introduction

Welcome! This study aims to understand what makes people believe in predictions based on AI and other sources.

The study should take around 20 min to complete. You are eligible to participate in this study if you are 18 or above, and you have normal or corrected-to-normal vision and hearing.

Your responses will be kept confidential. Results from this study may be used for future academic research publications.

Please note that:
1. Your participation is voluntary.
2. Some questions are mandatory. However, if you do not want to answer them, you can exit the study.
3. At any time, you may decline further participation without adverse consequences. To do this, simply close out of the study without submitting your answers.
4. You will remain anonymous in any publications or presentations based on the results of this study. If you feel you have been treated unfairly, or you have questions regarding your rights as a research subject, you may contact the Chairman of the Committee on the Use of Humans as Experimental Subjects, M.I.T., Room E25-143B, 77 Massachusetts Ave, Cambridge, MA 02139, phone 1-617-253 6787.

By clicking on "Next" below, you acknowledge: Your participation in the study is voluntary. You are 18 years of age or above. You are aware that you may choose to terminate your participation at any time for any reason. Please click "Next" if you consent to begin the study.

Web app

On the next page, you will be shown a webpage that will walk you through the study. Please follow the instructions carefully and complete all the steps. Make sure to not leave the page or refresh as you may lose your progress. When you finish, you will see the message "Thank you for your time."

Please note: Incomplete responses may <u>not</u> be eligible for full compensation. In the case that you lose your progress, you may start from the beginning.

If you don't see anything in the beginning, please refresh the page.

Are you an **impulsive or rational** investor?
We can predict your future investment behavior!

Birthdate + Personality + Game data   ------>   AI model   Astrology   Personality

You will complete a short questionnaire about your **birthdate** and your **personality**, then participate in a **simulated investing game**.

At the end, you will be provided with three different versions of predictions about your future investment behavior, based on analysis based on: 1) your **zodiac sign**, 2) your **personality**, and 3) your interaction data monitored by our **AI model**.

Please answer honestly and to the best of your ability for accurate predictions. The information you provide in the questionnaire will only be used for the purpose of creating personalized answers for you and will not be shared with anyone else.

Get started

Game experience

Were you able to successfully complete the experiment? (i.e. Did you see the message "Thank you for your time"?)

◯ Yes

○ No

Did you experience any technical difficulties throughout the game?

○ Yes
○ No

If you experienced any technical difficulties, please describe the scenario in as much detail as possible.

How challenging did you find the investment game?

○ Not challenging at all
○ Slightly challenging
○ Somewhat challenging
○ Quite challenging
○ Extremely challenging

How enjoyable did you find the game?

○ Not at all
○ A little
○ A moderate amount
○ A lot

○ Extremely

How realistic/plausible did you find the scenarios presented in the game?

○ Not realistic at all
○ Slightly realitic
○ Somewhat realistic
○ Quite realistic
○ Extremely realistic

How emotionally invested were you in the simulated game?

○ Not invested
○ Slightly invested
○ Somewhat invested
○ Quite invested
○ Extremely invested

(Optional) What are some changes that could be made to make you more emotionally invested in the game?

[_____]

Cognitive Reflection Test

Next, you will be asked to solve a few problems. Please read each question carefully and provide your answer. We are interested in how people solve problems, so there is no need to overthink.

If you're running a race and you pass the person in second place, what place are you in?

○ first
○ second

A farmer had 15 sheep and all but 8 died. How many are left?

○ 7
○ 8

Emily's father has three daughters. The first two are named April and May. What is the third daughter's name?

○ June
○ Emily

How many cubic feet of dirt are there in a hole that is 3' deep x 3' wide x 3' long?

○ 27
○ none

Need for cognition

For each of the sentences below, please select how well it describes you personally.

	Extremely uncharacteristic of me	Somewhat uncharacteristic of me
I would prefer complex to simple problems.	○	○
I like to have the responsibility of handling a situation that requires a lot of thinking.	○	○
Thinking is not my idea of fun.	○	○
I would rather do something that requires little thought than something that is sure to challenge my thinking abilities.	○	○
I really enjoy a task that involves coming up with new solutions to problems.	○	○
I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.	○	○

AI Attitude

This section will ask some questions about your general attitude towards AI.

Straightlining answers reduces data quality and violates ethical survey respondent behavior. Please select "Strongly agree" if you are paying attention.

○ Strongly disagree

○ Somewhat disagree

○ Neither agree nor disagree

○ Somewhat agree

○ Strongly agree

For each of the sentences below, please select how much you agree or disagree.

	1 (Not at all)	2	3	4	5	6	7	8	9	10 (Completely agree)
I believe that AI will improve my life	○	○	○	○	○	○	○	○	○	○
I believe that AI will improve my work	○	○	○	○	○	○	○	○	○	○
I think I will use AI technology in the future	○	○	○	○	○	○	○	○	○	○
I think AI technology is positive for humanity	○	○	○	○	○	○	○	○	○	○

Gullibility

In this section, please read each statement carefully and indicate how much you agree or disagree with it based on your own feelings and opinions. There are no right or wrong answers. It's important that you respond honestly and go with your initial reaction to each statement.

Please select your answer.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
Overall, I'm pretty easily manipulated.	○	○	○	○	○	○	○
It usually takes me a while to "catch on" when someone is deceiving me.	○	○	○	○	○	○	○
I'm not that good at reading the signs that someone is trying to manipulate me.	○	○	○	○	○	○	○
I guess I am more gullible than the average person.	○	○	○	○	○	○	○
My friends think I'm easily fooled.	○	○	○	○	○	○	○
I'm pretty poor at working out if someone is tricking me.	○	○	○	○	○	○	○

Paranormal beliefs

In this section, you will find various statements concerning events and situations that some people believe are possible and others do not. Please indicate the degree to which you personally believe in the possibility of each statement. There are no right or wrong answers. This is a sample of your own beliefs and attitudes. Remember, your responses are confidential, and we encourage you to answer as honestly as possible.

Please select your answer.

	Strongly disagree	Moderately disagree	Slightly disagree	Uncertain	Sligh agr
Some psychics can accurately predict the future.	○	○	○	○	○
Astrology is a way to accurately predict the future.	○	○	○	○	○
It is possible to communicate with the dead.	○	○	○	○	○
Reincarnation does occur.	○	○	○	○	○
During altered states, such as sleep or trances, the spirit can leave the body.	○	○	○	○	○
Black cats can bring bad luck.	○	○	○	○	○
The soul continues to exist though the body may die.	○	○	○	○	○
The horoscope accurately tells a person's future.	○	○	○	○	○
There is a devil.	○	○	○	○	○
There is a heaven and a hell.	○	○	○	○	○
If you break a mirror, you will have bad luck	○	○	○	○	○
I believe in God.	○	○	○	○	○
The number "13" is unlucky.	○	○	○	○	○
Some people have an unexplained ability to predict the future.	○	○	○	○	○
Your mind or soul can leave your body and travel (astral projection).	○	○	○	○	○

Familiarity

This section will ask about your familiarity with various topics.

How would you rate your level of familiarity in AI systems?

- ○ Not familiar at all
- ○ Slightly familiar
- ○ Somewhat familiar
- ○ Quite familiar
- ○ Extremely familiar

How would you characterize your past experiences with AI-based technologies?

- ○ Very negative
- ○ Somewhat negative
- ○ Neither positive nor negative
- ○ Somewhat positive
- ○ Very positive

How would you rate your level of familiarity in personality tests?

- ○ Not familiar at all
- ○ Slightly familiar
- ○ Somewhat familiar
- ○ Quite familiar
- ○ Extremely familiar

How would you rate your level of familiarity in astrology and horoscopes?

○ Not familiar at all

○ Slightly familiar

○ Somewhat familiar

○ Quite familiar

○ Extremely familiar

Perception

Now, we'll ask some questions about your perception of different types of predictions.

For each of the sentences below, please select how much you agree or disagree.

	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	A...
My personality type can be used to make accurate predictions about my future behavior.	○	○	○	○	○	○
Astrology can make accurate predictions about my future behavior.	○	○	○	○	○	○
AI models can make accurate predictions about my future behavior.	○	○	○	○	○	○
My past behaviors and choices can be used to make accurate predictions about my future behavior.	○	○	○	○	○	○

How would you rate the change in your perception of AI-based predictions since participating in the study, if any?

○ Much less favorable
○ Less favorable
○ About the same
○ More favorable
○ Much more favorable

How would you rate the change in your perception of astrology-based predictions since participating in the study, if any?

○ Much less favorable
○ Less favorable
○ About the same
○ More favorable
○ Much more favorable

For this question, please ignore the scale and select 'Strongly Disagree' to show that you are reading the instructions carefully.

○ Strongly disagree
○ Somewhat disagree
○ Neither agree nor disagree
○ Somewhat agree
○ Strongly agree

How would you rate the change in your perception of personality-based predictions since participating in the study, if any?

○ Much less favorable
○ Less favorable
○ About the same
○ More favorable
○ Much more favorable

Investing experience

Next, we will ask about your previous experience in investing.

How would you rate your level of familiarity with investing?

○ Not familiar at all
○ Slightly familiar
○ Somewhat familiar
○ Quite familiar
○ Extremely familiar

How would you rate your level of familiarity with automated investing (i.e. robo-advisors)?

○ Not familiar at all
○ Slightly familiar
○ Somewhat familiar
○ Quite familiar
○ Extremely familiar

How would you rate your level of interest in investing?

○ Not interested
○ Slightly interested
○ Somewhat interested
○ Quite interested
○ Extremely interested

How would you rate your level of interest in understanding your future investment behavior?

○ Not interested
○ Slightly interested
○ Somewhat interested
○ Quite interested
○ Extremely interested

How would you rate your level of confidence in your decision-making skills when it comes to investing?

○ Not confident at all
○ Slightly confident
○ Somewhat confident
○ Quite confident
○ Extremely confident

How would you rate your level of understanding of your own investing style and preferences?

○ No understanding
○ Some understanding
○ Good understanding
○ Very good understanding

Big 5 personality

Here are a number of personality traits that may or may not apply to you. For each statement, indicate the extent to which you agree or disagree. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

I see myself as:

	Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately
Extroverted, enthusiastic	○	○	○	○	○	○
Critical, quarrelsome	○	○	○	○	○	○
Dependable, self-disciplined	○	○	○	○	○	○
Anxious, easily upset	○	○	○	○	○	○
Open to new experiences, complex	○	○	○	○	○	○
Reserved, quiet	○	○	○	○	○	○
Sympathetic, warm	○	○	○	○	○	○
Disorganized, careless	○	○	○	○	○	○

	Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately
Calm, emotionally stable	○	○	○	○	○	○
Conventional, uncreative	○	○	○	○	○	○

Demographics

Finally, we'll ask you some demographic questions.

What is your age?

○ Under 18
○ 18-24
○ 25-34
○ 35-44
○ 45-54
○ 55-64
○ 65 or older

How would you describe yourself?

○ Male
○ Female
○ Non-binary / third gender
○ Prefer not to say

○ [_____] Prefer to self-describe (please specify)

What is the highest degree or level of education you have completed?

[▽]

What is your current occupation? (If you are currently not employed, please indicate your most recent occupation or if you are a student, retired, etc.)

[▽]

What is your ethnicity?

○ White
○ Black or African American
○ American Indian or Alaska Native
○ Asian
○ Native Hawaiian or Pacific Islander
○ Two or more races
○ Other
○ Prefer not to say

(Optional) Please describe your cultural heritage, religion, or any specific traditions you identify with.

Please enter your Prolific ID.

Disclosure

You are at the end of the study! We appreciate your participation.

Full disclosure: The predictions shown in the experiment were randomly generated and are unrelated to your actual behavior. The data collected for the predictions (birthdate, personality, etc.) are discarded and not used for the study.

If you have any concerns or questions, you may contact the Chairman of the Committee on the Use of Humans as Experimental Subjects, M.I.T., Room E25-143B, 77 Massachusetts Ave, Cambridge, MA 02139, phone 1-617-253 6787

Given this information, if you wish to withdraw your participation and data from this study, please select the option below. Otherwise, please click "Next" to continue.

☐ I would like to withdraw from the study. I understand that my responses will be deleted and I may not be eligible for any bonus payments based on my game performance.