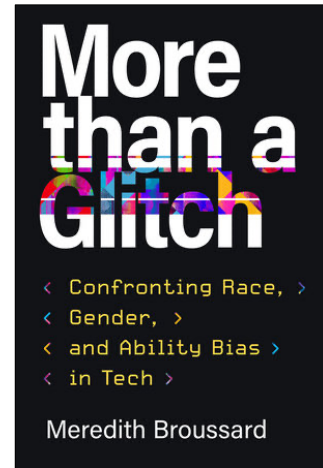


Meredith Broussard, **More Than a Glitch: Confronting Race, Gender, and Ability Bias in Tech**, Cambridge, MA: MIT Press, 2023, 248 pp., \$26.95 (hardcover), \$23.95 (paperback).

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Meredith Broussard's *More than a Glitch: Confronting Race, Gender, and Ability Bias in Tech* is a thought-provoking and comprehensive exploration of the profound societal implications of our increasingly digital-dependent world. Through meticulous research and analysis, Broussard challenges the prevailing notion of technology as mere glitches in the system, offering a compelling argument that transcends conventional narratives surrounding technology. She argues that digital technology is both awe-inspiring and revolutionary; however, it also exhibits traits of racism, sexism, and ableism. The book sheds light on the far-reaching impact of technology on contemporary human existence, addressing issues of fairness, bias, and the urgent need for a more equitable and just technological landscape.



One of the defining features of *More than a Glitch* is its ability to dismantle the myth of technological infallibility, which is the widespread assumption that technology is inherently flawless and immune to human biases. The main objective of the book is to provide a comprehensive and critical exploration of the pervasive issues related to technology, including technochauvinism and bias. For a significant period, the focus has primarily been on the positive aspects of technology, often dismissing the issues as mere glitches. The term “glitch” implies a temporary and inconsequential problem that can be easily rectified. However, Broussard argues that the biases embedded in technology are not temporary blips but rather inherent and fundamental to the very structure of technological systems. These biases are ingrained from the outset and cannot be simply addressed through quick technical fixes. The author calls for a direct and unflinching confrontation of this issue, using our understanding of culture and the ways in which real-world biases manifest within our computational systems.

Broussard's expert analysis effectively communicates the intricate complexities of technological biases to a diverse audience. Her interdisciplinary background, encompassing both computer science and journalism, enriches the narrative, providing a comprehensive viewpoint on the intricate interplay between technology and society. Acting as a skilled storyteller, she adeptly integrates personal experiences from her own life with her technical expertise. For instance, she employs analogies such as the concept of “cookie division” (p. 2) to illustrate the contrast between mathematical fairness and social fairness. This example highlights the significance of incorporating a holistic understanding of fairness that extends beyond simple numerical divisions to address the complexities of real-world social dynamics and individual well-being. Additionally, she delves into instances documented by journalists, including herself, which highlight how longstanding societal issues are replicated and amplified within algorithmic systems. Her background as a journalist enhances her adept use of ethnographic methods and case studies, enabling her to effectively utilize an investigative and anthropological approach.

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By using relatable examples and personal anecdotes, she makes the content accessible and engaging, effectively illustrating how biases manifest across various sectors. From the examination of flawed facial recognition systems (chapter 3) to the analysis of discriminatory medical diagnostics (chapter 8), the book provides a comprehensive exploration of the diverse impacts of technology on different groups within society. Prioritizing the necessity of an intersectional perspective in the utilization of technology, Broussard endeavors to enlighten readers about the potential disadvantages and implications arising from the growing integration of technology in diverse facets of human life. She skillfully weaves historical context into her analysis, revealing the deep-seated biases ingrained in contemporary technological systems. This historical perspective, including the discriminatory practices of companies like Kodak, serves as a stark reminder of the critical need to assess and rectify biases within technology. Her insights on issues such as biased machine learning and facial recognition systems, historical biases in the justice system, and the implications of technology in education are eye-opening and thought-provoking.

The comprehensive 248-page book consists of 11 chapters, each delving into specific aspects of bias in technology, making the book a valuable resource for readers seeking a comprehensive understanding of the complex challenges posed by technochauvinism and the pressing need for ethical technological advancements. In the first chapter, Broussard introduces the reader to necessary definitions, including glitches, bias, fairness, and technochauvinism, using a language that can resonate with a diverse audience.

In chapter 2, the author focuses on machine learning to show how the use of computers and AI can produce biased data. She emphasizes that both computers and the data used for machine learning are shaped within a specific human context, leading to inherent problems. The author underscores the bias present in machine learning, citing that "a significant portion of technology is tailored to suit the needs of able-bodied, white, cis-gender, American men, given their dominant role in software development" (p. 24). Chapter 3 covers the ways in which facial recognition technology demonstrates greater accuracy in identifying individuals with lighter skin tones compared to those with darker skin, as well as in correctly gendering men rather than women, often leading to misgendering issues for transgender, nonbinary, and gender-nonconforming individuals. In chapter 4, Broussard points out the deep historical biases inherent in the algorithms used in the justice system, covering topics such as crime prediction technology and predictive policing. She demonstrates how certain technologies used in law enforcement should be critically examined and potentially banned. The justice system, when integrated with technology, has failed to address core issues, often perpetuating systems of white supremacy.

Further discussions delve into the implications of technology in educational settings in chapter 5, emphasizing the problems associated with using computational systems to assign artificial grades to students. The need for inclusive educational practices for individuals with disabilities is underscored. In chapter 6, the focus lies on strategies for fostering greater inclusivity for individuals with disabilities. Through examples from the experiences of individuals with disabilities employed at companies such as Apple, renowned for their inclusive design across various domains, the author illustrates how overreliance on technology can inadvertently constrain accessibility, even when the intention is to cultivate an inclusive environment. Gender, recognized as a socially constructed concept, is explored in depth in chapter 7. It emphasizes the specific manifestations of gender through the dominant two-sex model and its encoding

within systems. The author particularly underscores the importance of inclusive design in databases to represent gender as a spectrum, addressing the needs of nonbinary, transgender, genderqueer individuals, and other diverse forms of gender representation. Moving forward, the book delves into the intersection of technology and medicine in chapter 8, shedding light on the racial biases present in various medical diagnostic systems. Examining the reasons behind the racial bias observed in certain medical diagnostic systems, the author investigates the necessity for addressing these systems prior to the development of any AI diagnostic systems. Chapter 9 is based on the author's personal experience of testing AI-based cancer detection systems against human diagnosis and further underscores the need for comprehensive algorithmic auditing to intervene and correct the inherent fairness issues embedded within contemporary technology. The concluding chapters offer a constructive outlook, proposing insightful policy recommendations, software development strategies, and actionable insights for everyday life.

Despite its critical tone, the book maintains an optimistic outlook, advocating for proactive measures to mend the biases embedded in technological systems. It serves as a powerful call to action, urging readers to confront the existing prejudices embedded within the technology sector and strive toward the creation of a more just and equitable digital landscape. Through Broussard's incisive critique and insightful proposals, the book encourages readers to reevaluate their understanding of technological progress and promotes transparency and accountability in the development and deployment of new technologies.

In conclusion, Meredith Broussard's *More Than a Glitch* stands as a vital contribution to the ongoing discourse surrounding technology, bias, and social justice. Broussard's work represents a seminal addition to the academic literature, enriching the understanding of the intricate dynamics between technology and society. This book is highly recommended for scholars, policymakers, and technology enthusiasts alike. Broussard's astute analysis, engaging storytelling, and compelling call for a more inclusive and ethical technological landscape make it essential reading for those interested in the intersection of technology and societal equity.