

Consent

You are invited to participate in a research study entitled "User perception of a talking chess robot". The study is being conducted by Renchi Zhang, MSc, Dr. Dimitra Dodou, Dr.ir. Yke Bauke Eisma, and Prof.dr.ir. Joost de Winter, Delft University of Technology, The Netherlands, d.dodou@tudelft.nl.

The purpose of this study is to examine how people evaluate a talking chess robot, which is powered by artificial intelligence including ChatGPT. You will watch a short video of this robot and be asked to reflect on it. Additionally, you will be asked some general questions about technology. There are no right or wrong answers.

You must be at least 18 years old to participate. The survey will take approximately 10 minutes of your time.

The information collected through this survey is anonymous. You will not be personally identifiable in any research papers resulting from this study, in data files shared with other researchers, or in open data repositories. The research has been approved by the Delft University of Technology Human Research Ethics Committee.

If you have any questions about the research, feel free to contact the investigators at the email address provided above. If you agree to participate and understand that your participation is voluntary, then continue. If you would not like to participate, then please close this page.

- ☐ I agree to participate and understand that my participation is voluntary
- ☐ I do not agree to participate

ChatGPT

Have you ever heard of ChatGPT?

- ☐ Yes
- ☐ No
- ☐ I prefer not to respond

How often do you use ChatGPT?

- ☐ Every day
- ☐ 4-6 days a week

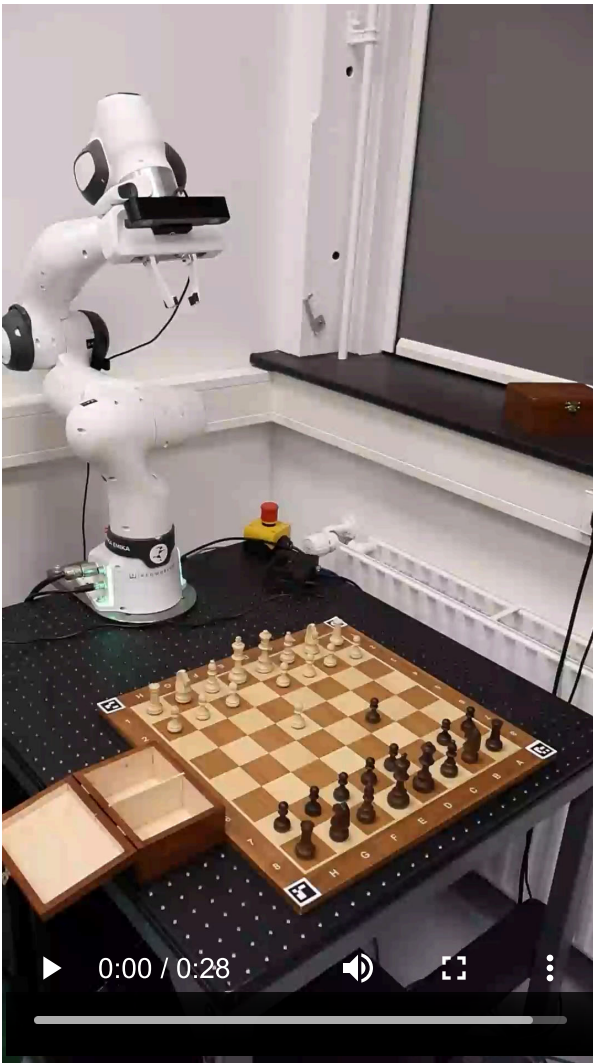
- ☐ 1-3 days a week
- ☐ About once every 2 weeks
- ☐ About once a month
- ☐ Less than once a month
- ☐ Never
- ☐ I prefer not to respond

Do you use a paid version of ChatGPT (Plus or Pro)?

- ☐ Yes
- ☐ No
- ☐ I prefer not to respond

Robotics education

The following video shows a talking chess robot that uses artificial intelligence (including ChatGPT) to explain how it works. The robot describes how it localizes pieces on the chessboard using 'computer vision'. Please turn on your sound.



Do you think this robot could be used in schools to explain to students how a robot works?

- ☐ Definitely not
- ☐ Probably not
- ☐ Neutral
- ☐ Probably yes
- ☐ Definitely yes
- ☐ I prefer not to respond

Comment on the technical quality of the robot as shown in the video. Mention positive or negative aspects.

Do you have any recommendations about how to improve the robot?

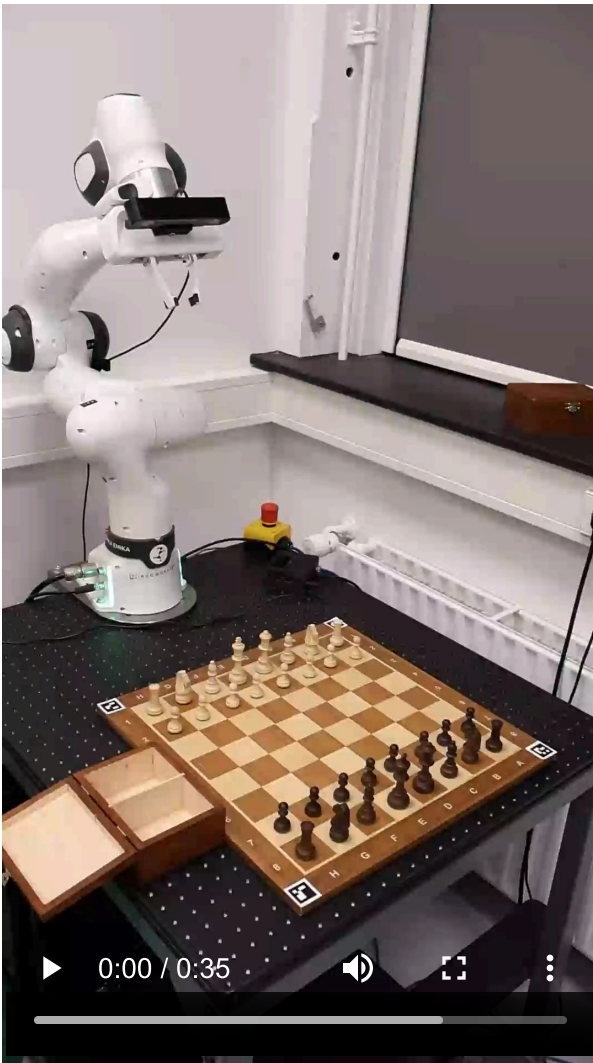
Do you think that within 10 years, robots like this could serve as a replacement of existing screen-based computers to help understand technical topics such as computer vision? Please elaborate on why or why not.

Would you welcome a future where robots that can talk, equipped with artificial intelligence (such as improved versions of ChatGPT), replace human workers?

- ☐ Definitely not
- ☐ Probably not
- ☐ Neutral
- ☐ Probably yes
- ☐ Definitely yes
- ☐ I prefer not to respond

Domain knowledge

The following video shows a talking chess robot that uses artificial intelligence (including ChatGPT) to give a chess lesson. The robot explains a chess opening. Please turn on your sound.



Do you think this robot could be used in schools to teach students chess?

- ☐ Definitely not
- ☐ Probably not
- ☐ Neutral
- ☐ Probably yes
- ☐ Definitely yes
- ☐ I prefer not to respond

Comment on the technical quality of the robot as shown in the video. Mention positive or negative aspects.

Do you have any recommendations about how to improve the robot?

Do you think that within 10 years, robots like this could serve as a replacement of existing screen-based computers to improve chess skills? Please elaborate on why or why not.

Would you welcome a future where robots that can talk, equipped with artificial intelligence (such as improved versions of ChatGPT), replace human workers?

- ☐ Definitely not
- ☐ Probably not
- ☐ Neutral
- ☐ Probably yes
- ☐ Definitely yes
- ☐ I prefer not to respond

Home entertainment

The following video shows a talking chess robot that uses artificial intelligence (including ChatGPT) to provide entertainment. The robot describes a classic scene from a movie featuring a chess computer. Please turn on your sound.



Do you think this robot could be used at home to provide entertainment?

- ☐ Definitely not
- ☐ Probably not
- ☐ Neutral
- ☐ Probably yes
- ☐ Definitely yes
- ☐ I prefer not to respond

Comment on the technical quality of the robot as shown in the video. Mention positive or negative aspects.

Do you have any recommendations about how to improve the robot?

Do you think that within 10 years, robots like this could serve as a replacement of existing screen-based forms of entertainment such as television? Please elaborate on why or why not.

Would you welcome a future where robots that can talk, equipped with artificial intelligence (such as improved versions of ChatGPT), replace human workers?

- ☐ Definitely not
- ☐ Probably not
- ☐ Neutral
- ☐ Probably yes
- ☐ Definitely yes
- ☐ I prefer not to respond

Demographics & views on robot

What is your age?

How do you describe yourself?

- ☐ Male
- ☐ Female
- ☐ Other
- ☐ I prefer not to respond

What is the highest level of education you have completed?

- ☐ Less than Primary
- ☐ Primary

- ☐ Some Secondary
- ☐ Secondary
- ☐ Vocational or Similar
- ☐ Some University but no degree
- ☐ University - Bachelors Degree
- ☐ Graduate or professional degree (MA, MS, MBA, PhD, Law Degree, Medical Degree, etc.)
- ☐ I prefer not to respond

Are you technology enthusiast?

- ☐ Not at all
- ☐ Slightly
- ☐ Moderately
- ☐ Very
- ☐ Extremely
- ☐ I prefer not to respond

Are you familiar with the movie *2001: A Space Odyssey*?

- ☐ Not at all
- ☐ Slightly
- ☐ Moderately
- ☐ Very
- ☐ Extremely
- ☐ I prefer not to respond

Did you ever play in an official FIDE-rated chess tournament?

- ☐ No
- ☐ Yes
- ☐ I prefer not to respond

Are you a chess enthusiast?

- ☐ Not at all

- ☐ Slightly
- ☐ Moderately
- ☐ Very
- ☐ Extremely
- ☐ I prefer not to respond

Fitts list

For the following 11 statements, please click 'Humans surpass machines' when you believe that humans can perform this function better than present-day machines. Vice versa, click 'Machines surpass humans' when you think that present-day machines can do it better than humans.

Ability to exercise judgment.

- ☐ Humans surpass machines
- ☐ Machines surpass humans
- ☐ I prefer not to respond

Ability to improvise and use flexible procedures.

- ☐ Humans surpass machines
- ☐ Machines surpass humans
- ☐ I prefer not to respond

Ability to handle highly complex operations, i.e., to do many different things at once.

- ☐ Humans surpass machines
- ☐ Machines surpass humans
- ☐ I prefer not to respond

Ability to respond quickly to control signals, and to apply great force smoothly and precisely.

- ☐ Humans surpass machines
- ☐ Machines surpass humans
- ☐ I prefer not to respond

Ability to perform repetitive, routine tasks.

- ☐ Humans surpass machines
- ☐ Machines surpass humans
- ☐ I prefer not to respond

Ability to reason inductively.

(Inductive reasoning = making an educated guess, reasoning based on abstractions, generalization, argument by analogy, prediction).

- ☐ Humans surpass machines
- ☐ Machines surpass humans
- ☐ I prefer not to respond

Ability to detect small amounts of visual or acoustic energy.

- ☐ Humans surpass machines
- ☐ Machines surpass humans
- ☐ I prefer not to respond

Ability to perceive patterns of light or sound.

- ☐ Humans surpass machines
- ☐ Machines surpass humans
- ☐ I prefer not to respond

Ability to store very large amounts of information for long periods and to recall relevant facts at the appropriate time.

- ☐ Humans surpass machines
- ☐ Machines surpass humans
- ☐ I prefer not to respond

Ability to store information briefly and then to erase it completely.

- ☐ Humans surpass machines

- ☐ Machines surpass humans
- ☐ I prefer not to respond

Ability to reason deductively, including computational ability.

- ☐ Humans surpass machines
- ☐ Machines surpass humans
- ☐ I prefer not to respond

General suggestions

Please provide any suggestions or comments on the survey.

End of Survey message

Thank you for taking part in this study. Please click the right arrow below to be directed back to Prolific and register your submission.

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