Survey question wording and topline

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

ASK ALL:
DESRISK   How well do each of the following phrases describe you? **[RANDOMIZE ITEMS]**

		Extremely well	Very well	Somewhat well	Not too well	Not at all well	No answer
COMF.	Comfortable taking risks						
	Dec 12-18, 2022	8	20	45	24	4	<1
CREAT.	Creative thinker						
	Dec 12-18, 2022	20	34	36	8	1	<1
NTECH.	Enjoy using new technology						
	Dec 12-18, 2022	21	28	36	13	2	<1

ASK ALL:
RISK2   Thinking about the decisions you make as you go through life, which better describes how you feel? **[RANDOMIZE RESPONSE OPTIONS]**

Dec 12-18, 2022	
55	Taking risks usually pays off in the end
44	Taking risks too often leads to problems
1	No answer

OTHER QUESTIONS PREVIOUSLY RELEASED

ASK ALL:
AIHCCOMF   Thinking about the use of artificial intelligence (AI) in health and medicine to do things like diagnose disease and recommend treatments…

How would you feel if your health care provider relied on AI to do things like diagnose disease and recommend treatments for your medical care? **[RANDOMLY DISPLAY OPTIONS 1-4 OR 4-1]**

Dec 12-18, 2022	
7	Very comfortable
32	Somewhat comfortable
37	Somewhat uncomfortable
23	Very uncomfortable
1	No answer

ASK ALL:
AIHCTRT1   Do you think the use of artificial intelligence (AI) in health and medicine to do things like diagnose disease and recommend treatments would lead to… **[RANDOMIZE RESPONSE OPTIONS 1 AND 2, WITH OPTION 3 ALWAYS LAST]**

Dec 12-18,
    <u>2022</u>
    38   Better health outcomes for patients
    33   Worse health outcomes for patients
    27   Not make much difference
     2   No answer

ASK ALL:
AIHCTRT2   Thinking about the use of artificial intelligence (AI) in health and medicine to do things like diagnose disease and recommend treatments, which of the following concerns you more?

Health care providers will… **[RANDOMIZE RESPONSE OPTIONS]**

Dec 12-18,
    <u>2022</u>
          Move too fast using this technology, before fully understanding the risks
    75   for patients
          Move too slowly using this technology, missing opportunities to improve
    23   patients' health
     2   No answer

ASK ALL:
MEDBIAS   In health and medicine, how much of a problem is bias and unfair treatment based on patients' race or ethnicity?

Dec 12-18,
    <u>2022</u>
    35   A major problem
    35   A minor problem
    28   Not a problem
     2   No answer

ASK ALL:
AIHCCHG   Do you think the use of artificial intelligence (AI) in health and medicine to do things like diagnose diseases and recommend treatments would make each of the following better, worse, or not make much difference? **[RANDOMIZE ITEMS]**

		Better	Worse	Not make much difference	No answer
QUAL.	The quality of health care for people like you				
	Dec 12-18, 2022	31	30	38	1
MIST.	The number of mistakes made by health care providers				
	Dec 12-18, 2022	40	27	31	1
REL.	Patients' personal relationship with their health care providers				
	Dec 12-18, 2022	13	57	29	1
RACETHN.	The job that health care providers do treating people of all races and ethnicities fairly				
	Dec 12-18, 2022	38	15	46	1
SECUR.	The security of patients' personal health records				
	Dec 12-18, 2022	22	37	39	1

ASK ALL:
HCMEDBIAS   Thinking about the potential for bias and unfair treatment in health and medicine based on a patient's race or ethnicity…

If artificial intelligence (AI) is used more in health and medicine to do things like diagnose disease and recommend treatments, do you think the issue of bias and unfair treatment based on a patient's race or ethnicity would… **[RANDOMLY DISPLAY OPTIONS 1-5 OR 5-1]**

Dec 12-18, 2022	
9	Definitely get better
35	Probably get better
40	Stay about the same
10	Probably get worse
3	Definitely get worse
2	No answer

ASK IF BETTER AND FORM 2 (HCMEDBIAS=1,2 AND XFORM=2)] [N=2,531]:

BIASBETR   What's a reason you think the issue of bias and unfair treatment based on a patient's race or ethnicity would get better with the use of artificial intelligence (AI) in health and medicine?

Dec 12-18,
  <u>2022</u>
  34   Human bias/prejudice not involved; AI is neutral/consistent
  28   AI is not biased towards a patient's characteristics
  9   Programmers or datasets could input bias into the AI
  4   AI can make more accurate decisions, including based on a person's race
  1   AI will still have some bias, but can help
  6   Other
  3   Unclear
  2   Don't know
  24   No answer

ASK IF WORSE AND FORM 2 (HCMEDBIAS=4,5 AND XFORM=2)] [N=683]:

BIASWORS   What's a reason you think the issue of bias and unfair treatment based on a patient's race or ethnicity would get worse with the use of artificial intelligence (AI) in health and medicine?

Dec 12-18,
  <u>2022</u>
  26   AI reflects human biases
  9   Human judgement is needed in medicine
  4   AI would take into account race/ethnicity, making it biased
  3   Don't like AI/Don't want it involved in health care
  2   More use of AI would increase inequality, only available for the rich
  1   Medical providers would use AI to reinforce their own biases/might not be aware of biases
  1   Data privacy and security concerns
  1   Data entry, medical record errors
  1   Programming will determine whether it is biased or not
  1   AI does not take into account race/ethnicity
  1   No racism or bias exists in healthcare
  8   Other
  3   Unclear
  3   Don't know
  40   No answer

ASK IF STAY ABOUT THE SAME AND FORM 2 (HCMEDBIAS=3 AND XFORM=2)] [N=2,195]:
BIASSAME   What's a reason you think the issue of bias and unfair treatment based on a patient's race or ethnicity would stay about the same with the use of artificial intelligence (AI) in health and medicine?

Dec 12-18, 2022	
18	Because people, training or data are still biased
16	Racial and ethnic bias is not a problem, doesn't exist or race and ethnicity isn't relevant to healthcare
6	A real person/doctor would be primarily treating people even if we adopted AI, so no change expected
4	Individual bias is possible, but good doctors are not biased
3	It would stay the same/AI wouldn't make a difference/there will always be a problem
2	Negative toward implementation of AI, general
2	AI can't even detect race or doesn't take into account race
1	AI is unbiased, will affect everyone equally
1	AI will only be accessible to the privileged, so it will not change things much
1	Negative toward healthcare system, general
1	Bias is caused by factors that AI cannot solve
4	Other
1	Unclear
4	Don't know
38	No answer

[RANDOMIZE ORDER OF BLOCK 1 AND BLOCK 2]

BLOCK 1
DISPLAY TO FORM 1:
Artificial intelligence (AI) can be used to review large numbers of images of people's skin with and without skin cancer and learn to identify patterns; it is designed to detect skin cancer in patients.

ASK FORM 1 ONLY (XFORM=1) [N=5,511]:
SCDETECT1   How much have you heard or read about AI designed to detect skin cancer?

Dec 12-18,
 2022
3	A lot
19	A little
77	Nothing at all
<1	No answer

ASK FORM 1 ONLY (XFORM=1) [N=5,511]:
SCDETECT2   How much of an advance for medical care is artificial intelligence (AI) that can detect skin cancer?

Dec 12-18,
 2022
45	A major advance
17	A minor advance
3	Not an advance
34	Not sure
<1	No answer

ASK FORM 1 ONLY (XFORM=1) [N=5,511]:
SCDETECT3   Would you personally want artificial intelligence (AI) to be used in your screening for skin cancer, if you were getting screened? **[RANDOMLY DISPLAY OPTIONS 1-4 OR 4-1]**

Dec 12-18,
 2022
17	Definitely want
48	Probably want
24	Probably NOT want
10	Definitely NOT want
2	No answer

ASK FORM 1 ONLY (XFORM=1) [N=5,511]:
SCDETECT4   Do you think artificial intelligence (AI) would make skin cancer diagnoses…
[RANDOMIZE RESPONSE OPTIONS 1 AND 2, WITH OPTION 3 ALWAYS LAST]

Dec 12-18,
 <u>2022</u>
  55   More accurate
  13   Less accurate
  30   Not make much difference
  3   No answer

BLOCK 2
DISPLAY FOR FORM 1:

There are artificial intelligence (AI) chatbots in which people text AI programs about their feelings or concerns and the chatbot responds, without the involvement of a human. These chatbots are designed to support a person's mental health.

ASK FORM 1 ONLY (XFORM=1) [N=5,511]:
AIMH1   How much have you heard or read about AI chatbots designed to support mental health?

Dec 12-18,
 <u>2022</u>
  6   A lot
  25   A little
  68   Nothing at all
  <1   No answer

ASK FORM 1 ONLY (XFORM=1) [N=5,511]:
AIMH2   How much of an advance for mental health support are artificial intelligence (AI) chatbots?

Dec 12-18,
 <u>2022</u>
  11   A major advance
  21   A minor advance
  20   Not an advance
  47   Not sure
  <1   No answer

ASK FORM 1 ONLY (XFORM=1) [N=5,511]:
AIMH3   Would you personally want to use an artificial intelligence (AI) chatbot, if you were seeking mental health support? **[RANDOMLY DISPLAY OPTIONS 1-4 OR 4-1]**

Dec 12-18,
<u>2022</u>
4	Definitely want
16	Probably want
41	Probably NOT want
38	Definitely NOT want
1	No answer

ASK FORM 1 ONLY (XFORM=1) [N=5,511]:
AIMH5   Do you think artificial intelligence (AI) chatbots that can provide mental health support should be… **[RANDOMIZE RESPONSE OPTIONS 1-2 WITH OPTION 3 ALWAYS LAST]**

Dec 12-18,
<u>2022</u>
46	Only used by people that are also seeing a human therapist
23	Used by people regardless of whether they are also seeing a human therapist
28	These should not be available to people at all
3	No answer

[RANDOMIZE ORDER OF BLOCK 3 AND BLOCK 4]
BLOCK 3
DISPLAY TO FORM 2:

Artificial intelligence (AI) can be used to help decide the amount of pain medication patients get following a major surgery. These programs are designed to limit the abuse of pain medications.

ASK FORM 2 ONLY (XFORM=2) [N=5,493]:
AIPAIN1   How much have you heard or read about using AI to help decide the amount of pain medication patients get?

Dec 12-18,
<u>2022</u>
3	A lot
19	A little
77	Nothing at all
1	No answer

ASK FORM 2 ONLY (XFORM=2) [N=5,493]:
AIPAIN2   How much of an advance for medical care is artificial intelligence (AI) that can help decide the amount of pain medication patients get?

Dec 12-18,
  2022
19   A major advance
24   A minor advance
16   Not an advance
40   Not sure
 1   No answer

ASK FORM 2 ONLY (XFORM=2) [N=5,493]:
AIPAIN3   Would you personally want artificial intelligence (AI) to help decide the amount of pain medication you get, if you were getting surgery? **[RANDOMLY REVERSE SCALE FOR HALF]**

Dec 12-18,
  2022
 5   Definitely want
26   Probably want
39   Probably NOT want
27   Definitely NOT want
 2   No answer

ASK FORM 2 ONLY (XFORM=2) [N=5,493]:
AIPAIN4   Do you think artificial intelligence (AI) would make patients' treatment for pain…
            [RANDOMIZE RESPONSE OPTIONS 1 AND 2, WITH OPTION 3 ALWAYS LAST]

Dec 12-18,
  2022
26   Better
32   Worse
40   Not make much difference
 3   No answer

BLOCK 4
DISPLAY TO FORM 2:
Robots with artificial intelligence (AI) are being developed that can be used to perform parts of surgery on their own. These robots are designed to make precise and steady movements during surgery.

ASK FORM 2 ONLY (XFORM=2) [N=5,493]:
SROBOT1   How much have you heard or read about surgical robots with AI?

Dec 12-18,
  2022
   9   A lot
   50   A little
   40   Nothing at all
   1   No answer

ASK FORM 2 ONLY (XFORM=2) [N=5,493]:
SROBOT2   How much of an advance for medical care are surgical robots with artificial intelligence (AI) that can perform parts of surgery on their own?

Dec 12-18,
  2022
   45   A major advance
   18   A minor advance
   7   Not an advance
   30   Not sure
   1   No answer

ASK FORM 2 ONLY (XFORM=2) [N=5,493]:
SROBOT3   Would you personally want surgical robots with artificial intelligence (AI) to be used, if you were getting surgery? **[RANDOMLY REVERSE SCALE FOR HALF]**

Dec 12-18,
  2022
   6   Definitely want
   33   Probably want
   37   Probably NOT want
   22   Definitely NOT want
   2   No answer

RANDOMIZE BLOCKS 5-7 (FORM 2 ONLY RECEIVES BLOCK 7)

BLOCK 5
DISPLAY TO FORM 1 (XFORM=1):
Artificial intelligence (AI) can be used in biology to predict protein structures in cells. This can help develop new medical treatments.

ASK FORM 1 (XFORM=1) [N=5,511]:
AIPROT1   How much have you heard or read about using AI to predict protein structures in people's cells?

Dec 12-18,
  2022
    3   A lot
    18   A little
    79   Nothing at all
    1   No answer

ASK FORM 1 (XFORM=1) [N=5,511]:
AIPROT2   How much of an advance for medical research is using artificial intelligence (AI) to predict protein structures in people's cells?

Dec 12-18,
  2022
    33   A major advance
    16   A minor advance
    3   Not an advance
    47   Not sure
    <1   No answer

BLOCK 6
DISPLAY TO FORM 1 (XFORM=1):
Artificial intelligence (AI) can be used to recommend which varieties of plants to breed in order to produce crops that can withstand drought and heat.

ASK FORM 1 (XFORM=1) [N=5,511]:
AICROP1   How much have you heard or read about using AI to produce drought and heat-resistant crops?

Dec 12-18,
  2022
    3   A lot
    22   A little
    74   Nothing at all
    1   No answer

ASK FORM 1 (XFORM=1) [N=5,511]

AICROP2　　　How much of an advance for agriculture is using artificial intelligence (AI) to produce drought and heat-resistant crops?

Dec 12-18,
  2022
　37　　　A major advance
　19　　　A minor advance
　 6　　　Not an advance
　37　　　Not sure
　<1　　　No answer

BLOCK 7
DISPLAY TO FORM 2 (XFORM=2):
Artificial intelligence (AI) can be used to predict when and where extreme weather like heavy rainfall or storms is likely to occur.

ASK FORM 2 (XFORM=2) [N=5,493]:
AIEXT1　　　How much have you heard or read about using AI to predict when and where extreme weather is likely to occur?

Dec 12-18,
  2022
　 8　　　A lot
　39　　　A little
　53　　　Nothing at all
　 1　　　No answer

ASK FORM 2 (XFORM=2) [N=5,493]:
AIEXT2　　　How much of an advance for weather forecasting is using artificial intelligence (AI) to predict when and where extreme weather is likely to occur?

Dec 12-18,
  2022
　38　　　A major advance
　28　　　A minor advance
　 6　　　Not an advance
　28　　　Not sure
　 1　　　No answer

END BLOCK 7

DISPLAY TO FORM 1 (XFORM=1):
Artificial intelligence (AI) can be used to write articles that report on news events and information.

ASK FORM 1 (XFORM=1) [N=5,511]:
AINEWS1   How much have you heard or read about using AI to write news articles?

Dec 12-18,
  2022
   8   A lot
  25   A little
  66   Nothing at all
   1   No answer

ASK FORM 1 (XFORM=1) [N=5,511]:
AINEWS2   How much of an advance for the news media is using artificial intelligence (AI) to write news articles?

Dec 12-18,
  2022
  10   A major advance
  19   A minor advance
  34   Not an advance
  36   Not sure
   1   No answer

DISPLAY TO FORM 2 (XFORM=2):
Artificial intelligence (AI) can be used to produce visual images from keywords a person types into the system. It can be used to produce complex, artistic images.

ASK FORM 2 (XFORM=2) [N=5,493]:
AIIMAG1   How much have you heard or read about using AI to produce visual images from keywords?

Dec 12-18,
  2022
  15   A lot
  29   A little
  55   Nothing at all
   1   No answer

ASK FORM 2 (XFORM=2) [N=5,493]:
AIIMAG2   How much of an advance for the visual arts is using artificial intelligence (AI) to produce visual images from keywords?

Dec 12-18,
  2022
  20   A major advance
  26   A minor advance
  14   Not an advance
  39   Not sure
   1   No answer

OTHER QUESTIONS HELD FOR FUTURE RELEASE