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Public Awareness of Artificial Intelligence in Everyday Activities

Limited enthusiasm in U.S. over AI's growing influence in daily life

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How we did this

Pew Research Center conducted this study to understand how aware Americans are of artificial intelligence in their daily lives. For this analysis, we surveyed 11,004 U.S. adults from Dec. 12-18, 2022.

Everyone who took part in the survey is a member of the Center's American Trends Panel (ATP), an online survey panel that is recruited through national, random sampling of residential addresses. This way, nearly all U.S. adults have a chance of selection. The survey is weighted to be representative of the U.S. adult population by gender, race, ethnicity, partisan affiliation, education and other categories. Read more about the ATP's methodology.

Here are the questions used for this report, along with responses, and its methodology.

Public Awareness of Artificial Intelligence in Everyday Activities

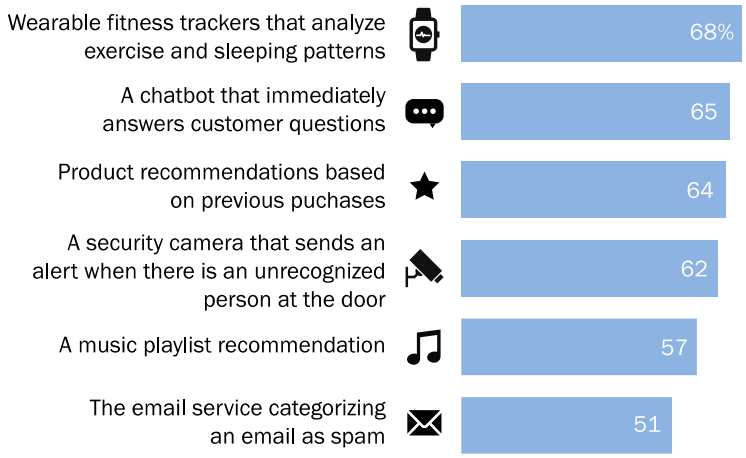
Limited enthusiasm in U.S. over AI's growing influence in daily life

Artificial intelligence is fast becoming a regular part of daily life, shaping the way Americans work, play and receive essential services from food deliveries to financial services to health care.

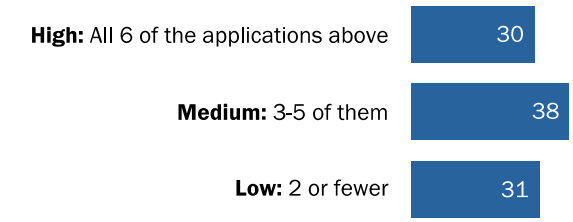
A new Pew Research Center survey finds that many Americans are aware of common ways they might encounter artificial intelligence (AI) in daily life, such as customer service chatbots and product recommendations based on previous purchases. At the same time, only three-in-ten U.S. adults are able to correctly identify all six uses of AI asked about in the survey, underscoring the developing nature of public understanding.

Half of Americans or more aware of common uses of AI, but fewer can identify AI's role in all six examples

% of U.S. adults who identify that the following use artificial intelligence in multiple choice questions



% of U.S. adults who correctly identify ___ as using AI



Note: All questions are multiple choice; for full question wording, see topline.
Source: Survey conducted Dec. 12-18, 2022.
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Awareness of common uses of artificial intelligence is a first step toward broader public engagement with debates about the appropriate role – and boundaries – for AI. Experts have raised a host of moral, ethical and legal questions about the expanding capabilities of AI. And the ethical and responsible use of AI is a growing focus of research within the field.

The Pew Research Center survey of 11,004 U.S. adults, conducted Dec. 12-18, 2022, finds that 27% of Americans say they interact with AI at least several times a day, while another 28% think they interact with it about once a day or several times a week. On this self-reported measure, 44% think they do not regularly interact with AI.

More broadly, the public remains cautious about the impact artificial intelligence is having on American life: Just 15% say they are more excited than concerned about the increasing use of AI in daily life, compared with 38% who are more concerned than excited; 46% express an equal mix of concern and excitement. These views are about the same as they were in a November 2021 Center survey.

On a set of six questions designed to measure awareness of specific uses of AI in daily life, 68% of Americans correctly identified artificial intelligence at work in wearable fitness trackers that analyze exercise and sleeping patterns; the remainder of the public said they weren't sure or selected one of three incorrect options that do not rely on AI (thermometers, at-home COVID-19 tests and pulse oximeters).

When it comes to an example of artificial intelligence in online shopping, 64% of U.S. adults correctly identified custom product recommendations based on previous purchases as using AI. Majorities were also aware that AI is at work in customer service chatbots (65%), security cameras that recognize faces (62%) and customized music playlist recommendations (57%).

The most challenging question for the public was identifying that email services categorizing messages as spam uses AI: 51% of Americans got this question right, while 49% chose an incorrect option, said they weren't sure or did not answer. These six questions represent some common ways people could use AI in their lives but are not designed to be an exhaustive list of all the ways people could encounter AI. Each question had four possible responses and an explicit fifth option, "not sure."

Taken together, 30% of Americans correctly answered all six questions about awareness of AI in everyday life (defined as a high level of awareness), 38% got three to five questions right (medium awareness) and 31% got two or fewer questions correct (low awareness). The mean number of correct answers was 3.7 out of 6.

Those with higher levels of education show greater awareness of AI

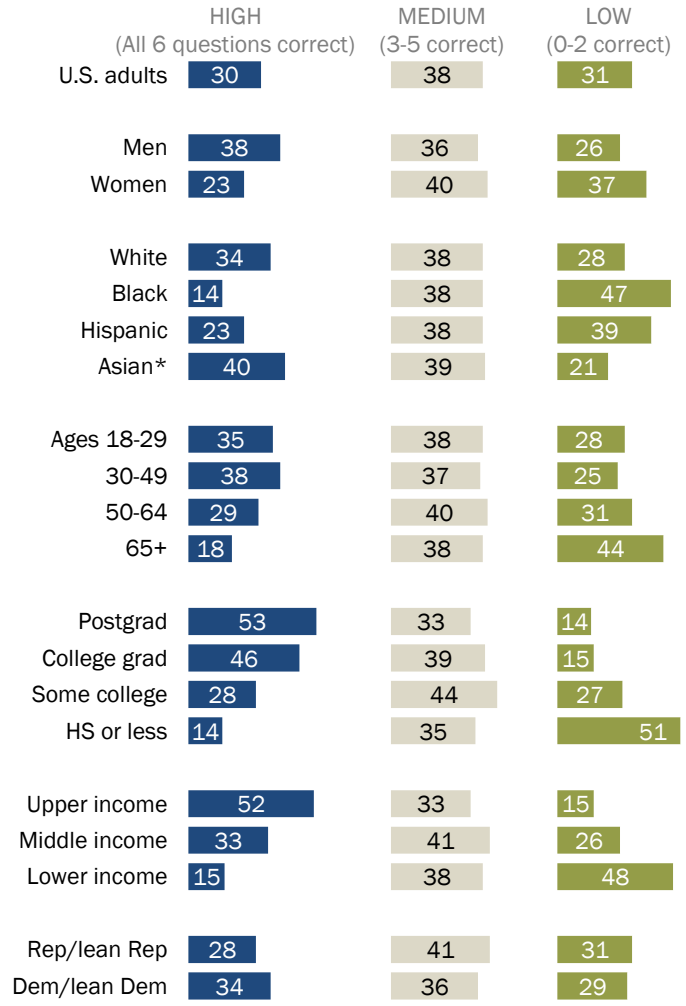
U.S. adults with higher levels of education and income are more aware of examples of AI in daily life than other adults. For example, 53% of Americans with a postgraduate degree correctly identified uses of artificial intelligence across all six multiple-choice questions. By contrast, just 14% of those with a high school diploma or less education answered all six questions correctly; 51% of this group had low awareness of AI, answering no more than two questions correctly.

Those with higher family incomes are also more aware of the uses of AI than those with lower incomes. About half of upper-income Americans had high awareness of AI (52%), compared with just 15% of lower-income adults.

Younger Americans are more aware of AI applications in daily life than older Americans. This pattern is especially pronounced when it comes to correctly identifying AI at play in customer service chatbots (75% of adults ages 18 to 29 said this vs. 45% of those 65 and older) and music playlist recommendations (65% vs. 39%).

U.S. adults with higher levels of education and income demonstrate greater awareness of AI in daily life

% of U.S. adults who have a ____ level of awareness about artificial intelligence applications in daily life



*Estimates for Asian adults are representative of English speakers only.
Note: All questions are multiple choice; for full question wording, see topline. White, Black and Asian adults include those who report being only one race and are not Hispanic. Hispanics are of any race. Family income tiers are based on adjusted 2021 earnings.
Source: Survey conducted Dec. 12-18, 2022.
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Men scored higher on the scale than women. About four-in-ten men (38%) got all six questions right, compared with 23% of women. (Women are more likely than men to respond "not sure" to each of the six questions, consistent with previous research on both science and political knowledge.)

Partisan affiliation is not a major factor when it comes to awareness of AI: There are no meaningful differences between Republicans and Democrats on the AI awareness scale.

Frequent internet use is tied to higher awareness of artificial intelligence

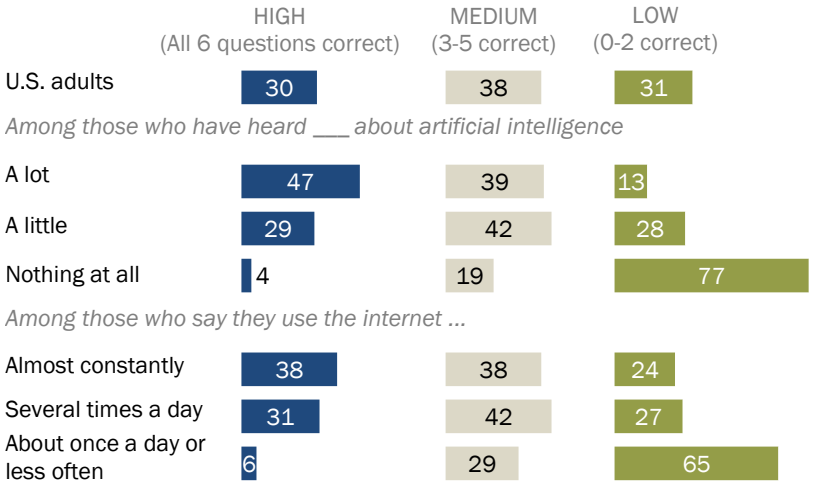
Online applications and websites are places where Americans may frequently encounter artificial intelligence through examples such as customer service chatbots and product recommendations based on their purchasing behavior.

Adults who are frequent internet users score higher on the AI awareness scale than less frequent users.

Among Americans who say they are on the internet "almost constantly," 38% got all six questions correct, as did 31% of those who say they use the internet several times a day. By comparison, just 6% of infrequent internet users (those who go online about once a day or less) correctly answered all six questions on the survey.

Americans who regularly use the internet are more likely to be aware of AI in their lives

% of U.S. adults who have a ____ level of awareness about artificial intelligence applications in daily life



Note: All questions are multiple choice; for full question wording, see topline.
Source: Survey conducted Dec. 12-18, 2022.
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Not surprisingly, those who say they have heard more about artificial intelligence generally score higher on the AI awareness scale than do those who say they've heard less about this topic.

Majority of Americans think they interact with AI at least several times a week

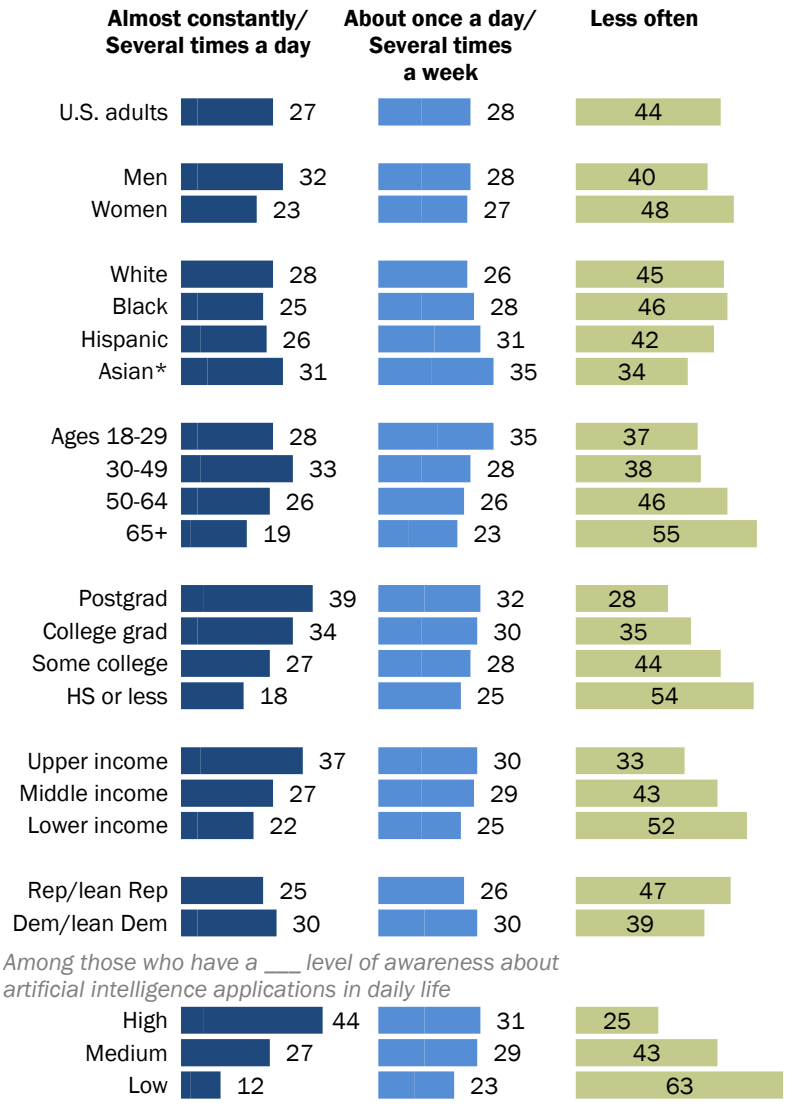
About a quarter (27%) of Americans say they interact with artificial intelligence almost constantly or several times a day. Another 28% say they interact with AI about once a day or several times a week. On this self-reported measure, 44% of Americans estimate that they interact with AI less often.

Those with higher levels of education and family income are more likely than those with less education and income to say they interact with AI at least daily.

In addition, those who score high on a six-item scale of AI awareness are more likely to say they frequently interact with AI. For instance, 44% of those who have a high level of awareness of AI say they interact with AI almost constantly or several times a day. By comparison, just 12% of those who scored low on the scale say they interact with AI multiple times each day.

Adults with higher awareness of artificial intelligence are more likely to report frequent interaction with AI

% of U.S. adults who say they interact with artificial intelligence ...



*Estimates for Asian adults are representative of English speakers only.
Note: Respondents who did not give an answer are not shown. White, Black and Asian adults include those who report being only one race and are not Hispanic. Hispanics are of any race. Family income tiers are based on adjusted 2021 earnings.
Source: Survey conducted Dec. 12-18, 2022.
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Many Americans have some level of concern about use of AI generally

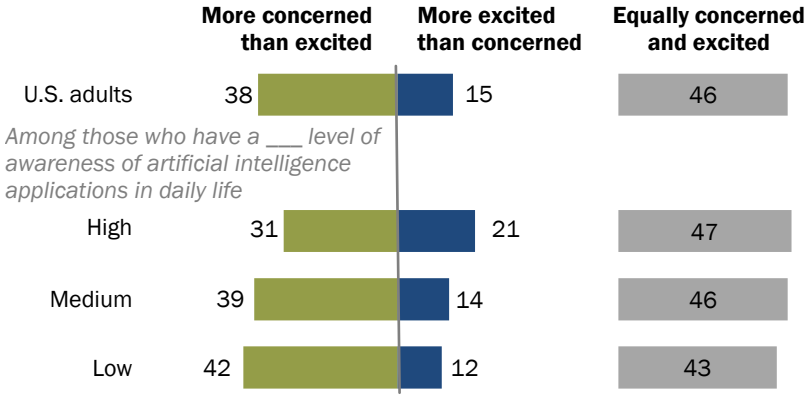
The rapid development of artificial intelligence technologies has been accompanied by debate about ethics in AI and appropriate limits on its use.

Amid these ongoing discussions, the public strikes a cautious tone toward the overall impact of AI in society today.

On balance, a greater share of Americans say they are more concerned than excited about the increased use of artificial intelligence in daily life (38%) than say they are more excited than concerned (15%). Many express ambivalent views: 46% say they are equally concerned and excited.

Just 15% of Americans are more excited than concerned about increased use of AI in daily life

% 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 Dec. 12-18, 2022.
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There has been little change in these attitudes since last year.

Across all levels of awareness of AI, larger shares express greater concern than excitement about the impact of artificial intelligence in daily life. For example, among those who scored high in awareness of AI in daily life, 31% say they are more concerned than excited about the impact of AI, compared with 21% who say they are more excited than concerned. Those with medium or low AI awareness express greater concern than excitement by even wider margins.

Acknowledgments

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Methodology

The American Trends Panel survey methodology

Overview

The American Trends Panel (ATP), created by Pew Research Center, is a nationally representative panel of randomly selected U.S. adults. Panelists participate via self-administered web surveys. Panelists who do not have internet access at home are provided with a tablet and wireless internet connection. Interviews are conducted in both English and Spanish. The panel is being managed by Ipsos.

Data in this report is drawn from the panel wave conducted from Dec. 12 to Dec. 18, 2022. A total of 11,004 panelists responded out of 12,448 who were sampled, for a response rate of 88%. The cumulative response rate accounting for nonresponse to the recruitment surveys and attrition is 4%. The break-off rate among panelists who logged on to the survey and completed at least one item is 2%. The margin of sampling error for the full sample of 11,004 respondents is plus or minus 1.4 percentage points.

Panel recruitment

The ATP was created in 2014, with the first cohort of panelists invited to join the panel at the end of a large, national, landline and cellphone random-digit-dial survey that was conducted in both English and Spanish. Two additional recruitments were conducted using the same method in 2015 and 2017, respectively. Across these three surveys, a total of 19,718 adults were invited to join the ATP, of whom 9,942 (50%) agreed to participate.

In August 2018, the ATP switched from telephone to

American Trends Panel recruitment surveys

Recruitment dates	Mode	Invited	Joined	Active panelists remaining
Jan. 23 to March 16, 2014	Landline/ cell RDD	9,809	5,338	1,504
Aug. 27 to Oct. 4, 2015	Landline/ cell RDD	6,004	2,976	881
April 25 to June 4, 2017	Landline/ cell RDD	3,905	1,628	434
Aug. 8 to Oct. 31, 2018	ABS	9,396	8,778	4,119
Aug. 19 to Nov. 30, 2019	ABS	5,900	4,720	1,476
June 1 to July 19, 2020; Feb. 10 to March 31, 2021	ABS	3,197	2,812	1,542
May 29 to July 7 Sept. 16 to Nov. 1, 2021	ABS	1,329	1,162	790
May 24 to Sept. 29, 2022	ABS	3,354	2,869	1,702
	Total	**42,894**	**30,283**	**12,448**

Note: RDD is random-digit dial; ABS is address-based sampling. Approximately once per year, panelists who have not participated in multiple consecutive waves or who did not complete an annual profiling survey are removed from the panel. Panelists also become inactive if they ask to be removed from the panel.

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address-based recruitment. Invitations were sent to a stratified, random sample of households selected from the U.S. Postal Service's Delivery Sequence File. Sampled households receive mailings asking a randomly selected adult to complete a survey online. A question at the end of the survey asks if the respondent is willing to join the ATP. In 2020 and 2021 another stage was added to the recruitment. Households that did not respond to the online survey were sent a paper version of the questionnaire, $5 and a postage-paid return envelope. A subset of the adults who returned the paper version of the survey were invited to join the ATP. This subset of adults received a follow-up mailing with a $10 pre-incentive and invitation to join the ATP.

Across the five address-based recruitments, a total of 23,176 adults were invited to join the ATP, of whom 20,341 agreed to join the panel and completed an initial profile survey. In each household, one adult was selected and asked to go online to complete a survey, at the end of which they were invited to join the panel. Of the 30,283 individuals who have ever joined the ATP, 12,448 remained active panelists and continued to receive survey invitations at the time this survey was conducted.

The U.S. Postal Service's Delivery Sequence File has been estimated to cover as much as 98% of the population, although some studies suggest that the coverage could be in the low 90% range.[1] The American Trends Panel never uses breakout routers or chains that direct respondents to additional surveys.

Sample design

The overall target population for this survey was non-institutionalized persons ages 18 and older, living in the U.S., including Alaska and Hawaii. All active panel members were invited to participate in this wave.

Questionnaire development and testing

The questionnaire was developed by Pew Research Center in consultation with Ipsos. The web program was rigorously tested on both PC and mobile devices by the Ipsos project management team and Pew Research Center researchers. The Ipsos project management team also populated test data that was analyzed in SPSS to ensure the logic and randomizations were working as intended before launching the survey.

[1] AAPOR Task Force on Address-based Sampling. 2016. "AAPOR Report: Address-based Sampling."

Incentives

All respondents were offered a post-paid incentive for their participation. Respondents could choose to receive the post-paid incentive in the form of a check or a gift code to Amazon.com or could choose to decline the incentive. Incentive amounts ranged from $5 to $20 depending on whether the respondent belongs to a part of the population that is harder or easier to reach. Differential incentive amounts were designed to increase panel survey participation among groups that traditionally have low survey response propensities.

Data collection protocol

The data collection field period for this survey was Dec. 12 to Dec. 18, 2022. This survey included a postcard experiment in which postcard notifications were mailed to half of ATP non-tablet household panelists with a known residential address on Dec. 12, 2022. The other half of ATP panelists did not receive any postcard mailings. The survey-level response rate was 89% among those mailed the postcard and 88% among those who were not mailed the postcard.

Invitations were sent out in two separate launches: Soft Launch and Full Launch. Sixty panelists were included in the soft launch, which began with an initial invitation sent on Dec. 12, 2022. The ATP panelists chosen for the initial soft launch were known responders who had completed previous ATP surveys within one day of receiving their invitation. All remaining English- and Spanish-speaking panelists were included in the full launch and were sent an invitation on Dec. 13, 2022.

All panelists with an email address received an email invitation and up to two email reminders if they did not respond to the survey. All ATP panelists that consented to SMS messages received an SMS invitation and up to two SMS reminders.

Invitation and reminder dates, ATP Wave 119

	Soft launch	Full launch
Initial invitation	Dec. 12, 2022	Dec. 13, 2022
First reminder	Dec. 15, 2022	Dec. 15, 2022
Final reminder	Dec. 17, 2022	Dec. 17, 2022

Data quality checks

To ensure high-quality data, the Center's researchers performed data quality checks to identify any respondents showing clear patterns of satisficing. This includes checking for very high rates of leaving questions blank, as well as always selecting the first or last answer presented. As a result of

this checking, eight ATP respondents were removed from the survey dataset prior to weighting and analysis.

Weighting

The ATP data is weighted in a multistep process that accounts for multiple stages of sampling and nonresponse that occur at different points in the survey process. First, each panelist begins with a base weight that reflects their probability of selection for their initial recruitment survey. These weights are then rescaled and adjusted to account for changes in the design of ATP recruitment surveys from year to year. Finally, the weights are calibrated to align with the population benchmarks in the accompanying table to correct for nonresponse to recruitment surveys and panel attrition. If only a subsample of panelists was invited to participate in the wave, this weight is adjusted to account for any differential probabilities of selection.

American Trends Panel weighting dimensions

Variable	Benchmark source
Age (detailed) Age x Gender Education x Gender Education x Age Race/Ethnicity x Education Born inside vs. outside the U.S. among Hispanics and Asian Americans Years lived in the U.S.	2021 American Community Survey (ACS)
Census region x Metro/Non-metro	2021 CPS March Supplement
Volunteerism	2022 American Trends Panel Annual Profile Survey/2019 CPS Volunteering & Civic Life Supplement
Voter registration	2018 CPS Voting and Registration Supplement
Party affiliation Frequency of internet use Religious affiliation	2022 National Public Opinion Reference Survey (NPORS)
Additional weighting dimensions applied within Black adults	
Age Gender Education Hispanic ethnicity	2021 American Community Survey (ACS)
Voter registration	2018 CPS Voting and Registration Supplement
Party affiliation Religious affiliation	2022 National Public Opinion Reference Survey (NPORS)

Note: Estimates from the ACS are based on non-institutionalized adults. Voter registration is calculated using procedures from Hur, Achen (2013) and rescaled to include the total U.S. adult population. Volunteerism is estimated using a model to account for potential changes in volunteering behavior due to the coronavirus outbreak that began in February 2020.

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Among the panelists who completed the survey, this weight is then calibrated again to align with the population benchmarks identified in the accompanying table and trimmed at the 1st and 99th percentiles to reduce the loss in precision stemming from variance in the weights. Sampling errors and tests of statistical significance take into account the effect of weighting.

The following table shows the unweighted sample sizes and the error attributable to sampling that would be expected at the 95% level of confidence for different groups in the survey.

Sample sizes and margins of error, ATP Wave 119

	Unweighted sample size	Margins of error in percentage points
U.S. adults	11,004	+/- 1.4
Men	4,884	+/- 2.2
Women	5,993	+/- 1.8
Ages 18-29	930	+/- 4.3
30-49	3,514	+/- 2.4
50-64	3,157	+/- 2.5
65+	3,367	+/- 2.5
Postgraduate	2,503	+/- 2.6
College grad	2,918	+/- 2.4
Some college	3.523	+/- 2.4
HS or less	2,029	+/- 3.0
Upper income	2,625	+/- 2.6
Middle income	5,233	+/- 2.0
Lower income	2,283	+/- 3.2

Note: The margins of error are reported at the 95% level of confidence and are calculated by taking into account the average design effect for each subgroup. Family income tiers are based on adjusted 2021 earnings.
Source: Survey conducted Dec. 12-18, 2022.
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Sample sizes and sampling errors for other subgroups are available upon request. In addition to sampling error, one should bear in mind that question wording and practical difficulties in conducting surveys can introduce error or bias into the findings of opinion polls.

Dispositions and response rates

Final dispositions, ATP Wave 119

	AAPOR code	Total
Completed interview	1.1	11,004
Logged on to survey; broke off	2.12	237
Logged on to survey; did not complete any items	2.1121	61
Never logged on (implicit refusal)	2.11	1,134
Survey completed after close of the field period	2.27	4
Completed interview but was removed for data quality		8
Screened out		0
Total panelists in the survey		**12,448**
Completed interviews	I	11,004
Partial interviews	P	0
Refusals	R	1,440
Non-contact	NC	4
Other	O	0
Unknown household	UH	0
Unknown other	UO	0
Not eligible	NE	0
Total		**12,448**
AAPOR RR1 = I / (I+P+R+NC+O+UH+UO)		88%

Cumulative response rate as of ATP Wave 119

	Total
Weighted response rate to recruitment surveys	12%
% of recruitment survey respondents who agreed to join the panel, among those invited	71%
% of those agreeing to join who were active panelists at start of Wave 119	49%
Response rate to Wave 119 survey	88%
Cumulative response rate	**4%**

Adjusting income and defining income tiers

To create upper-, middle- and lower-income tiers, respondents' 2021 family incomes were adjusted for differences in purchasing power by geographic region and household size. "Middle-income" adults live in families with annual incomes that are two-thirds to double the median family income in the panel (after incomes have been adjusted for the local cost of living and household size). The middle-income range for the American Trends Panel is about $43,800 to $131,500 annually for an average family of three. Lower-income families have incomes less than roughly $43,800, and upper-income families have incomes greater than roughly $131,500 (all figures expressed in 2021 dollars).

Based on these adjustments, 28% of respondents are lower income, 46% are middle income and 18% fall into the upper-income tier. An additional 6% either didn't offer a response to the income question or the household size question.

For more information about how the income tiers were determined, please see here.

A note about the Asian adult sample

This survey includes a total sample size of 371 Asian adults. The sample primarily includes English-speaking Asian adults and, therefore, may not be representative of the overall Asian adult population. Despite this limitation, it is important to report the views of Asian adults on the topics in this study. As always, Asian adults' responses are incorporated into the general population figures throughout this report.

Measurement properties of the awareness of artificial intelligence in daily life scale

Pew Research Center's survey on awareness of artificial intelligence in daily life asked respondents to identify AI applications in email, online shopping, customer service and other areas they might encounter. The scale included six different questions to measure how aware people are of AI applications. These questions represent some common ways people could use AI in their lives but are not designed to be an exhaustive list of all the ways people could encounter AI.

Scale reliability and factor analysis

Awareness of artificial intelligence in daily life scale	Item-rest correlation	Alpha for scale: 0.83	Common variance explained by first factor: 91%
		Alpha if item is dropped	Factor loadings
AIKNOW1. A chatbot that immediately answers customer questions	0.59	0.81	0.56
AIKNOW2. A music playlist recommendation	0.65	0.79	0.47
AIKNOW3. The email service categorizing an email as spam	0.55	0.81	0.62
AIKNOW5. Wearable fitness trackers that analyze exercise and sleeping patterns	0.59	0.81	0.56
AIKNOW6. Product recommendations based on previous purchases	0.66	0.79	0.45
AIKNOW7. A security camera that sends an alert when there is an unrecognized person at the door	0.57	0.81	0.61

Source: Survey of U.S. adults conducted Dec. 12-18, 2022.
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The following criteria are used to evaluate how well the six items scale as an index of awareness of AI in daily life: 1) the degree to which responses are internally consistent 2) the degree to which the questions reflect a single underlying latent dimension and 3) the degree to which the scale discriminates between people with high and low awareness of AI in daily life.

The internal reliability of the scale as measured by Cronbach's alpha is 0.83. Cronbach's alpha does not increase if any of the items is dropped.

An exploratory factor analysis finds that the first common factor explains 91% of the shared variance in the items. The factor loadings show that each of the six items is at least moderately correlated with the first common factor. This suggests that the set of items is the result of a single underlying dimension.

Note that all the awareness of AI in daily life items are coded as binary variables (either correct or incorrect). Both Cronbach's alpha and factor analysis are based on a Pearson's correlation matrix. Pearson's correlations with binary variables are restricted to a limited range, underestimating the association between two variables. We do not anticipate the use of a Pearson's correlation matrix will affect the unidimensional factor solution for the scale.

Two-parameter item response theory analysis

	% correct	Difficulty	Discrimination
AIKNOW1. A chatbot that immediately answers customer questions	65	-0.48	2.50
AIKNOW2. A music playlist recommendation	57	-0.19	3.48
AIKNOW3. The email service categorizing an email as spam	51	-0.02	2.14
AIKNOW5. Wearable fitness trackers that analyze exercise and sleep patterns	68	-0.57	2.58
AIKNOW6. Product recommendations based on previous purchases	64	-0.40	3.47
AIKNOW7. A security camera that sends an alert when there is an unrecognized person at the door	62	-0.41	2.07

Source: Survey of U.S. adults conducted Dec. 12-18, 2022.
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We conducted item response modeling for the scale to evaluate how well it discriminates between people at different levels of awareness. The analysis fits a two-parameter logistic model, allowing discrimination and difficulty to vary across items. Discrimination shows the ability of the question to distinguish between those with higher and lower awareness of AI in daily life. Difficulty shows how easy or hard each question is for the average respondent.

All the items have acceptable discrimination estimates. The two items with the highest discrimination were knowing that a music playlist recommendation uses AI and product recommendations based on previous purchases when shopping online uses AI.

The difficulty parameter estimates are negative for all six items. The scale did not include a more difficult item with a positive difficult value. Because of this, the items did not have much variation in difficulty.

The test information function shows the amount of information the scale provides about people with different levels of awareness of artificial intelligence in daily life. The test information function approximates a normal curve and is centered below zero at about -0.35. This indicates that the scale provides the most information about those with slightly below-average awareness. The scale provides comparatively less information about those with high awareness, especially very high awareness.

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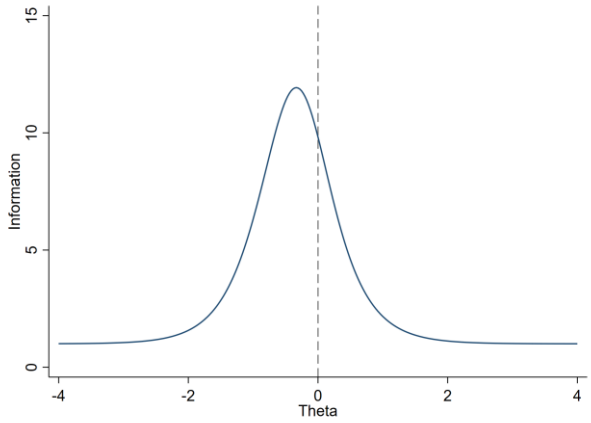
Test information function for awareness of artificial intelligence in daily life scale



Source: Survey of U.S. adults conducted Dec. 12-18, 2022.
"Public Awareness of Artificial Intelligence in Everyday Activities"

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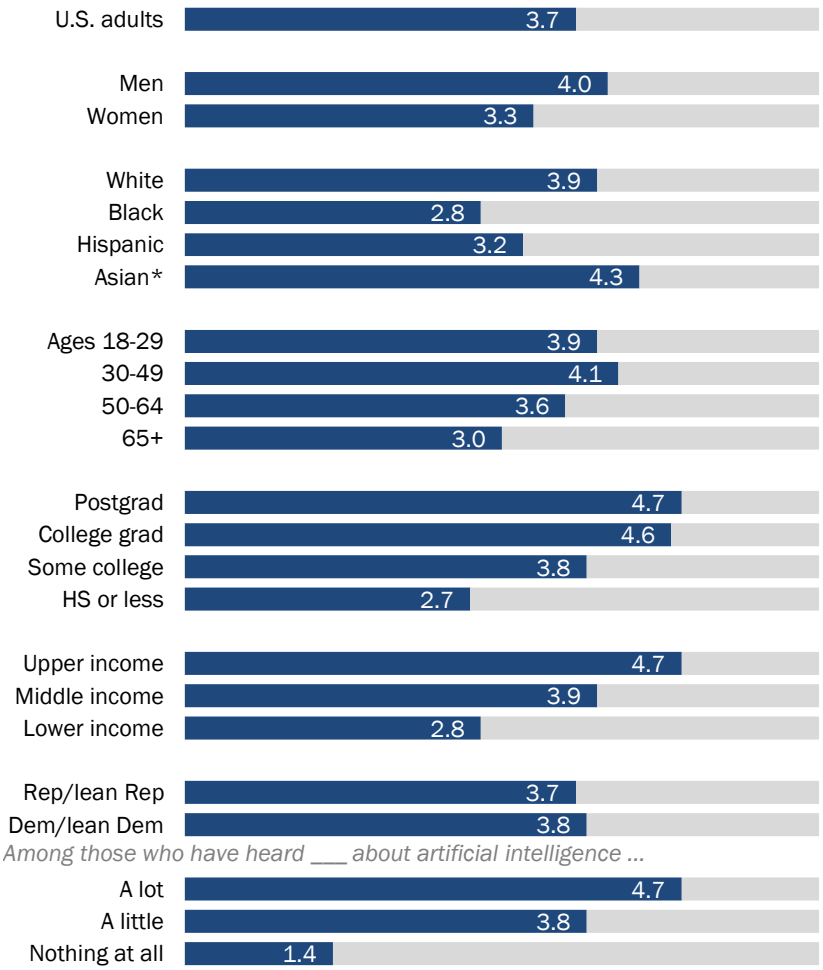
Appendix: Additional charts and tables

Higher levels of education and income tied to greater awareness of artificial intelligence in daily life

Mean number of correct answers out of 6 identifying uses of artificial intelligence in daily life



*Estimates for Asian adults are representative of English speakers only.
Note: All questions are multiple choice; for full question wording, see topline. White, Black and Asian adults include those who report being only one race and are not Hispanic. Hispanics are of any race. Family income tiers are based on adjusted 2021 earnings.
Source: Survey conducted Dec. 12-18, 2022.
"Public Awareness of Artificial Intelligence in Everyday Activities"

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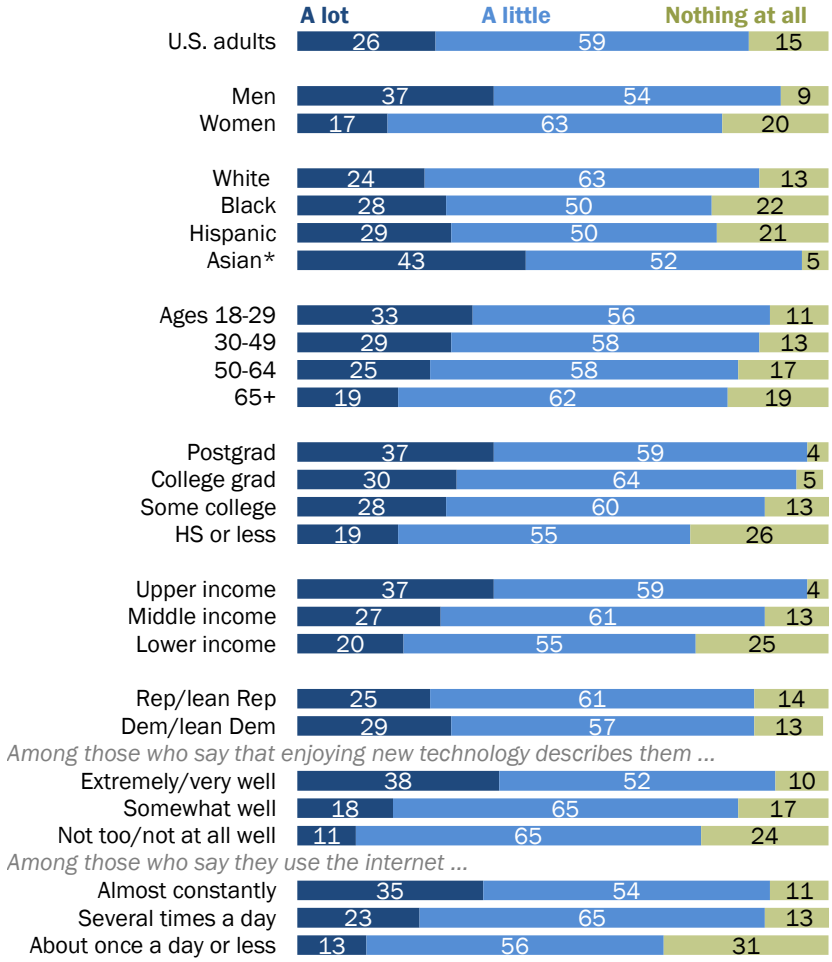
About a quarter of U.S. adults have heard a lot about artificial intelligence

% of U.S. adults who say they have heard or read ____ about artificial intelligence



*Estimates for Asian adults are representative of English speakers only.
Note: Respondents who did not give an answer are not shown. White, Black and Asian adults include those who report being only one race and are not Hispanic. Hispanics are of any race. Family income tiers are based on adjusted 2021 earnings.
Source: Survey conducted Dec. 12-18, 2022.
"Public Awareness of Artificial Intelligence in Everyday Activities"

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Survey question wording and topline

2022 PEW RESEARCH CENTER'S AMERICAN TRENDS PANEL
WAVE 119 – SCIENCE TOPLINE
December 12-18, 2022
N=11,004

OTHER QUESTIONS HELD FOR FUTURE RELEASE

ASK ALL: Artificial intelligence (AI) is designed to learn tasks that humans typically do, for instance recognizing speech or pictures.

AI_HEARD How much have you heard or read about AI?

Dec 12-18, 2022	
26	A lot
59	A little
15	Nothing at all
<1	No answer

ASK ALL:
CNCEXC Overall, would you say the increased use of artificial intelligence (AI) in daily life makes you feel… **[RANDOMIZE RESPONSE OPTIONS 1 AND 2, WITH OPTION 3 ALWAYS LAST]**

	More excited than concerned	More concerned than excited	Equally concerned and excited	No answer
Dec 12-18, 2022	15	38	46	1
Nov 1-7, 2021[2]	18	37	45	<1

ASK ALL:
USEAI Just your impression, how often do you interact with artificial intelligence (AI)?

Dec 12-18, 2022	
5	Almost constantly
23	Several times a day
13	About once a day
15	Several times a week
44	Less often
1	No answer

[2] For the Nov. 1-7, 2021, survey, the question wording was "Artificial intelligence computer programs are designed to learn tasks that humans typically do, for instance recognizing speech or pictures. Overall, would you say the increased use of artificial intelligence computer programs in daily life makes you feel…"

DISPLAY TO ALL:

We are interested in what people know off the top of their head about artificial intelligence (AI). You may find some of these questions easy and others difficult. (If you don't know the answer, select "Not sure.")

AIKNOW1 Thinking about customer service, which of the following uses artificial intelligence (AI)? **[RANDOMIZE RESPONSE OPTIONS 1-4]**

Dec 12-18, 2022	
65	A chatbot that immediately answers customer questions (CORRECT)
8	An online survey sent to customers that allows them to provide feedback
2	A contact page with a form available to customers to provide feedback
4	A detailed Frequently Asked Questions webpage
20	Not sure
<1	No answer

RANDOMIZE AIKNOW2-AIKNOW7

ASK ALL:

AIKNOW2 When playing music, which of the following uses artificial intelligence (AI)? **[RANDOMIZE RESPONSE OPTIONS 1-4]**

Dec 12-18, 2022	
9	Using Bluetooth to connect to wireless speakers
57	A playlist recommendation (CORRECT)
8	A wireless internet connection to stream the music
5	Shuffle play from a chosen playlist
21	Not sure
<1	No answer

ASK ALL:

AIKNOW3 When using email, which of the following uses artificial intelligence (AI)? **[RANDOMIZE RESPONSE OPTIONS 1-4]**

Dec 12-18, 2022	
5	The email service marking an email as read after the user opens it
13	The email service allowing the user to schedule an email to send at a specific time in the future
51	The email service categorizing an email as spam (CORRECT)
4	The email service sorting emails by time and date
27	Not sure
1	No answer

NO AIKNOW4

ASK ALL:
AIKNOW5 Thinking about health products, which of the following uses artificial intelligence (AI)? **[RANDOMIZE RESPONSE OPTIONS 1-4]**

Dec 12-18, 2022	
68	Wearable fitness trackers that analyze exercise and sleeping patterns (CORRECT)
3	Thermometers that are placed under someone's tongue to detect a fever
3	At-home COVID-19 tests
4	Pulse oximeters that measure a person's oxygen level of the blood
22	Not sure
1	No answer

ASK ALL:
AIKNOW6 Thinking about online shopping, which of the following uses artificial intelligence (AI)? **[RANDOMIZE RESPONSE OPTIONS 1-4]**

Dec 12-18, 2022	
7	Storage of account information, such as shipping addresses
5	Records of previous purchases
64	Product recommendations based on previous purchases (CORRECT)
3	Product reviews from other customers
20	Not sure
1	No answer

ASK ALL:
AIKNOW7 Thinking about devices in the home, which of the following uses artificial intelligence (AI)? **[RANDOMIZE RESPONSE OPTIONS 1-4]**

Dec 12-18, 2022	
8	Programming a home thermostat to change temperatures at certain times
62	A security camera that sends an alert when there is an unrecognized person at the door (CORRECT)
5	Programming a timer to control when lights in a home turn on and off
3	An indicator light that turns red when a water filter needs to be replaced
21	Not sure
1	No answer

OTHER QUESTIONS HELD FOR FUTURE RELEASE