transgression in the making that unfortunately is more covert and seemingly benign. What in fact had occurred is that a seemingly objective and popular marketing tactic (i.e., market segmentation and targeting) was blindly incorporated within the logic of the technology without considering whether the tactic would systematically discriminate against a consumer group based on protected class. If we were to substitute other targeting factors like music preference or neighborhoods, we now are hovering on the types of beliefs, attitudes, and opinions that embody the racialized, gendered, and classist stereotypes that act as proxies for race, gender, and class without explicitly saying so (Chang, 2016). Potentially, more dangerous is that this type of targeting is promoted under the guise of personalization, which serves to lure both users and advertisers into thinking that having more information is always better. Users are enticed by the thought of having more relevant information to willfully agree to disclose data about their behaviors, preferences, etc. While, advertisers are attracted by the opportunity to optimize their ad spending, focusing on only those interested in their products/services. However, Facebook's targeting feature is not the only platform (Google has a similar targeting feature in its Google Ads platform); yet it is one of the largest and has significant impact on the lives of consumers globally, as Facebook boasts of over 2.8 billion users in 2020 (Statista, 2021). Thus, at scale the implications for many consumers are that they are identified, categorized, and stereotyped in the online environment, which can then spill over into the offline environment. If we take the Facebook scenario and play it out, what essentially would have happened is that an advertiser would have been engaging in the same type of discrimination that prevented minorities from purchasing or renting real estate in certain neighborhoods, which surpasses obvious discriminatory instances, to result in systemic discriminatory practice called weblining. Weblining employs the same strategies that regular targeted ads use; however, its results place it in an entirely different category. Weblining involves the use of personal data about an individual to build customer profiles and uses that profile to limit a customer's access to equal market opportunities (Sherwin & Bhandari, 2019). An earlier example of this business practice was when Orbitz analyzed its customer data and profiled Apple devices as more likely to book expensive rooms compared to PC users. They then proceeded to only show consumers using Apple devices the costlier rooms, which were subsequently booked. It was estimated that Mac users ended up spending as much as 30% more per night than their PC-user counterparts (Mattioli, 2012). The fact

that all visitors to the site were not given equal opportunity to obtain the best price for their bookings, poses a disadvantage for an entire consumer population.

As the number of businesses relying on artificial intelligence to assist in their marketing functions continues to grow, the issue of weblining becomes a real problem for diverse consumer populations. Harkening back to the instance with Facebook, this practice poses a deeper more troubling precedence. Rather than removing the troubling feature, Facebook chose to rename the feature, deny its role in racial identification of users, and deflect from its role in perpetuating discriminatory practices (Angwin & Parris Jr., 2016). Not only does this ignore the issue of building bias into the design of the platform, but by opting for substitute characteristics such as brand preference, music, employment status, neighborhood location, and other seemingly “harmless” variables, this also enables Facebook’s algorithm to use such information to essentially learn, classify, and predict the racial identities of consumers while denying their involvement in racism or any other basis of marketplace discrimination (Bonilla-Silva, 2006; Chang, 2016). Further, it creates a serious negative trap for those consumers who are systematically miscategorized, misidentified, or misrepresented due to deeply held stereotypes that become correlated with consumer groups. Inevitably, consumers are penalized for the technology’s failure to *accurately* function, with consequences especially devastating for consumers of color. Take for example, the case of Robert Julian-Borchak Williams, an African American who was arrested by Detroit police for a robbery that he did not commit. Despite known flaws in the algorithm that powered the facial recognition software that the Detroit Police Department utilized to identify an assailant, such software is produced, sold, and utilized by municipalities to determine the fate of many unsuspecting citizens. Furthermore, the careless police work that should have caught the error allowed the atrocity to continue down the same path (Hill, 2020). Facial recognition software poses potential deleterious problems as it is fundamentally flawed mainly due to a lack of diversity and thus awareness of the attributes and facial-feature data required to accurately identify people of color. The flaws of facial recognition software have been called out many times (Buolamwini, 2017; Buolamwini & Gebru, 2018; Raji et al., 2020), and the ethical concerns around such flaws have been mounting. So much so, that after the issue with Mr. Williams was publicized, facial recognition technology manufacturers, such as IBM, Amazon, and Microsoft refused to sell their facial recognition software to law enforcement entities, while cities, such as San Francisco and Minneapolis, banned its use at municipal and police departments due to its potentially precarious impacts (Conger, Fausset, & Kovaleski, 2019; Greene, 2020; Hatmaker, 2021; Hern, 2021; Levy, 2020).

Still, the problem persists. Such continued failure of facial recognition programs to accurately detect people of color also points to a sort of complicity in the refusal to correct the issue that persists in the technology industry and the marketplace in general. Rather, the erroneous narrative of technology being neutral and unbiased is put forth, in lieu of acknowledging that technologies are created and designed by people who inherently have biases. The continued insistence that technologies, like artificial intelligence and the products that are built on them, are unbiased despite reports to the contrary specifically speaks to a refusal to acknowledge the lived experience of people of color, and therefore presents an intentional ignorance. Thus, while there is a willful ignoring of the biases inherent in algorithms, the designers of such algorithms are not held accountable, and narratives of neutrality continue to proliferate, not only deflecting from the issue but most importantly exacerbating and endangering millions of consumers.

Digital technologies, especially powered by artificial intelligence, are only as good as the data that it learns from. The algorithms that run such artificial intelligence-based technology



require data in order to train it to become the predictive powerhouse it sets out to be. (Un)luckily, the internet has provided the capacity of such technologies to flourish. The internet's immense growth over the past decades even raised the issue by some scholars around concerns with people suffering from information overload by the sheer volume of data available at their disposal (Edmunds & Morris, 2000). The promise of artificial intelligence has grown to be a bit of a saving grace in that it possesses the power, capability, and swiftness needed to process large volumes of data, and converting it into palatable information that humans can digest and handle (Hanani, Shapira, & Shoval, 2001; Leyer & Schneider, 2021; Tarka, 2018; Voinea, Vică, Mihailov, & Savulescu, 2020). Yet, the data that fuels such algorithms are encoded by society and serves up cultural codes that are used to train algorithms with the attitudes, beliefs, and values of the content creators. As such, issues surface around how the narratives about people of color, the disability community, or other marginalized consumer groups are processed by such algorithms and their resulting impacts. Take for instance, Google's mishap where searching for the N-word on its Google Maps platform led to a map of the White House during Obama's presidency (Fung, 2015; Gibbs, 2015). Or the example of a search for "black girls" on Google's suggested topic algorithm suggesting pornographic websites (Noble, 2018). Such transgressions are made possible through data; data that is generated by employees of major corporations charged with supplying the world with relevant information. The fact that Google supplied these results does not speak to the algorithm itself, in this case it speaks directly to the data that is on the web for which Google's algorithm pulled and served keyword optimized web pages and results. In other words, there are public websites with such content being supplied to search engines' algorithms. Thus, the discourses that circulate on the internet become critical to understanding the values, beliefs, and attitudes of society. Such content holds within it what algorithms ultimately learn about diverse consumers.

## Conclusion

The promise of digital technology comes with its benefits and shortcomings. On one hand, digital technologies provide vast information to many consumers looking to consume content on the web, for entertainment, shopping, and/or informational purposes. Such information has enriched society with the ability to connect and learn more about the world around them. While it is thought that the internet would be a neutral ground on which consumers could address or otherwise reverse the inequities of everyday life, the reality points to the opposite. Unfortunately, as digital technologies continue to advance, their design and the data they require to become smarter have inherent biases that often further marginalize those who are marginalized in society. With technology developers, marketers, and marketing managers making product design decisions that accommodate bias, and general consumers fueling bias through digital content, these biases show up in ways that can especially demean and harm diverse consumers. Thus, this has critical implications to marketing practice and public policy.

First, it is imperative for marketing managers to gain awareness of and acknowledge the biases that run rampant in the digital content that marketers rely on in order to develop marketing strategy. For example, the use of propensity scoring models often systematically marginalizes diverse consumers due to biases that occur even within so-called objective criteria, such as zip code (Singer, 2012). This has created biased results whereby unsuspecting consumers are penalized and pay higher loan or insurance rates, creating further marginalization

in the marketplace. Second, it is imperative that marketing managers take a real interest in gaining cultural competence and actively learn more about the diversity that exists in various consumer groups. While marketers currently research and seek to target the most profitable market to which they can market to, this simplistic view treats diverse consumer groups as mere financial opportunities rather than deserving dignity and respect. When such consumers are denied dignity and respect from the very brands that they have supported, this may alienate such consumers. Finally, it is increasingly imperative for policy makers to protect consumers that are systemically impacted by such biases. It is evident that the bias inherent in digital technology often stems from the data to which it requires to power it. Thus, it is imperative for policy makers to understand the ways in which such data is collected, analyzed, and used in marketing practice.

From a marketing theory perspective, this seems to point to the issue of power as it relates to digital technology use. While thought to be a leveler in bestowing power to consumers especially those who are often marginalized, digital technology can also be disempowering. Thus, marketing scholarship must investigate the structures, processes, and boundary conditions under which digital technologies might exploit, disempower, or further marginalize diverse consumers. Paradoxically, as more businesses have actively taken a political stance on diversity, equity, and inclusion in how they run their businesses and their role in ethically serving diverse consumer populations, such complicity raises several questions concerning: how must marketing practice and moral responsibility come together to develop ethical technology products; or at the very least, prevent inequities that occur due to their products; and what responsibilities do companies have in safeguarding against harm to its consumers?

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