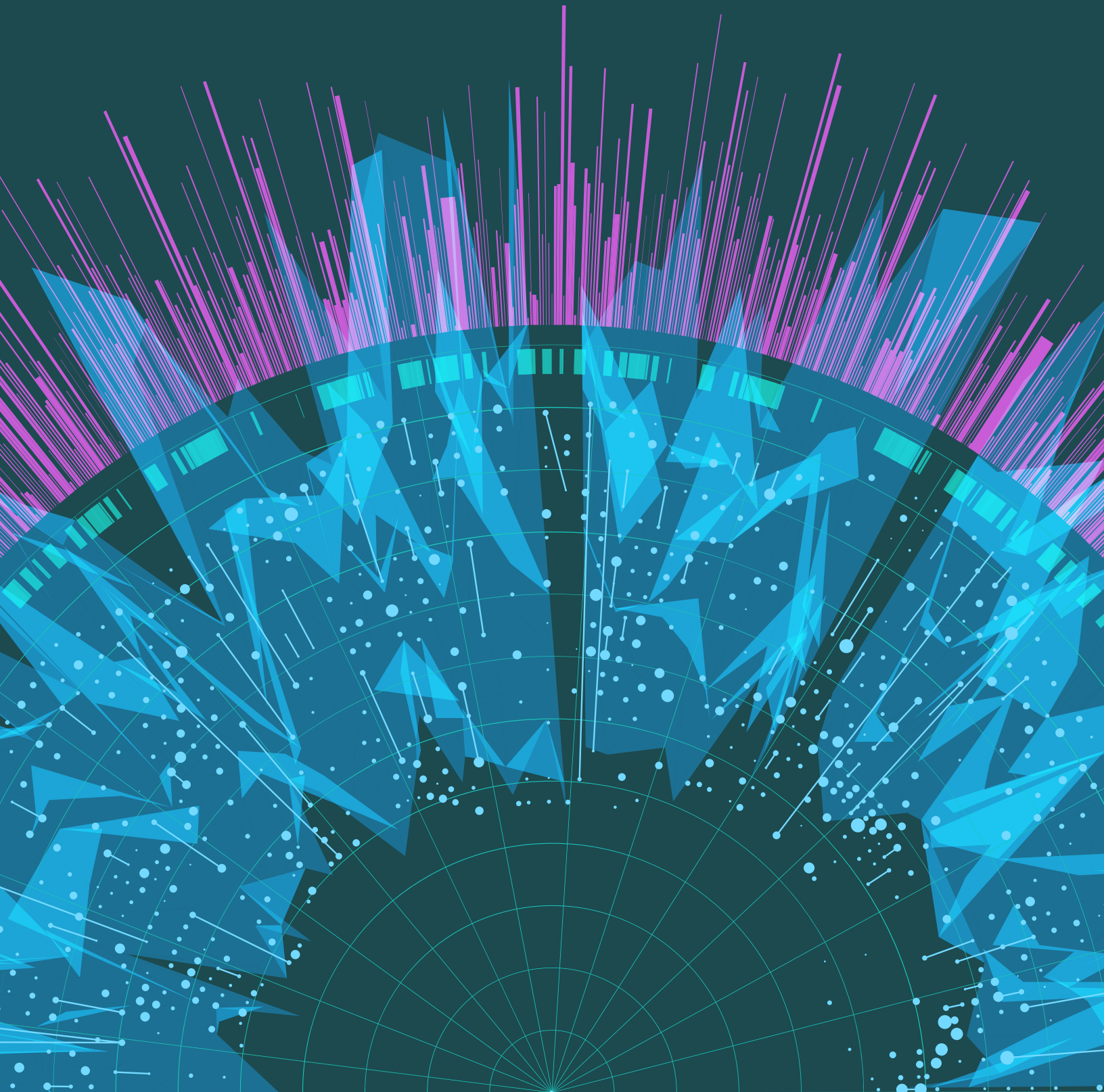




Artificial Intelligence  
Index Report 2024

# CHAPTER 9: Public Opinion



# Preview

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ACCESS THE PUBLIC DATA

# Overview

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As AI becomes increasingly ubiquitous, it is important to understand how public perceptions regarding the technology evolve. Understanding this public opinion is vital in better anticipating AI's societal impacts and how the integration of the technology may differ across countries and demographic groups.

This chapter examines public opinion on AI through global, national, demographic, and ethnic perspectives. It draws upon several data sources: longitudinal survey data from Ipsos profiling global AI attitudes over time, survey data from the University of Toronto exploring public perception of ChatGPT, and data from Pew examining American attitudes regarding AI. The chapter concludes by analyzing mentions of significant AI models on Twitter, using data from Quid.

# Chapter Highlights

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## **1. People across the globe are more cognizant of AI’s potential impact—and more nervous.**

A survey from Ipsos shows that, over the last year, the proportion of those who think AI will dramatically affect their lives in the next three to five years has increased from 60% to 66%. Moreover, 52% express nervousness toward AI products and services, marking a 13 percentage point rise from 2022. In America, Pew data suggests that 52% of Americans report feeling more concerned than excited about AI, rising from 38% in 2022.

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**2. AI sentiment in Western nations continues to be low, but is slowly improving.** In 2022, several developed Western nations, including Germany, the Netherlands, Australia, Belgium, Canada, and the United States, were among the least positive about AI products and services. Since then, each of these countries has seen a rise in the proportion of respondents acknowledging the benefits of AI, with the Netherlands experiencing the most significant shift.

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**3. The public is pessimistic about AI’s economic impact.** In an Ipsos survey, only 37% of respondents feel AI will improve their job. Only 34% anticipate AI will boost the economy, and 32% believe it will enhance the job market.

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**4. Demographic differences emerge regarding AI optimism.** Significant demographic differences exist in perceptions of AI’s potential to enhance livelihoods, with younger generations generally more optimistic. For instance, 59% of Gen Z respondents believe AI will improve entertainment options, versus only 40% of baby boomers. Additionally, individuals with higher incomes and education levels are more optimistic about AI’s positive impacts on entertainment, health, and the economy than their lower-income and less-educated counterparts.

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**5. ChatGPT is widely known and widely used.** An international survey from the University of Toronto suggests that 63% of respondents are aware of ChatGPT. Of those aware, around half report using ChatGPT at least once weekly.

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# 9.1 Survey Data

## Global Public Opinion

This section explores global differences in AI opinions through surveys conducted by Ipsos in 2022 and 2023. These surveys reveal that public perceptions of AI vary widely across countries and demographic groups.

### AI Products and Services

In 2023, Ipsos ran a survey on global attitudes toward AI products and services. The survey consisted of interviews with 22,816 adults ages 16 to 74 in 31 countries.<sup>1</sup>

Figure 9.1.1 shows the percentage of respondents who agree with specific statements. A significant 66% anticipate AI will greatly change their lives in the

near future, while 54% believe AI’s benefits surpass its drawbacks. About half of the respondents trust AI companies’ data-protection capabilities.

The figure also contrasts Ipsos survey responses from 2022 and 2023, highlighting a shift in public AI sentiment following the release of ChatGPT—a milestone in public AI recognition. Over the last year, there has been a noticeable 6 percentage point increase in those who think AI will dramatically affect their lives in the next three to five years. Moreover, 52% now express nervousness toward AI products and services, marking a 13 percentage point rise from 2022. The public across the globe is becoming increasingly cognizant of and nervous about AI’s growing impact.

**Global opinions on products and services using AI (% of total), 2022 vs. 2023**

Source: Ipsos, 2022–23 | Chart: 2024 AI Index report

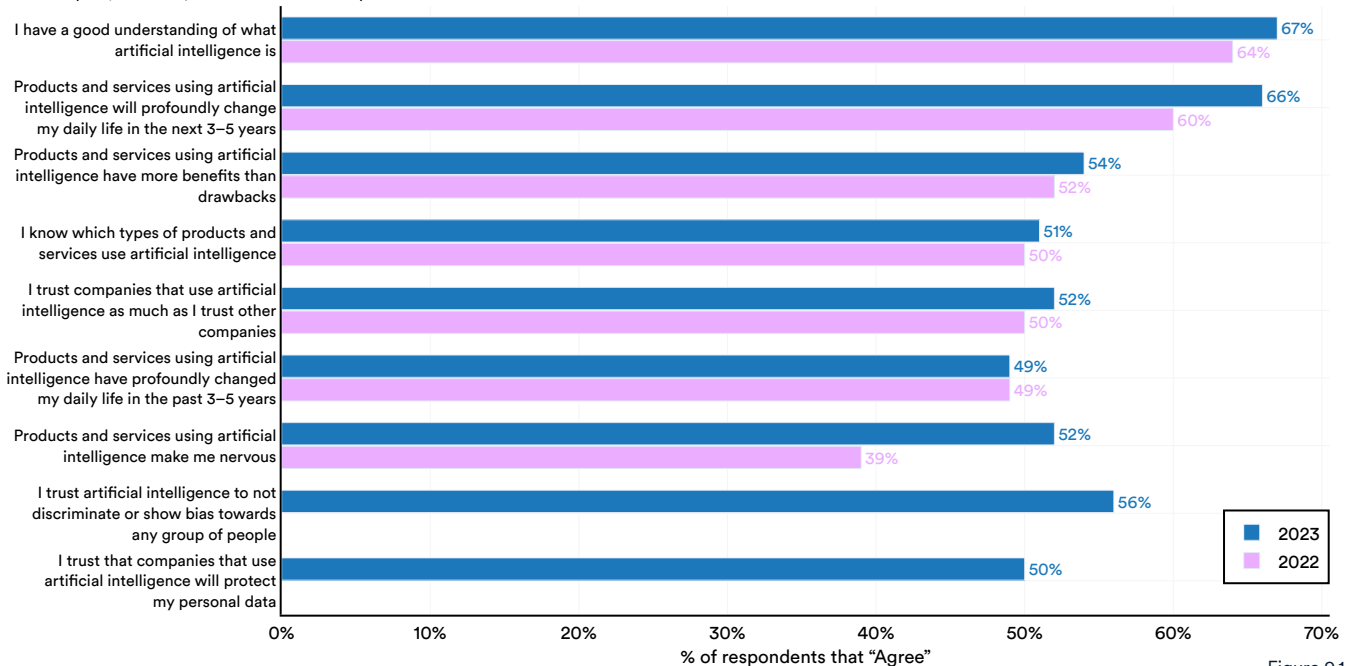


Figure 9.1.1

<sup>1</sup> See Appendix for more details about the survey methodology. The survey was conducted from May to June 2023.

Perceptions of AI's benefits versus drawbacks vary considerably by country, according to the Ipsos survey. 78% of Indonesian, 74% of Thai, and 73% of Mexican respondents view AI products and services as more beneficial than harmful (Figure 9.1.2). In contrast, only 37% of Americans agree with this perspective. Among the 31 countries surveyed, the United States and France exhibited the most skepticism.

Attitudes toward AI are becoming more positive in countries that were previously critical. In 2022, several

developed Western nations, including Germany, the Netherlands, Australia, Belgium, Canada, and the United States, were among the least positive about AI products and services. Since then, each of these countries has seen a rise in the proportion of respondents acknowledging the benefits of AI, with the Netherlands experiencing the most significant shift. By 2023, 43% of Dutch respondents viewed AI products and services positively, up from 33% the previous year.

**'Products and services using AI have more benefits than drawbacks,' by country (% of total), 2022 vs. 2023**

Source: Ipsos, 2022–23 | Chart: 2024 AI Index report

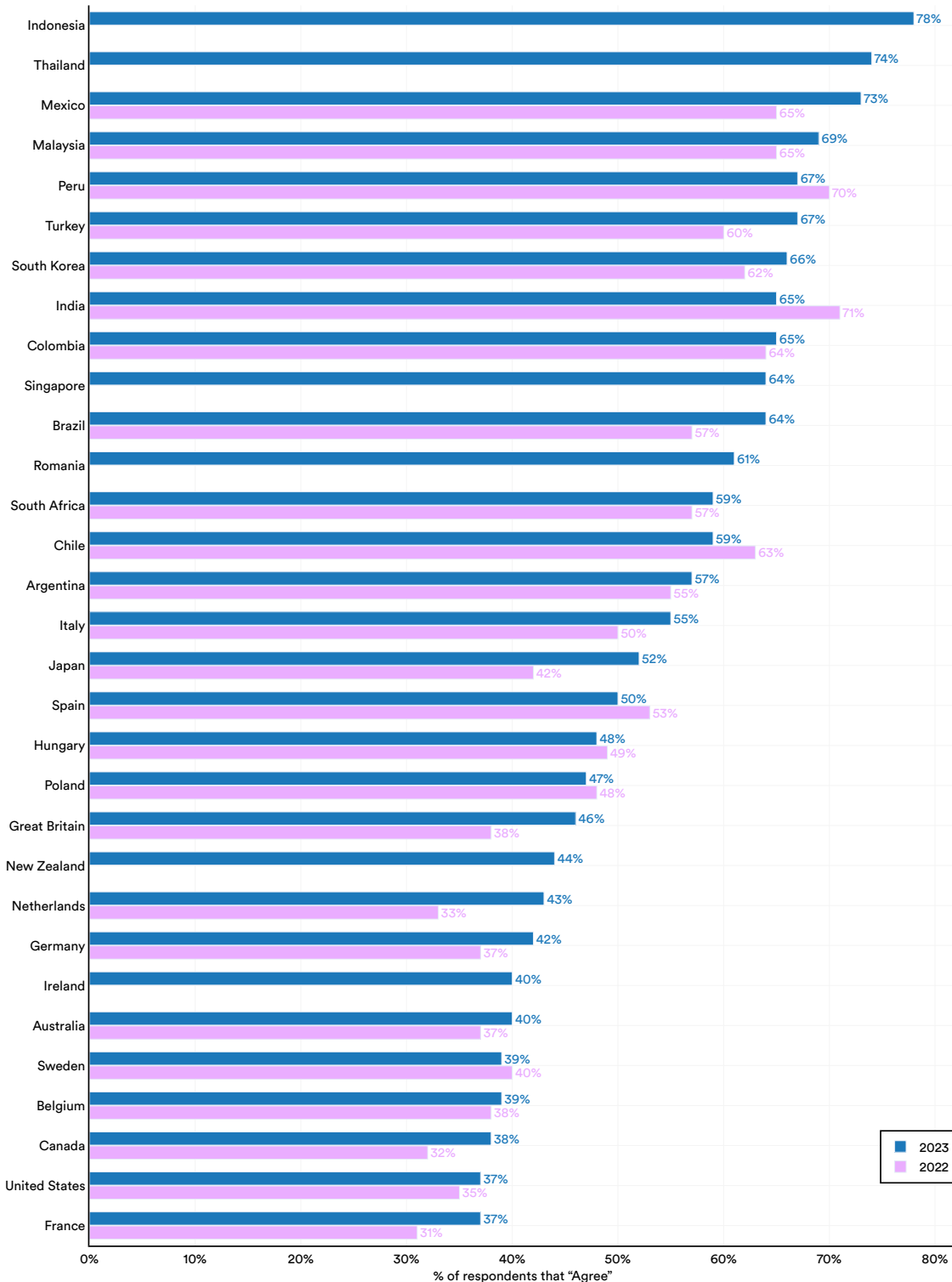


Figure 9.1.2

Figure 9.1.3 shows responses to Ipsos' survey on AI products and services by country. Indonesian respondents are notably optimistic: 84% claim a solid understanding of AI, 79% believe AI will significantly change their lives in the next three to five years, and 75% express excitement about AI products and services.

Conversely, Japanese respondents show the least understanding of AI (43%) and also report the lowest level of nervousness about AI (23%). Meanwhile, Thai respondents exhibit the highest trust in AI's impartiality, believing it will not discriminate or show bias toward any group.

### Opinions about AI by country (% agreeing with statement), 2023

Source: Ipsos, 2023 | Chart: 2024 AI Index report

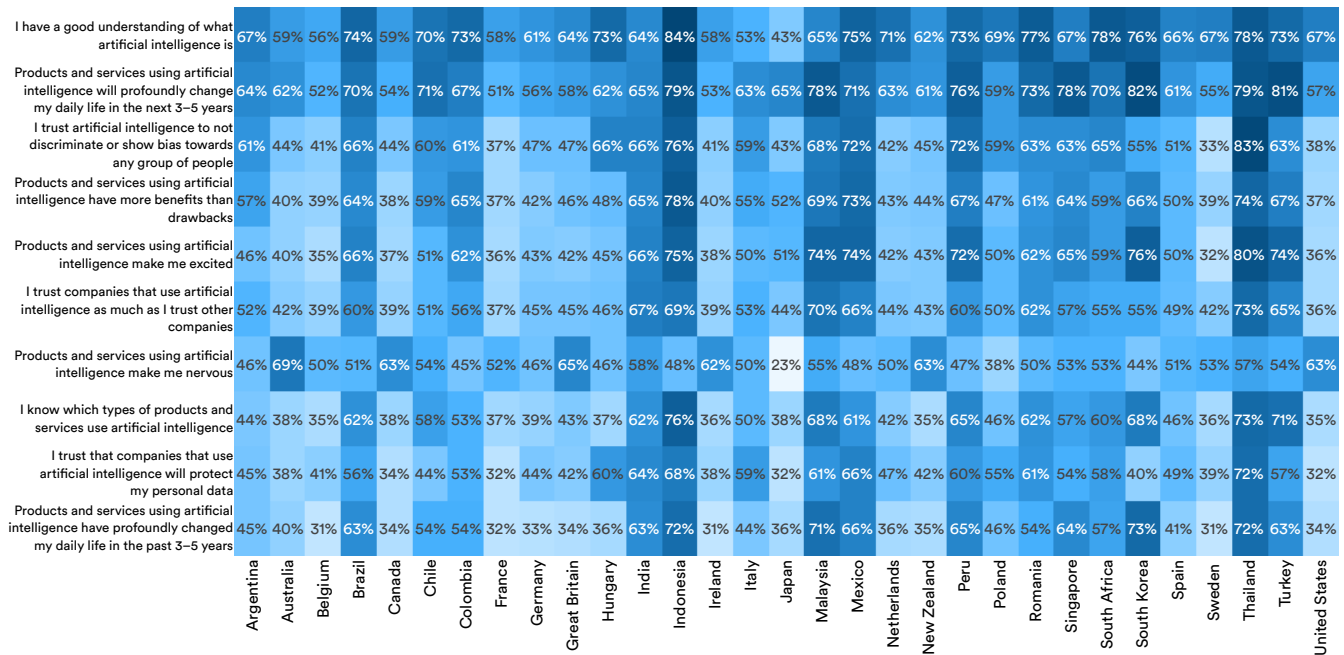


Figure 9.1.3



A large majority of the countries surveyed by Ipsos in 2022 were surveyed again in 2023, enabling cross-year comparisons. Figure 9.1.4 highlights the year-over-year percentage point change in answers to particular AI-related questions. For every country surveyed in both 2022 and 2023, an increase was reported in the degree to which AI products make people nervous. The sharpest increases were reported in Italy

(24 percentage points), France (19), Chile (18), and Australia (18).

Likewise, except for South Africa, all countries in the survey sample are now more inclined to believe that AI will significantly impact their lives in the next three to five years. The highest increase of 12 percentage points was reported in Japan, Great Britain, Germany, and Australia.

**Percentage point change in opinions about AI by country (% agreeing with statement), 2022–23**

Source: Ipsos, 2022–23 | Chart: 2024 AI Index report

Statement	Argentina	Australia	Belgium	Brazil	Canada	Chile	Colombia	France	Germany	Great Britain	Hungary	Italy	Japan	Malaysia	Mexico	Netherlands	Peru	Poland	South Africa	South Korea	Spain	Sweden	Turkey	United States
I have a good understanding of what artificial intelligence is	3%	0%	-4%	5%	-1%	-6%	2%	9%	11%	7%	6%	11%	3%	4%	1%	6%	-2%	3%	0%	3%	4%	7%	5%	4%
Products and services using artificial intelligence will profoundly change my daily life in the next 3–5 years	4%	12%	0%	10%	11%	3%	2%	6%	12%	12%	7%	11%	12%	6%	5%	10%	5%	3%	-2%	6%	5%	5%	8%	11%
Products and services using artificial intelligence have more benefits than drawbacks	2%	2%	2%	7%	6%	-4%	1%	6%	5%	8%	-1%	4%	10%	5%	8%	10%	-3%	-1%	2%	4%	-3%	-1%	7%	2%
I trust companies that use artificial intelligence as much as I trust other companies	-3%	6%	-1%	9%	5%	-5%	0%	3%	3%	9%	-1%	5%	6%	9%	6%	7%	0%	-1%	-1%	8%	0%	3%	3%	1%
Products and services using artificial intelligence make me nervous	14%	18%	9%	16%	14%	18%	6%	19%	9%	16%	14%	24%	3%	7%	10%	14%	12%	8%	1%	13%	3%	16%	6%	11%
I know which types of products and services use AI	-3%	-1%	-3%	4%	1%	-1%	-9%	3%	2%	6%	0%	4%	5%	7%	-1%	1%	2%	-6%	2%	8%	0%	-1%	11%	-4%
Products and services using artificial intelligence have profoundly changed my daily life in the past 3–5 years	-8%	4%	-6%	12%	2%	-4%	-5%	-1%	2%	1%	2%	3%	5%	6%	4%	-3%	0%	2%	1%	11%	-8%	1%	3%	-2%

Figure 9.1.4

### AI and Jobs

This year’s Ipsos survey included more questions about how people perceive AI’s impact on their current jobs. Figure 9.1.5 illustrates the various global perspectives on the expected impact of AI on employment. 57%

of respondents think AI is likely to change how they perform their current job within the next five years, and 36% fear AI may replace their job in the same time frame.

#### Global opinions on the impact of AI on current jobs, 2023

Source: Ipsos, 2023 | Chart: 2024 AI Index report

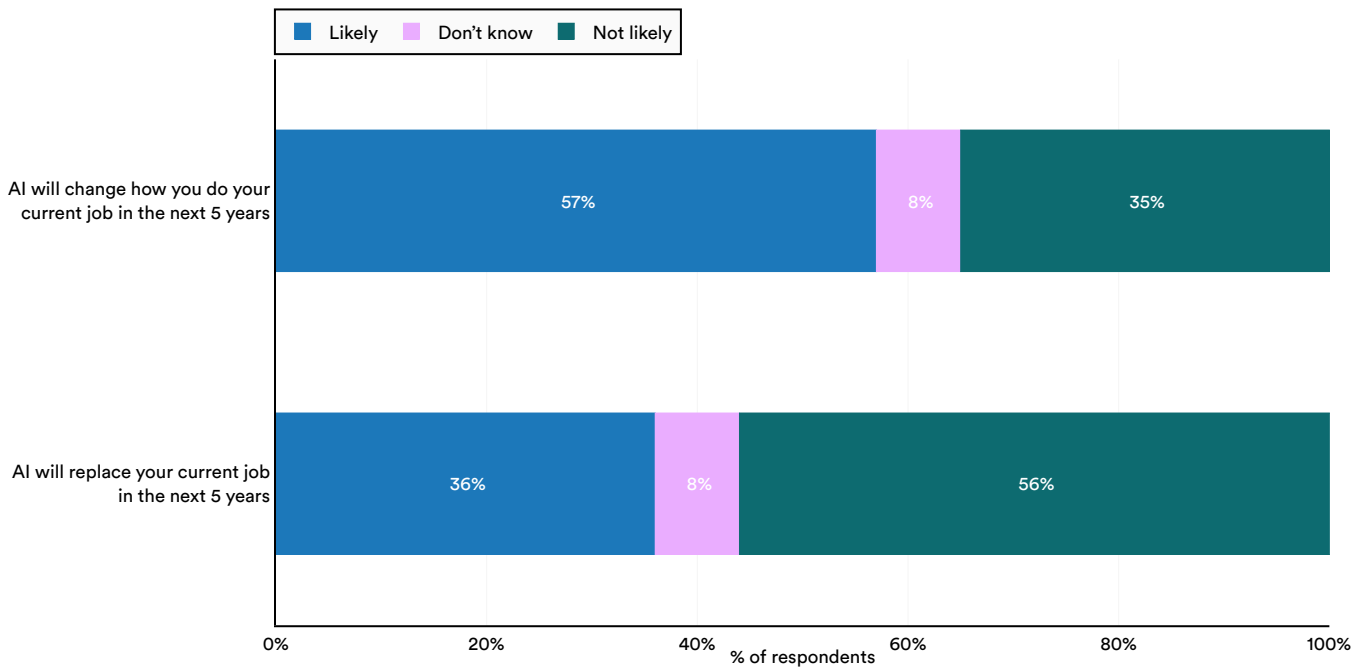


Figure 9.1.5

Opinions on whether AI will significantly impact an individual’s job vary significantly across demographic groups (Figure 9.1.6). Younger generations, such as Gen Z and millennials, are more inclined to agree that AI will change how they do their jobs compared to older generations like Gen X and baby boomers.

Specifically, 66% of Gen Z compared to 46% of boomer respondents agree with the statement that AI will likely affect their current jobs. Additionally, individuals with higher incomes, more education, and decision-making roles are more likely to foresee AI impacting their current employment.

**Global opinions on the impact of AI on current jobs by demographic group, 2023**

Source: Ipsos, 2023 | Chart: 2024 AI Index report

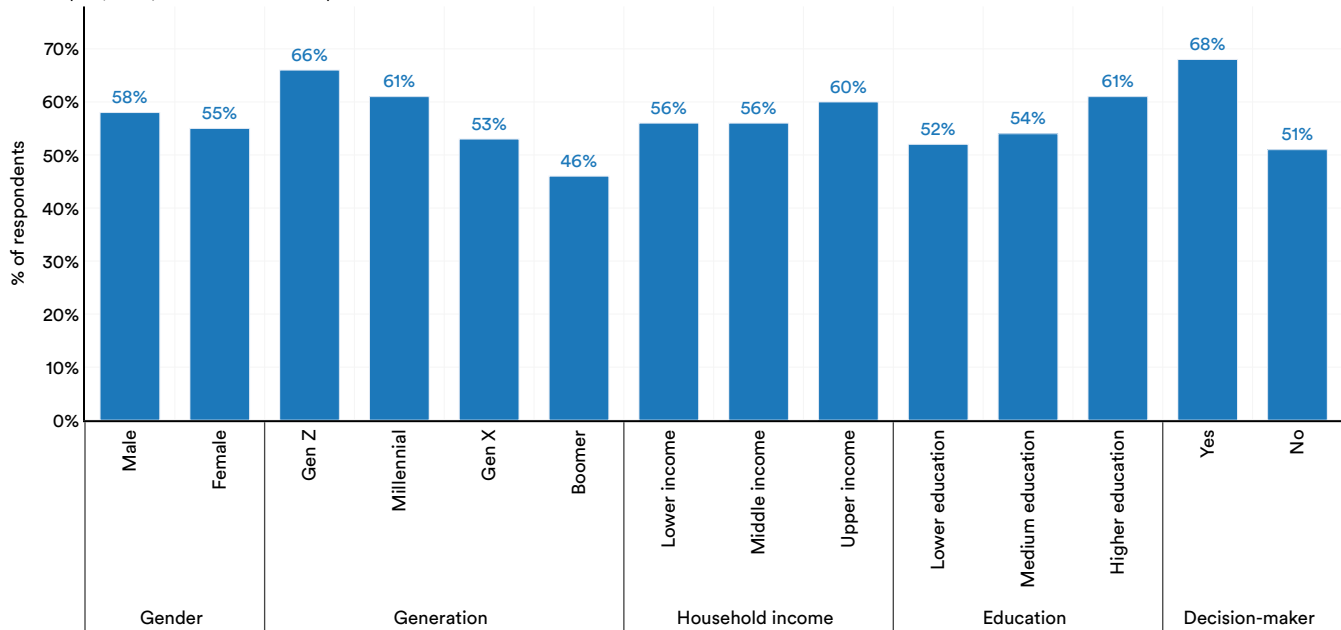


Figure 9.1.6

### AI and Livelihood

The Ipsos survey explored the impact respondents believe AI will have on various aspects of their lives, such as health and entertainment. On topics like time management and entertainment, the majority viewed AI positively (Figure 9.1.7). For instance, 54% of global respondents agree that AI will improve the efficiency of their tasks, and 51% believe AI will enhance entertainment options like TV, movies, music, and books. However, skepticism was more prominent in other areas. Only 39% feel AI will benefit their health, and 37% think it will improve their job. Only 34% anticipate AI will boost the economy, and just 32% believe it will enhance the job market.

and 37% think it will improve their job. Only 34% anticipate AI will boost the economy, and just 32% believe it will enhance the job market.

Similar to questions about AI products and services, responses showed intracountry consistency, with Japanese, Swedes, and Americans generally pessimistic about AI’s potential to improve livelihoods, whereas Brazilians, Indonesians, and Mexicans were more optimistic.

### Global opinions on the potential of AI improving life by country, 2023

Source: Ipsos, 2023 | Chart: 2024 AI Index report

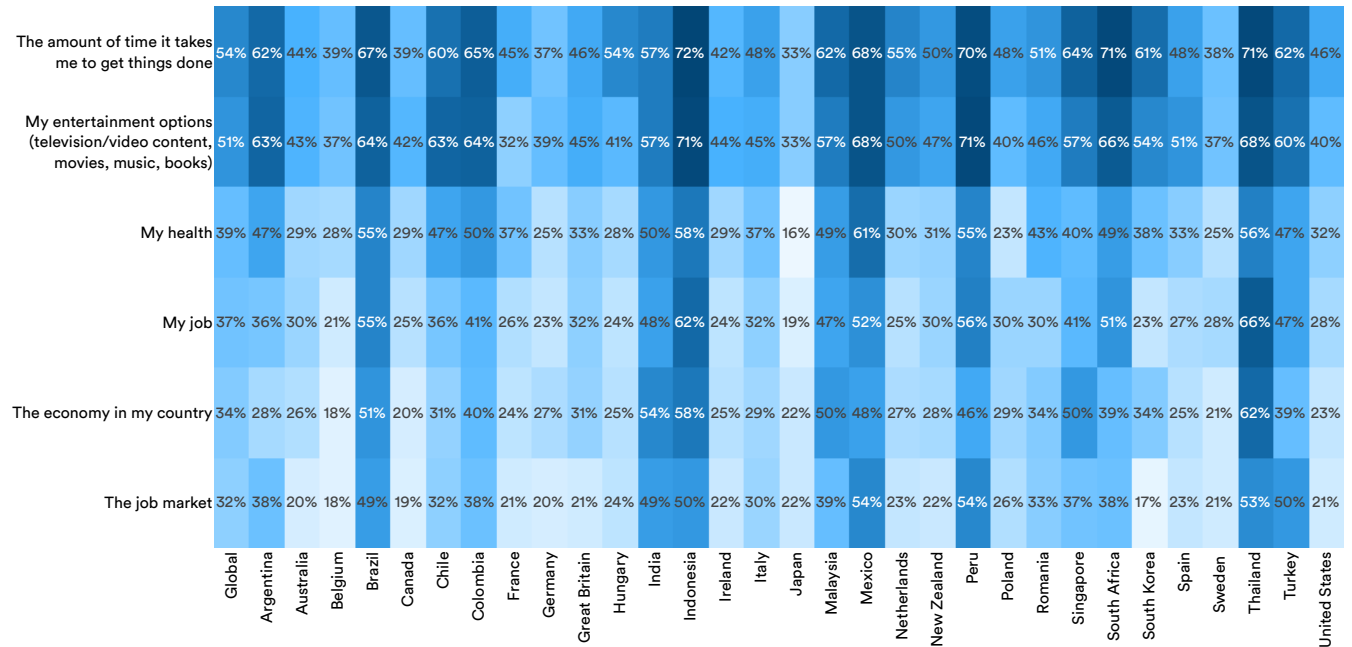


Figure 9.1.7

Significant demographic differences also exist in perceptions of AI’s potential to enhance livelihoods, with younger generations generally expressing greater optimism. For instance, 59% of Gen Z respondents believe AI will improve entertainment options, versus only 40% of baby boomers. Additionally, individuals with higher incomes and education levels are more optimistic about AI’s positive impacts on

entertainment, health, and the economy compared to their lower-income and less-educated counterparts. In general, members of Gen Z, those in higher income brackets, and those with more education are the most optimistic about AI’s potential to improve life, while those from the boomer generation, lower income brackets, and with less education are the least optimistic.

**Global opinions on the potential of AI improving life by demographic group, 2023**

Source: Ipsos, 2023 | Chart: 2024 AI Index report

The amount of time it takes me to get things done	55%	53%	63%	57%	52%	43%	47%	53%	61%	46%	53%	60%	56%	50%
My entertainment options (television/video content, movies, music, books)	52%	51%	59%	55%	51%	40%	47%	51%	57%	47%	51%	55%	54%	47%
My health	42%	36%	46%	42%	37%	30%	34%	40%	43%	35%	39%	41%	41%	35%
My job	38%	35%	46%	41%	31%	26%	33%	36%	41%	34%	35%	40%		
The economy in my country	37%	31%	40%	38%	31%	26%	32%	35%	38%	30%	33%	38%	37%	29%
The job market	34%	30%	39%	36%	28%	23%	31%	32%	34%	30%	32%	33%	34%	28%
	Male	Female	Gen Z	Millennial	Gen X	Boomer	Lower income	Middle income	Upper income	Lower education	Medium education	Higher education	Employed	Nonemployed
	Gender		Generation			Household income			Education			Employment status		

Figure 9.1.8

## Attitudes on ChatGPT

Many argue that the launch of ChatGPT by OpenAI in November 2022 was a watershed moment in familiarizing the public with AI. While AI encompasses much more than ChatGPT or LLMs, the prominence of ChatGPT as one of the most well-known AI tools makes gauging public sentiment toward it an interesting approach for better understanding broader opinions on AI.

Global Public Opinion on Artificial Intelligence (GPO-AI) is a report created by the Schwartz Reisman Institute for Technology and Society (SRI) in collaboration with the Policy, Elections and Representation Lab (PEARL) at the Munk School of Global Affairs and Public Policy at the University of

Toronto. In October and November 2023, researchers from SRI and PEARL conducted a 21-country survey examining global attitudes toward AI.

Figure 9.1.9 explores the extent of global public awareness of ChatGPT. Among global respondents, 63% claim awareness of ChatGPT. Countries with the highest awareness rates include India (82%), Kenya (81%), Indonesia (76%), and Pakistan (76%). Poland reported the lowest awareness, at 43%.

Figure 9.1.10 highlights how frequently respondents who report being familiar with ChatGPT use the tool. Globally, 17% of users utilize it daily, 36% weekly, and 16% monthly. India (36%), Pakistan (28%), and Kenya (27%) report the highest levels of daily usage.

### Global awareness of ChatGPT (% of total), 2023

Source: Global Public Opinion on Artificial Intelligence (GPO-AI), 2024 | Chart: 2024 AI Index report

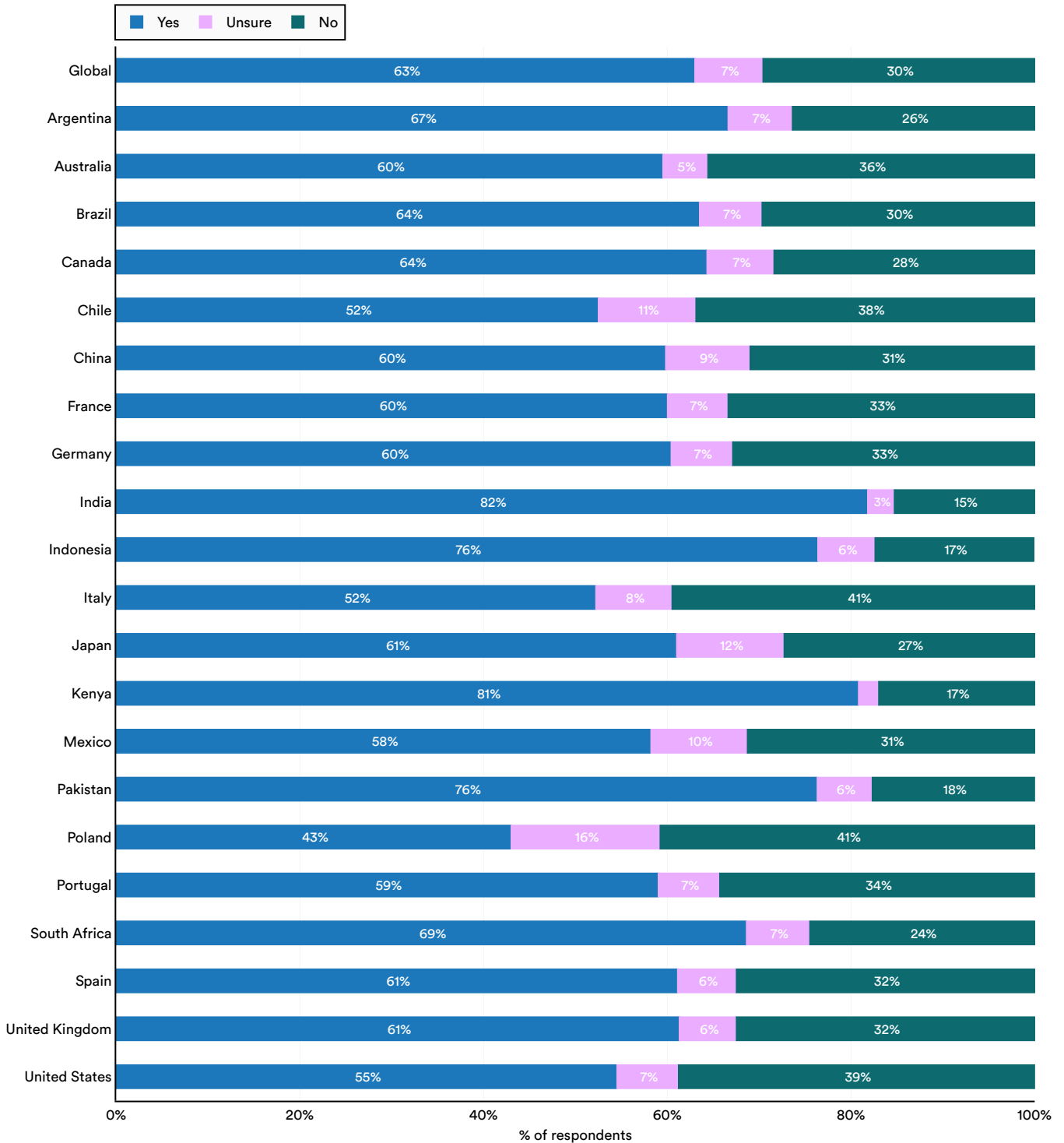


Figure 9.1.9

### Global usage frequency of ChatGPT (% of total), 2023

Source: Global Public Opinion on Artificial Intelligence (GPO-AI), 2024 | Chart: 2024 AI Index report

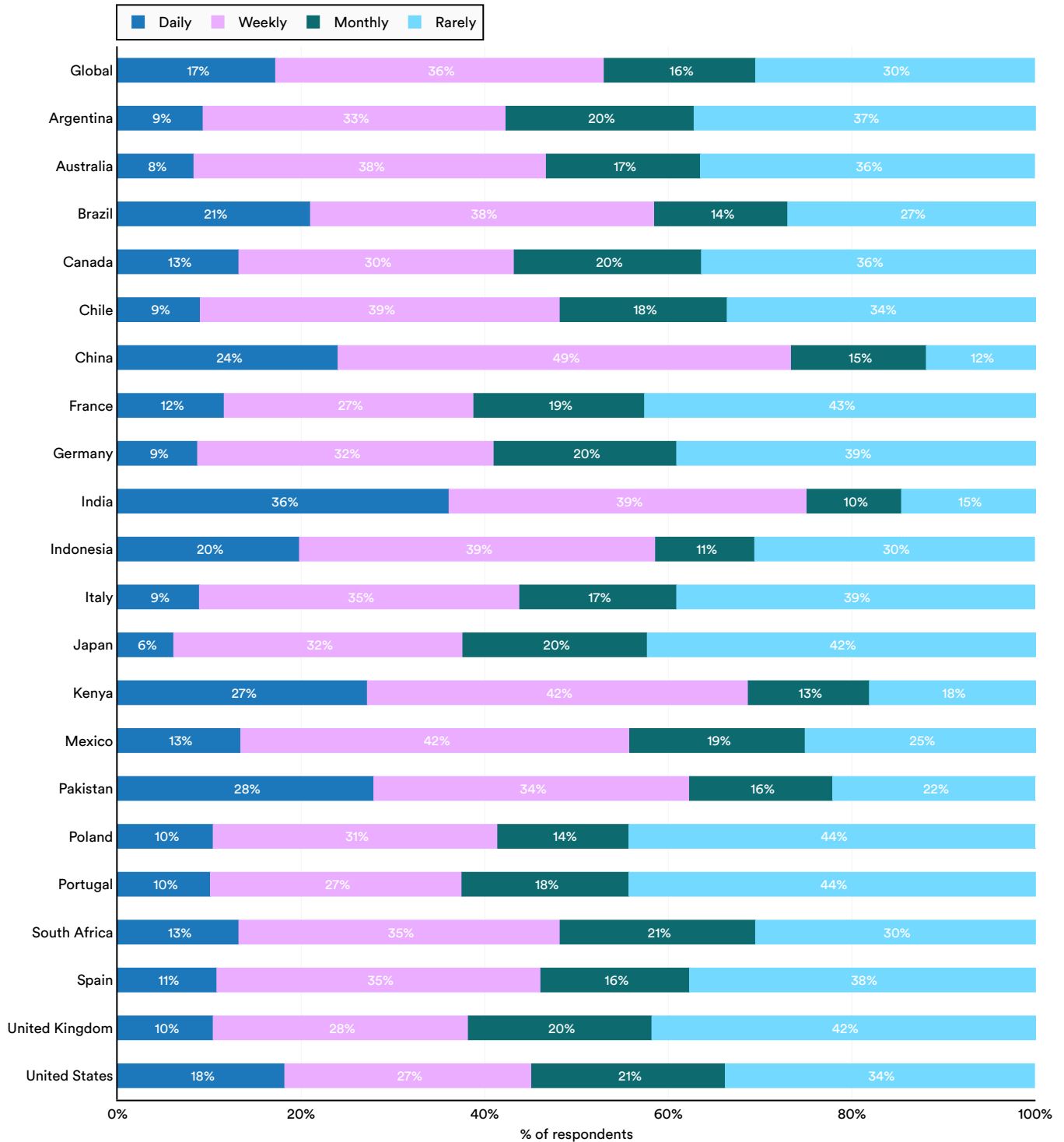


Figure 9.110



### AI Concerns

GPO-AI also reported on respondents' AI-related concerns. Figure 9.1.11 presents the percentage of survey respondents who expressed concern about 11 specific impacts. Globally, individuals were most concerned about AI being misused for nefarious

purposes (49%), its impact on jobs (49%), and its potential to violate citizens' privacy (45%). In contrast, global citizens were comparatively less concerned about issues of unequal access to AI (26%), AI's potential for bias and discrimination (24%), and their own ability to use AI (22%).

### Global concerns on the impacts of AI in the next few years, 2023

Source: Global Public Opinion on Artificial Intelligence (GPO-AI), 2024 | Chart: 2024 AI Index report

Misuse/use for nefarious purposes	49%	63%	45%	46%	52%	56%	39%	44%	57%	34%	66%	47%	52%	34%	52%	31%	51%	62%	47%	58%	48%	43%
Impact of AI on jobs	49%	53%	45%	47%	49%	58%	39%	43%	42%	48%	59%	40%	36%	54%	54%	51%	37%	57%	68%	49%	49%	43%
Violation of citizens' privacy	45%	53%	45%	46%	48%	57%	39%	43%	44%	35%	46%	40%	33%	34%	43%	31%	49%	57%	55%	53%	40%	43%
Dehumanization of services	41%	52%	43%	44%	49%	54%	22%	51%	40%	28%	28%	42%	38%	37%	47%	21%	27%	59%	49%	54%	44%	39%
Lack of transparency in decision-making	34%	35%	42%	35%	38%	35%	27%	30%	33%	36%	36%	31%	24%	36%	33%	28%	32%	41%	47%	35%	35%	32%
Impact of AI on education	33%	32%	28%	33%	34%	33%	26%	28%	27%	41%	35%	24%	25%	47%	30%	43%	28%	37%	43%	33%	27%	27%
Ethical implications	30%	32%	38%	28%	37%	34%	25%	22%	27%	32%	23%	25%	24%	33%	29%	23%	25%	37%	30%	34%	35%	32%
Accuracy of results and analysis	28%	23%	38%	18%	32%	24%	24%	23%	24%	39%	30%	20%	29%	43%	25%	34%	20%	22%	38%	20%	31%	30%
Uneven access to AI	26%	35%	21%	35%	24%	32%	23%	23%	23%	29%	29%	19%	27%	22%	30%	19%	20%	32%	28%	28%	18%	19%
Potential for bias and discrimination	24%	20%	34%	26%	30%	23%	20%	17%	22%	29%	33%	18%	18%	28%	23%	18%	16%	27%	29%	24%	32%	26%
My own ability to use AI	22%	22%	18%	20%	18%	24%	18%	19%	16%	36%	30%	17%	16%	33%	27%	31%	14%	22%	29%	18%	19%	19%
	Global	Argentina	Australia	Brazil	Canada	Chile	China	France	Germany	India	Indonesia	Italy	Japan	Kenya	Mexico	Pakistan	Poland	Portugal	South Africa	Spain	United Kingdom	United States

Figure 9.1.11

## U.S. Public Opinion

Since 2021, Pew Research Center has been investigating sentiment toward AI in the United States. They received 11,000 responses to their most recent 2023 survey.

Figure 9.1.12 shows that over the last year, Americans have grown increasingly concerned about the use of AI in their daily lives. In 2021 and 2022, only 37% and 38% of Americans, respectively, reported feeling more concerned than excited about AI technology. By 2023, this figure had risen to 52%, indicating that a majority of Americans now feel more concerned than excited about AI technology.

### Americans' feelings toward increased use of AI in daily life (% of total), 2021–23

Source: Pew Research, 2023 | Chart: 2024 AI Index report

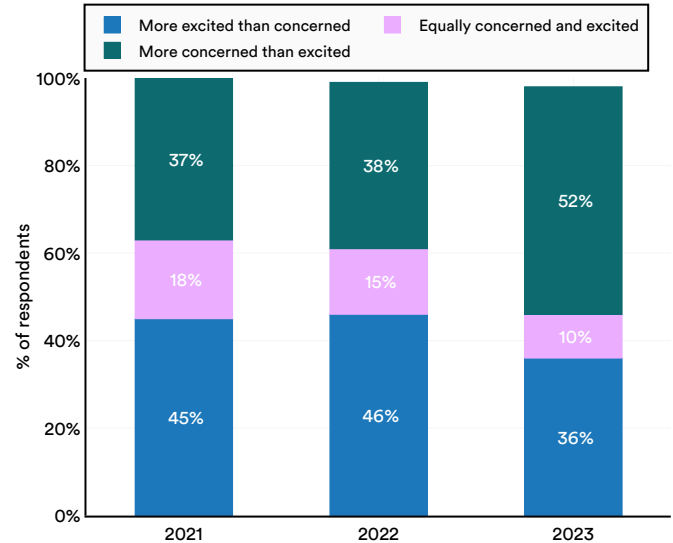


Figure 9.1.12

Pew also surveyed Americans' opinions on whether they believed AI helped or hindered in specific contexts (Figure 9.1.13). Respondents reported that AI was more likely to be beneficial, particularly in assisting people to find products or services online, with 49% expressing this view. However, 53% of respondents indicated that AI was more likely to be detrimental than beneficial in safeguarding personal information privacy.

### Americans' opinions of whether AI helps or hurts in specific settings (% of total), 2023

Source: Pew Research, 2023 | Chart: 2024 AI Index report

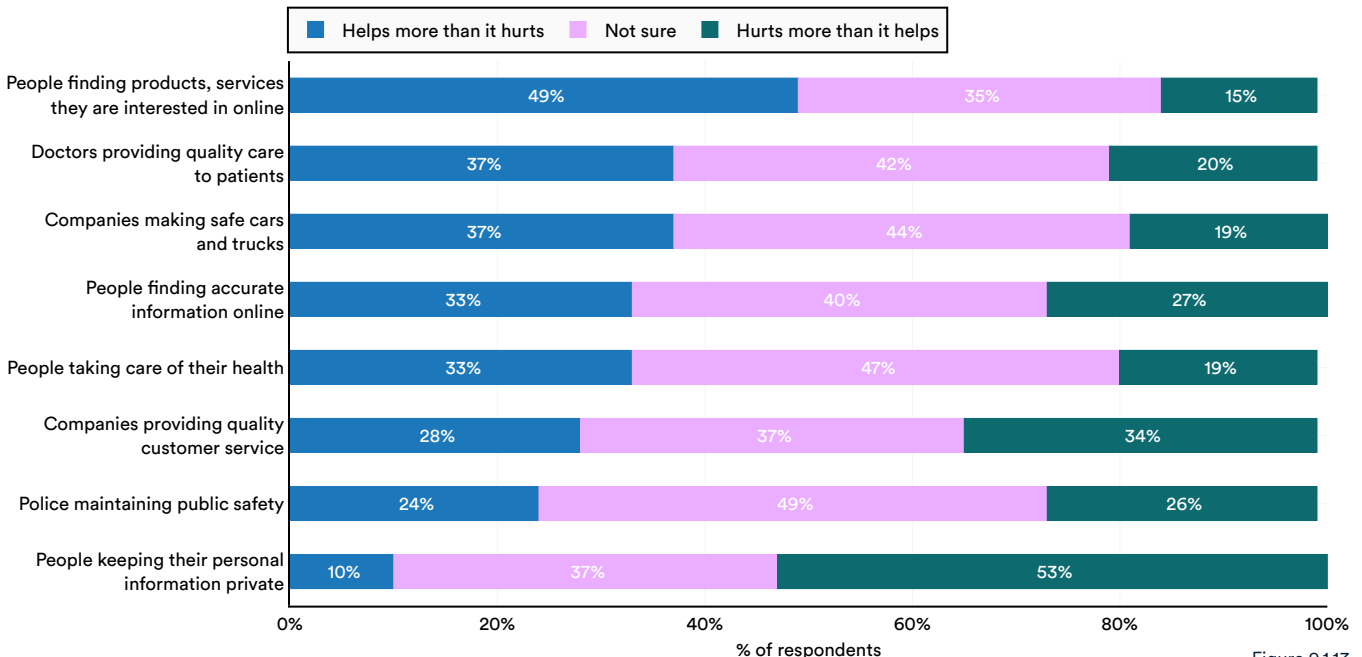


Figure 9.1.13

Pew further segmented the data by education level (Figure 9.1.14). Across various use categories, Americans with higher education levels are more likely to believe in AI's potential to help rather than harm. For instance, individuals with college or higher-

level degrees are more likely to report that AI can significantly aid doctors in delivering quality care to patients and assist people in discovering products and services online that interest them.

### Differences in Americans' view of AI's impact by education level (% of total), 2023

Source: Pew Research, 2023 | Chart: 2024 AI Index report

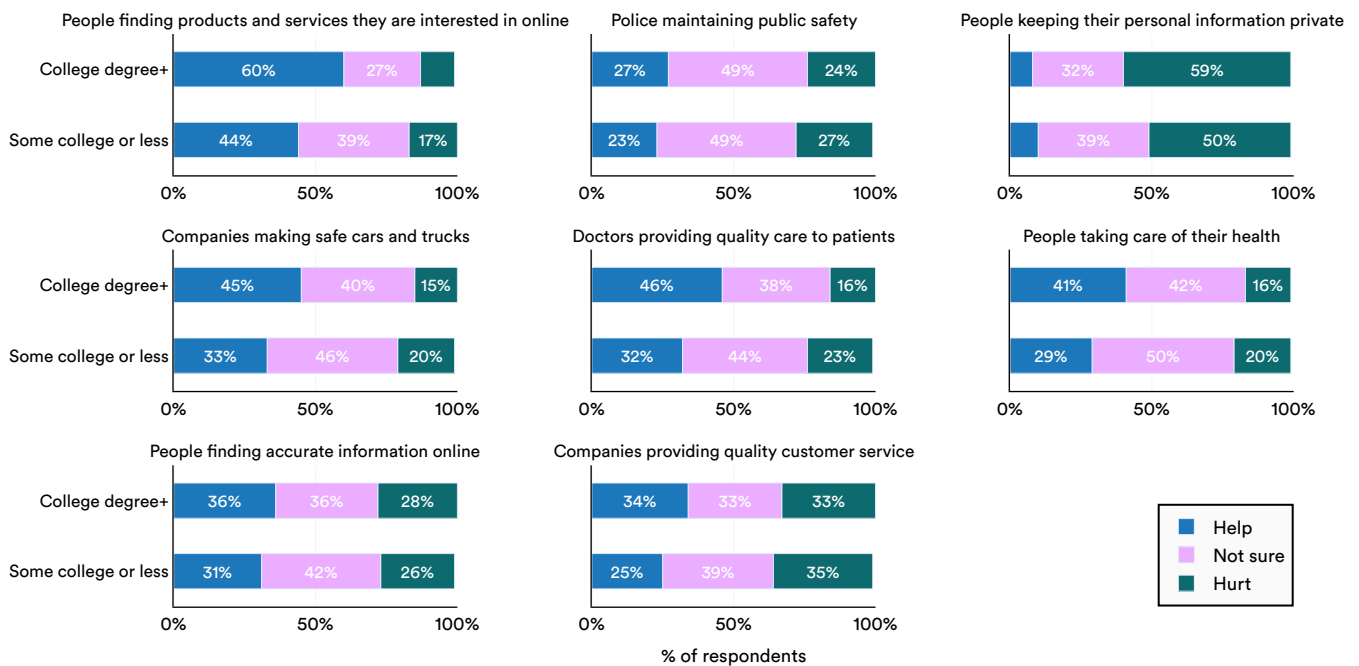


Figure 9.1.14

# 9.2 Social Media Data

## Dominant Models

Public attitudes toward AI can be assessed through both quantitative and qualitative analyses of posts made on social media. Quid analyzed social conversations surrounding AI models across various sectors from January to December 2023, examining over 7 million social media posts.

Figure 9.2.1 shows the net sentiment score of various AI models released throughout the year. The net

sentiment score expresses the ratio of positive to negative sentiment around a given topic. A net sentiment score of +100 means that all conversation is positive; a score of -100 means that all conversation is negative. Many models released in 2023 received positive social media sentiment. Some of the models that garnered the highest degree of positive attention were GraphCast, a new AI-powered weather forecasting system from DeepMind, and Claude 2.1, one of Anthropic’s most recent LLMs.

### Net sentiment score of AI models by quarter, 2023

Source: Quid, 2023 | Chart: 2024 AI Index report

	2023/Q1	2023/Q2	2023/Q3	2023/Q4
Stable Diffusion	40	37	53	45
Copilot	56	66	73	67
GPT-4	42	48	51	44
PaLM 2		62	66	75
DALL-E 3			74	72
Mistral 7B			92	56
Grok				57
GPT-4 Turbo				68
Whisper V3				83
GraphCast				94
Claude 2.1				87
Stable Video Diffusion				66
Orca 2				83
Inflection-2				81
Gemini				36
Midjourney v6				71

Figure 9.2.1

Figure 9.2.2 highlights the proportion of AI-related social media conversation that was dominated by the release of particular models.<sup>2</sup> GPT-4 remained a dominant topic of consumer conversation throughout the year. Despite the release of numerous new models by

the fourth quarter of 2023, GPT-4 still captured 45% of social media attention. Other models that garnered significant attention included Grok, Stable Diffusion, and Gemini.

**Select models' share of AI social media attention by quarter, 2023**

Source: Quid, 2023 | Chart: 2024 AI Index report

	2023/Q1	2023/Q2	2023/Q3	2023/Q4
Stable Diffusion	46%	21%	24%	12%
Copilot	0%	1%	1%	1%
GPT-4	53%	71%	62%	45%
PaLM 2		5%	4%	2%
DALL-E 3			3%	7%
Mistral 7B			0%	2%
Grok				16%
GPT-4 Turbo				2%
Whisper V3				0%
GraphCast				0%
Claude 2.1				2%
Stable Video Diffusion				0%
Orca 2				0%
Inflection-2				0%
Gemini				11%
Midjourney v6				0%

Figure 9.2.2

<sup>2</sup> The figures in this section consider all AI-related social media conversation. The percentage associated with a model in a quarter in Figure 9.2.2 represents the share of all AI-related social media conversation in that quarter that was concerned with that model.

**Highlight:**

## AI-Related Social Media Discussion in 2023

The following section, featuring data from Quid, profiles specific narratives surrounding the discussion of AI that occurred on social media in 2023. GPT-4 gathered most of the discussion volume in Q2 after its launch on March 14, 2023. Positive sentiment was primarily driven by its improvements, including faster processing speed, improved accuracy, and praise for its ability to enhance productivity across different types of work tasks, such as coding, corporate collaboration, and content creation. Negative sentiment primarily stemmed from complaints about occasional crashes of the ChatGPT website, along with an open letter led by Elon Musk and supported by over 1,300 artificial intelligence experts, urging AI laboratories to pause training of powerful AI systems. Moreover, there was disagreement regarding the “open letter” and the suggestion to halt AI research, particularly considering its potential to have a positive impact across multiple fields. For example, Andrew Ng posted:

*“1/The call for a 6 month moratorium on making AI progress beyond GPT-4 is a terrible idea. I’m seeing many new applications in education, healthcare, food, ... that’ll help many people. Improving GPT-4 will help. Lets balance the huge value AI is creating vs. realistic risks.” — @AndrewYNg*

In Q4 2023, discussions surrounding the release of GPT-4 Turbo, launched in November, saw a significant increase. Positive sentiment centered around its innovative features and upgrades that could transform programmers’ workflows. These enhancements included longer conversation capabilities, improved contextual understanding, and multimodal ability to generate images. However, some negative feedback arose due to disappointment with the model’s knowledge cutoff in April 2023 and slower loading speeds compared to GPT-4. Some of the sample social media posts from this time included:

*“This is just insane... My GPT-4 coding assistant can now: - build and design a frontend - create a backend with working db - correctly hook them up - upload code to GitHub - deploy it to Vercel[.] I can now build \*complete\* apps with nothing more than my voice. The future is here!” — @mckaywrigley*

*“Trying to make my LinkedIn profile more interesting if a recruiter is using a large language model like GPT-4 to send me a message. Looks like it works on the public version of my profile!” — @brdskggs*

*“GPT-4 Turbo has knowledge of the world up to April 2023. @sama says the team is ‘just as annoyed as you, maybe more’ that the knowledge is not more updated and that @openai will work to make sure it never gets that outdated again.” — @VentureBeat*

**Highlight:**

## AI-Related Social Media Discussion in 2023 (cont'd)

Discussions about Stable Diffusion were more prominent in the first half of 2023, but decreased toward the year's end. More posts mentioned Stable Diffusion XL models than Stable Diffusion 2.0 (around 16 times more). Positive sentiment was mainly driven by the tool's rapid increase in popularity, the potential benefits of AI in enhancing creativity, and the excitement surrounding technical advancements and improvements (e.g., enhanced accuracy, better understanding of various concepts, and higher resolution). On the other hand, negative sentiment revolved around concerns about legal and ethical issues related to AI-generated content, such as copyright violations, ownership of AI-created material, and the possible replacement of human artists by AI. Additionally, worries were expressed about the risks and threats linked to artificial intelligence, like its potential harmful effects, the spread of misinformation, and the possibility of AI being used for academic cheating.

*“Very happy about sharing smashed Stable Diffusion models! - In one line of code, we compressed popular text-to-image Stable Diffusion models for A100. - Evaluations across various metrics show significant speedup improvements, energy savings, and CO2 emissions savings. Now looking forward [to] sharing more compression results :) Feel free to contact us to achieve the same on your own models <https://pruna.ai/contact> ;)”*  
— [@Bertrand\\_Charp](#)

*“Stable Diffusion XL with ControlNet is insane 🔥 Discover the future of AI with Stability AI's latest innovation: Stable Diffusion XL (SDXL) 1.0! This powerful text-to-image generation model improves image quality and makes it easier for users to create highly detailed images. Built on a massive 3.5 billion-parameter base model, SDXL 1.0 boasts better accuracy and understanding of various concepts. Want to know more? Check out my video where I delve deeper into this groundbreaking technology!”* — [@work.with.ai](#)

Both Gemini (from Google) and Grok (from xAI) saw an increase in conversations during Q4 due to their late year launches. Positive feedback for Gemini focused on its improved accuracy and multilingual capabilities, as well as its potential to enhance various Google services like Search and Ads. On the other hand, negative opinions stemmed from concerns about inaccurate results, disappointment over Gemini's delayed release, and skepticism toward the Gemini AI demo.

*“WHAT IS GOOGLE GEMINI AND HOW CAN YOU USE IT?”* — [Erik Hyrkas](#)

*“Gemini Ultra (if Google is honest) Will Blow Our Minds 🤖”* — [Tina Huang](#)

# Appendix

## Global Public Opinion on Artificial Intelligence (GPO-AI)

In October and November 2023, researchers at the Schwartz Reisman Institute for Technology and Society (SRI) and the Policy, Elections, and Representation Lab (PEARL) at the Munk School of Global Affairs and Public Policy at the University of Toronto completed a survey project on public perceptions of and attitudes toward AI. The survey was administered to census-targeted samples of over 1,000 people in each of 21 countries, for a total of 23,882 surveys conducted in 12 languages. The countries sampled represent a majority of the world's population. To learn more about the survey, please visit the [survey website](#). The following authors contributed to the GPO-AI survey: Peter John Loewen, Blake Lee-Whiting, Maggie Arai, Thomas Bergeron, Thomas Galipeau, Isaac Gazendam, Hugh Needham, Lee Slinger, Sofiya Yusypovych.

## Ipsos

For brevity, the 2024 AI Index does not republish the methodology used by the Ipsos survey that features in the report. More details about the Ipsos survey's methodology can be found in the [actual survey](#).

## Pew Research

For brevity, the 2024 AI Index does not republish the methodology used by the Pew surveys that feature in the report. Data was taken from the [2023 Pew Research Center survey](#).

## Quid Social Media Data

Quid collects social media data from over 500 million sources in real time and analyzes this data through AI-powered natural language processing. This process parses out language and breaks out posts by filters such as drivers of positive and negative sentiment, emotions, and behaviors, allowing for deeper insights to be reached. Quid analyzed 6.69 million social media posts for 2023 to assess perceptions of AI model releases. The substantial increase in new models in 2023 unveiled reactions to the technical advancements in AI, the impact on efficiency in business operations, and ethical considerations as AI continues to be adopted into society.