Supplementary Material

Exploring temporal and cross-national patterns: The use of generative AI in science-related information retrieval across seven countries

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Figure S1. Experience with ChatGPT across countries.

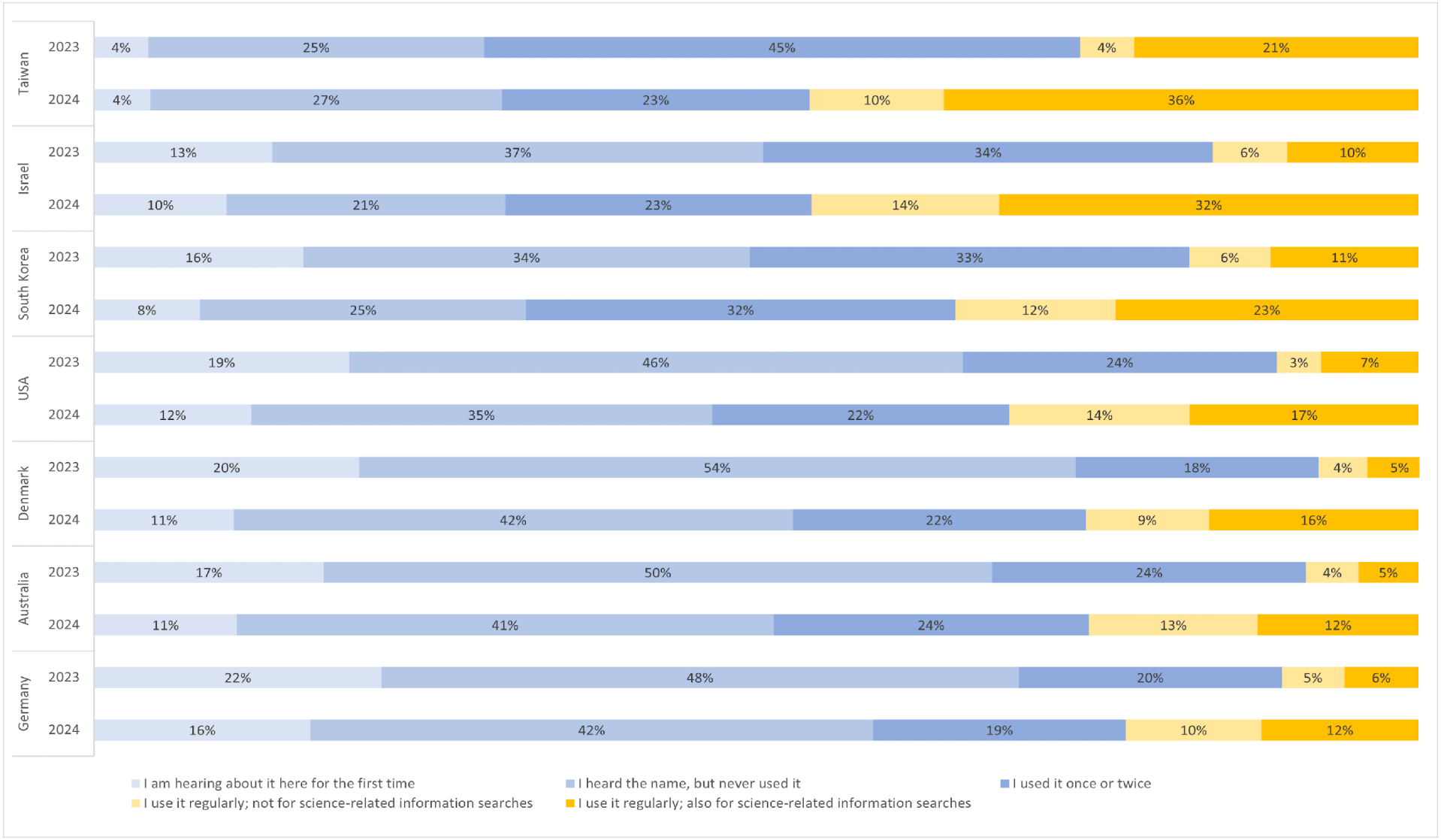

Table S1. Uses of science-related information searches among regular users of ChatGPT

		Taiwan		Israel		South Korea		Denmark		USA		Germany		Australia		Total	
		(44.3%, 95% CI [0.40, 0.49])[1]		(45.9%, 95% CI [0.41, 0.5])		(35.0%, 95% CI [0.25, 0.33])		(23.7%, 95% CI [0.20, 0.28])		(30.9%, 95% CI [0.28, 0.34])		(22.0%, 95% CI [0.19, 0.26])		(24.8%, 95% CI [0.22, 0.28])		(30.5%, 95% CI [0.29, 0.32])	
		n	*% [95% CI]*	*n*	*% [95% CI]*	*n*	*% [95% CI]*	*n*	*% [95% CI]*	*n*	*% [95% CI]*	*n*	*% [95% CI]*	*n*	*% [95% CI]*	*n*	*% [95% CI]*
2024	Used for science-related information searches	177	78.0 [0.72, 0.83]	152	69.1 [0.63, 0.75]	106	65.4 [0.58, 0.72]	75	63.0 [0.54, 0.71]	194	55.9 [0.51, 0.61]	64	53.8 [0.45, 0.62]	80	48.8 [0.41, 0.56]	848	62.4 [0.60, 0.65]
	Not used for science-related information searches	50	22.0 [0.17, 0.28]	68	30.9 [0.25, 0.37]	56	34.6 [0.28, 0.42]	44	37.0 [0.29, 0.46]	153	44.1 [0.39, 0.49]	55	46.2 [0.38, 0.55]	84	51.2 [0.44, 0.59]	510	37.6 [0.35, 0.40]
		Taiwan		Israel		South Korea		Denmark		USA		Germany		Australia		Total	
		(25.6%, 95% CI [0.22, 0.3])[1]		(15.5%, 95% CI [0.13, 0.19])		(17.3%, 95% CI [0.14, 0.2])		(8.6%, 95% CI [0.06, 0.11])		(10.7%, 95% CI [0.09, 0.13])		(10.3%, 95% CI [0.08, 0.13])		(8.5%, 95% CI [0.06, 0.11])		(13.4%, 95% CI [0.12, 0.14])	
		n	*% [95% CI]*	*n*	*% [95% CI]*	*n*	*% [95% CI]*	*n*	*% [95% CI]*	*n*	*% [95% CI]*	*n*	*% [95% CI]*	*n*	*% [95% CI]*	*n*	*% [95% CI]*
2023	Used for science-related information searches	105	84.0 [0.77, 0.89]	48	64.0 [0.53, 0.74]	68	64.8 [0.55, 0.73]	23	53.5 [0.39, 0.67]	72	68.6 [0.59, 0.77]	31	54.4 [0.42, 0.67]	24	53.3 [0.39, 0.67]	371	66.8 [0.63, 0.71]
	Not used for science-related information searches	20	16.0 [0.11, 0.23]	27	36.0 [0.26, 0.47]	37	35.2 [0.27, 0.45]	20	46.5 [0.33, 0.61]	33	31.4 [0.23, 0.41]	26	45.6 [0.33, 0.58]	21	46.7 [0.33, 0.61]	184	33.2 [0.29, 0.37]

Note. Subsample of regular ChatGPT users; [1]Proportion of regular ChatGPT users by country. 95% CI calculated using Wilson score interval.

Table S2. Confidence and contentment the last time ChatGPT and Google Search were used for science-related information searches

			Germany		Taiwan		USA		South Korea		Denmark		Israel		Australia		Total	
			n	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*
2024	Contentment with the science information that was found	ChatGPT	52	4.3 (0.8) ^{a,b}	92	4.0 (0.5)^{c}	158	4.2 (0.8) ^{d,f}	78	3.9 (0.6)	65	3.5 (1.0)^{1} $_{a,c,d}$	122	3.8 (1.1)^{2} ^{b,f}	52	3.9 (0.9)	619	4.0 (0.9)^{3}
		Google Search	52	4.1 (1.0)	92	4.1 (0.6)	158	4.3 (0.8)^{g}	78	3.9 (0.5)^{g}	65	4.1 (0.7)^{1}	122	4.2 (0.8)^{2}	52	4.1 (0.7)	619	4.1 (0.8)^{3}
2023		ChatGPT	27	4.3 (0.9)	58	4.2 (0.7)	57	4.1 (1.2)	49	3.9 (0.7)	23	3.9 (0.9)	35	3.8 (1.0)	15	3.6 (0.6)	264	4.0 (0.9)
		Google Search	27	4.5 (0.6)	58	4.2 (0.6)	57	4.3 (0.9)	49	4.1 (0.7)	23	3.9 (0.9)	35	4.0 (1.0)	15	4.1 (0.8)	264	4.1 (0.8)
2024	Confidence that you can find what you need	ChatGPT	52	4.2 (0.8)^{4} $_{h,i,j,k,l}$	93	3.6 (0.7)^{h,m}	168	3.9 (0.9) ^{n,o}	80	3.5 (0.9)^{5} $_{l,n,p}$	66	3.0 (1.1)^{6} $_{j,m,o,p,q}$	128	3.6 (1.0)^{7} ^{k,q}	56	3.5 (0.9)^{l}	643	3.6 (1.0)^{8}
		Google Search	52	4.1 (0.9)^{4} ^{r,s}	93	3.5 (0.9) $_{r,t}$	168	3.9 (0.9) $_{t,u}$	80	3.8 (0.8)^{5}	66	3.5 (1.0)^{6} $_{s,u}$	128	3.9 (1.0)^{7}	56	3.7 (0.9)	643	3.8 (0.9)^{8}
2023		ChatGPT	29	4.1 (0.8)^{1} ^{a,b}	57	3.7 (0.8)	62	3.9 (1.1) $_{c}$	51	3.4 (1.0) $_{b}$	23	3.5 (0.8)	40	3.2 (1.0)^{2} ^{a,c}	15	3.2 (1.1)	277	3.6 (1.0)^{3}
		Google Search	29	4.6 (0.6)^{1} $_{a,c,d,e}$	57	3.5 (0.6) $_{e,g}$	62	4.2 (1.0) $_{b,f,g}$	51	3.6 (1.0) $_{d,f}$	23	3.5 (1.2) $_{a,b}$	40	3.9 (1.1)^{2} $_{c}$	15	3.7 (1.0)	277	3.9 (1.0)^{3}

Note. Subsample of regular ChatGPT users who use the model for science-related information searches. Mean values range from 1-5, with 5 indicating high contentment/confidence. Mean values with a common exponent differ with $p < .05$ in the Bonferroni post-hoc test of an ANOVA or in the paired samples t-test. Superscript numbers denote a comparison between user groups within one country (columns), while superscript letters denote a comparison between countries within one user group (rows). The comparisons marked as significant always refer to data from one year only. Hence, no significant cross-temporal differences are highlighted in this table.

Table S3. Purposes for using GenAI applications.

Searching for knowledge and facts (e.g., answering questions on various topics)		Assistance with language or writing (e.g., translating text, drafting content)		Use for science-related information search		Seeking inspiration (e.g., generating ideas for cooking or travel)		Creating AI-generated images, music, or other creative output		Being a conversation partner (e.g., talking to a chatbot for enjoyment)	
n	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
938	69.1	859	63.3	848	62.4	583	42.9	476	35.1	315	23.2

Note. Subsample of regular ChatGPT users (*n* = 1,358)

Table S4a. Knowledge about the functioning of AI (sum index 0-6) among different user groups.

		Taiwan		Israel		South Korea		USA		Denmark		Australia		Germany		Total	
		n	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*
2024	ChatGPT users: science-related information searches	177	4.6 (1.1)$^{b\ 1,2}$	152	4.5 (1.1)^{1}	106	4.5 (1.0)^{1}	194	4.4 (1.3)^{1}	75	4.1 (1.2)^{1}	80	4.2 (1.3)^{1}	64	4.0 (1.6)$^{1\ b}$	848	4.4 (1.2)^{1,2}
	ChatGPT users: no science-related information searches	50	4.0 (1.3)^{1}	68	4.1 (1.4)	56	4.2 (1.2)	153	4.3 (1.3)^{2}	44	4.3 (1.3)^{2}	84	4.0 (1.5)^{2}	55	3.9 (1.6)^{2}	510	4.2 (1.4)^{1,3}
	Non-users	285	4.0 (1.5)$^{c,e,f,g\ 2}$	280	3.7 (1.7)$^{i,j\ 1}$	338	4.0 (1.4)$^{d,k,l,m\ 1}$	829	3.5 (1.7)$^{g,l,n\ 1,2}$	381	3.2 (1.6)$^{c,\ d\ 1,2}$	535	3.1 (1.7)$^{e,j,m,n\ 1,2}$	443	3.2 (1.7)$^{f,i,\ k\ 1,2}$	3.091	3.5 (1.7)^{2,3}
2023	ChatGPT users: science-related information searches	105	4.3 (1.0)	48	4.1 (0.9)^{1}	68	4.0 (1.1)^{1}	72	3.8 (1.1)^{1}	23	4.6 (0.9)^{1}	24	3.5 (1.3)	31	4.1 (1.2)^{1}	371	4.1 (1.1)^{1}
	ChatGPT users: no science-related information searches	20	3.6 (1.8)	27	4.3 (1.2)^{2}	37	3.6 (1.3)	33	3.7 (1.3)	20	4.2 (1.3)	21	3.0 (1.6)	26	3.9 (1.5)	184	3.8 (1.4)^{1,2}
	Non-users	379	4.0 (1.4)	425	3.5 (1.3)^{1,2}	537	3.6 (1.5)^{1}	947	3.2 (1.6)^{1}	461	3.4 (1.5)^{1}	507	3.2 (1.5)	509	3.3 (1.6)^{1}	3.765	3.4 (1.5)^{1,2}

Note. Sum index of correct answers; Mean values with a common exponent differ with $p < .05$ in the Bonferroni post-hoc test of an ANOVA. Superscript numbers denote a comparison between user groups within one country (columns), while superscript letters denote a comparison between countries within one user group (rows). The comparisons marked as significant always refer to data from one year only. Hence, no significant cross-temporal differences are highlighted in this table.

Table S4b. Knowledge about quality of information (sum index 0-3) among different user groups.

		Denmark		South Korea		Israel		Germany		USA		Australia		Taiwan		Total	
		n	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*
2024	ChatGPT users: science-related information searches	75	2.3 (1.0) $^{a,b,c\ 1}$	106	2.0 (1.1) $^{e,g\ 1}$	152	1.9 (1.0) $^{d,f\ 1}$	64	1.7 (1.2)^{u}	194	1.6 (1.2)$^{b,f,g,v\ 1}$	80	1.6 (1.2)^{c}	177	1.2 (1.0)$^{a,d,e,u,v\ 1}$	848	1.7 (1.1) ^{1}
	ChatGPT users: no science-related information searches	44	2.2 (0.9)$^{h\ 2}$	56	1.8 (1.2)	68	1.9 (1.1) ^{2}	55	1.9 (1.1)	153	1.9 (1.1)^{j} $_{1,2}$	84	1.7 (1.3)	50	1.3 (1.0)^{h,j}	510	1.8 (1.1) ^{2,}
	Non-users	381	1.6 (1.1)$^{k,l\ 1,2}$	338	1.7 (1.1)$^{o,s\ 1}$	280	1.3 (1.1)$^{l,m,r,s,t\ 1,2}$	443	1.8 (1.1)^{n,r}	829	1.6 (1.2)^{p} $_{2}$	535	1.6 (1.2)^{q,t}	285	0.8 (0.9)$^{k,m,n,o,p,q\ 1}$	3.091	1.5 (1.2) $_{1,2}$
2023	ChatGPT users: science-related information searches	23	2.1 (1.1)	68	1.3 (1.1)	48	2.2 (0.9)^{1}	31	1.9 (1.1)	72	1.5 (1.1)	24	1.5 (1.3)	105	1.0 (0.9)	371	1.5 (1.1)
	ChatGPT users: no science-related information searches	20	2.1 (1.1)	37	1.2 (1.0)	27	2.1 (1.1)	26	1.6 (1.1)	33	1.9 (1.1)	21	1.9 (1.0)	20	1.0 (0.9)	184	1.7 (1.1)
	Non-users	461	1.7 (1.1)	537	1.5 (1.1)	425	1.7 (1.1)^{1}	509	1.9 (1.0)	947	1.5 (1.2)	507	1.6 (1.2)	379	0.8 (0.9)	3.765	1.5 (1.1)

Note. Sum index of correct answers; Mean values with a common exponent differ with $p < .05$ in the Bonferroni post-hoc test of an ANOVA. Superscript numbers denote a comparison between user groups within one country (columns), while superscript letters denote a comparison between countries within one user group (rows). The comparisons marked as significant always refer to data from one year only. Hence, no significant cross-temporal differences are highlighted in this table.

Table S5. Trust in generative AI among different user groups

		Taiwan		USA		South Korea		Germany		Israel		Australia		Denmark		Total	
		n	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*
2024	ChatGPT users: science-related information searches	175	4.0 (0.4)$^{a,b,c,d,e\ 1}$	177	3.9 (0.7)$^{h,i,j\ 1,2,}$	102	3.8 (0.5)$^{a,f\ 1}$	60	3.7 (0.7)$^{b,g\ 1}$	127	3.7 (0.6)^{d,i,l}	72	3.6 (0.7)$^{c,h,k\ 1}$	60	3.2 (0.6)$^{e,f,g,j,k,l\ 1}$	773	3.8 (0.6)^{1,2}
	ChatGPT users: no science-related information searches	49	3.9 (0.5)^{a,b,c}	129	3.5 (0.8)$^{a\ 1,3}$	49	3.6 (0.6)	48	3.5 (0.8)^{2}	45	3.6 (0.6)	76	3.3 (0.7)$^{b\ 2}$	36	3.2 (0.8)$^{c\ 2}$	432	3.5 (0.7)^{1,3}
	Non-users	276	3.9 (0.6)$^{a,b,c,d,e\ 1}$	577	3.1 (0.9)$^{c,g,m,n,o\ 2,3}$	280	3.6 (0.6)$^{a,f,g,h,i\ 1}$	329	3.2 (0.8)$^{b,f,j,k,l\ 1,2}$	182	3.7 (0.6)^{k,n,p,q}	371	2.9 (0.8)$^{d,h,j,m,p\ 1,2}$	206	2.9 (0.7)$^{e,i,l,o,q\ 1,2}$	2.221	3.3 (0.8)^{2,3}
2023	ChatGPT users: science-related information searches	100	4.1 (0.5)$^{a,b\ 1}$	67	3.8 (0.9)^{1}	65	4.0 (0.5)$^{c,d\ 1,2}$	30	3.9 (0.8)$^{e\ 1}$	39	3.4 (0.5)^{a,c,e}	22	3.7 (0.7)^{1}	20	3.4 (0.6)$^{b,d\ 1}$	343	3.9 (0.7)^{1}
	ChatGPT users: no science-related information searches	19	4.1 (0.5)^{a}	31	3.8 (0.8)^{2}	35	3.6 (0.6)^{1}	24	4.0 (0.7)^{2}	22	3.4 (0.7)	20	3.2 (0.8)^{a}	13	3.3 (1.0)	164	3.7 (0.7)^{2}
	Non-users	354	3.9 (0.6) $^{a,b,c,d,e,f\ 1}$	652	3.3 (0.9) $^{c,h,m,n\ 1,2}$	465	3.6 (0.6) $^{a,g,h,I,j\ 2}$	385	3.2 (0.8) $^{b,g,k,l\ 1,2}$	279	3.5 (0.7) ^{e,k,o,p}	363	3.1 (0.8) $^{d,l,m,o\ 1}$	253	3.0 (0.7) $^{f,j,l,n,p\ 1}$	2.751	3.4 (0.8) ^{1,2}

Note. Mean index (1-5; Cronbach's α = .95); Mean values with a common exponent differ with $p < .05$ in the Bonferroni post-hoc test of an ANOVA. Superscript numbers denote a comparison between user groups within one country (columns), while superscript letters denote a comparison between countries within one user group (rows). The comparisons marked as significant always refer to data from one year only. Hence, no significant cross-temporal differences are highlighted in this table.

Supplementary B. Questionnaire (English master file)

Note: The information marked in grey and red is not displayed to participants, but is internal information for the collaborators administering the survey in their respective country/region.

Start of Block: CONSENT

Thank you for your interest in participating in this study!

This study is run by an international team of researchers and is led by researchers at [omitted for peer-review]. Before you begin, it is important that you are informed about the purpose and procedure of this research. Please read the following information carefully.

Purpose of this research
The purpose of this research is to gain insights into people's perception and use of artificial intelligence (AI). This research can help us to better understand how people engage with new AI technologies in everyday life, for instance when searching for information.

What to expect from this study
In the first part of this study, you will be asked to answer questions on your attitudes, perception, and knowledge about artificial intelligence (AI). In the second part, you will further be asked about your use of AI technologies, with a focus on searching for information about science. Guidance on how to answer questions will be provided.

Anonymity
No personally identifying information will be collected, and your answers remain anonymous at any stage of the study. All research data that is made publicly available, e.g. in scientific journals or elsewhere, will be anonymous and cannot be traced back to you.

About this study
Participation will take about 10 minutes. You participate voluntarily and can choose not to take part. You can agree to take part and later change your mind. Your decision will not be held against you. You can ask all the questions you want before you decide.

There are no right or wrong answers, and we are interested in your personal views. Therefore, please select the response options that most closely resemble your opinion. If you feel uncomfortable answering a specific question, you can select the option "I don't know."

If you have questions, concerns, or complaints, please contact:

[insert your country-specific contact details here]

By selecting "I consent to participate", you consent to the terms and conditions described above.

❑ I consent to participate (1)
❑ I do NOT consent to participate (0)

End of Block

Start of Block

[GENDER]

At the beginning of this survey, we'd like to ask you for some information about yourself.

What gender do you identify with?

- ❑ Female (0)
- ❑ Male (1)
- ❑ Non-binary (2)
- ❑ Prefer not to say (99)

[AGE]

How old are you? _____ years

[EDUCATION]

What is your highest completed level of education?

[If necessary, insert your country-specific examples]

- ❑ Primary education (2)
- ❑ Secondary education (e.g., high school) (3)
- ❑ Higher education (e.g., university degree or higher education diploma) (4)
- ❑ Did not attend school (1)

End of Block

Start of Block

[DEF_AI]

When we talk about Artificial Intelligence (AI) in this questionnaire, we refer to the ability of computers and machines to perform tasks that normally require human intelligence. AI can perform these tasks or make these decisions without explicit human instructions.

[ATTITUDES]

How much do you agree or disagree with the following statements about AI?
(randomized)

	strongly disagree (1)	(2)	(3)	(4)	strongly agree (5)	I don't know (99)
AI is morally acceptable.	❑	❑	❑	❑	❑	❑
AI is useful for society.	❑	❑	❑	❑	❑	❑
Overall, I support the use of AI.	❑	❑	❑	❑	❑	❑
Overall, I support research on AI development.	❑	❑	❑	❑	❑	❑
As a society, we are prepared for the effects of AI applications.	❑	❑	❑	❑	❑	❑
There will be unintended consequences of AI applications.	❑	❑	❑	❑	❑	❑

End of Block

Start of Block

[RISKBENEFIT]

The development of AI has sparked various discussions about its risks and benefits. Below is a list of AI's potential strengths and concerns. According to your personal opinions, how likely do you think it is that AI will…
(randomized)

	not at all likely (1)	(2)	(3)	(4)	certain (5)	I don't know (99)
…strengthen the national economy.	❑	❑	❑	❑	❑	❑
…increase national security.	❑	❑	❑	❑	❑	❑
…improve individuals' health.	❑	❑	❑	❑	❑	❑
…reduce bias in human decision making.	❑	❑	❑	❑	❑	❑
…help fight terrorism threats.	❑	❑	❑	❑	❑	❑
…worsen societal inequalities.	❑	❑	❑	❑	❑	❑
…give some people too much power.	❑	❑	❑	❑	❑	❑
…threaten personal liberties.	❑	❑	❑	❑	❑	❑
…change what it means to be human.	❑	❑	❑	❑	❑	❑
…displace workers by automating their jobs.	❑	❑	❑	❑	❑	❑
…increase the spread of misinformation.	❑	❑	❑	❑	❑	❑
…bring benefits to the field of education.	❑	❑	❑	❑	❑	❑

End of Block

Start of Block

[LITERACY_AI]

Below are some statements about AI and algorithms. By algorithms we mean a set of rules a computer follows to achieve a particular goal.
It is difficult to know the answers to all of these, but please tell us if you think each is true or false.
(randomized); t = true; f = false

	true (1)	false (2)	I don't know (99)
Some AI technologies can learn from the humans who interact with them. (t)	❑	❑	❑
AI technologies take words literally, and do not consider the "subtext" (e.g. irony and metaphors). (t)	❑	❑	❑
The examples provided to the AI, when trained, affect its output. (t)	❑	❑	❑
All algorithms are a form of an AI. (f)	❑	❑	❑
When AI is used to make decisions, it is always free of bias. (f)	❑	❑	❑

[**Adaptation 2024:** Instead of "AI technologies take words literally, and do not consider the "subtext" (e.g. irony and metaphors)." (t), we asked "Some AI technologies learn by recognizing patterns in training data." (t)]

End of Block

Start of Block

[LITERACY_GENAI]

Within the larger field of Artificial Intelligence (AI), generative AI is a particular type of AI that produces original content based on patterns and examples it has learned from a large amount of existing data. One of the most prominent examples of generative AI is ChatGPT.

Do you think each of the following statements is true or false?
(randomized); t = true; f = false

	true (1)	false (2)	I don't know (99)
When generative AIs (like ChatGPT) answer you, they calculate the probability of the next words one after another to form sentences. (t)	❑	❑	❑
When generative AIs (like ChatGPT) answer you, they consider the context of the conversation so far. (t)	❑	❑	❑
Generative AIs (like ChatGPT) are based only on sources that are trustworthy and knowledgeable in the topic. (f)	❑	❑	❑
The answers provided by generative AIs (like ChatGPT) are always true. (f)	❑	❑	❑

End of Block

Start of Block

[TRUST1]

To what extent do you agree or disagree with the following statement?

	strongly disagree (1)	(2)	(3)	(4)	strongly agree (5)	I don't know (99)
Overall, I can trust generative AI technologies.	❑	❑	❑	❑	❑	❑

End of Block

Start of Block

[TRUST2]

And to what extent do you agree or disagree with the following statements?
(randomized)

	strongly disagree (1)	(2)	(3)	(4)	strongly agree (5)	I don't know (99)
Generative AI technologies prioritize users' well-being.	❑	❑	❑	❑	❑	❑
Generative AI technologies deliver comprehensible information.	❑	❑	❑	❑	❑	❑
Generative AI technologies are responsive to users' information needs.	❑	❑	❑	❑	❑	❑
Generative AI technologies are competent in their area of expertise.	❑	❑	❑	❑	❑	❑
Generative AI technologies are reliable.	❑	❑	❑	❑	❑	❑

End of Block

Start of Block

[TRUST3]

And to what extent do you agree or disagree with the following statements?
(randomized)

	strongly disagree (1)	(2)	(3)	(4)	strongly agree (5)	I don't know (99)
Generative AI technologies would do their best to help users if they needed help.	❑	❑	❑	❑	❑	❑
Generative AI technologies welcome users to engage with them.	❑	❑	❑	❑	❑	❑
Generative AI technologies perform their tasks truthfully.	❑	❑	❑	❑	❑	❑
Generative AI technologies have the features necessary to complete key tasks.	❑	❑	❑	❑	❑	❑
Generative AI technologies make it understandable how they produce the information they provide.	❑	❑	❑	❑	❑	❑

End of Block

Start of Block

[REGULATION]

How much confidence, if any, do you have in each of the following to manage the development and use of generative AI in the best interests of the public?
(randomized)

	no confidence (1)	(2)	(3)	(4)	a great deal of confidence (5)	I don't know (99)

The government	❑	❑	❑	❑	❑	❑
Technology companies	❑	❑	❑	❑	❑	❑
Scientific organizations	❑	❑	❑	❑	❑	❑
[If applicable, insert your supranational equivalence here; e.g., European Union]	❑	❑	❑	❑	❑	❑

End of Block

Start of Block

[EXPERIENCE]

Artificial Intelligence (AI) can be used for many different purposes. In the following, we want to focus on the use of AI when searching for information about science. By science, we mean the understanding we have about the world from observation and testing, the study of nature, medicine, physics, economics, history, and psychology, among others. Searching for scientific information thus means looking for scientific knowledge, facts, or explanations to satisfy curiosity, gain a better understanding of concepts or phenomena, or make informed decisions.
Have you ever heard of, or used, the following technologies?
(fixed order, NO randomization)

	I am hearing about it here for the first time (1)	I heard the name, but never used it (2)	I used it once or twice (3)	I use it regularly (4)	I don't know (99)
Google Search	❑	❑	❑	❑	❑
ChatGPT	❑	❑	❑	❑	❑
Bing Chat	❑	❑	❑	❑	❑
Perplexity AI	❑	❑	❑	❑	❑
Google Bard	❑	❑	❑	❑	❑
Smart personal assistants (e.g. Alexa, Siri, Google Assistant)	❑	❑	❑	❑	❑
Other AI technology (1): _____	❑	❑	❑	❑	❑
Other AI technology (2): _____	❑	❑	❑	❑	❑

[If necessary, expand this list to include the most important AI systems in your country]

[**Adaptation 2024:** We updated the names of Bing Chat and Google Bard, asking about "Microsoft Copilot in Bing (formerly Bard)" and "Google Gemini (formerly Google Bard). Also, we added "AI image generators (e.g., DALL-E, Midjourney).]

End of Block

Start of Block

[**Adaptation 2024:** [PAY] and [PURPOSE] are only asked in 2024.]

[Filter: Only show [PAY] if in [EXPERIENCE], at least one GenAI technology [EXP_chatgpt, EXP_bing, EXP_perplex, or EXP_bard] is marked as "I use it several times a month (4)" OR "I use it several times a week (5), OR "I use it daily (6)"].

[PAY]

Do you pay a subscription fee to use generative AI technologies like ChatGPT or Google Gemini?

- ❑ Yes, I currently pay a subscription fee (e.g., for ChatGPT Plus or Gemini Advanced) (1)
- ❑ I paid a subscription fee in the past but not anymore (2)
- ❑ No, I have only used free versions (3)
- ❑ I don't know (99)

[Filter: Only show [PURPOSE] if in [EXPERIENCE], at least one GenAI technology [EXP_chatgpt, EXP_bing, EXP_perplex, or EXP_bard] is marked as "I use it several times a month (4)", "I use it several times a week (5), or "I use it daily (6)"].

[PURPOSE]

Generative AI can be used for many different purposes. For what purposes do you use generative AI technologies like ChatGPT or Google Gemini in your daily life? Please select all that apply. (randomized) (multiple response option)

- ❑ Creating AI-generated images, music, or other creative output (1)
- ❑ Assistance with language or writing (e.g., translating text, drafting content) (2)
- ❑ Seeking inspiration (e.g., generating ideas for cooking or travel) (3)
- ❑ Searching for knowledge and facts (e.g., answering questions on various topics) (4)
- ❑ Being a conversation partner (e.g., talking to a chatbot for enjoyment) (5)
- ❑ None of these. Instead, I use it for _____ (6)
- ❑ I don't know (99)

End of Block

Start of Block

[Filter: In [USE_ALL], only show the technologies marked as "I used it once or twice (3)" OR "I use it regularly (4)" in [EXPERIENCE]]

[USE_ALL]

Which of the following technologies do you use to search for information about science? Remember: searching for scientific information means looking for scientific knowledge, facts, or explanations to satisfy curiosity, gain a better understanding of concepts or phenomena, or make informed decisions.

(fixed order, NO randomization) (multiple response option)

Please select all that apply.

- ❑ Google Search (1)
- ❑ ChatGPT (2)
- ❑ Bing Chat (3)
- ❑ Perplexity AI (4)
- ❑ Google Bard (5)
- ❑ Smart personal assistants (e.g. Alexa, Siri, Google Assistant) (6)
- ❑ None of these. Instead, I use _____ (7)
- ❑ Not applicable to me / I don't know (99)

[**Adaptation 2024:** We updated the names of Bing Chat and Google Bard, asking about "Microsoft Copilot in Bing (formerly Bard)" and "Google Gemini (formerly Google Bard). Also, we added "AI image generators (e.g., DALL-E, Midjourney).]

End of Block

Start of Block

[Filter: Only show this block ([CONFIDENCE_GOOGLE] to [CONTENT_GOOGLE]) if "Google Search (1)" is marked in [USE_ALL]]

[CONFIDENCE_GOOGLE]

When using Google Search to look for information about science, how confident are you that you can find what you need?

- ❑ Not at all confident (1)
- ❑ Slightly confident (2)
- ❑ Moderately confident (3)
- ❑ Very confident (4)
- ❑ Extremely confident (5)
- ❑ I don't know (99)

[USE_GOOGLE]

How often do you use Google Search to look for science information?

- ❑ Never (1)
- ❑ Several times the year (2)
- ❑ Several times the month (3)
- ❑ Several times the week (4)
- ❑ Once or more per day (5)
- ❑ I don't know (99)

[LASTTIME_GOOGLE]

When was the last time you used Google Search to look for science information?

- ❑ In the last 24 hours (1)
- ❑ In the last 3 days or so (2)
- ❑ In the last 7 days (a week) (3)
- ❑ In the last 30 days (a month) (4)
- ❑ More than 30 days ago (5)
- ❑ I don't know (99)

[CONTENT_GOOGLE]

Please think about the last time you used Google Search to look for information about science: How content were you with the science information that was found?

not content at all (1)	(2)	(3)	(4)	very content (5)	I don't know (99)
❑	❑	❑	❑	❑	❑

End of Block

Start of Block

[Filter: Only show this block ([CONFIDENCE_CHATGPT] to [CONTENT_CHATGPT]) if "ChatGPT (2)" is marked in [USE_ALL]]

[CONFIDENCE_CHATGPT]

When using ChatGPT to look for information about science, how confident are you that you can find what you need?

- ❑ Not at all confident (1)
- ❑ Slightly confident (2)
- ❑ Moderately confident (3)
- ❑ Very confident (4)
- ❑ Extremely confident (5)
- ❑ I don't know (99)

[USE_CHATGPT]

How often do you use ChatGPT to look for science information?

- ❑ Never (1)
- ❑ Several times the year (2)
- ❑ Several times the month (3)
- ❑ Several times the week (4)
- ❑ Once or more per day (5)
- ❑ I don't know (99)

[LASTTIME_CHATGPT]

When was the last time you used ChatGPT to look for science information?

- ❑ In the last 24 hours (1)
- ❑ In the last 3 days or so (2)
- ❑ In the last 7 days (a week) (3)
- ❑ In the last 30 days (a month) (4)
- ❑ More than 30 days ago (5)
- ❑ I don't know (99)

[CONTENT_CHATGPT]

Please think about the last time you used ChatGPT to look for information about science: How content were you with the science information that was found?

not content at all (1)	(2)	(3)	(4)	very content (5)	I don't know (99)
❑	❑	❑	❑	❑	❑

End of Block

Start of Block

[Filter: Only show this block ([CONFIDENCE_BING] to [CONTENT_BING]) if "Bing Chat (3)" is marked in [USE_ALL]]

[CONFIDENCE_BING]

When using Bing Chat to look for information about science, how confident are you that you can find what you need?

- ❑ Not at all confident (1)
- ❑ Slightly confident (2)
- ❑ Moderately confident (3)
- ❑ Very confident (4)
- ❑ Extremely confident (5)
- ❑ I don't know (99)

[USE_BING]

How often do you use Bing Chat to look for science information?

- ❑ Never (1)
- ❑ Several times the year (2)
- ❑ Several times the month (3)
- ❑ Several times the week (4)
- ❑ Once or more per day (5)
- ❑ I don't know (99)

[LASTTIME_BING]

When was the last time you used Bing Chat to look for science information?

- ❑ In the last 24 hours (1)
- ❑ In the last 3 days or so (2)
- ❑ In the last 7 days (a week) (3)
- ❑ In the last 30 days (a month) (4)
- ❑ More than 30 days ago (5)
- ❑ I don't know (99)

[CONTENT_BING]

Please think about the last time you used Bing Chat to look for information about science: How content were you with the science information that was found?

not content at all (1)	(2)	(3)	(4)	very content (5)	I don't know (99)
❑	❑	❑	❑	❑	❑

End of Block

Start of Block

[**Adaptation 2024:** [CONFIDENCE_PERPLEX], [USE_PERPLEX], [LASTTIME_PERPLEX], and [CONTENT_PERPLEX] were not included in the 2024 survey.]

[Filter: Only show this block ([CONFIDENCE_PERPLEX] to [CONTENT_PERPLEX]) if "Perplexity AI (4)" is marked in [USE_ALL]]

[CONFIDENCE_PERPLEX]

When using Perplexity AI to look for information about science, how confident are you that you can find what you need?

- ❑ Not at all confident (1)
- ❑ Slightly confident (2)

- ❑ Moderately confident (3)
- ❑ Very confident (4)
- ❑ Extremely confident (5)
- ❑ I don't know (99)

[USE_PERPLEX]

How often do you use Perplexity AI to look for science information?

- ❑ Never (1)
- ❑ Several times the year (2)
- ❑ Several times the month (3)
- ❑ Several times the week (4)
- ❑ Once or more per day (5)
- ❑ I don't know (99)

[LASTTIME_PERPLEX]

When was the last time you used Perplexity AI to look for science information?

- ❑ In the last 24 hours (1)
- ❑ In the last 3 days or so (2)
- ❑ In the last 7 days (a week) (3)
- ❑ In the last 30 days (a month) (4)
- ❑ More than 30 days ago (5)
- ❑ I don't know (99)

[CONTENT_PERPLEX]

Please think about the last time you used Perplexity AI to look for information about science: How content were you with the science information that was found?

not content at all (1)	(2)	(3)	(4)	very content (5)	I don't know (99)
❑	❑	❑	❑	❑	❑

End of Block

Start of Block

[Filter: Only show this block ([CONFIDENCE_BARD] to [CONTENT_BARD]) if "Google Bard (5)" is marked in [USE_ALL]]

[CONFIDENCE_BARD]

When using Google Bard to look for information about science, how confident are you that you can find what you need?

- ❑ Not at all confident (1)
- ❑ Slightly confident (2)
- ❑ Moderately confident (3)
- ❑ Very confident (4)
- ❑ Extremely confident (5)
- ❑ I don't know (99)

[USE_BARD]

How often do you use Google Bard to look for science information?

- ❑ Never (1)
- ❑ Several times the year (2)
- ❑ Several times the month (3)
- ❑ Several times the week (4)
- ❑ Once or more per day (5)
- ❑ I don't know (99)

[LASTTIME_BARD]

When was the last time you used Google Bard to look for science information?

- ❑ In the last 24 hours (1)
- ❑ In the last 3 days or so (2)
- ❑ In the last 7 days (a week) (3)
- ❑ In the last 30 days (a month) (4)
- ❑ More than 30 days ago (5)
- ❑ I don't know (99)

[CONTENT_BARD]

Please think about the last time you used Google Bard to look for information about science: How content were you with the science information that was found?

not content at all (1)	(2)	(3)	(4)	very content (5)	I don't know (99)
❑	❑	❑	❑	❑	❑

End of Block

Start of Block

[Filter: Only show this block ([CONFIDENCE_ALEXA] to [CONTENT_ALEXA]) if "Smart personal assistants (e.g. Alexa, Siri, Google Assistant) (6)" is marked in [USE_ALL]]

[CONFIDENCE_ALEXA]

When using smart personal assistants (e.g. Alexa, Siri, Google Assistant) to look for information about science, how confident are you that you can find what you need?

- ❑ Not at all confident (1)
- ❑ Slightly confident (2)
- ❑ Moderately confident (3)
- ❑ Very confident (4)
- ❑ Extremely confident (5)
- ❑ I don't know (99)

[USE_ALEXA]

How often do you use smart personal assistants (e.g. Alexa, Siri, Google Assistant) to look for science information?

- ❑ Never (1)
- ❑ Several times the year (2)
- ❑ Several times the month (3)
- ❑ Several times the week (4)
- ❑ Once or more per day (5)
- ❑ I don't know (99)

[LASTTIME_ALEXA]

When was the last time you used smart personal assistants (e.g. Alexa, Siri, Google Assistant) to look for science information?

- ❑ In the last 24 hours (1)
- ❑ In the last 3 days or so (2)
- ❑ In the last 7 days (a week) (3)
- ❑ In the last 30 days (a month) (4)
- ❑ More than 30 days ago (5)
- ❑ I don't know (99)

[CONTENT_ALEXA]

Please think about the last time you used smart personal assistants (e.g. Alexa, Siri, Google Assistant) to look for information about science: How content were you with the science information that was found?

not content at all (1)	(2)	(3)	(4)	very content (5)	I don't know (99)
❑	❑	❑	❑	❑	❑

End of Block

Start of Block

[Note: All following questions will be answered by all participants]

[SCIENCENEWS1]

You're almost finished! There are just a couple of short questions left.

How often do you encounter news stories about science and technology?

(1) never	several times the year (2)	several times the month (3)	several times the week (4)	(5) once or more per day	I don't know (99)
❑	❑	❑	❑	❑	❑

[SCIENCENEWS2]

How often do you encounter professional content about science and technology (e.g., scientific websites or blogs by scientists)?

(1) never	several times the year (2)	several times the month (3)	several times the week (4)	(5) once or more per day	I don't know (99)
❑	❑	❑	❑	❑	❑

[SCIENCENEWS3]

How often do you encounter user-generated content about science and technology (e.g. on YouTube or Instagram)?

(1) never	several times the year (2)	several times the month (3)	several times the week (4)	(5) once or more per day	I don't know (99)
❑	❑	❑	❑	❑	❑

End of Block

Start of Block

[POL1 and POL2]

Political orientations are often classified on a left-right spectrum or a liberal-conservative spectrum. Please indicate your political orientation.

[If these two scales will not work in your country, insert your country-specific scale(s)]

- ❑ Strongly liberal (1)
- ❑ (2) (2)
- ❑ (3) (3)
- ❑ (4) (4)
- ❑ Strongly conservative (5)
- ❑ Prefer not to say (99)

And how would you describe your political orientation here?

- ❑ Strongly left-leaning (1)
- ❑ (2) (2)
- ❑ (3) (3)
- ❑ (4) (4)
- ❑ Strongly right-leaning (5)
- ❑ Prefer not to say (99)

[RELIGION]

Please indicate to what extent you consider yourself religious.

- ❑ Not religious at all (1)
- ❑ (2) (2)
- ❑ (3) (3)
- ❑ (4) (4)
- ❑ Very strongly religious (5)
- ❑ Prefer not to say (99)

[LIVING]

Which of the following best describes the area you live in?

- ❑ Rural (1)
- ❑ Urban (2)
- ❑ Prefer not to say (99)

End of Block

Start of Block

[Adapt to you appropriate country-specific context]

Thank you for your participation in this survey. Your responses have been recorded. If you have questions, concerns, or complaints, please contact:

[insert your country-specific contact details here]

Supplementary C.

Table S6a. Demographic breakdown of the sample by country/region - 2023

	Total sample					*Regular ChatGPT users who use the model for science-related information searches*				
	Sample size	Age in years		Gender	Education	Sample size	Age in years		Gender	Education
		M	*SD*				*M*	*SD*		
Australia	552	46.5	16.4	Female: 46.9% Male: 52.5% Non-binary: 0.5%	Primary: 1.6% Secondary: 21.7% Higher ed: 76.6%	24	36.3	11.6	Female: 25.0% Male: 75.0%	Secondary: 4.2% Higher ed: 95.8%
Denmark	505	49.4	18.3	Female: 50.5% Male: 48.7% Non-binary: 0.8%	No school: 0.4% Primary: 11.5% Secondary: 43.4% Higher ed: 44.8%	24	37.7	18.1	Female: 12.5% Male: 87.5%	Primary: 12.5% Secondary: 45.8% Higher ed: 41.7%
Germany	566	44.1	14.7	Female: 50.7% Male: 48.8% Non-binary: 0.5%	Primary: 28.1% Secondary: 33.6% Higher ed: 38.3%	31	35.3	14.6	Female: 29.0% Male: 71.0%	Primary: 9.7% Secondary: 16.1% Higher ed: 74.2%
Israel	500	44.1	16.2	Female: 55.9% Male: 44.1%	Primary: 2.0% Secondary: 41.6% Higher ed: 56.4%	48	40.8	15.2	Female: 44.7% Male: 55.3%	Primary: 4.2% Secondary: 33.3% Higher ed: 62.5%
South Korea	642	41.0	12.6	Female: 50.9% Male: 49.1%	Primary: 0.9% Secondary: 25.4% Higher ed: 73.7%	68	37.9	9.9	Female: 44.1% Male: 55.9%	Secondary: 20.6% Higher ed: 79.4%
Taiwan	504	43.8	15.2	Female: 49.0% Male: 51.0%	Primary: 19.6% Secondary: 31.2% Higher ed: 49.2%	105	40.6	14.4	Female: 44.8% Male: 55.2%	Primary: 14.3% Secondary: 32.4% Higher ed: 53.3%
USA	1052	45.9	16.9	Female: 50.2% Male: 48.5% Non-binary: 1.3%	No school: 0.3% Primary: 4.2% Secondary: 41.5% Higher ed: 54.0%	72	33.4	11.2	Female: 27.8% Male: 68.1% Non-binary: 4.2%	Primary: 4.2% Secondary: 23.6% Higher ed: 72.2%

Table S6b. Demographic breakdown of the sample by country/region – 2024

	Total sample					*Regular ChatGPT users who use the model for science-related information searches*				
	Sample size	Age in years		Gender	Education	Sample size	Age in years		Gender	Education
		M	*SD*				*M*	*SD*		
Australia	696	49.48	74.48	Female: 49.8% Male: 50.1% Non-binary: 0.1%	Primary: 0.7% Secondary: 33.2% Higher ed: 66.1%	80	35.67	11.78	Female: 51.2% Male: 48.8%	Secondary: 18.8% Higher ed: 81.3%
Denmark	500	49.43	18.62	Female: 50.6% Male: 49.4%	Primary: 17.6% Secondary: 42.2% Higher ed: 40.2%	75	37.74	16.09	Female: 42.7% Male: 57.3%	Primary: 10.7% Secondary: 34.7% Higher ed: 54.7%
Germany	562	44.92	14.57	Female: 51.2% Male: 48.8%	Primary: 29.9% Secondary: 33.1% Higher ed: 37.0%	64	35.56	12.26	Female: 37.5% Male: 62.5%	Primary: 6.3% Secondary: 25.0% Higher ed: 68.8%
Israel	500	44.12	17.29	Female: 52.0% Male: 47.8% Non-binary: 0.2%	Primary: 3.2% Secondary: 42.6% Higher ed: 54.2%	152	38.36	15.22	Female: 44.1% Male: 55.9%	Primary: 2.0% Secondary: 32.9% Higher ed: 65.1%
South Korea	500	45.41	13.94	Female: 49.2% Male: 50.8%	Primary: 1.0% Secondary: 24.0% Higher ed: 75.0%	106	39.05	12.69	Female: 32.1% Male: 67.9%	Secondary: 15.1% Higher ed: 84.9%
Taiwan	512	41.38	12.01	Female: 50.8% Male: 49.2%	Primary: 2.9% Secondary: 25.8% Higher ed: 71.3%	177	37.00	11.59	Female: 40.1% Male: 59.9%	Primary: 1.7% Secondary: 12.4% Higher ed: 85.9%
USA	1176	48.34	17.34	Female: 48.5% Male: 50.1% Non-binary: 1.4%	No school: 0.1% Primary: 4.2% Secondary: 38.8% Higher ed: 57.0%	194	40.95	15.39	Female: 36.6% Male: 62.4% Non-binary: 1.0%	No school: 0.5% Primary: 1.5% Secondary: 25.8% Higher ed: 72.2%

Table S7. Experience with GenAI applications (total sample).

	ChatGPT (n_{2023} = 4,136; n_{2024} = 4,250)				Bing Chat / Copilot in Bing (n_{2023} = 4,028; n_{2024} = 4,172)				Google Bard / Gemini (n_{2023} = 4,019; n_{2024} = 4,178)			
	2023		2024		2023		2024		2023		2024	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%	*n*	%
I am hearing about it here for the first time	677	15.7	448	10.1	1,694	39.2	1,376	30.9	2,244	51.9	1,729	38.9
I heard the name, but never used it	1,758	40.7	1,433	32.2	1,465	33.9	1,470	33.0	1,101	25.5	1,431	32.2
I used it once or twice	1,143	26.5	993	22.3	642	14.9	683	15.4	448	10.4	467	10.5
I use it regularly	555	12.8	1,358	30.5	224	5.2	626	14.1	223	5.2	536	12.1

	Perplexity AI (n_{2023} = 3,965; n_{2024} = 4,089)				Google Search (n_{2023} = 4,250; n_{2024} = 4,398)			
	2023		2024		2023		2024	
	n	%	*n*	%	*n*	%	*n*	%
I am hearing about it here for the first time	2,987	69.1	2,879	64.7	56	1.3	81	1.8
I heard the name, but never used it	623	14.4	768	17.3	179	4.1	233	5.2
I used it once or twice	235	5.4	197	4.4	398	9.2	329	7.4
I use it regularly	117	2.7	230	5.2	3,614	83.7	3,742	84.1

Note. Does not add up to 100% due to missing values.

Table S8a. Factual knowledge about AI - 2023

		Australia (*n* = 24)	Denmark (*n* = 24)	Germany (*n* = 31)	Israel (*n* = 48)	South Korea (*n* = 68)	Taiwan (*n* = 105)	USA (*n* = 72)
Some AI technologies can learn from the humans who interact with them. (t)	Correct	70.8%	95.8%	93.5%	87.5%	83.8%	94.3%	83.3%
	Wrong	20.8%	-	3.2%	6.3%	11.8%	3.8%	12.5%
	DK	8.3%	4.2%	3.2%	6.3%	4.4%	1.9%	4.2%
AI technologies take words literally, and do not consider the “subtext” (e.g. irony and metaphors). (t)	Correct	45.8%	75.0%	58.1%	47.9%	50.0%	60.0%	50.0%
	Wrong	41.7%	20.8%	19.4%	43.8%	33.8%	16.2%	26.4%
	DK	12.5%	4.2%	22.6%	8.3%	16.2%	23.8%	23.6%
The examples provided to the AI, when trained, affect its output. (t)	Correct	70.8%	100.0%	83.9%	89.6%	86.8%	87.6%	77.8%
	Wrong	20.8%	-	6.5%	6.3%	11.8%	4.8%	15.3%
	DK	8.3%	-	9.7%	4.2%	1.5%	7.6%	6.9%
All algorithms are a form of an AI. (f)	Correct	29.2%	41.7%	25.8%	39.6%	14.7%	14.3%	22.2%
	Wrong	54.2%	29.2%	54.8%	43.8%	70.6%	74.3%	59.7%
	DK	16.7%	29.2%	19.4%	16.7%	14.7%	11.4%	18.1%
When AI is used to make decisions, it is always free of bias. (f)	Correct	58.3%	62.5%	74.2%	58.3%	33.8%	34.3%	52.8%
	Wrong	33.3%	20.8%	25.8%	20.8%	50.0%	37.1%	36.1%
	DK	8.3%	16.7%	-	20.8%	16.2%	28.6%	11.1%
When generative AIs (like ChatGPT) answer you, they calculate the probability of the next words one after another to form sentences. (t)	Correct	58.3%	58.3%	64.5%	60.4%	82.4%	86.7%	65.3%
	Wrong	20.8%	20.8%	12.9%	8.3%	8.8%	3.8%	11.1%
	DK	20.8%	20.8%	22.6%	31.3%	8.8%	9.5%	23.6%
When generative AIs (like ChatGPT) answer you, they consider the context of the conversation so far. (t)	Correct	75.0%	91.7%	80.6%	85.4%	83.8%	83.8%	80.6%
	Wrong	16.7%	4.2%	9.7%	12.5%	13.2%	8.6%	13.6%
	DK	8.3%	4.2%	9.7%	2.1%	2.9%	7.6%	5.6%
Generative AIs (like ChatGPT) are based only on sources that are trustworthy and knowledgeable in the topic. (f)	Correct	37.5%	70.8%	48.4%	77.1%	36.8%	17.1%	38.9%
	Wrong	50.0%	16.7%	41.9%	10.4%	51.5%	75.2%	40.3%
	DK	12.5%	12.5%	9.7%	12.5%	11.8%	7.6%	20.8%
The answers provided by generative AIs (like ChatGPT) are always true. (f)	Correct	58.3%	87.5%	64.5%	85.4%	61.8%	51.4%	54.2%
	Wrong	37.5%	8.3%	29.0%	4.2%	30.9%	34.3%	33.3%
	DK	4.2%	4.2%	6.5%	10.4%	7.4%	14.3%	12.5%

Note. Subsample of regular ChatGPT users who use the model for science-related information searches. DK = I don’t know.

Table S8b. Factual knowledge about AI - 2024

		Australia (*n* = 80)	Denmark (*n* = 82)	Germany (*n* = 64)	Israel (*n* = 152)	South Korea (*n* = 106)	Taiwan (*n* = 157)	USA (*n* = 194)
Some AI technologies can learn from the humans who interact with them. (t)	Correct	86.3%	82.9%	79.7%	82.9%	85.8%	92.7%	88.7%
	Wrong	10.0%	6.4%	10.9%	7.9%	8.5%	5.1%	5.7%
	DK	3.8%	10.8%	9.4%	9.2%	5.7%	2.3%	5.7%
Some AI technologies learn by recognizing patterns in training data. (t)	Correct	82.5%	85.8%	79.9%	89.5%	90.6%	91.5%	92.8%
	Wrong	11.3%	-	12.5%	3.9%	3.8%	5.6%	2.6%
	DK	6.3%	14.2%	7.8%	6.6%	5.7%	2.8%	4.6%
The examples provided to the AI, when trained, affect its output. (t)	Correct	76.3%	87.1%	68.8%	92.1%	86.8%	90.4%	80.9%
	Wrong	15.0%	3.5%	12.5%	3.3%	9.4%	5.1%	6.2%
	DK	8.8%	9.4%	18.8%	4.6%	3.8%	4.5%	12.9%
All algorithms are a form of an AI. (f)	Correct	51.2%	36.7%	40.6%	44.1%	70.8%	78.5%	50.5%
	Wrong	37.5%	41.3%	46.9%	35.5%	17.0%	11.3%	30.4%
	DK	11.3%	22.0%	12.5%	20.4%	12.3%	10.2%	19.1%
When AI is used to make decisions, it is always free of bias. (f)	Correct	37.5%	10.0%	23.4%	29.6%	17.9%	27.7%	29.9%
	Wrong	47.5%	67.0%	67.2%	49.3%	61.3%	46.3%	53.1%
	DK	15.0%	23.0%	9.4%	21.1%	20.8%	26.0%	17.0%
When generative AIs (like ChatGPT) answer you, they calculate the probability of the next words one after another to form sentences. (t)	Correct	63.7%	41.3%	54.7%	65.8%	78.3%	85.9%	66.0%
	Wrong	15.0%	19.3%	14.1%	5.3%	12.3%	4.5%	8.8%
	DK	21.3%	39.5%	31.3%	28.9%	9.4%	9.6%	25.3%
When generative AIs (like ChatGPT) answer you, they consider the context of the conversation so far. (t)	Correct	71.3%	76.3%	71.9%	83.6%	86.8%	84.7%	82.5%
	Wrong	18.8%	9.1%	14.1%	12.5%	9.4%	7.9%	7.7%
	DK	10%	14.5%	14.1%	3.9%	3.8%	7.3%	9.8%
Generative AIs (like ChatGPT) are based only on sources that are trustworthy and knowledgeable in the topic. (f)	Correct	30.0%	17.3%	34.4%	27.6%	28.3%	66.7%	39.2%
	Wrong	52.5%	73.6%	39.1%	59.9%	62.3%	19.8%	41.2%
	DK	17.5%	9.1%	26.6%	12.5%	9.4%	13.6%	19.6%
The answers provided by generative AIs (like ChatGPT) are always true. (f)	Correct	30.0%	5.6%	26.6%	11.8%	11.3%	29.4%	25.8%
	Wrong	61.3%	86.7%	64.1%	84.2%	77.4%	53.7%	61.3%
	DK	8.8%	7.7%	9.4%	3.9%	11.3%	16.9%	12.9%

Note. Subsample of regular ChatGPT users who use the model for science-related information searches. DK = I don’t know.

Table S9a. Trust in generative AI - 2023

	Australia *(n = 21-24)*	Denmark *(n = 20-24)*	Germany *(n = 26-31)*	Israel *(n = 38-48)*	South Korea *(n = 64-68)*	Taiwan *(n = 100-105)*	USA *(n = 66-72)*
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*
Generative AI technologies prioritize users' well-being.	3.6 (1.2)	2.9 (1.0)	3.4 (1.5)	2.9 (1.0)	3.8 (1.0)	4.1 (0.7)	3.5 (1.3)
Generative AI technologies would do their best to help users if they needed help.	3.7 (1.1)	3.7 (1.1)	4.0 (1.1)	3.6 (1.1)	4.2 (0.7)	4.1 (0.8)	3.8 (1.1)
Generative AI technologies perform their tasks truthfully.	3.5 (1.1)	2.8 (1.1)	4.0 (1.2)	3.6 (1.2)	4.0 (0.8)	4.1 (0.8)	3.7 (1.2)
Generative AI technologies are competent in their area of expertise.	3.8 (1.1)	4.0 (0.8)	4.0 (1.0)	3.9 (0.7)	4.1 (0.7)	4.2 (0.8)	3.7 (1.1)
Generative AI technologies are reliable.	3.6 (1.0)	3.0 (0.9)	3.8 (1.2)	3.0 (1.0)	3.9 (0.9)	3.8 (0.8)	3.7 (1.1)
Generative AI technologies have the features necessary to complete key tasks.	3.6 (1.0)	3.4 (0.9)	3.9 (1.2)	3.8 (0.9)	4.1 (0.8)	4.0 (0.8)	4.0 (1.0)
Generative AI technologies deliver comprehensible information.	4.1 (0.7)	4.0 (0.9)	4.2 (0.9)	3.3 (0.9)	4.1 (0.7)	4.2 (0.7)	3.9 (1.1)
Generative AI technologies make it understandable how they produce the information they provide.	3.7 (1.1)	3.1 (1.1)	3.6 (1.5)	2.7 (1.1)	3.9 (0.8)	4.0 (0.8)	3.7 (1.3)
Generative AI technologies welcome users to engage with them.	4.0 (1.1)	3.9 (0.8)	4.1 (1.1)	3.6 (0.9)	3.9 (0.7)	4.1 (0.7)	4.1 (1.0)
Generative AI technologies are responsive to users' information needs.	3.9 (0.9)	3.4 (0.9)	4.1 (0.8)	3.9 (0.8)	4.1 (0.8)	4.1 (0.7)	3.9 (1.0)

Table S9b. Trust in generative AI - 2024

	Australia *(n = 75-80)*	Denmark *(n = 68-81)*	Germany *(n = 57-63)*	Israel *(n = 128-150)*	South Korea *(n = 99-106)*	Taiwan *(n = 153-157)*	USA *(n = 181-192)*
	M (SD)	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*	*M (SD)*
Generative AI technologies prioritize users' well-being.	3.2 (1.1)	2.5 (1.1)	3.5(1.2)	3.5 (1.0)	3.4 (1.0)	3.8 (0.8)	3.5 (1.2)
Generative AI technologies would do their best to help users if they needed help.	3.7 (1.0)	3.5 (1.1)	3.8 (1.0)	4.1 (0.9)	3.8 (0.9)	4.1 (0.6)	4.0 (1.0)
Generative AI technologies perform their tasks truthfully.	3.4 (1.0)	2.7 (1.0)	3.7 (0.9)	3.6 (1.0)	3.7 (0.8)	4.1 (0.7)	3.7 (1.0)
Generative AI technologies are competent in their area of expertise.	3.5 (0.8)	3.3 (0.8)	3.7 (1.0)	3.8 (0.9)	4.0 (0.7)	4.1 (0.7)	3.8 (0.9)
Generative AI technologies are reliable.	3.4 (0.9)	2.9 (0.9)	3.7 (1.0)	3.3 (0.9)	3.6 (0.8)	3.9 (0.7)	3.7 (1.0)
Generative AI technologies have the features necessary to complete key tasks.	3.7 (0.8)	3.1 (1.0)	3.8 (0.9)	3.8 (0.9)	3.8 (0.7)	4.1 (0.6)	4.1 (0.8)
Generative AI technologies deliver comprehensible information.	3.8 (0.8)	3.9 (0.7)	4.1 (0.9)	3.7 (0.9)	4.0 (0.8)	4.1 (0.6)	4.1 (0.9)
Generative AI technologies make it understandable how they produce the information they provide.	3.4 (1.1)	2.8 (1.2)	3.2 (1.3)	2.9 (1.2)	3.6 (0.9)	3.9 (0.8)	3.6 (1.2)
Generative AI technologies welcome users to engage with them.	3.8 (0.8)	3.7 (1.0)	3.7 (1.1)	3.9 (1.0)	3.8 (0.7)	4.2 (0.6)	4.2 (0.9)
Generative AI technologies are responsive to users' information needs.	3.6 (0.8)	3.6 (0.9)	3.8 (0.9)	4.0 (0.8)	4.0 (0.7)	4.1 (0.6)	4.1 (0.9)

Note. Subsample of regular ChatGPT users who use the model for science-related information searches.

Table S10. Frequency of encountering news stories about science and technology (1 = Never, 5 = Once or more per day)

	Taiwan		USA		South Korea		Germany		Israel		Australia		Denmark		Total	
	n	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*	*n*	*M (SD)*
Regular users with science	176	3.6 (0.9)[1]	192	4.0 (0.9)[12]	105	3.9 (0.8)[1]	62	3.8 (0.9)[1]	149	3.2 (1.0)[1]	80	3.5 (0.9)[1]	72	3.6 (0.9)[1]	836	3.7 (0.9)[1]
Regular users without science	49	3.5 (0.9)	149	3.6 (1.0)[13]	56	3.6 (1.0)	53	3.9 (1.1)[2]	65	3.0 (0.9)	80	3.4 (1.0)[2]	39	3.6 (1.1)	491	3.5 (1.0)[2]
No regular users	269	3.2 (1.0)[1]	768	3.3 (1.2)[23]	312	3.4 (1.0)[1]	400	2.9 (1.2)[12]	265	2.7 (1.0)[1]	486	3.0 (1.0)[12]	321	3.2 (1.0)[1]	2.821	3.1 (1.1)[12]

Note. Mean values with a common exponent differ with $p < .05$ in the Bonferroni post-hoc test of an ANOVA between user groups within one country.