MITRE



MITRE-Harris Poll Survey on Al Trends

A survey exploring the American public's perceptions and trust of artificial intelligence

February 9, 2023



Building trust in artificial intelligence is essential to deliver consequential uses that better society.

Artificial intelligence technology and frameworks could radically boost efficiency and productivity in nearly every field. It can enable better, faster analysis of imagery in fields ranging from medicine to national security. And it can replace dull, dirty, and dangerous jobs. But if consumers don't trust AI, adoption may be mostly limited to less consequential tasks like recommendations on streaming services or contacting a call center in the search for a human representative.

This research uncovers opportunities including the potential for government and industry to collaborate on the hard work needed to earn consumer trust. The more we know about the general public's perceptions surrounding AI, the more we can help increase its responsible use.

The findings can inform decisions about development and deployment of AI systems including:

- Public concerns that should be addressed,
- Areas for increased investment,
- Potential for industry, government and academia collaboration, and
- Opportunities to increase trust through education.



Understanding Americans perceptions of AI can help inform government and industry R&D priorities.



Companies are investing more in artificial intelligence technology and talent. For example, after ChatGPT demonstrated the ability to quickly generate material ranging from college essays to business plans, Microsoft is reportedly planning to incorporate its capabilities into its word processing, email, and search products.

But while AI has demonstrated potentially transformative capabilities, it raises significant concerns. We've seen bias. Deepfakes created for propaganda. Attacks on facial recognition systems that led to fraudulent payouts.

We collaborated with Harris Poll to better understand Americans' perceptions of AI and inform our work. MITRE is convening government, industry, and academia to develop frameworks and technology that can make artificial intelligence solutions more safe, equitable, and effective.



Douglas Robbins

Research Method



This survey was conducted by The Harris Poll on behalf of MITRE via the Harris On Demand omnibus product.

Sample Size:

n=2,050



Mode:

Online survey



Field Dates:

November 3-7, 2022



Qualification Criteria:

U.S. residents Adults ages 18+



Weighting:

Data weighted to ensure results are projectable to U.S. adults ages 18+

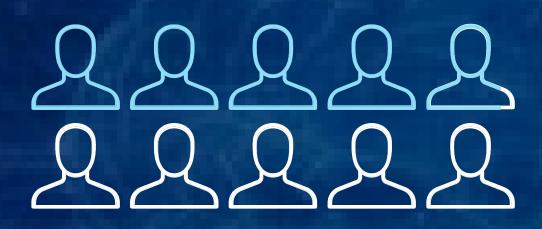


In tables and charts:

Percentages may not add up to 100% due to weighting, computer rounding, and/or the acceptance of multiple responses.

Key Findings: The American public has a general distrust of artificial intelligence (AI)





48% of Americans believe Al is safe and secure



82%

believe AI should be regulated



78%

are very or somewhat concerned about Al being used for malicious intent



only 37%

are comfortable with government agencies using AI to make decisions that directly affect them



only 35%

Only 35% are comfortable using Al for autonomous rideshares

Three out of four Americans are concerned Al could be used for malicious intent.





Most Americans worry about the safety and fairness of artificial intelligence systems. These worries grow when they consider Al's role with important functions like self-driving cars, government benefits processing, or online health chatbots. Their concerns are understandable. We've seen news reports about Al systems that can be tricked or corrupted. Others have been biased or simply ineffective. We learned with software and cybersecurity that you must address these concerns from the beginning, not as an afterthought.

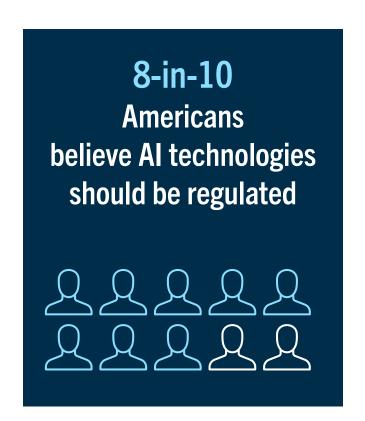
We need to address these issues with Al now. MITRE is developing advanced Al solutions in various areas and new Al assurance approaches and tools. We are convening government, academia, and industry to address these implications and ensure the responsible use of Al for society.

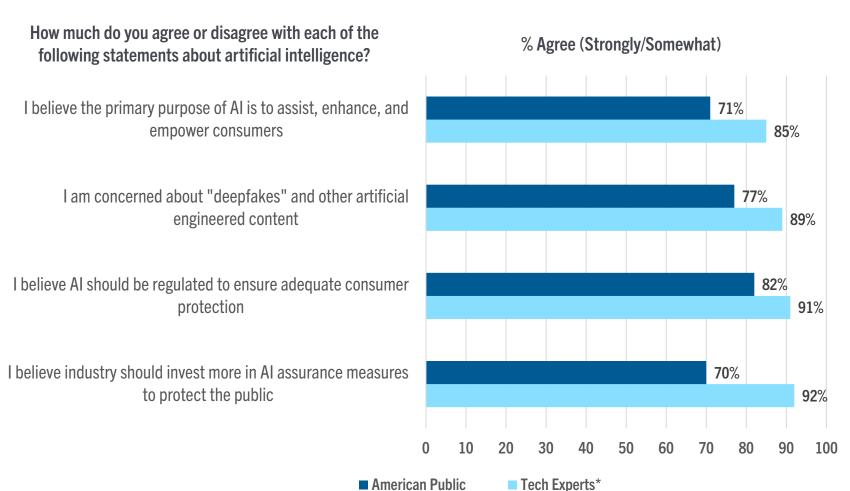


Douglas Robbins

Americans believe AI can assist, enhance, and empower, but they don't yet trust AI. Tech experts also express concern, and along with most Americans, support government regulation.









Americans use AI for entertainment and travel recommendations, but the promise of AI will only be realized by building trust.



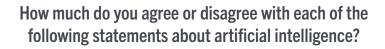
The technology for autonomous driving and flying is here today, but few Americans are ready to travel in these vehicles. Americans are clearly worried about artificial intelligence-generated content like deepfakes. Al can also be used to help cyber adversaries find opportunities for attack and generate sophisticated phishing emails. The survey findings show that Americans want to see industry do more to address the problem.

The cybersecurity field has examples including information sharing organizations and vulnerability disclosures where industry collaborates, rather than competes, on security. All assurance calls for collaboration as well. Better All assurance will make it more likely that consumers will be comfortable adopting new solutions that industry develops.

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The American public isn't ready to embrace regular use of Al, but tech experts are more willing.



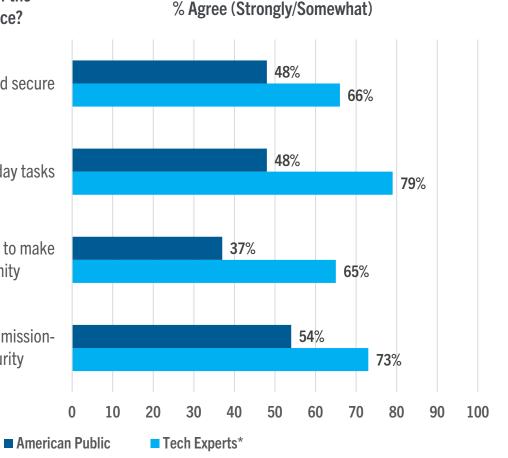


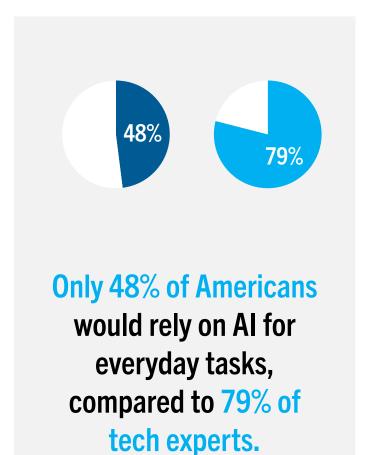
I believe today's AI technologies are safe and secure

I am willing to rely on AI technology to perform everyday tasks

I am comfortable with government agencies using AI to make decisions that directly affect me or my community

I believe AI technology is advanced enough for use in missioncritical applications in defense and national security





Source: MITRE AI Survey
BASE: ALL RESPONDENTS (n=205

^{*} Tech Expert data is based on a separate survey of 200 individual who work in the technology field, actively follow tech-related issues, read tech-related publications, attend tech-related conferences, and belong to tech-related associations.

Collaboration is needed for AI research and development and education.





The survey data points to the need for whole-of-nation collaboration on research and development on artificial intelligence technology challenges.

The data also illustrates that people who are more familiar with Al, like tech experts, are more likely to trust it for consequential tasks. This presents an opportunity for government and industry to work together and increase Al education efforts and earn the general public's trust.

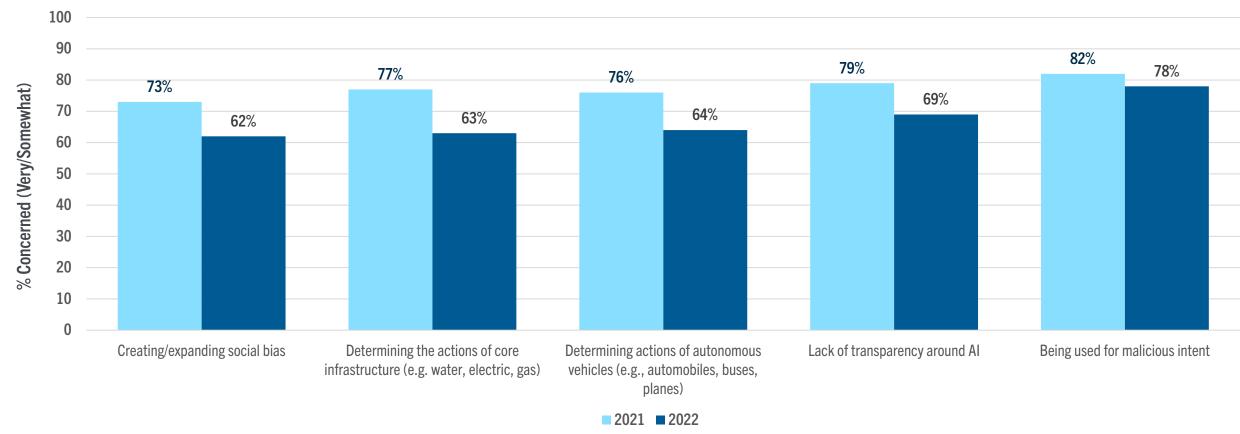


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Americans are concerned about AI use for malicious intent and lack of transparency, though less so than in 2021.



How concerned are you about each of the following related to Al?



Source: MITRE AI Survey

Americans want more regulation to ensure the safety of AI for everyday applications.





As we look at AI today, ChatGPT is a great example of the excitement around real-world benefits of AI.

It is clear that Americans want AI that makes their lives easier and more enjoyable, such as through personalized entertainment recommendations (72% of Americans are comfortable with this use of AI), but they also have significant trepidation around relying on AI when safety is concerned, such as with autonomous vehicles (65% of Americans are uncomfortable with this use of AI).

Even with significant enthusiasm for AI, the uncertainty around AI is indicating desire for regulation (81% of Americans and 91% of tech experts agree) and industry assurance measures to protect the public (70% of Americans and 92% of tech experts agree).



Rob Jekielek

Managing Director, Harris Poll

As Al applications become more consequential, Americans' trust drops.



How comfortable are you with the use of artificial % Comfortable (Very/Somewhat) intelligence (AI) for each of the following? Entertainment recommendations on streaming services (e.g., 72% movies and TV series I might like) Facial recognition technology on my phone or other personal 57% devices 51% Targeted advertising on social media Federal government benefits processing (e.g., social security, 49% Medicare, veterans' benefits) Online chat with an automated doctor for routine health questions 49% Autonomous, unmanned rideshare vehicles such as Uber or Lyft 35% 20 40 60



Distrust in AI could lead to missed opportunities.



We'll only scratch the surface of artificial intelligence's potential if people will only rely on AI for purposes like entertainment recommendations. In fact, AI may be one of our most important tools to tackle the hardest problems facing us, from climate change to healthcare to national defense. A distrust of these technologies will at a minimum delay and possibly prevent us from realizing transformational benefits like dramatically improved patient outcomes and far safer roads and skies.



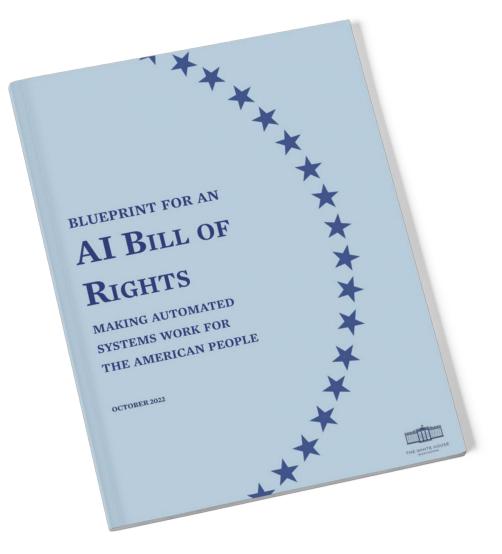
Douglas Robbins



Only 28% of Americans were aware of the recently announced Blueprint for an Al Bill of Rights.

While most Americans were not familiar with the document, nearly all supported its efforts to address safety, transparency, data privacy, and equity with AI systems.

82% of Americans and 91% of tech experts support government regulation of AI technology.



Blueprint for an Al Bill of Rights | OSTP | The White House

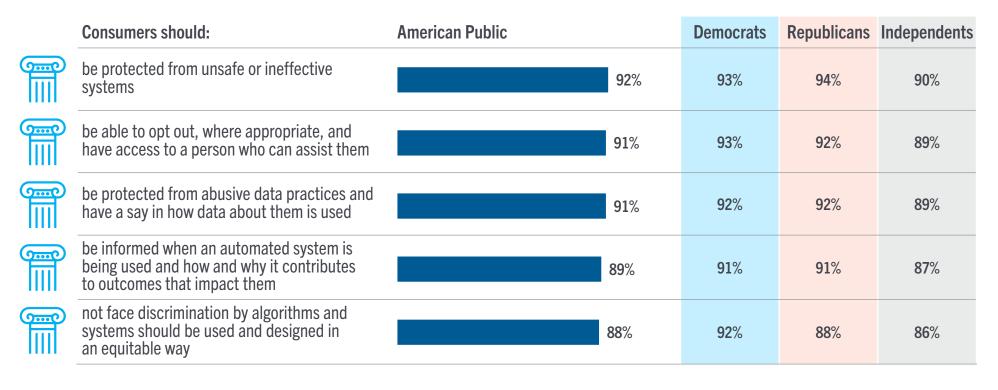
Source: MITRE AI Survey
BASE: ALL RESPONDENTS (n=2050)

Q4 Were you aware that President Biden and the White House Office of Science and Technology Policy recently announced a "Blueprint for an Al Bill of Rights" outlining basic protections that Americans should have regarding artificial intelligence (Al) and automated systems?

Support for each of the pillars of the Al Bill of Rights is consistent across political affiliation.



How important would each of the following be to you for an "AI Bill of Rights" for American consumers in the age of artificial intelligence?



% Important to AI Bill of Rights (Very/Somewhat)

We can build trust in AI through rights and regulations.





The survey showed Americans embrace both rights and regulations for

artificial intelligence. As the U.S. has developed new technology that has transformed sectors like healthcare and transportation, government and industry have worked together on consumer protections. Al is no different. The proposed Al Bill of Rights and the recently published NIST Al Risk Management Framework are useful starting points. The NIST framework was developed in collaboration with the private and public sectors, and targets better management of risks to individuals, organizations, and society.

If users believe that AI solutions are not only effective but feature similar protections, they're more likely to be comfortable using these solutions themselves and seeing them employed by others.



Douglas Robbins

MITRE is addressing Al safety, security, and equity.





MITRE is developing advanced artificial intelligence solutions in areas ranging from combating tax fraud to improving air traffic management. We're also developing new AI testing tools to help our federal government sponsors understand whether new offerings deliver on their promise. And we're leveraging MITRE's cybersecurity expertise to develop tools to address the security implications of this technology.

We are co-leading the Coalition for Health AI (CHAI) to develop open, transparent, and bias-free tools to set health-equity standards in collaboration with the Mayo Clinic, Duke University, industry and federal government observers. We're also working with the Partnership on AI, which brings together diverse voices across global sectors, disciplines, and demographics to advance positive outcomes for society.

By working together, we can enable responsible pioneering in AI to better impact society.



Douglas Robbins



Demographics



Younger generations are less concerned about and more comfortable using Al.



Levels of concern and comfort with use of AI are exacerbated when looking at generational differences.

Gen Z is 15%–20% less concerned than Boomers about AI uses, for example in autonomous vehicles and in core infrastructure. Similarly, Gen Z is 20–30% more comfortable than Boomers with use of AI in applications such as government benefits processing and chatbots for telehealth.



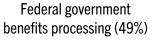
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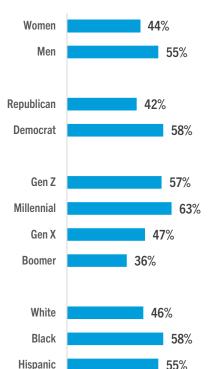
Managing Director, Harris Poll



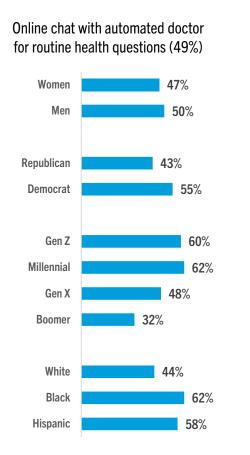
Men, Democrats, younger generations, and Black/Hispanic Americans are more comfortable than their counterparts with the use of AI for federal government benefits processing, online doctor bots, and autonomous, unmanned rideshare vehicles.

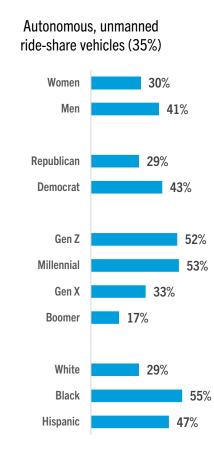
Comfortable (Very/Somewhat)





How comfortable are you with the use of artificial intelligence (AI) for each of the following?

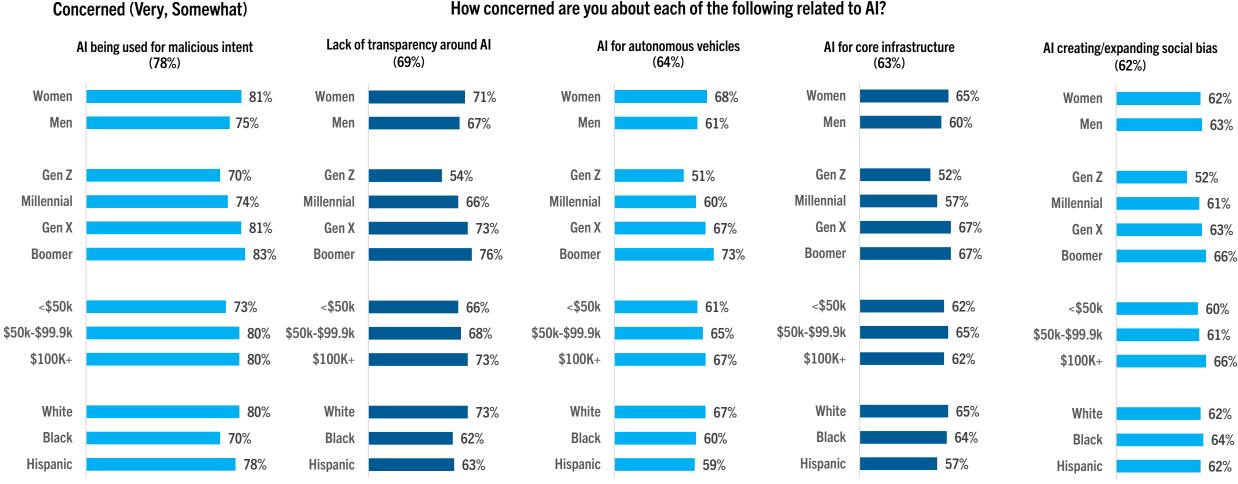




Source: MITRE Al Survey



All demographic groups express concerns about Al. Women, older generations, higher income, and White Americans express more concern about AI than their counterparts. Gen Z is less concerned than other generations, but more than half still express concerns about Al.



Source: MITRE AI Survey

BASE: ALL RESPONDENTS (n=2050)

Q2 Artificial Intelligence (AI) has many applications, including the potential to improve customer service and execute dangerous jobs, but there are also potential downsides. How concerned are you about each of the following related to AI?





Thank you

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