The Illusion of Objectivity in Data-Driven Decision Making

by

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We live in a world that increasingly trusts algorithms to make important decisions. Courts use software to predict whether someone will commit another crime. Banks use formulas to decide who gets a loan. Social media platforms use exceedingly complex formulas and heuristics to determine what news you see. The common thread? These systems feel objective because they run on data and math, not human intuition. But that feeling is misleading.

This project will investigate why supposedly objective algorithms are actually full of human assumptions. I want to look at where bias sneaks in; not just in obvious ways, but in the foundational choices that happen before the algorithm even runs. When someone decides what data to collect, which variables matter most, or how to define success, they're making subjective calls that shape everything downstream. The problem is that once these choices get buried in code and statistics, they become invisible. People stop questioning them because the output looks scientific.

I'll focus on three areas where this plays out in real life. Criminal justice algorithms like COMPAS claim to predict recidivism risk, but they're trained on historical arrest data that already reflects biased policing patterns. Credit scoring models use proxies like zip codes or shopping habits that can perpetuate redlining under a numerical veneer. And recommendation algorithms on platforms like YouTube or Facebook optimize for "engagement", which sounds neutral but actually means maximizing time spent regardless of whether that's good for users or society. These aren't edge cases either. They're examples of a broader pattern where "data-driven" gets confused with "assumption-free".

What I'm arguing for is pretty straightforward: we need more transparency and better critical thinking around these systems. Companies and governments using algorithmic decision-making should have to explain their choices: what data they used, how they weighted it, what tradeoffs they made. The public needs to understand that these tools aren't magic. They're designed by people, trained on imperfect data, and optimized for specific goals that may or may not align with accuracy or reason. The point isn't to abandon algorithms at all, but to stop treating them like they're inherently more trustworthy than human judgement.