

#### **ARTIFICIAL INTELLIGENCE**

### Slow Thinking Fast: How AI Trumped Human Bias

by Tina Shah Paikeday



Image Credit | Unknown~

The paradox that AI cannot only accelerate human bias but also overcome it is illustrated with research based insights.

☑ INSIGHT | FRONTIER 13 Jun 2025

Humans are naturally wired to use unconscious thinking for purposes of survival, but this type of human bias can be problematic in decision-making contexts like employment and criminal justice where fairness is required by law. Solving the problem of decision-making bias has been difficult, resulting in an ongoing national debate on diversity versus excellence, which are assumed to be mutually exclusive. The accelerated adoption of AI has made the problem worse by perpetuating bias systematically, but an interesting paradox is that AI also solves the problem of human bias by mimicking conscious thinking. A board search experiment was conducted to test this paradox and illustrates *how AI trumped human bias* when it was debiased by design, enabling a shift from fast unconscious decision-making. The use of AI also increased sourcing speed and candidate slate diversity, with these combined effects resulting in *slow thinking fast.* AI as a bias disruptor is compelling because it addresses the national debate on diversity versus excellence by providing both at the same time.

#### RELATED CMR ARTICLES

Peter Cappelli, Prasanna Tambe, Valery Yakubovich, "**Artificial Intelligence in Human Resources Management: Challenges and a Path Forward**," California Management Review, 61/4 (2019): 15–42.

### **The Fairness Dilemma**

The problem of bias in decision-making is a hard one to solve and has resulted in a great national debate over diversity versus excellence, two constructs which have been pitted against each other in a fairness dilemma. Most Americans seem to agree that fairness is an important ideal — in a country where due process and justice for all are embedded into the fabric of the nation and its Constitution. However, when it comes to defining "fairness," in

the context of college admissions, workforce hiring and promotions, and other areas, strong disagreements emerge. The dilemma is over whether fairness standards should apply to the starting line with fair opportunity, or to the finish line with fair outcomes.

Public sentiment has swung like a pendulum since 2020. The year 2023 was pivotal when the Supreme Court banned the use of race and ethnicity as a criterion in college and university admissions. The aftermath of litigation and related threats led to extreme caution in the corporate sector. Companies dialed back employee and supplier diversity programs that conferred preferential treatment on certain groups, and inclusion training was met with backlash.

It was only three years earlier in 2020 that George Floyd had been tragically murdered, reinvigorating the Black Lives Matters movement. Corporations had made large commitments to setting equitable representation targets to mirror their communities, achieving them through related diversity programs to level the playing field for historically under-represented groups, and training their workforces on inclusion skills to mitigate bias. Achieving higher levels of racial diversity in executive roles was a particularly tall order since all racial minorities were woefully under-represented in the senior most roles of corporate America.

Driven by client demand for diverse slates at that time, the executive search industry adopted procedural fairness practices for the search process. These practices, for example, included calibrating "must have" job requirements to attract a wider pool, sourcing beyond existing networks to expand the pool, and consistently screening based on transparent skills criteria to reduce human bias such as like similarity attraction. The most challenging aspect of scaling these practices was building human capability to deliver them.

By 2023, the prevailing sentiment began to swing in the other direction. Although the fifth circuit upheld NASDAQ board diversity reporting requirement when challenged in 2023, it was dismantled by 2024. Monday, January 20, 2025, was ironically both Martin Luther King Day and the presidential inauguration. In response to an executive order earlier this year, many diversity, equity & inclusion (DEI) programs have been dismantled and DEI functions divested.

## **AI Garbage & Hallucination**

Meanwhile, Silicon Valley is experiencing yet another period of great innovation, the AI revolution. However, notable examples have demonstrated how AI can perpetuate human bias including in facial recognition (Buolamwini & Gebru, 2018). AI bias results from garbage in, garbage out data and algorithmic hallucination. Garbage in, garbage out means that biased data inputs will lead to biased data outputs (Ozminkowski, 2021), while algorithms hallucinate when they generate unsubstantiated content that appears factual (Tonmoy et al, 2024). AI can hallucinate, for example, when AI inaccurately weighs information caused by unbalanced datasets and provides inaccurate answers which appear substantiated (Tonmoy et al, 2024).

The current approach to AI data and algorithmic bias is policing. The European Union (EU) AI Act bans the use of AI in some cases and fines other high-risk areas while US laws are evolving state-by-state (Li, 2024). These laws assume human bias will be built into AI algorithms and datasets without compliance measures for data reporting transparency and accountability audits (Shams et al, 2023). However, other contexts have demonstrated that it is hard to police human bias. For example, US workplaces have invested \$8 billion annually (Kirkland & Bohnet, 2017) in an attempt to mitigate bias through mandatory unconscious bias training that has largely proven to be unsuccessful (Dobbin & Kalev, 2016).

In human resource management (HRM), process-based bias mitigation is more fruitful than individual bias mitigation (Storm et al, 2023). Algorithms like AI which use systemic procedures have the potential to reduce noise (Highhouse & Brooks, 2023) and mitigate bias in hiring decisions through consistent application (Polli, 2019). Some AI tools skip important steps in the sequence of identifying job requirements, must have skills, standard assessment methods, and consistent combination of these assessments. In such cases, AI can perpetuate human bias in decision-making (Tippins et al, 2021).

# **Slow Thinking Fast**

On the other hand, the debiasing power of AI is explained by dual process decision-making theory. Humans can move from system one or "fast thinking" which is unconscious and often emotion driven to system two or "slow thinking" which is conscious, and logic driven (Kahneman, 2011, p. 13).

Because of time limitations humans often use heuristics-based mental shortcuts vs. an evidence-based process that is critical to use in important decisions like employment. In the context of employment decisions, a structured and consistent approach to evaluating candidates against a rubric can reduce bias in decision-making by humans who are prone to many types of errors even as experts (Highhouse & Brooks, 2023; Kuncel et al, 2013).

AI has similar potential to structure decision-making in recruiting contexts (Tippins et al, 2021). It can be used to screen resumes and score all applicants against the same criteria thereby reducing bias (Polli, 2019). The processing power of machines allows AI to achieve these results faster than humans, thus enabling *slow thinking fast*.

# A Pilot Experiment

Given the potential for AI to have opposite effects on bias, a pilot experiment was conducted over the fourth quarter of 2024 to test two AI policies, one that was debiased by design and another with human bias embedded into data and algorithms. Participants conducted a board search for a NASDAQ listed high growth tech company which was keen on governing the ethical and responsible use of AI to avoid disparate impact.

### **Expanding Pool Diversity**

Interestingly, the use of AI yielded higher levels of diversity across a combination of gender, race, ethnicity, and sexual orientation demographics when compared to the manual filtering of a traditional database of sitting board directors with no AI. One explanation for expanded slate diversity is that AI uses the power of machines to discover

new talent pools more efficiently. AI expanded the pool by adding both diversity data from up-to-date sources such as self-identification in publications and the ability to filter profile data on relevant operating experience beyond board credentials.

Ozzie Mezza, President & CEO of Latino Corporate Directors, shared how AI contributes to the expansion of talent pools, "AI has revolutionized the way we discover talent by moving beyond traditional networks and personal connections. These tools have the unique ability to quickly and efficiently uncover leaders from untapped networks and backgrounds, breaking free from outdated markers like 'Latino-sounding' names or other obvious identifiers. With AI, we are able to identify individuals who might otherwise remain unseen, opening the door to a richer, more inclusive talent pool that is essential for fostering innovation and long-term growth."

#### **Increasing Search Productivity**

AI also enabled generation of longer candidate lists during a given period of time. This productivity benefit was driven by the power of a machine to collect and process information faster. For example, AI can enable gathering up-to-date information more quickly using automated processes relative to more manual processes to periodically update traditional databases. AI also enables filtering information faster relative to human processing of the same volume of information. However, when AI used natural language query to draw upon datasets that were vast yet unstructured, it came at the cost of yielding the lowest levels of slate competency.

#### **Achieving Higher Quality**

On the other hand, AI mitigated data and algorithmic bias when it drew upon datasets that were comprehensive and structured and used evidence-based matching of profile data to job specifications. The deliberate collection and use of a comprehensive and structured database enabled the inclusion of profiles beyond those with large digital footprints. Filtering profiles with scoring rubrics also reduces human reliance on mental shortcuts including use of title, school, or company as a proxy for skills with limited time to screen resumes. This type of structured evaluation also helps to reduce errors in scoring that can result from things like stress which we are all prone to, even as selection experts. The outcomes relative to the traditional database approach were expanded demographic diversity *and* higher competency ratings at a faster rate.

Karen Greenbaum, Founder & CEO of KBG Strategic Solutions, who previously led the Association of Executive Search & Leadership Consultants said, "It is critical to use AI as a tool to support human decision-making, not replace it. AI can help reduce bias by applying the same criteria to all candidates, resulting in a longer and more diverse list of qualified individuals. AI has the potential to improve research and ensure consistency in candidate selection, ultimately helping to identify a diverse range of qualified individuals based on set criteria. The human element is crucial in interpreting AI results and making nuanced decisions based on the broader context, such as company culture or leadership needs."

#### **Practical Benefits**

Indeed, corporations have spent billions of dollars on leadership and culture training intended to teach humans to mitigate their biases, to no avail. After all, humans were designed with bias as a survival mechanism, and the human brain has limited ability for conscious processing of information. The practical benefits of AI as a bias interrupter include systematic fairness, scalability, higher productivity, and efficiency.

Unconscious bias training could be replaced with AI powered talent tools that achieve both higher quality and diversity. In addition to systematic fairness, these technology-based solutions are scalable across large organizations including departments, functions, and regions around the world. Such tools also enable higher levels of productivity because AI has a faster processing speed than the human brain. These combined effectiveness and productivity benefits will also lead to increased efficiency in bias reduction.

AI as a bias interrupter can exponentially impact the reduction of bias in critical contexts of employment, consumer, and criminal justice. An approach to fairness that is widely accepted has the added benefit of addressing the country's debate on diversity versus excellence by delivering both together.

### Acknowledgments

The author wishes to express gratitude to Findem innovation program partners including individuals from the Center for Equity, Gender, and Leadership at UC Berkeley Hass, the Stanford VMware Women's Leadership Innovation Lab, Harvard Business Publishing, the Association of Executive Search & Leadership Consultants, Latino Corporate Directors Association, and Ascend Leadership. Many thanks are extended to Claremont Graduate University colleagues including Dean David Sprott, Professor Stephen Gilliland, Professor Rebecca Reichard, Darnell Mauricio, William Liu, and Prince Siraj for their support of the research underlying this paper. Finally, an incredibly special thank you to Balu Om Paikeday.

### References

- Buolamwini, J., & Gebru, T., "Gender Shades: Intersectional Accuracy Disparities in Commercial Gender Classification," Proceedings of Machine Learning Research, 81 (2018): 1–15.
- 2. Chamorro-Premuzic, T., & Akhtar, R., **"Should Companies Use AI to Assess Job Candidates?**" Harvard Business Review, 17 (2019, May 17).
- 3. Dastin, J., "Insight–Amazon scraps secret AI recruiting tool that showed bias against women," Reuters, (2018, October 11).
- Dobbin, F., & Kalev, A., "Why diversity programs fail," Harvard Business Review, 94/7, (2016, August): 14.
- Highhouse, S., & Brooks, M. E., "Improving Workplace Judgments by Reducing Noise: Lessons Learned from a Century of Selection Research," Annual Review of Organizational Psychology and Organizational Behavior, 10/1 (2023): 519–533.
- Hunkenschroer, A. L., & Luetge, C., "Ethics of AI-Enabled Recruiting and Selection: A Review and Research Agenda," Journal of Business Ethics, 178/4 (2022): 977–1007.
- 7. Kahneman, D., "**Thinking, Fast and Slow**," (2011, June).
- Kahneman, D., Lovallo, D., & Sibony, O., "Before You Make That Big Decision..." Harvard Business Review, 89/6, (2011): 50–60.

- 9. Kirkland, R. & Bohnet, I., **"Focusing on what works for workplace diversity**," McKinsey & Company, (2017, April).
- 10. Kuncel, N. R., Klieger, D. M., Connelly, B. S., & Ones, D. S., "Mechanical versus clinical data combination in selection and admissions decisions: A meta-analysis," Journal of Applied Psychology, 98/6, (2013): 1060–1072.
- 11. Li, L., "Comparing EU and US AI legislation: Déjà vu to 2020," Reuters. (2024, October 21).
- 12. Mori, M., Sassetti, S., Cavaliere, V., & Bonti, M., "A systematic literature review on artificial intelligence in recruiting and selection: A matter of ethics," Personnel Review, (2024).
- 13. Ozminkowski, R., "Garbage In, Garbage Out. Medium," (2021, November 16).
- 14. Polli, F., "Using AI to eliminate bias from hiring," Harvard Business Review, 29 (2019, October 29).
- 15. Shams, R. A., Zowghi, D., & Bano, M., "**AI and the quest for diversity and inclusion: A** systematic literature review," AI and Ethics, (2023).
- 16. Storm, K. I. L., Reiss, L. K., Guenther, E. A., Clar-Novak, M., & Muhr, S. L.,
  "Unconscious bias in HRM literature: Towards a critical-reflexive approach," Human Resource Management Review, 33/3 (2023): 100969.
- Tambe, P., Cappelli, P., & Yakubovich, V., "Artificial Intelligence in Human Resources Management: Challenges and a Path Forward," California Management Review, 61/4 (2019): 15–42.
- Tippins, N., Oswald, F., & McPhail, S. M., "Scientific, Legal, and Ethical Concerns About AI-Based Personnel Selection Tools: A Call to Action," Personnel Assessment and Decisions, 7/2 (2021).
- Tonmoy, S. M. T. I., Zaman, S. M. M., Jain, V., Rani, A., Rawte, V., Chadha, A., & Das, A.,
   **"A Comprehensive Survey of Hallucination Mitigation Techniques in Large Language Models**," (No. arXiv:2401.01313) arXiv, (2024).
- 20. Wiessner, D., "**Workday must face novel bias lawsuit over AI screening software**," Reuters. (2024, July 16).



#### Tina Shah Paikeday (Follow)

Tina Shah Paikeday is a General Manager at Findem.ai. She began her career at McKinsey and was a partner and global DEI practice leader at Russell Reynolds. Tina earned a B.S. in Commerce from University of Virginia, an MBA from Stanford, and is in the Executive PhD program at Drucker.