

## CRITICAL PERSPECTIVES

### Critical Perspectives on Whiteness and Technoscience: An Introduction

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The six essays that comprise this “Critical Perspectives” section were originally presented at the 2017 Society for the Social Studies of Science (4S) meeting held in Boston, part of a double session on “Whiteness and Technoscience.” Panel organizers asked participants to open “the ‘black box’ of whiteness” and to explore how whiteness works in organizing the production and consumption of technoscientific forms. This rich set of short papers offers genealogies of specific technologies and critical analytical interventions in understanding how whiteness functions at a time of ascendant white supremacy and escalating violence organized around white nationalism. Authors focus on whiteness and its centrality to the structures and content of digital platforms, social media, and information technologies. These papers, and especially the larger works of which they are part, engage deeply with the *how*: how is it that whiteness as a racial formation, while shifting and fluid, nevertheless

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continues to be a “durable preoccupation” (Pollock, 2012) in technoscientific domains? The authors were challenged to think through the following questions in their work:

- How does whiteness travel across and through technoscience?
- How does technoscience reproduce and perpetuate whiteness as a racial, economic, and epistemological norm?
- What investments in whiteness does technoscience produce and reinforce?

Each of these papers explores these questions by locating whiteness in a different site of technoscientific production. The first three papers move from the policing of online child pornography (Thakor) to the affective domain of free/open source software (Nguyen) to the emergence of creative industries in new configurations of global capital (Irani). The following three papers focus on white nationalism and mainstream gay pornography in digital domains (Keilty), the emergence of post-racial and post-labor imaginaries as part of the “affirmation of US racial empire” (Atanasoski and Vora), and the militarized automation of biology as a key site where older colonial epistemologies are reworked in the present (Schaeffer).

The authors challenge the ways in which visions of technoscience orient themselves to particular notions of freedom, notions that rely on whiteness as the transcendence of difference, as egalitarian impulse, and as a key site for the enactment of the liberating potential of technology. Each offers provocations urging us to rethink the dominant emancipatory rhetoric that still frames narratives of technoscience: the insistence that access to technology can free “us” from relations of inequality, especially those structured by race and capitalism. Further these papers link these seemingly emancipatory frames to ongoing exploitation and inequality through an analysis of both the cultural content and the structural logics that underpin racialized and gendered laboring bodies, content and logics that continue to locate white men as the pinnacle of civilization. Building on longstanding feminist genealogies of technoscientific knowledge production, these essays insist on the necessity of feminist approaches

to science and technology studies (STS) and on bringing STS into conversation with other literatures, including critical race theory, queer studies, and decolonial and postcolonial approaches.

In what follows, I summarize the papers and put them into conversation with some theoretical tools that center whiteness and white supremacy and suggest how these can be usefully extended to the analysis of technoscience. How does whiteness orient technoscience not only in terms of the kinds of technologies produced but also in terms of the kinds of questions that get asked and to what effect? How are such terms articulated in a mode of generalizable (white) humanity?

### Individual Papers

Mitali Thakor's work on the digital automation of the detection of child pornography exposes how race is made visible in some domains while making it invisible in others. The focus of Thakor's paper is on how large sets of digital data — images and written records — are collated, processed, and interpreted (i.e., “made apparent” or “apprehensible”) in order to address specific legislative and evidentiary concerns in the larger political domains of child abuse and child trafficking. A key dimension of this apprehensibility is race, “that in order to know *what* to detect one must become knowledgeable about the object (e.g., data, face, person) *sought*” (4). Thakor demonstrates how this apprehensibility becomes instantiated in technological applications and argues for the careful critical (and ethnographic) attention to the design and implementation of algorithmic processes.

Lilly Irani's contribution focuses on the emergence of design thinking at the turn of the twenty-first century, charting how creative industries became ascendant in a reconfigured global workplace. In particular, she critically challenges design thinking as simply an innovative mode of capitalist production where (smart) workers can escape the challenges of automation and rebrand their labor as “right-brained” and creative (as opposed to “left-brained” and logical). Irani

demonstrates that despite its appealing rhetoric, design-thinking cannot be decoupled from shifts in global production and flows of labor, especially in terms of the manufacture of goods for consumer markets; thus, design thinking “articulates a racialized understanding of labor, judgment, and the subject and attempts to maintain (white) Americans at the apex of global hierarchies of labor” (1).

In her discussion of free/open source software and interactions between Vietnamese and European actors, Lilly Nguyen offers a fine-grained ethnographic analysis of “freedom” and argues that its articulations by different actors reflect “not a value, not an ideology, nor discourse, but a moral affect,” giving “shape to the possibilities of feeling and desire” (2). She describes “the techno-aesthetication of whiteness,” where human creativity, flourishing, and freedom emerge from a racialized affective domain, one that masks global relations of power and the necessity of labor (human and otherwise) for its manifestation.

Neda Atanasoski and Kalindi Vora introduce the concept of “technoliberalism,” “the way in which liberal modernity’s simultaneous and contradictory obsession with race and the overcoming of racism has once again been innovated at the start of the 21<sup>st</sup> century...through the frame of a post-labor world” (5). To explore technoliberalism, they describe a recent YouTube video that parodies Trump’s (still largely imaginary) border wall between the United States and Mexico. A key insight of this paper is that the liberal desire for a post-racial world nevertheless depends heavily on white supremacy for its legibility. The authors demonstrate “how technological imaginaries that argue that it is robots, not racialized others, who are taking US jobs, pin their anti-racist logics on a post-racial technological future” (1).

Patrick Keilty explores the figure of “the millennial male” who, after having been neglected by the “female-focused” content of the Internet, (re)stakes his digital claim to masculinity in the almost exclusively heterosexual and white domain of online pornographic platforms. Keilty demonstrates “how the homosocial and homosexual deploy similar iconographies of wholesome whiteness in the service of white

nationalism, toxic masculinity, and white supremacy” (7), advocating for sustained attention to both infrastructural and cultural dimensions of social media, especially in the larger political context of Trump’s America.

Finally, Felicity Schaeffer attends to the racial imaginaries that drive military research programs, focusing on the emergence of *biorobotics*, a field that looks to capitalize on the potential of (human and non-human) biological life in constructing new kinds of robots. Schaeffer specifically investigates the role of this research in “the expansion of...a border-biosecurity industrial complex” (1), one that articulates innovations in surveillance as key strategies in national security. She develops the concept of “the suspect biomass,” a racialized entity “produced at the intersection of the life sciences and rapid computational algorithms” in opposition to safe (white) populations (2).

## Whiteness

A key insight of earlier critical race scholars was that whiteness formed a normative, largely invisible background against which other, more explicit modes of racial formation were articulated and through which the power of race and racism was wielded (e.g., Delgado & Stefancic, 1997; see also e.g., Brodtkin, 1998; Frankenberg, 1993). The power of whiteness as racial formation lies in its heterogeneity across space and time, its ability to shape-shift, and to intersect in complex ways with other forms of power (Carter, 2007; Crenshaw, 1992; Markowitz, 2001). To identify and understand the work of whiteness in contemporary technoscience requires a careful excavation of its simultaneous durability and flexibility. For instance, in the papers here, whiteness simultaneously operates as an often unrecognized and unmarked category manifest in color-blind aspirations of equality and as an icon of purity and innocence, delineating which bodies deserve protection and which do not.

The common analytical project of the papers is to make whiteness *apprehensible* (to borrow from Thakor) in domains where it is often thought by key actors to be irrelevant, non-existent, and/or undetectable.

One way to approach these papers as a whole is to place them in conversation with Sara Ahmed's phenomenology of whiteness, an approach that locates whiteness as "an ongoing and unfinished history, which orientates bodies in specific directions, affecting how they 'take up' space" (Ahmed, 2007, p. 150). Each of these essays locates specific histories of whiteness that orient questions of technology, of labor and capital, and of the figure of the human itself. They demonstrate how whiteness is articulated in multiple ways and along many other axes, including gender, class, nationalism, sexuality, criminality, and (neo)liberality. Ahmed (2007) advocates attention to "how whiteness becomes worldly through the noticeability of the arrival of some bodies more than others" (p. 150), and these essays help us to think how technoscience is constitutive of this worldliness.

Rendering whiteness as worldly in Ahmed's sense is central to the projects described in these papers. As the papers demonstrate, the power of whiteness often lies in its invisibility, especially in its most powerful formulations: freedom, humanity, innocence, purity, and masculinity. As Ahmed (2007) reminds us, "A phenomenology of whiteness helps us to notice institutional habits; it brings what is behind, what does not get seen as the background to social action, to the surface in a certain way" (p. 165). What links these projects across a range of sites is the way in which they orient themselves along axes of whiteness—both visible ("white loss," "authentications of whiteness," the whiteness of the victim of sex trafficking) and invisible (the naturalization of evolutionary logics foundational to processes of settler colonialism and imperialism).

Each of these technoscientific assemblages mobilizes whiteness either explicitly, as in Keilty's discussion of white nationalist iconography in gay pornography and Atanasoski and Vora's discussion of the border-wall video, or more tacitly in the language of freedom and creativity that attends to displaced white (male) bodies in the global economy and the mobilization of colonial, evolutionary rhetorics (Irani, Nguyen, Schaeffer). As Nguyen, Irani, and Schaeffer demonstrate, "freedom" and "design

think” and “automated life” are not stable, neutral concepts simply oriented to universal questions of human flourishing but rather rely on organizing logics of whiteness for their articulation and materialization in worlds of technoculture.

Another way to think about these papers is in relation not simply to normative whiteness but also to white supremacy. Loretta Ross defines white supremacy as “a set of ideas generated to create wealth in the United States and reserve it for the benefit of a certain group of people, originally property-owning White men” (Ross, 2016, p. 3; see also Harris, 1993). Ross makes the link between white supremacy and capitalism clear. The power of whiteness rests not only with its durability but also its flexible articulation with capitalist logics of accumulation. Yet, as Safiya Umoja Noble reminds us, we must expand

our definitions of white supremacy to include how global flows of capital from US corporations and Silicon Valley structure labor markets and material infrastructures that are part of an oppressive system of digital technological engagements, largely hidden from view in the consumerist model of technology adoption (Noble, 2016).

In order to pursue these themes further in a global context, I now turn to a brief discussion of labor and its theoretical centrality to this set of papers.

## Labor

The essays in this volume move beyond well-rehearsed concerns about privacy and access that often orient critiques of digitization. Instead, they focus on labor and its continuing centrality to understanding forms of racial capitalism (see Melamed, 2015) in the digital age. They engage with “the labor concept’s myriad entanglements with exclusionary categories of race, nation, gender, sexuality, disability, and species” (Herzig & Subramaniam, 2017, p. 104), further problematizing the concept of the digital divide and questions of technoscientific access (see also Eubanks, 2011; Noble, 2018). As Atanasoski and Vora elsewhere argue,

the processes through which racialized, gendered, and sexualized spheres of life and labor are seemingly elided by technological surrogates, even as these spheres are replicated in emergent modes of work, violence, and economies of desire (Atanasoski & Vora, 2015, p. 3).

Such shifts are not incidental to the global reorganization of labor in the digital age; rather, they are constitutive of it. Technoscientific dimensions of digital labor consolidate older inequalities and manifest new ones. Whiteness continues to be a key axis around which labor is organized.

Nguyen's piece in particular points to the centrality of affective labor in negotiations around the use of open source software. She further reminds us that mere access to technology in sites such as Vietnam does not necessarily eliminate hierarchy and create the conditions for freedom. Rather, European "fantasies for flattened social relations insidiously mask the racialized structures of power and naturalize such feelings" (12). Irani's discussion of the slogan, "Math is easy. Design is hard," reorients our longstanding racialized understandings of intellectual "capacity." Instead, Irani demonstrates how "design thinking" and the ascendance of (white) creative industries in the twenty-first century work to "naturalize mathematical skill at precisely the moment when Indian and Chinese workers become available as a labor pool to perform that kind of work in a globally networked capitalism" (13).

Both Thakor and Keilty reference what Hamid Ekbia and Bonnie Nardi term "heteromation," a new form of capitalist accumulation dependent on "the extraction of economic value from low-cost or free labor in computer-mediated networks" (Ekbia & Nardi, 2017, p. 1). The global dimensions of digital labor become clear in Thakor's discussion of the "difficult and disposable work" of computer content mediation (CCM) in anti-trafficking domains and in Keilty's attention to the politics of digital infrastructure.

Schaeffer's discussion of biorobotics and its attempts to marshal the potential of non-human life forms such as bees and termites gestures toward the figure of the non-human as laborer. Schaeffer demonstrates

the abiding scientific faith in the emancipatory potential of automation to free humans from dangerous and undesirable labor. But as Donna Haraway reminds us, this view is an oft-repeated “mistake,” a mistake that sees “freedom only in the absence of labor and necessity” and forgets “the ecologies of all mortal beings, who live in and through the use of one another's bodies” (Haraway, 2008, p. 79). Building on Atanasoski's and Vora's discussion of labor, and deeply resonating with Keilty's discussion of white nationalism in mainstream gay pornography, Schaeffer argues that “fascist visual iconography ironically shares interpretive logic with the democratic lure of bee colonies” (8). Schaeffer demonstrates that desires to tame and control labor through biorobotics imagines a world without “the potential threat of mass human laborers whose likelihood of revolt grows as they increase in numbers, or when they become a self-organizing mass who evolves into an intelligent, or even rebellious swarm” (8).

This focus on labor interrupts the ubiquitous narratives of freedom and creativity that attach to technoscience, especially in the United States. These papers move us beyond pristine design studios made for human flourishing in a post-racial, post-labor world; they do not let us forget the laboring body, the clunky infrastructure of cables, the blood and dirt of mineral extraction, and the excess of “techno-trash.” They further demonstrate the ongoing centrality of whiteness — in its multiple and heterogeneous manifestations — to the ongoing organization of global labor.

## Conclusion

There continues to be great faith in the transcendental possibilities of techoscience. In a recent series, “Machine Bias: Investigating Algorithmic Injustice,” the news site *Pro Publica* warns, “If we are not intelligent about how we train our robots, they will perpetuate the worst of human behavior” (*Pro Publica*, 2016). In other words, while perhaps humans are not capable of moving beyond race, machines might be. Although rightly

critical of techoscience and its potentiality to reinforce and exacerbate extant structures of racism, such a position nevertheless presumes that artificial intelligence (AI) itself can escape the racial logics and racist contexts of its creators and users. Jessie Daniels describes this as “the fantasy that the Internet as a *technology* is color-blind with regard to race” (Daniels, 2015, p. 1378; see also Noble, 2018). This assumes that such functions can be (re)programmed to avoid “bias” and thus work outside the realm of the (racial) cultural. In other words, this position believes that the *techno* in technoculture can save the *cultural* from itself. These papers are a critical intervention in such assumptions.

Each of these papers individually reminds us that accounts of whiteness and technoscience cannot begin and end with the election of Trump in the United States. In an era marked by ascendant white supremacy and white nationalism, the attention given by these essays to both the histories and futures of whiteness in its technoscientific manifestations is urgent and essential.

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