

taken on certain mainstream dimensions, we must ask if this non-trivial shift in the white imagination deserves a healthy dose of revolutionary optimism. Uprisings of the last five years alone – including in Haiti – show that the aspiration for comprehensive social transformation is constant.

This is not to deny the resilience of reactionary formations or to downplay the harrowing plasticity of racial capitalism but there is every reason to believe that any time history could give itself over to a conjuncture as radical as decolonisation. Despite its shortcomings, James saw the destruction of ‘eternal’ European empires and the restoration of Third World sovereignty as an event that ‘shattered the foundations’ of the Old World. If *The Black*

*Jacobins* projected itself, as a ‘prophetic vision of the past’, into a decolonial future in which ‘the world ushered in by Christopher Columbus and Martin Luther’ ceased to exist, what kind of revolutions will James’ sixties revisions foresee? There is a mass longing for integral and systemic change, which recognises the primary of race and racialisation in structuring contemporary existence, from the materiality of our labour to the immateriality of our desires. This is not a romance. It is simply the willingness to believe, as people have historically believed, desperately and euphorically, in something beyond the boundary of the present.

Jackqueline Frost

## Discriminatory data

Ruha Benjamin, *Race After Technology: Abolitionist Tools for the New Jim Code* (Cambridge: Polity Press, 2019). 172pp., £60.00 hb., £14.99 pb., 978 1 50952 639 0 hb., 978 1 50952 640 4 pb.

If you’ve ever listened to *Pod Save America*, the voice of centrist Democratic politics presented by a crew of former Obama staff, you might have noticed that the show is sponsored by Zip Recruiter, a recruitment website designed to appeal to both job seekers and employers. The site supposedly scans thousands of resumes for every vacancy, its ‘powerful matching technology’ connecting job seekers with the perfect openings. Such processes, an excited October 2018 article on CNBC’s website explained, are ‘removing human biases that can hold back some applicants’. According to CNBC, the prospect that ‘your next job interview could be with a robot’ should be welcomed.

The reality of artificial intelligence, as Ruha Benjamin outlines in her latest monograph *Race after Technology*, promises no such automatic liberation from human prejudice. On the contrary, she claims, ‘your next interview could be with a racist robot’. Benjamin is a scholar of the social dimensions of science and technology. *Race After Technology* is a work of politics and sociology that explores how social relations, particularly of race and power, shape the digital landscape, by inquiring into the design practices of the tech industry. Borrowing from the legal scholar Michelle Alexander, Benjamin argues that we live in a new era, a space where the data divide mani-

fest as ‘the New Jim Code’. As Benjamin notes, ‘Codes are both reflective and predictive. They have a past and a future’. The extent to which the tech industry is racially coded is what *Race After Technology* explores.

How does a digital code become racist and when did it first begin to integrate itself into the technologies we use? The coding problem, for Benjamin, is the problem of how ‘race as a form of a form of technology’ is engineered by the humans who design the machinery. It begins with an archetypal nineteenth-century technology – the camera. With the invention of the first permanent camera by Joseph Nicéphore Niépce in 1825 in Paris, the race to develop a commercially successful camera for the mass market was independently being contested by French, British and American innovators. By the 1880s, George Eastman, the developer of Kodak film, was able to create an industry closely tied to the film industry, which would revolutionise how still and moving images were seen. Years later, it was revealed that the colour film used in the photo industry was racially biased, distorting the appearance of Black skin tones and lightening the skin of women of colour. These discrepancies were not an accident but derived, as Lorna Roth has noted, from the film industry’s use of solely white subjects as the prototypes for their calibration. The genealogy of racial

bias in analogue and digital images can also be traced to the algorithmic practice of classifying humans in the nineteenth century.

As Benjamin argues in her third chapter, 'Coded Exposure', racial coding is not new but the means of recording it have changed. Nineteenth-century coding was visual. It created coding structures that neglected Blackness, in some cases, and made it hypervisible in others. Using accounts from social media and race critical code studies scholars, Benjamin tries to unpack how society constructs technology and notes that the development is 'not just *what* we study but also ... *how* we analyse, questioning our own assumptions about what is deemed high theory versus pop culture, academic versus activist, evidence versus anecdote'. She implements this methodology in her chapter 'Default Discrimination', when she presents us with a screenshot from Twitter on 19 November 2013 in which a Black woman with the handle @alliebland stated: 'Then Google Maps was like, "turn right on Malcolm Ten Boulevard" and I knew there were no black engineers working there'. The glitch in the technology that translated Malcolm X's last name into the Roman numeral 10 could be understood as a random occurrence, but Albla's point is that a Black person would have recognised the error and corrected the technology accordingly.

Benjamin shows here how people use social media to actively debate the racial codes in tech design. At the same time, Benjamin demonstrates that these malfunctions expand beyond computer algorithms and exposes the tensions between inclusion and accuracy. Digital documentation straddles both the invisibility and hypervisibility of marginalised groups. One example of invisibility is the case of Polaroid camera's underexposure of dark skinned people, whereas hypervisibility is evident in cameras tied to surveillance, which disproportionately monitor dark-skinned people. Contemporary society is highly dependent on procuring digital identity through biometric inputs, which are parallel to stratified human differences. At the core of her book is the insight that digital glitches are merely an extension of the societal glitches that stratify human life. In this way, Benjamin maps out the genealogy and archaeology of racist virtual space that engineers inequity.

One of the most interesting elements of *Race After Technology* is that it moves us from the fantasy world of

the allegedly neutral robot into a world where we have to reckon with the unintended consequences of digital discrimination. Robots have become ubiquitous in our lives as electronic devices that are instructed upon command. When a person instructs Siri to call a friend or Alexa to play a song, there is a servitude that its owner expects. What one gathers from these technologies is that they create vertical realities that offer convenience for some and surveillance for most. Electronic technologies that act on command can be freeing and luxurious, yet they also tie into what Shoshana Zuboff has described as surveillance capitalism.

Digital technologies are extensions of the carceral state and do the work of monitoring the masses, through their mobile phones, computers and more. In the context of the United States, where policing and prisons are paramount, artificial intelligence has metamorphosed into an instrument of surveillance, and electronic monitoring is an extension of mass monitoring. For anti-racist prison abolitionists who want to use technology benevolently, electronic monitoring offers an alternative to incarceration. Advocates claim that it improves community safety and allows for people in the correctional industrial complex to be integrated into working and living conditions within the free world. This is a point at which the reader is confronted with the ethics of monitoring systems: where does this information get stored and who tracks it? The type of collection and the extent to which the data is housed by private or public entities plays a big role in the political output. Some private companies, as Benjamin points out, use their ethno-racially coded databases as proxies for predicting individuality. Understanding the depths of the New Jim Code entails not merely an engagement with discrimination but with how capital tries to define, categorise and make a profit from people. Unfortunately, private and governmental data collection has become ubiquitous for everyone. And what Benjamin shows is the way that racialised technology can make deep-seated interventions and intrusions into people's lives. Personhood is something that is constituted into data. Data appropriates life for capitalism, and, with the New Jim Code, its power is instantiated even further and shapes people's life spans. Data collection constructs the hierarchies of humanity.

While *Race After Technology* sketches the obvious points of tension between technology and society, Ben-



jamin's integration of media activist Mia Mingus's text 'Moving Toward the Ugly' explores how aesthetics features in virtual space. Mingus's text is a manifesto that hopes to move people away from society's obsession with beauty; a work that tries to turn away from ableism, racism and classism. This has great implications for Eurocentric perceptions of beauty, but it is not always clear how far technology can or does codify beauty. Benjamin unpacks the history from a visual perspective and shows how the late twentieth- and early twenty-first-century camera is one of the many ways in which skin bias is reproduced, leaving darker skin complexions underexposed. Yet, the problems of technology are not merely skin deep but can determine who gets hired and the conditions under which hiring happens. AI technology is streamlining discrimination and is now deployed in recruitment technology. In *The Enigma of Diversity*, Ellen Beny explains how people who have a superficial conception of diversity use technology to celebrate cultural difference. Nancy Leong shows how institutions commodify racial diversity for their own benefit. It appears that some people are able to overcome this through code switching. As Benjamin notes, standard English is a code of power that can overcome the problems of AI racism.

The book's last chapter tries to offer a sense of re-prieve or hope. The author moves from describing dis-

criminatory design to abolitionist tools that challenge the New Jim Code. This entails resources that can be directed to releasing people from jails or implementing empathy through 'design thinking'. A driving question is how we transcend divisive technology when the relevant power structures seem omnipresent and oppressive. Although codes are informed by a racist past, a radical imagination can help us create a just future. This entails accountability for tech designers and advancements that create innovative alternatives. As Britt Rusert's *Fugitive Science* shows, there is a long history of Black scientists, scholars and artists resisting and subverting racist science. In the twenty-first century, racism is a classification practice that bears new life in technology. *Race After Technology* ends with a growing list of tech and social initiatives that are not only committed to understanding AI-based technologies and digital coding, but people who are committed to creating alliances, collectives and archives that concretise tech literacy for working class people of colour. In this way, Benjamin's work and the communities she lists open up the possibility for the inclusion of more Black people in the tech industry. It does so by honouring the lived experiences of people who have traditionally been left out of the field but who are now seeking to design an unbiased digital space.

**Edna Bonhomme**