KEEPING THE HUMANS IN YOUR AI RESEARCH

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"When you imagine possible tomorrows, you ask better questions today."

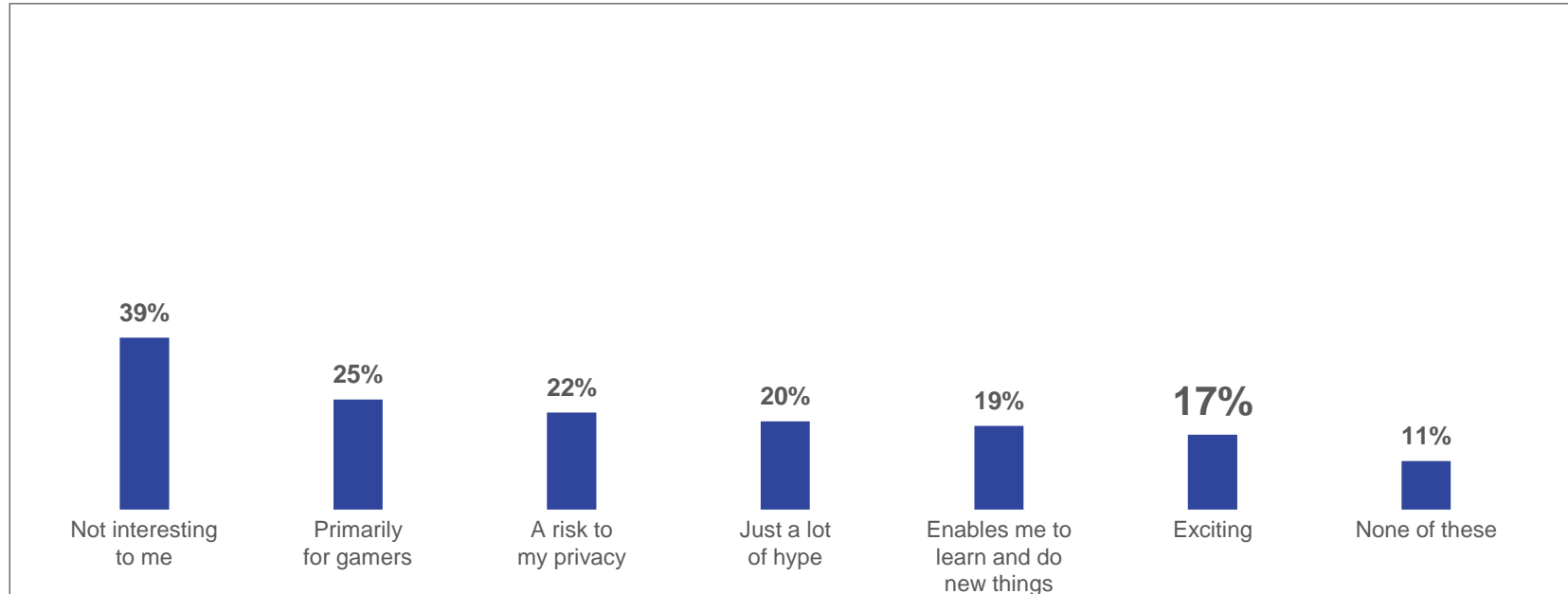# What we're going to tell you

Why AI matters

Where the public stands on critical AI issues today and how that will drive tomorrow

What Ipsos is doing

What Amazon is doing
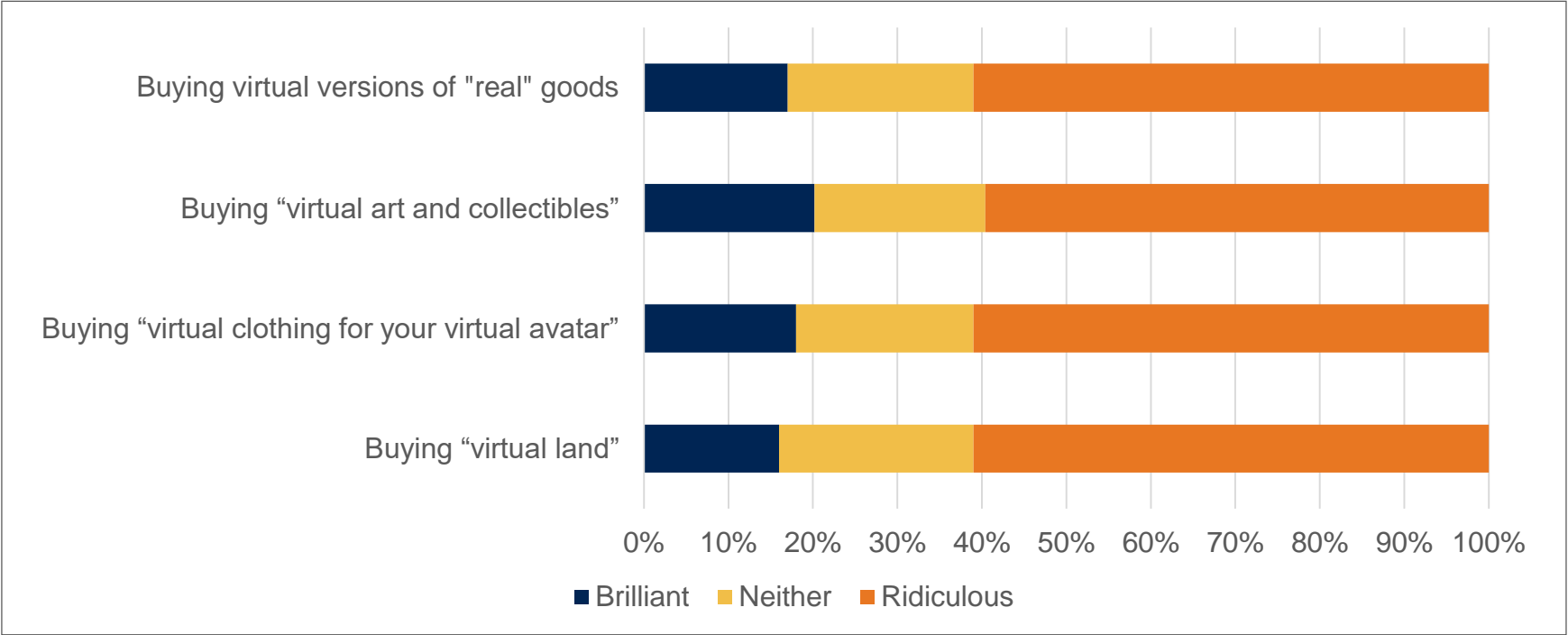
Americans aren't sold on W3/Metaverse

Only 17% think it's "exciting"

39%
Not interesting
to me

25%
Primarily
for gamers

22%
A risk to
my privacy

20%
Just a lot
of hype

19%
Enables me to
learn and do
new things

17%
Exciting

11%
None of these

Q. Which of these best describes your view of the metaverse? (% Selected)
(Source: Ipsos survey conducted Jun. 30-Jul. 1, 2022, among 1,120 U.S. adults.)
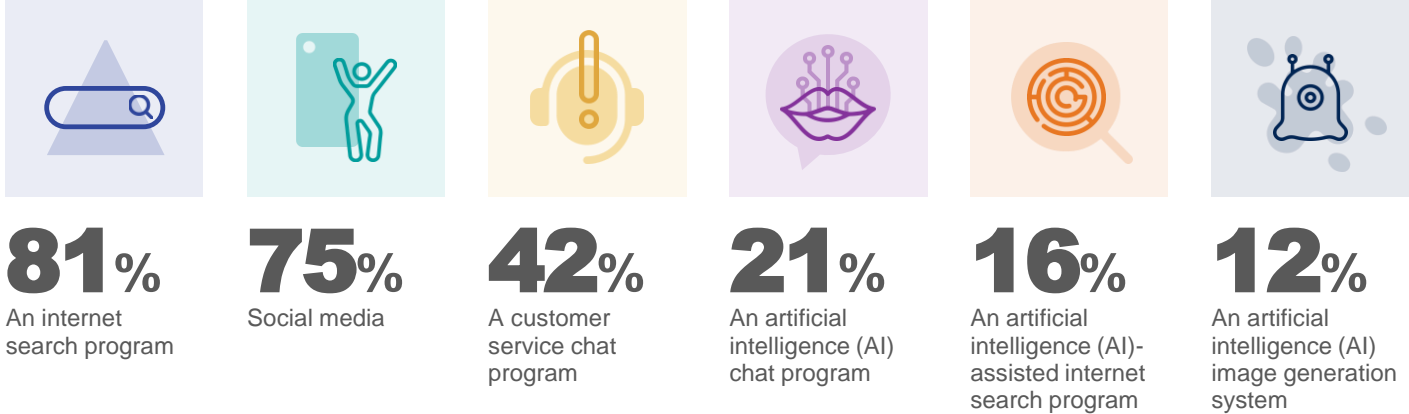
Nor are they into buying virtual goods

Many more find these ideas ridiculous than brilliant

Buying virtual versions of "real" goods

Buying "virtual art and collectibles"

Buying "virtual clothing for your virtual avatar"

Buying "virtual land"

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

■ Brilliant ■ Neither ■ Ridiculous

(Source: Ipsos survey conducted Jun. 30-Jul. 1, 2022, among 1,120 U.S. adults.)

Some are using AI tools, more see the value

Q. In the last six months, have you used any of the following? (% Yes)

81%	**75**%	**42**%	**21**%	**16**%	**12**%
An internet search program	Social media	A customer service chat program	An artificial intelligence (AI) chat program	An artificial intelligence (AI)-assisted internet search program	An artificial intelligence (AI) image generation system

(Source: Ipsos Knowledge Panel survey conducted June 16-June 18, 2023, among 1,023 U.S. adults.)

- 62% say Using AI in the workplace can save time and resources ..

"AI solves problems, aligns with human values and is mostly easy to use."
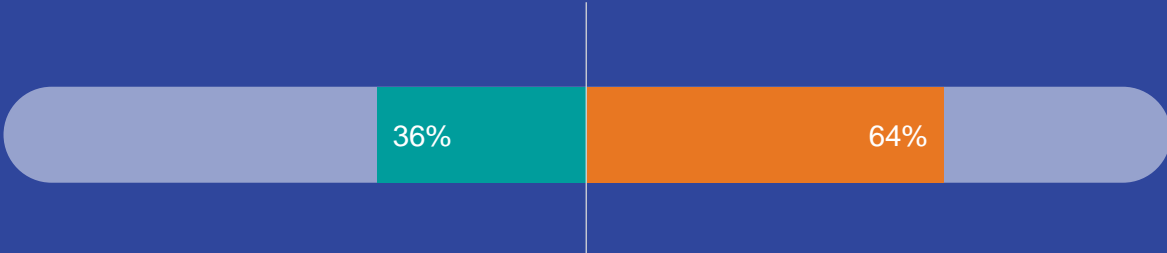
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Tension 1: The wonder vs. the worry of AI

The possibilities that AI presents fill me with wonder

36%   64%

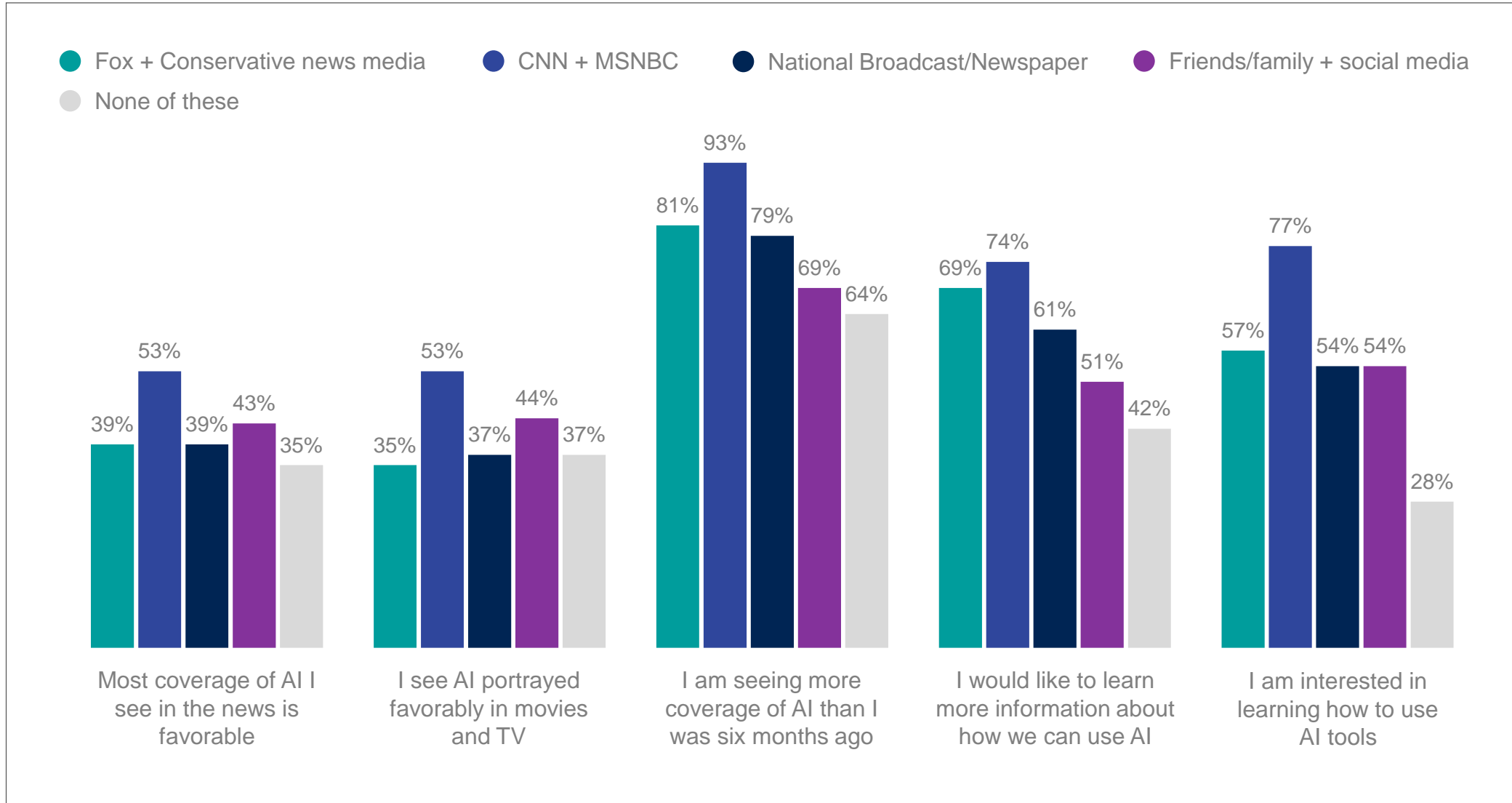The possibilities that AI presents fill me with worry

Q. For each of the pairs of statements, please select the statement that comes closest to your view, even if neither statement is exactly right. (% Total)

(Source: Ipsos survey conducted June 23-26, 2023, among 1,120 U.S. adults.)

CNN/MSNBC watchers more likely to see favorable coverage of AI

Most Americans report seeing more coverage and most want even more

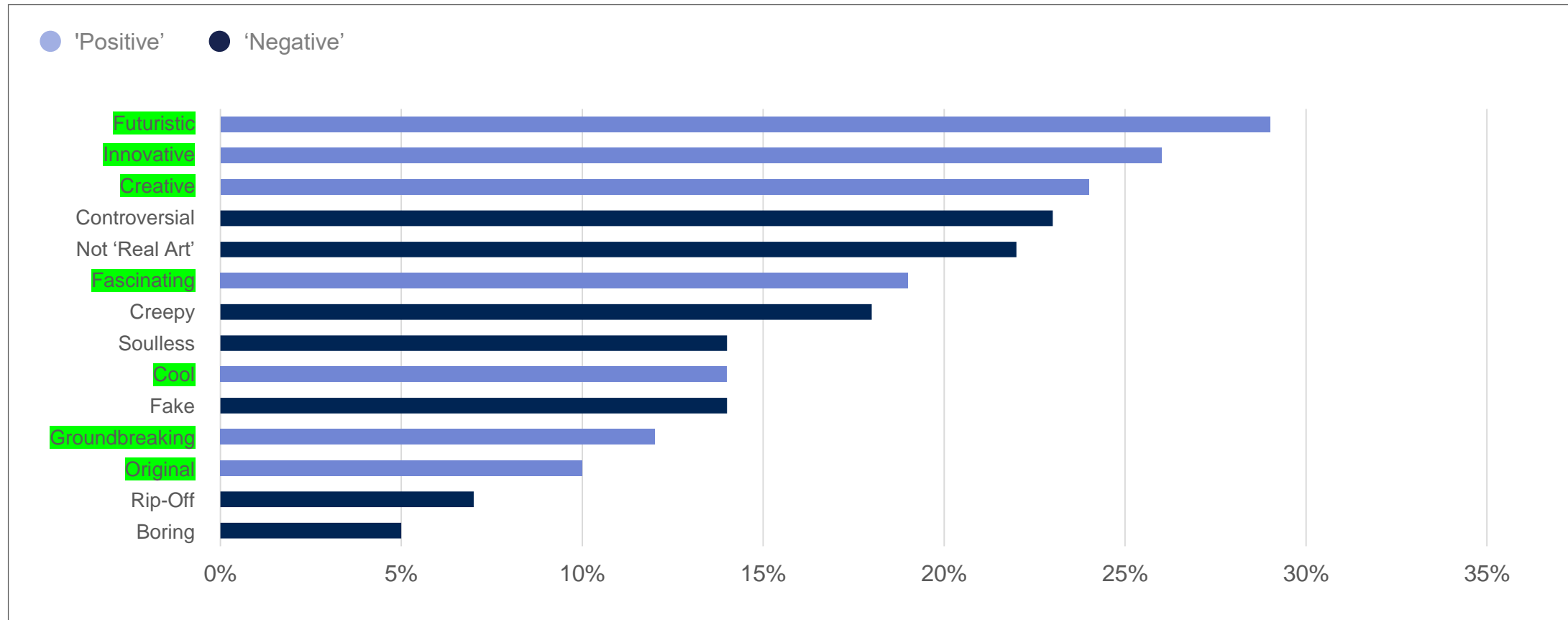**Q:** At this moment, how satisfied or dissatisfied are you with ... - Satisfied Summary

Legend:
- Fox + Conservative news media
- CNN + MSNBC
- National Broadcast/Newspaper
- Friends/family + social media
- None of these

Most coverage of AI I see in the news is favorable
- 39%
- 53%
- 39%
- 43%
- 35%

I see AI portrayed favorably in movies and TV
- 35%
- 53%
- 37%
- 44%
- 37%

I am seeing more coverage of AI than I was six months ago
- 81%
- 93%
- 79%
- 69%
- 64%

I would like to learn more information about how we can use AI
- 69%
- 74%
- 61%
- 51%
- 42%

I am interested in learning how to use AI tools
- 57%
- 77%
- 54%
- 54%
- 28%

Of the words describing AI, a mix of worry and wonder are represented

Q: AI is now being used to create works of art, books, news stories, movies and TV animations and more. Which of the following words would you use to describe these works?
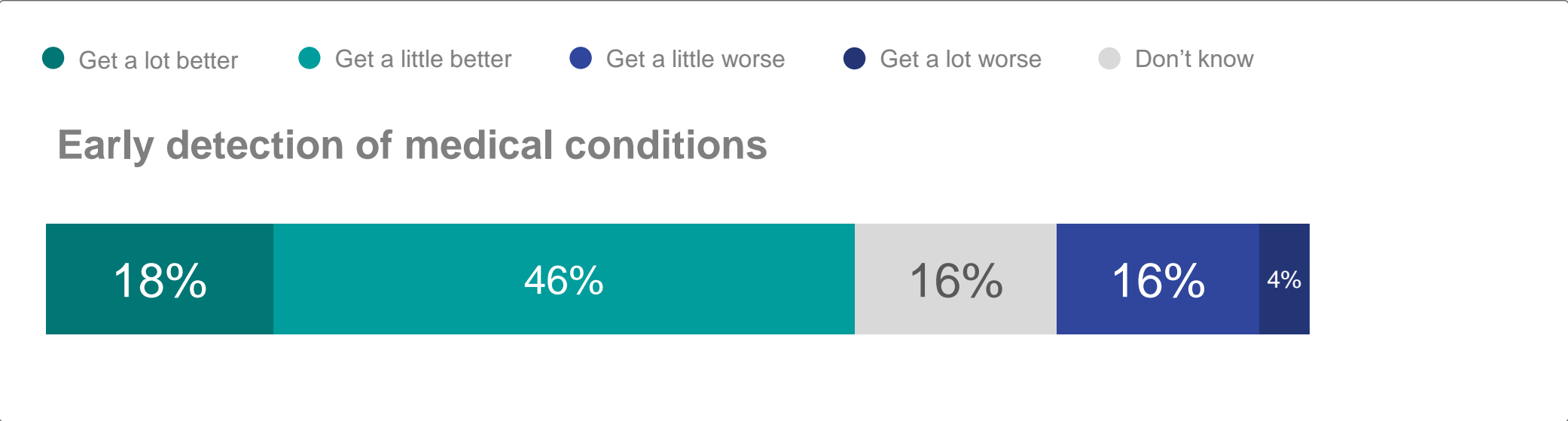
Words to describe Generative AI content

- ● 'Positive' ● 'Negative'

Word	Value
Futuristic	~29%
Innovative	~26%
Creative	~24%
Controversial	~23%
Not 'Real Art'	~22%
Fascinating	~19%
Creepy	~18%
Soulless	~14%
Cool	~14%
Fake	~14%
Groundbreaking	~12%
Original	~10%
Rip-Off	~7%
Boring	~5%

Wonder: People think AI will help with early detection

● Get a lot better ● Get a little better ● Get a little worse ● Get a lot worse ● Don't know

Early detection of medical conditions

18%	46%	16%	16%	4%

Worry: People don't trust AI with their medical data

● Strongly agree   ● Somewhat agree   ● Don't know   ● Somewhat disagree   ● Strongly disagree

Strongly agree	Somewhat agree	Don't know	Somewhat disagree	Strongly disagree
37%	43%	4%	5%	10%

I trust my doctor to handle my medical data

Strongly agree	Somewhat agree	Don't know	Somewhat disagree	Strongly disagree
10%	41%	8%	17%	24%

I trust computer programs to handle my medical data

Strongly agree	Somewhat agree	Don't know	Somewhat disagree	Strongly disagree
8%	24%	13%	26%	29%

I trust artificial intelligence to handle my medical data

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As a planet and nation, concern is growing

Americans are among the most worried about AI with a big jump in the last 20 months

Q. How much do you agree or disagree with the following? Products and services using artificial intelligence make me nervous (% Agree)
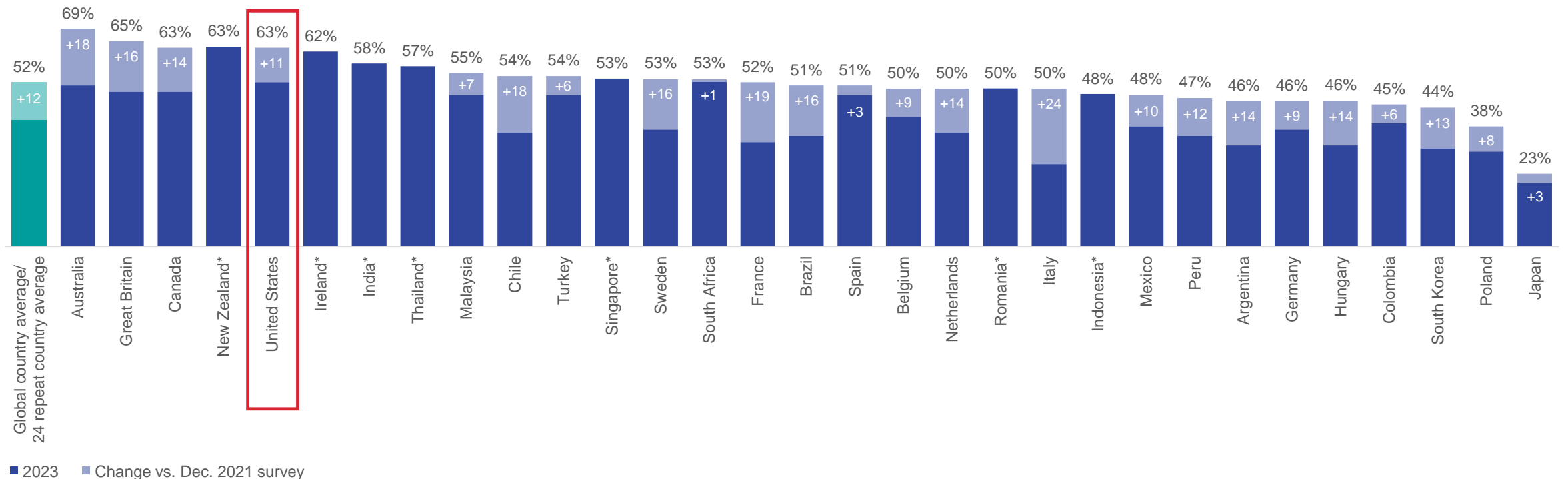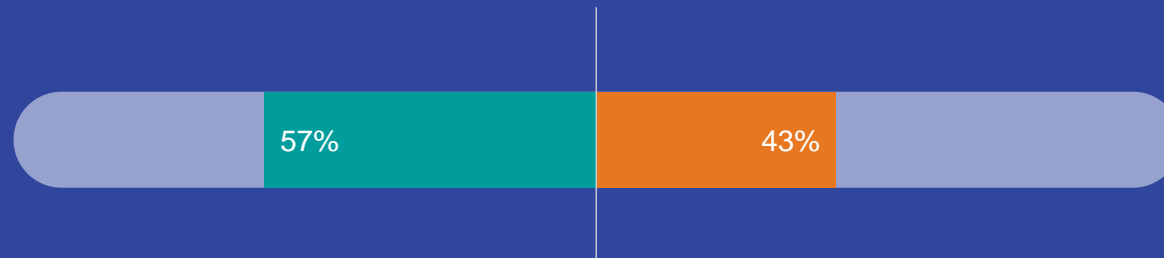

Country	2023	Change vs. Dec. 2021 survey
Global country average/ 24 repeat country average	52%	+12
Australia	69%	+18
Great Britain	65%	+16
Canada	63%	+14
New Zealand*	63%	
United States	63%	+11
Ireland*	62%	
India*	58%	
Thailand*	57%	
Malaysia	55%	+7
Chile	54%	+18
Turkey	54%	+6
Singapore*	53%	
Sweden	53%	+16
South Africa	53%	+1
France	52%	+19
Brazil	51%	+16
Spain	51%	+3
Belgium	50%	+9
Netherlands	50%	+14
Romania*	50%	
Italy	50%	+24
Indonesia*	48%	
Mexico	48%	+10
Peru	47%	+12
Argentina	46%	+14
Germany	46%	+9
Hungary	46%	+14
Colombia	45%	+6
South Korea	44%	+13
Poland	38%	+8
Japan	23%	+3

■ 2023   ■ Change vs. Dec. 2021 survey

Tension 2: Is AI coming for my job?

AI will help make
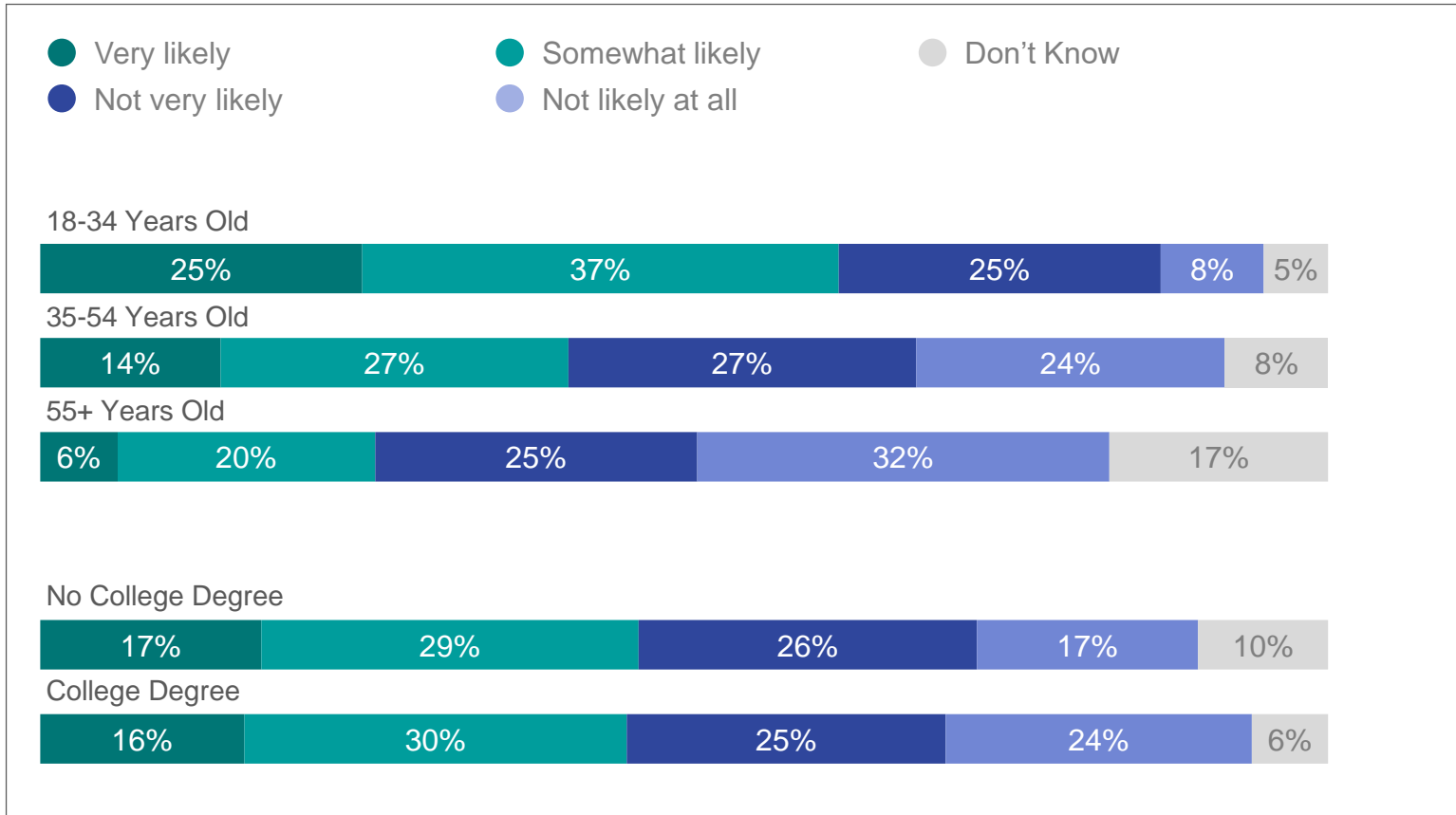my job easier | 57% | 43% | AI will threaten
my job

Q. For each of the pairs of statements, please select the statement that comes closest to your view, even if neither statement is exactly right. (% Total)

(Source: Ipsos survey conducted June 23-26, 2023, among 610 employed U.S. adults.)

Younger Americans are confident AI will *change how they do their jobs* in next 5 years

Q: How likely, if at all, do you think it is that AI will change how you do your current job in the next 5 years?

● Very likely   ● Somewhat likely   ● Don't Know
● Not very likely   ● Not likely at all

18-34 Years Old

| 25% | 37% | 25% | 8% | 5% |

35-54 Years Old

| 14% | 27% | 27% | 24% | 8% |

55+ Years Old

| 6% | 20% | 25% | 32% | 17% |

No College Degree

| 17% | 29% | 26% | 17% | 10% |

College Degree

| 16% | 30% | 25% | 24% | 6% |

When workers were asked if AI would **change their jobs** in the next five years: 46% overall and 62% of younger workers think it's likely. The responses were not differences based on educational attainment.

Younger Americans also think AI will *replace* their jobs in next 5 years

Q: How likely, if at all, do you think it is that AI will replace your current job in the next 5 years?

● Very likely   ● Somewhat likely   ● Don't Know
● Not very likely   ● Not likely at all

18-34 Years Old

| 18% | 28% | 25% | 23% | 6% |

35-54 Years Old

| 8% | 18% | 27% | 37% | 10% |

55+ Years Old

| 7% | 30% | 47% | 13% |

No College Degree

| 13% | 23% | 25% | 28% | 11% |

College Degree

| 7% | 15% | 30% | 42% | 6% |

Source: **Ipsos Consumer Tracker**, fielded January 31 – February 1, 2023 among 592 U.S. adults in the workforce
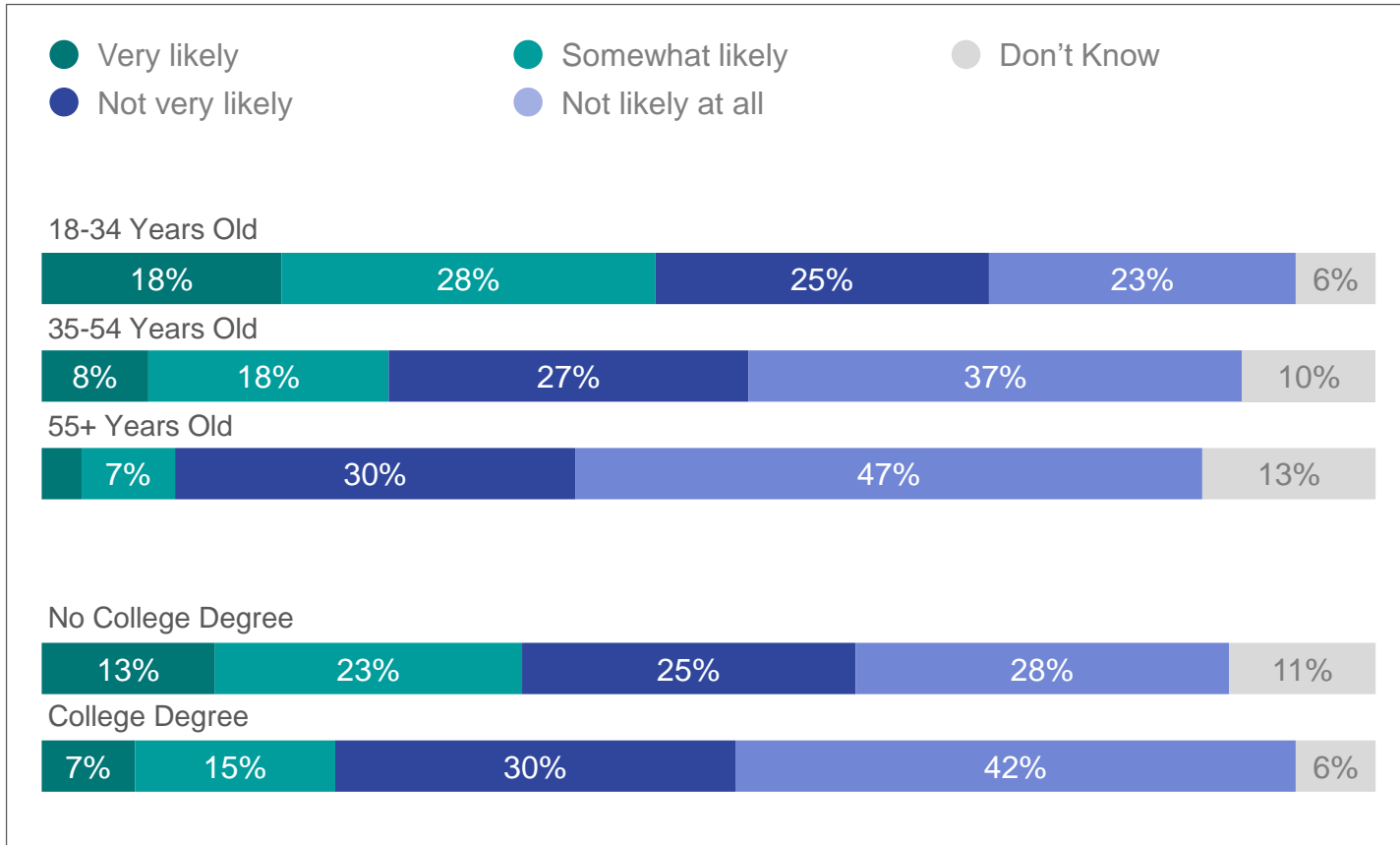
What about being outright replaced or displaced by AI in the next five years? 46% of younger workers think so.

Those without a college degree were much more likely to say that AI could replace their work.

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This impacts B2B, too

When people learn about AI news, they care about it

Don't know/Care   Know/Care

A prominent AI researcher raising concerns about how people will use AI

Debt ceiling negotiations

The rapid development of AI tools and systems

Interest rates raising 0.25%

IBM announcing plans to pause hiring for jobs that AI could do

The failure of First Republic Bank

Montana restricting gender-affirming care for under 18

The screenwriter strike

Tucker Carlson and Fox News

The coronation ceremony for King Charles III

Don Lemon and CNN

Don't know/Don't Care   Know/Don't Care
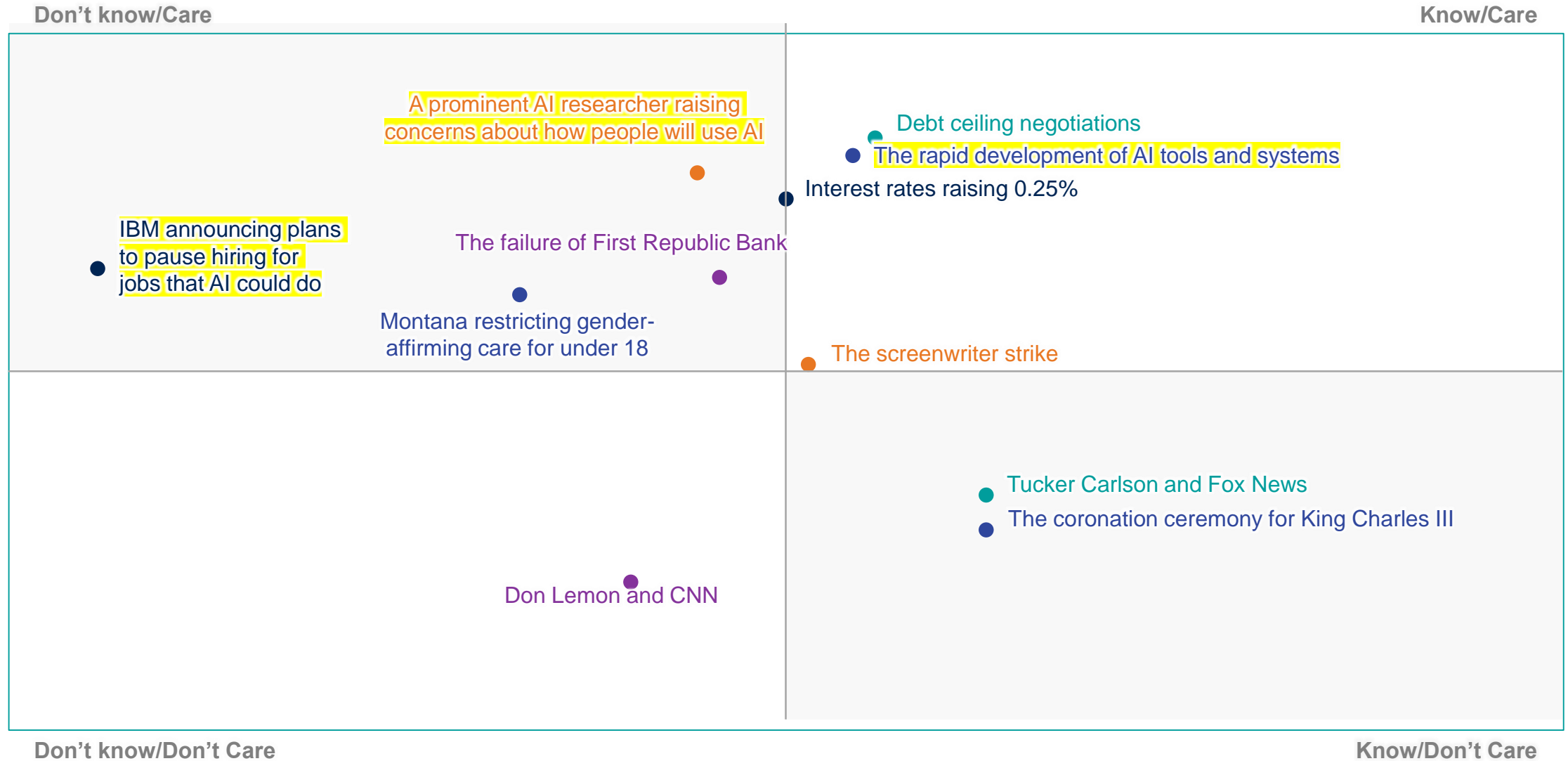
The Ipsos Care-o-Meter

Q: Familiarity (very/somewhat) of recent topics...vs. total caring (a lot/a little)...

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Don't know/Care

Know/Care

Fake, AI-generated images of an attack on the Pentagon

New York State gas stoves and ban

Congress prevents U.S. from defaulting on its debt

Boycotts of businesses supporting LGBTQ people and causes

Don't know/Don't Care

Know/Don't Care

Apple announces Vision Pro

The NBA playoffs

Miami Heat vs. Denver Nuggets

The NHL playoffs

Ted Lasso finale

Florida Panthers vs. Vegas Golden Knights

Marvelous Mrs. Maisel finale

Succession finale

A FAST framework for Responsible AI: (Fairness, Accountability, Security, Transparency)

Dimension	Responsible AI	Irresponsible AI
Fairness	AI systems are designed to be transparent, with clearly defined algorithms, and data sources that are open and accessible to external auditors or regulators.	An AI-powered credit scoring system rejects a loan application, but the applicant is not given any information about how the decision was made so they don't know if the system used biased or discriminatory criteria.
Accountability	AI systems are designed to be accountable, meaning that the system's actions and decisions can be traced back to specific individuals or entities. This requires that the system's decision-making processes are auditable, and that designers and operators are identifiable and responsible for the system's outcomes. Users are given clear information about the system's capabilities, limitations, and potential risks.	An AI system recommends medical treatment for a patient based on their symptoms and medical history. The treatment turns out to be harmful or ineffective but it's difficult to determine who is responsible for the decision: the developers who designed the system, the hospital administrators who deployed it, or the individual doctors who relied on its recommendations.
Security	AI systems are designed to take data security and privacy into account, including data storage, transmission, and processing methods. Systems must comply with relevant privacy regulations and standards. Users are given clear information about what data is collected, how it is used, if it is shared, and how it is protected.	An AI chatbot collects personal information and shares that information with third-party advertisers without the user's knowledge or consent and fails to protect the storage and transmission of that data. The data is breached, and people have their identities stolen, but they don't know where the compromised data originated from.
Transparency	AI systems are designed to avoid bias and discrimination. This requires that the data used to train the system is diverse and representative of the population, and that the system's algorithms are regularly audited to detect and mitigate any biases. Users are informed when they are dealing with AI systems and how the AI was trained.	An AI facial recognition system identifies a suspect from surveillance video of a crime. But these systems can be less accurate for people with darker skin tones. Someone is falsely accused and arrested. Will the suspects know what evidence is being used against them, and how those systems were trained?

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Ipsos is addressing these issues in our business, too.
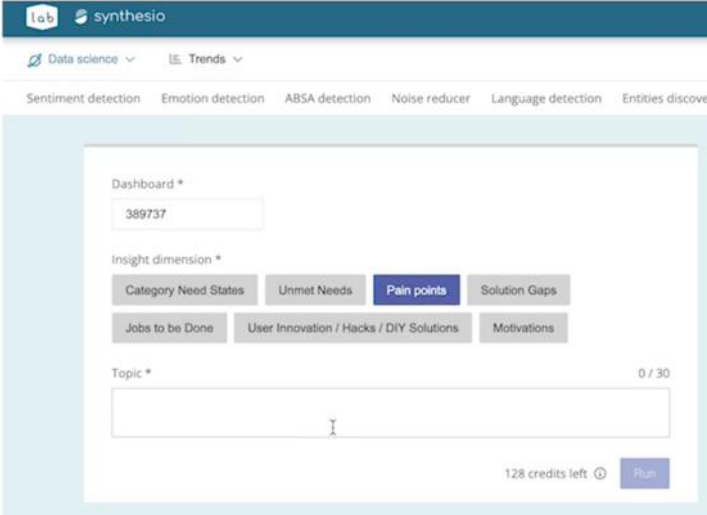
"In your research and really in everything you do, keep the humans at the center."

Ipsos

Jennie Tietema
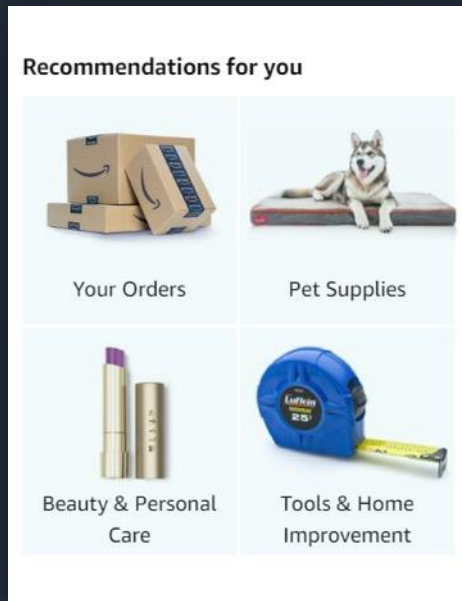
Principal Product Manager
Amazon Chime SDK

Introduction to generative AI

Democratizing and experimenting with generative AI

Generative AI is transforming communications

An AI example in the Amazon Chime SDK

ML innovation is in the Amazon DNA
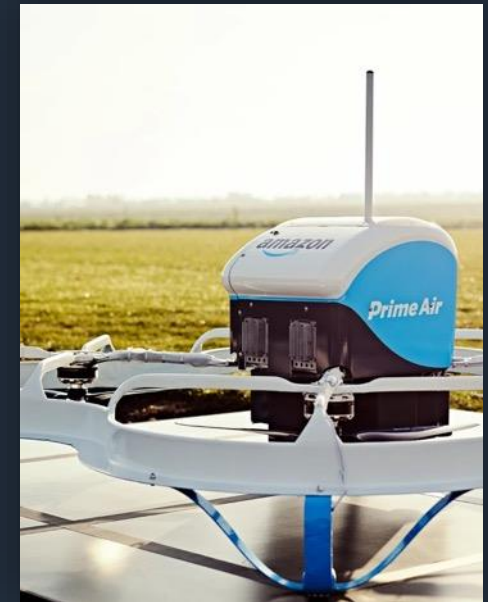

4,000 products per minute sold on Amazon.com

1.6M packages every day

Billions of Alexa interactions each week

First Prime Air delivery on **December 7, 2016**

Generative AI is transforming all industries

Financial Services

Healthcare and Life Sciences

Automotive

Manufacturing

Media & Entertainment

Telecom

Energy
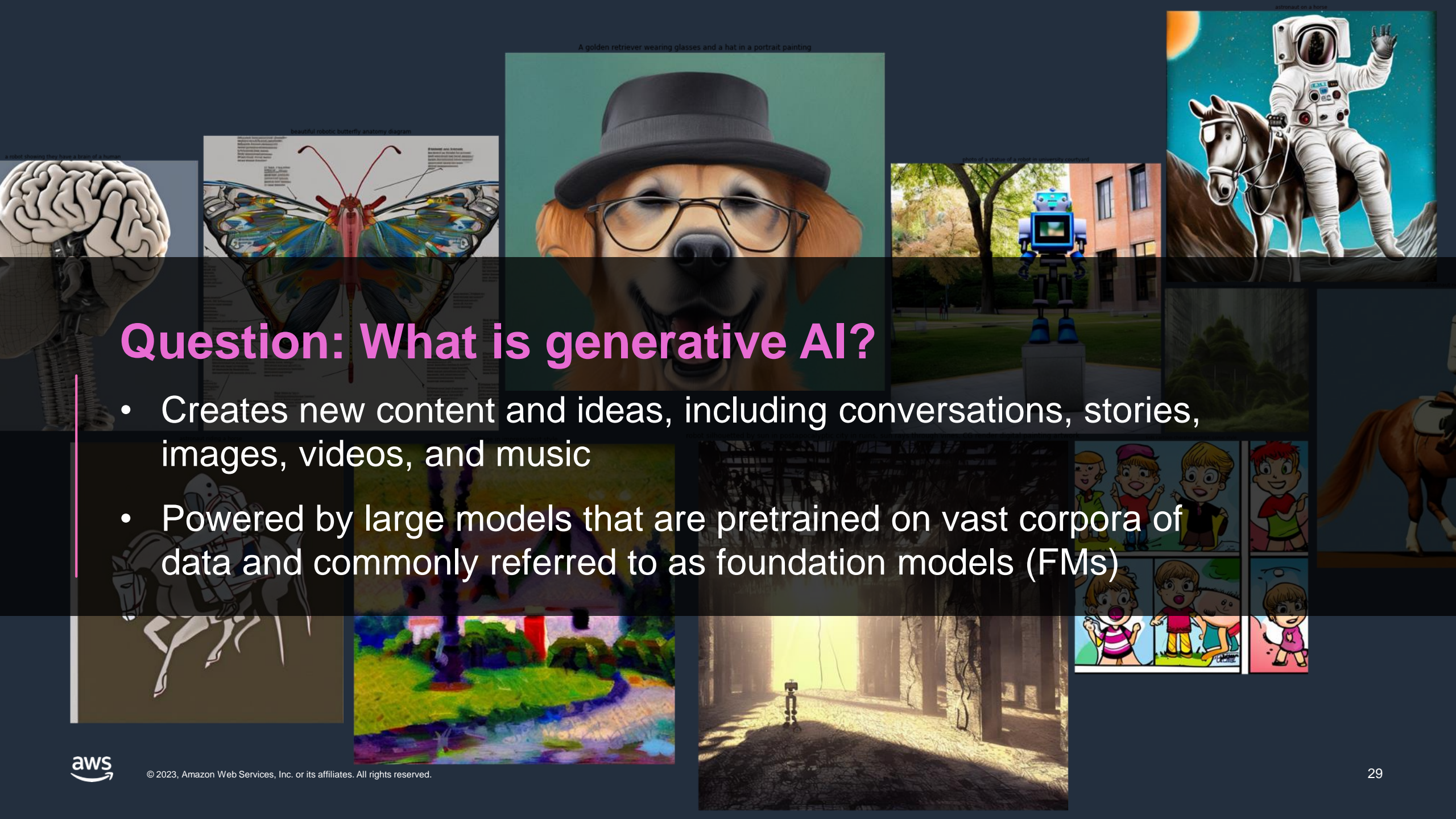
Question: What is generative AI?

- Creates new content and ideas, including conversations, stories, images, videos, and music

- Powered by large models that are pretrained on vast corpora of data and commonly referred to as foundation models (FMs)

Generative AI is powered by foundation models

Pretrained on vast amounts of unstructured data

Contain large number of parameters that make them capable of learning complex concepts

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Can be applied in a wide range of contexts

Customize FMs using your data for domain specific tasks
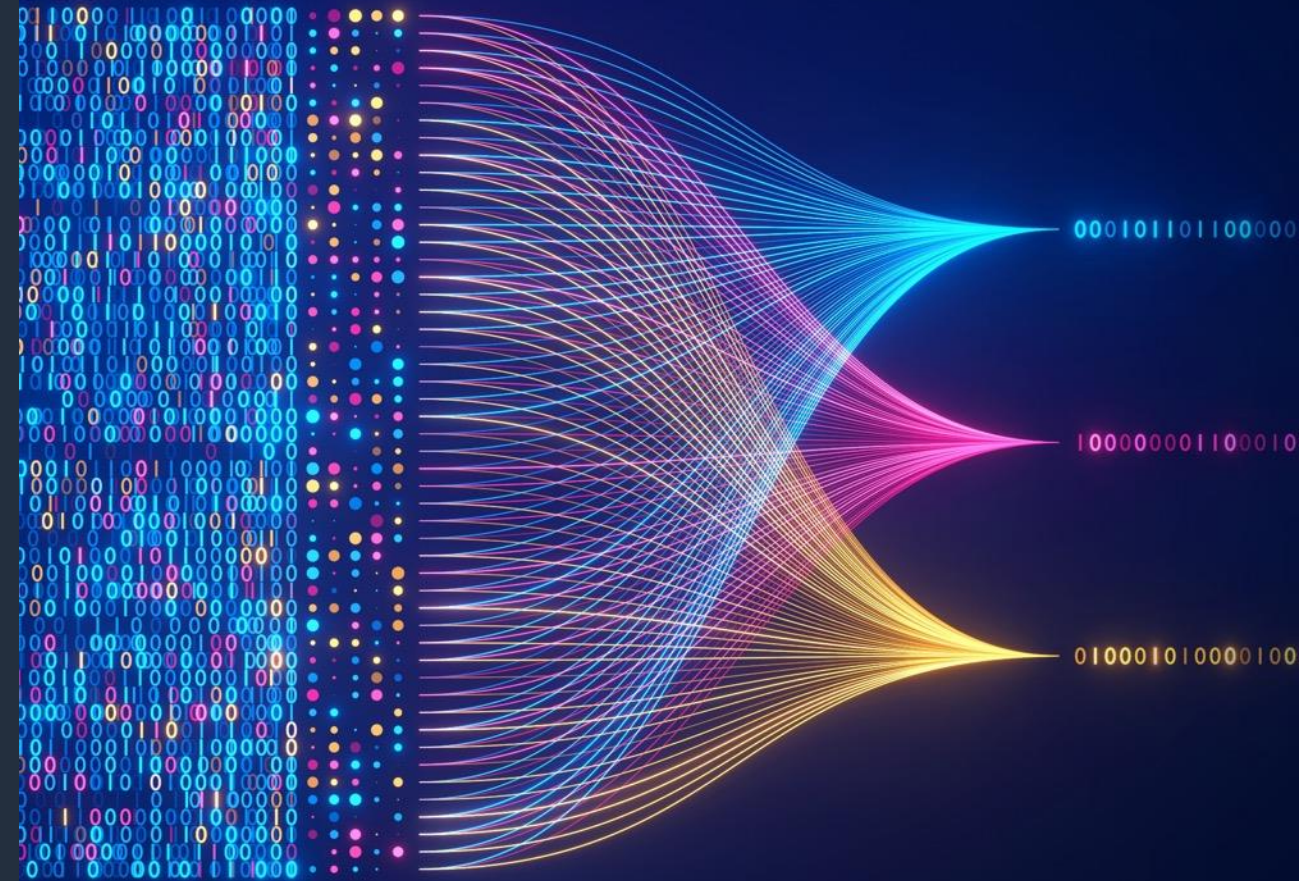
Unlocking the potential of generative AI
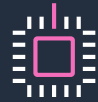
The power of compute

The easiest way to build with FMs

Generative AI-powered applications

Purpose-built accelerators for generative AI

AWS Inferentia
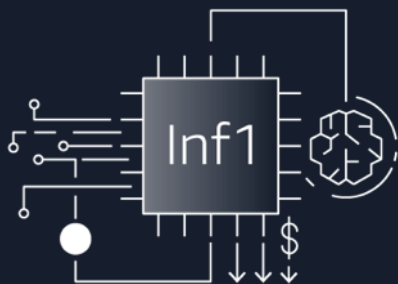
Lowest cost per inference in the cloud for running deep learning (DL) models

Up to 70% lower cost per inference than comparable Amazon EC2 instances

AWS Trainium
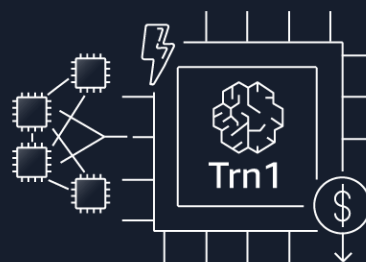
The most cost-efficient, high-performance training of LLMs and diffusion models

Up to 50% savings on training costs over comparable Amazon EC2 instances

AWS Inferentia2
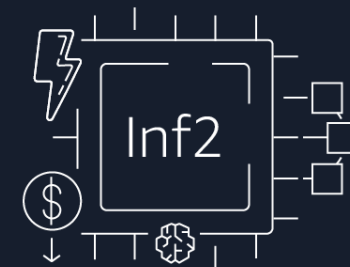
High performance at the lowest cost per inference for LLMs and diffusion models

Up to 40% better price performance than comparable Amazon EC2 instances

Amazon Bedrock supports leading foundation models

Amazon Titan

Amazon Titan FMs are a family of models built by Amazon that are pretrained on large datasets, which makes them powerful, general-purpose models

Jurassic-2

Multilingual LLMs for text generation in Spanish, French, German, Portuguese, Italian, and Dutch

Claude

LLM for conversations, question answering, and workflow automation based on research into training honest and responsible AI systems

Stable Diffusion

Generation of unique, realistic, high-quality images, art, logos, and designs

Amazon Bedrock

Benefits

- Accelerate development of generative AI applications using FMs through an API

- No need to manage infrastructure

- Choice of FMs from AI21 Labs, Anthropic, Stability AI, and Amazon

- Privately customize FMs using your organization's data

- Comprehensive AWS security capabilities

Amazon CodeWhisperer

Build applications faster and more securely with your AI coding companion - free to use for individual developers
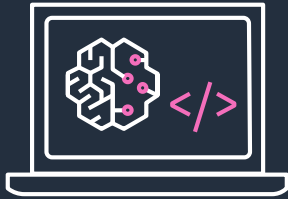
Generate code
suggestions in real time

Scan code for hard-to-find
vulnerabilities

Flag code that resembles
open-source training data
or filter by default

During preview Amazon ran a productivity challenge, and participants who used Amazon CodeWhisperer were 27% more likely to complete tasks successfully and did so an average of 57% faster than those who did not use CodeWhisperer.

Generative AI creates significant business value

NEW EXPERIENCES

Create new innovative and engaging ways of interacting with your customers and employees

PRODUCTIVITY

Radically improve productivity across all lines of business, for example Amazon CodeWhisperer helped complete tasks 57% faster

INSIGHTS

Extract insights and clear answers from all your corporate information, enabling faster and better decisions

CREATIVITY

Create new content and ideas, including conversations, stories, images, videos, and music

By 2026, 95% of communication service providers will deploy data, analytics and AI initiatives to enhance their customer experience and improve their product planning, up from 50% in 2022

Evolution in customer engagement

75% stated that customer experience impacts purchasing decisions[1]

84% will spend more with brands that allow them to choose their channel and avoid agent contact[2]

64% find information delivered by a conversational AI interface valuable[3]

[1] Statista, "Importance of customer experience," https://bit.ly/3hSTCfw
[2] ESG, "Automated Customer Experience" https://**bit.ly/3XDY0Q4**
[3] ESG, "Automated Customer Experience" https://**bit.ly/3XDY0Q4**

Use AI to improve customer experience

CHALLENGES

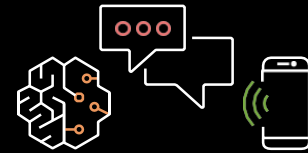- **Long hold and resolution times**
- **Single communication channel**
- **Lack of insights on customer pain points**
- **High operational expenses**

Conversational AI solution
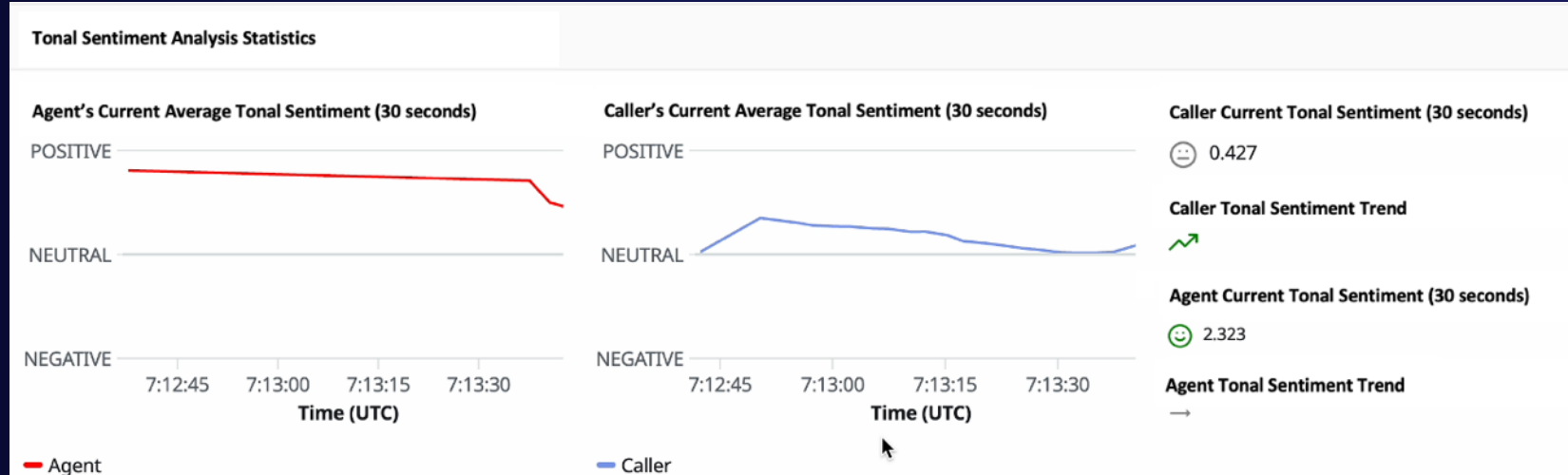
BENEFIT

- Improve customer engagement
- Enable omni-channel experience
- Uncover Insights to improve service quality
- Lower costs with automation

Voice tone analysis – a real AI voice example from Amazon Chime SDK

- Deep neural network architecture that extracts both tonal and linguistic features from audio samples

- Real-time tonal sentiment estimate every 2.5s, with likelihoods for Positive, Negative, Neutral sentiment

Benefits
- Agent Assist powered by real-time tonal sentiment
- Real-time escalations for more responsive customer experience
- Provide insights into customer satisfaction patterns and trends

Thank you!

Jennie Tietema

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