California Assembly Privacy and Consumer Protection Committee

Informational Hearing on
Automated Decision Systems and Frontier Models

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Algorithmic Discrimination

"Algorithmic discrimination occurs when automated systems contribute to unjustified different treatment or impacts disfavoring people based on their race, color, ethnicity, sex … religion, age, national origin, disability, veteran status, genetic information, or any other classification protected by law."

"The Blueprint for an AI Bill of Rights." The White House, 2022.

Spectrum of Algorithmic Discrimination

The **continuum of AI-driven bias** from allocative discrimination that systematically denies access to essential opportunities that determine life outcomes, through surveillance and targeting systems that categorize and monitor individuals, to cultural bias that perpetuates stereotypes and erasure across digital platforms.

Spectrum of Algorithmic Discrimination

⊘ **Allocative Discrimination** AI systems that systematically deny or limit access to resources, opportunities, or services through biased automated decision-making that results in unequal access to employment, credit, housing, healthcare, or other essential services

 Surveillance & Privacy Infringement AI surveillance systems that erode privacy rights through automated monitoring, data inference, and predictive profiling, enabling discriminatory decision-making that disproportionately affects certain groups

Spectrum of Algorithmic Discrimination

🎯 **Targeting & Profiling** Unfair categorization of individuals based on protected characteristics through automated systems that sort, classify, or target people for differential treatment by AI algorithms

Misrepresentation Stereotyping, misclassification, or cultural erasure perpetuated by AI systems and automated decision-making processes that embed biased assumptions about different groups

Allocative Discrimination: IRS Tax Audits

Disproportionate Audit Targeting

Issue: IRS algorithms disproportionately flagged Black taxpayers for audits

Root Cause: System designed to prioritize "easier" audits requiring less manual review, which inadvertently correlated with filing patterns common in Black communities

Impact: Black taxpayers audited at significantly higher rates, creating financial stress, legal costs, and consequences for credit scores, employment, and other life opportunities

Black Americans Are Much More Likely to Face Tax Audits, Study Finds

A new report documents systemic discrimination in how the I.R.S. selects taxpayers to be audited, with implications for a debate on the agency's funding.

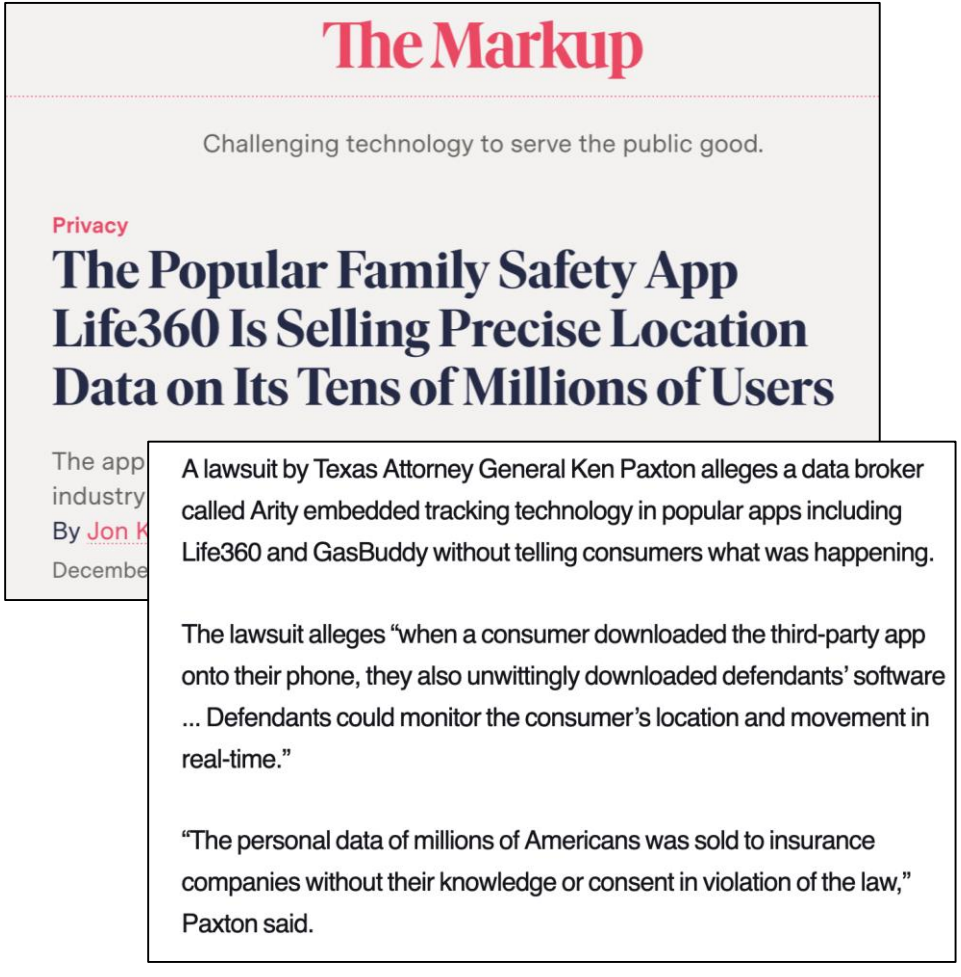
Surveillance and Privacy Infringement: Life360

Surveillance-Based Risk Assessment

Issue: Insurance companies use AI to analyze driving behavior data from automakers and apps like Life360 to determine rates and coverage, creating discriminatory pricing

Root Cause: Algorithms interpret driving patterns through socioeconomic and geographic biases, while data is collected without clear consumer consent or understanding

Impact: Drivers face discriminatory premium calculations based on work schedules, neighborhood routes, and economic circumstances, plus privacy violations through continuous surveillance



The Markup

Challenging technology to serve the public good.

Privacy

The Popular Family Safety App Life360 Is Selling Precise Location Data on Its Tens of Millions of Users

The app
industry
By Jon K
Decembe

A lawsuit by Texas Attorney General Ken Paxton alleges a data broker called Arity embedded tracking technology in popular apps including Life360 and GasBuddy without telling consumers what was happening.

The lawsuit alleges "when a consumer downloaded the third-party app onto their phone, they also unwittingly downloaded defendants' software ... Defendants could monitor the consumer's location and movement in real-time."

"The personal data of millions of Americans was sold to insurance companies without their knowledge or consent in violation of the law," Paxton said.

Targeting and Profiling: Facial Recognition Technology

Detroit changes rules for police use of facial recognition after wrongful arrest of Black man

City to pay $300,000 to Robert Williams, whose driver's license was incorrectly flagged in shoplifting investigation

The Guardian

Targeting and Profiling: Employment Ads

Digital Advertising Discrimination for Jobs

The Issue: AI-powered advertising algorithms systematically steer job advertisements away from certain demographic groups, with women and minorities receiving fewer opportunities to see high-paying positions

Root Cause: Machine learning systems learn from historical user engagement patterns and advertiser targeting preferences, automatically reinforcing existing workplace inequalities without explicit discriminatory programming by optimizing for clicks and engagement rates

Impact: Women see high-paying executive job ads 6x less often than men, delivery jobs are gender-segregated by platform algorithms, and occupational segregation is perpetuated as algorithms limit who discovers available opportunities, creating systematic barriers to employment mobility

Spectrum of Algorithmic Discrimination

Algorithmic discrimination creates **cascading disadvantages** where bias in one automated system triggers exclusion from others—someone denied a job opportunity by biased hiring algorithms may struggle to access credit, housing, and healthcare, while these compounded disadvantages become encoded in future algorithmic decisions that may affect their children's opportunities. At unprecedented scale and speed, these interconnected AI systems amplify historical inequalities into self-reinforcing cycles that perpetuate discrimination.

Compounding Disadvantage: Health Care

Healthcare AI systems create compounding discriminatory effects across multiple aspects of medical care

⊘ **Allocative Discrimination** Medical imaging algorithms miss cancer in darker-skinned patients while detecting it early in white patients, creating unequal access to life-saving treatment

 Surveillance & Privacy Patient monitoring systems profile health behaviors differently across demographic groups

 Misrepresentation Whisper AI misunderstands accented English, leading to incorrect symptom documentation for immigrants and elderly patients

Compounding Disadvantage: Health Care

Healthcare AI systems create compounding discriminatory effects across multiple aspects of medical care

Cascading Impact When multiple AI systems fail the same patient—Whisper AI mistranscribes their symptoms due to accent bias, healthcare allocation algorithms systematically underestimate their medical needs compared to equally sick white patients, medical imaging algorithms miss their cardiac condition, and pain assessment AI underestimates their discomfort—they receive delayed diagnosis, inadequate treatment, and substandard care.

This medical neglect then cascades beyond healthcare: poor health outcomes affect employment opportunities, increase insurance premiums, create family financial stress, limit housing options, and perpetuate health disparities and impact life opportunities.

AI for Good

AI for Science

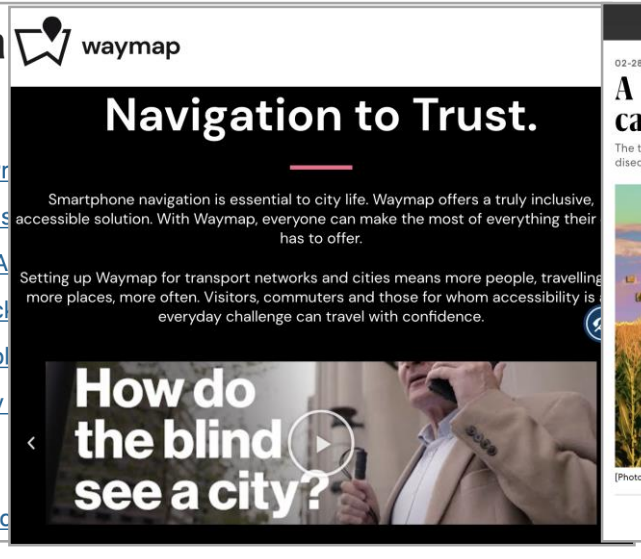
Highly accurate protein AlphaFold

John Jumper, Richard Evans, Alexander Pr
Kathryn Tunyasuvunakool, Russ Bates, Augus
Meyer, Simon A. A. Kohl, Andrew J. Ballard, A
Nikolov, Rishub Jain, Jonas Adler, Trevor Bacl
Zielinski, Martin Steinegger, Michalina Pachol
Silver, Oriol Vinyals, Andrew W. Senior, Koray

— Show fewer authors

Nature **596**, 583–589 (2021) | Cite this artic

AI for Accessibility



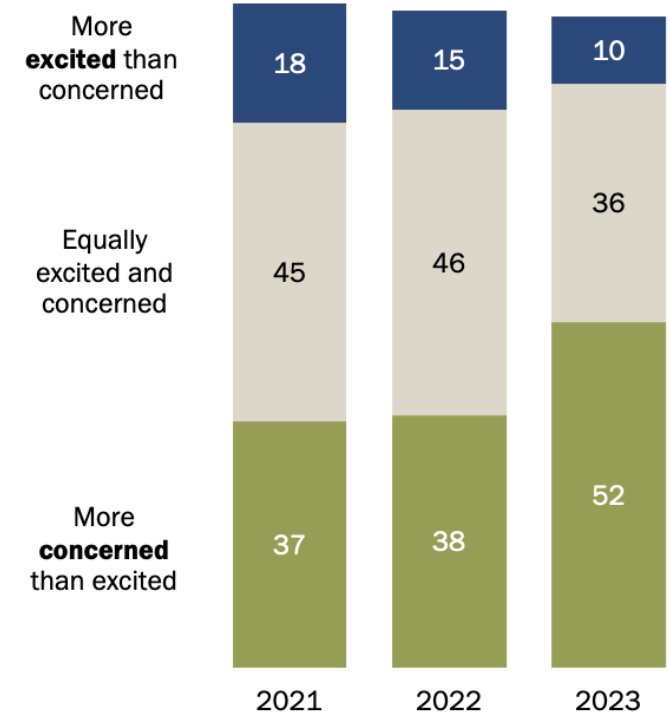
AI for Productivity

AI for Good

Not Inevitable

Concern about artificial intelligence in daily life far outweighs excitement

% of U.S. adults who say the increased use of artificial intelligence in daily life makes them feel ...



Note: Respondents who did not give an answer are not shown.
Source: Survey conducted July 31-Aug. 6, 2023.

PEW RESEARCH CENTER

Americans widely oppose employers using AI to make final hiring decisions, track workers' movements while they work, and analyze their facial expressions

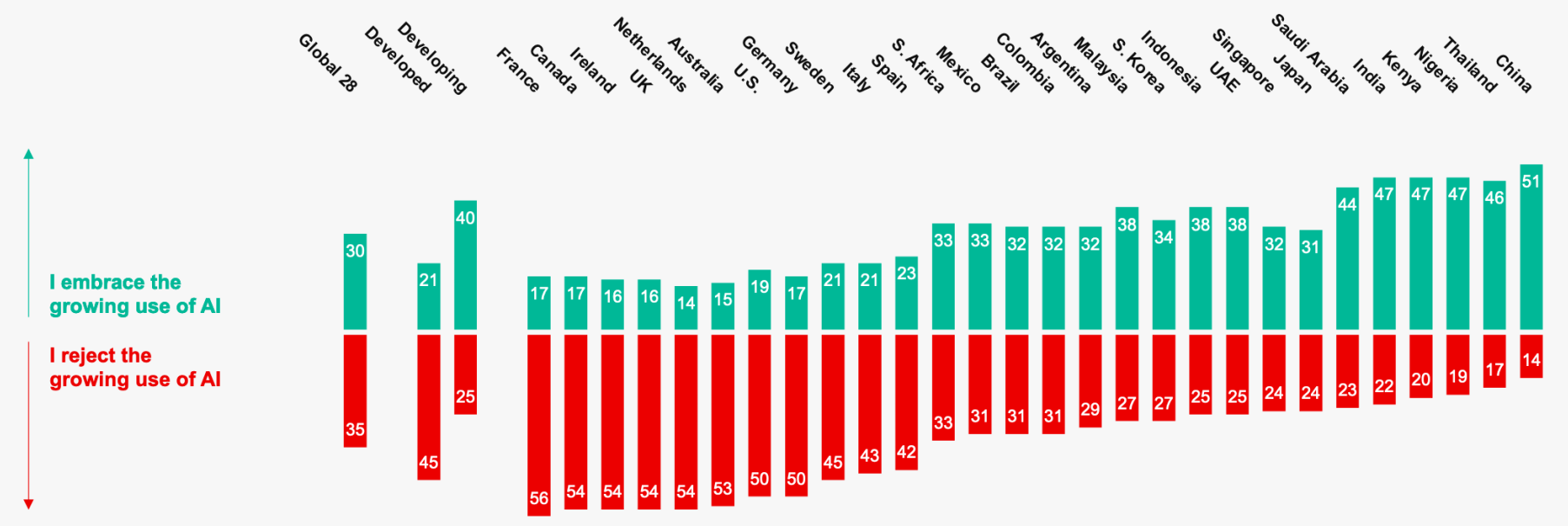
% of U.S. adults who say they ___ employers' use of artificial intelligence for each of the following

Note: Those who did not give an answer are not shown.
Source: Survey of U.S. adults conducted Dec. 12-18, 2022.
"AI in Hiring and Evaluating Workers: What Americans Think"

PEW RESEARCH CENTER

Resistance to AI Stronger in Developed Markets

Percent who say



2024 Edelman Trust Barometer. CHG_TEC_COM. How would you characterize your feelings about each of the following? 5-point scale; bottom 2 box, resistant or hesitant = reject; top 2 box, enthusiastic or passionate = embrace. General population, 28-mkt avg., and by developed and developing countries.

Blueprint for an AI Bill of Rights

Safe and Effective Systems

Algorithmic Discrimination Protections

Data Privacy

Notice and Explanation

Human Alternatives, Consideration, and Fallback

Civil Rights Enforcement	Consumer Protection & Privacy	Sociotechnical Strategies
Existing Laws: Apply Civil Rights Acts, Fair Housing Act, Equal Credit Opportunity Act to algorithmic systems	**Algorithmic Transparency:** Right to explanation for automated decisions	**Independent Auditing:** External assessment of algorithmic systems for bias
Disparate Impact: Hold companies liable for discriminatory outcomes, regardless of intent	**Data Minimization:** Limit collection to necessary information only	**Red Team Exercises/Impact Assessment:** Adversarial testing to identify discriminatory outcomes
Government Accountability: Require federal agencies to audit their algorithmic systems	**Consent Requirements:** Clear, meaningful consent for data use in algorithmic systems	**Continuous Monitoring:** Ongoing surveillance of algorithmic performance across demographic groups
	Opt-out Rights: Allow consumers to request human review of automated decisions	**Public Reporting:** Regular publication of algorithmic impact assessments

Algorithmic Discrimination

Not Inevitable

Our Choice: Building Fair and Just AI Systems

Algorithmic discrimination is not inevitable - it's a choice we make through design, deployment, and governance decisions. From wrongful arrests based on facial recognition errors to IRS audits targeting Black taxpayers to insurance companies surveilling our driving habits, these AI systems are already reshaping equality and opportunity in real people's lives. The systemic nature of this discrimination means bias compounds across multiple institutions - healthcare AI that misdiagnoses patients creates cascading effects on employment, housing, and generational well-being. However, we have the tools to address these problems: existing civil rights laws provide a legal foundation, while technical solutions like third-party auditing and institutional reforms like diverse development teams offer pathways forward. **The question isn't whether algorithms will shape our future - it's whether we have the collective will to ensure that future is fair and just for everyone.**