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CONTENTS

Films

You Can't Code for Humanity: AI, Algorithms, and the Bias of Machine Learning

BY JULIA ANDERSON

Shalini Kantayya, director, *Coded Bias*. 7th Empire Media in association with Just Films, 2020. 90 mins.; www.codedbias.com. Distributed by Women Make Movies; www.wmm.com/catalog/film/coded-bias.

This documentary by Emmy-nominated filmmaker and activist Shalini Kantayya addresses the ethical issues behind unregulated algorithms and artificial intelligence (AI). Algorithms, which are codes that "use historical data to make a prediction about the future," enable AI systems to perform tasks usually requiring human intelligence. AI technologies make decisions about housing, finances, education, employment, and more, while algorithms are used to track and curate information about citizens from all over the world for commercial purposes. On the surface, algorithms and AI technology appear to be advancements that automate decisions previously subjected to human bias, but lack of regulation and oversight has allowed for an insidious continuation of oppression and marginalization in the social and digital world.

Coded Bias features Joy Buolamwini, MIT Media Lab researcher and leader of the Algorithmic Justice League, who discusses the widespread bias of algorithms, from their inability to accurately detect darker-skinned individuals to the "black box" processes that determine access to resources to the potential threat of unprecedented surveillance. The documentary delves into the far reach of algorithms and AI, their influence over daily life, and how that influence disproportionately targets already marginalized communities while it follows Buolamwini's pursuit of legislation to address these threats.

The inherent bias of algorithms and AI, according to Meredith Broussard, author of *Artificial Unintelligence: How Computers Misunderstand the World* and faculty member at the Moore Sloan Data Science Environment at the New York University Center for Data Science, is due in part to the circumstance of their development. AI was created by a very small, homogenous group of affluent white men in the math lab at Dartmouth College in the mid-twentieth century. Those same technologies are now controlled and disseminated by a similarly small, homogenous group of affluent white men who own billion-dollar corporations such as IBM, Apple, and Amazon. AI cannot meet the needs of any groups outside of these creators and funders, because it was not made to. Buolamwini, alongside Silkie Carlo (director of the UK's Big Brother Watch) and Dr. Safiya Umoja Noble (author of *Algorithms of Oppression: How Search Engines Reinforce Racism*), argues that these origins hold material consequences for historically marginalized groups, whether in false positive identifications of people of color by police surveillance systems, in denial of employment opportunities to women if their resumes display indicators of gender, or in targeting of poor communities by predatory financial lenders.

This bias largely goes undetected because of the assumption, both individually and systematically, that algorithms
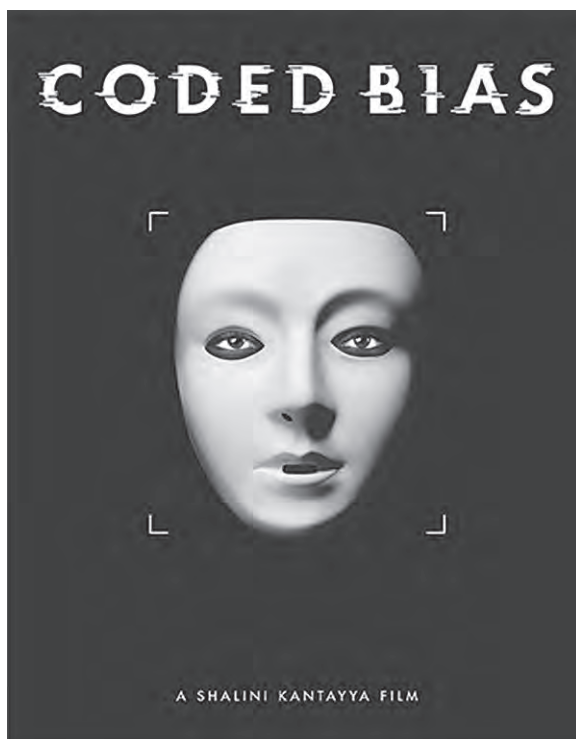
are the solution to oppression because they can make more rational — and thus supposedly more trustworthy — decisions than humans can. The documentary presents examples of this bias: algorithms deciding to fire respected public-school teachers, predicting recidivism for previously incarcerated individuals with stellar improvement records, and facilitating friendship and trust in China based on "social credit scores." In most of these situations the decisions made by AI systems were completely at odds with human discernment, but because of the power and authority instilled in the process, there was no opportunity for accountability, transparency, and explanation. The invisibility of algorithms adds to our culturally ingrained devaluation of human emotion to allow these marginalizing processes to continue unchecked.

While the inherent bias and near abandonment of human judgment are cause for concern, this film makes the point that AI is dangerous not because it exists, but because of the unequal power dynamics it is used to uphold. In other words, according to American mathematician Cathy O'Neil (author of *Weapons of Math Destruction*), it's dangerous because of "who owns the fucking code." The most punitive, most invasive, most surveillant technologies are first tested in poorer areas because few protections are in place to maintain citizens' rights. The documentary shares the stories of apartment residents in New York being harassed by a landlord who uses facial recognition technology to monitor their movements and of the UK-based activist group Big Brother Watch, which advocates against the police using faulty biometric recognition software on the street to monitor suspected crime. These technologies are experimented with in areas that are primarily occupied by working-class people of color. It becomes clear that the solution isn't to create more equitable algorithms or to include more human perspectives, but to center ethics — rather than the interests of capitalism and the wealthy — in the development of algorithms and AI. *Coded Bias* leaves its audience contemplating whether intelligence without ethics is really intelligence at all.

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This documentary brings AI and algorithms to the forefront of conversations about equity, justice, and civil rights. This is such a pressing concern that Joy Boulamwini suspects it is one of the leading civil rights issues of this generation. Although focused on a highly specialized field, the film presents its information accessibly, especially for those only peripherally aware of technology and computer science. This allows it to work for a wide audience, including any graduate and undergraduate classes that focus on social issues, digital humanities, technology, privacy, or justice. The importance of this issue and the near-universal reach of algorithms and AI also suggest that awareness is necessary for anyone with a digital presence, which makes the film appropriate for both academic and public collections. The centering of marginalized perspectives about a topic that is overly represented by a narrow range of identities and largely assumed to be immune from issues of equity provides an insightful and necessary lens for understanding the long-term effects of unregulated AI. *Coded Bias* simultaneously warns us of the impending dangers and inspires a call for legislative activism, which would be merely the beginning of taking back our own destinies.

Julia Anderson is a social sciences research librarian at Southern Methodist University in Dallas, Texas. Both her M.A. (in gender and women's studies) and her M.L.I.S. are from the University of Wisconsin–Milwaukee. Her current research interests include critical information literacy, Chicanx studies, queer pedagogies and theory, feminist histories, and finding a Ph.D. program.