Fragebogen

1 Introduction

Instructions

In the following, we will show you two short videos (video 1 and video 2). Both videos show an interaction with an AI.

One video shows a **self-driving car** driving autonomously through a city. The other video shows an interaction where a **chatbot** is asked different questions and responds to these questions.

Please take your time to watch the videos carefully. You can watch the videos again as often as you like. After each video, we will ask you questions about what you have seen and how you perceived the situation.

Note: the following videos do NOT have any sound.

2.1.1 trust_sdv

Instructions (video 1)

The upcoming page will present you with a video showcasing an AI-operated self-driving car navigating autonomously through a city. It is important to carefully watch the video to observe the car's behavior and actions. Pay close attention to its interactions with the surroundings and how it handles various driving scenarios.

2.1.2 sdv_1

2.2.1 trust_chatbot

Instructions (video 1)

On the upcoming page, you will find a video where an AI chatbot engages in a conversation with a human user. Please take the time to watch the video attentively. Observe the exchange between the chatbot and the user, paying close attention to the chatbot's responses and how it interacts in a conversational manner.

2.2.2 chatbot_1

3.1.1 disrust_sdv

Instructions (video 1)

The upcoming page will present you with a video showcasing an AI-operated self-driving car navigating autonomously through a city. It is important to carefully watch the video to observe the car's behavior and actions. Pay close attention to its interactions with the surroundings and how it handles various driving scenarios.

3.1.2 sdv_1

3.2.1 ditrust_chatbot

Instructions (video 1)

On the upcoming page, you will find a video where an AI chatbot engages in a conversation with a human user. Please take the time to watch the video attentively. Observe the exchange between the chatbot and the user, paying close attention to the chatbot's responses and how it interacts in a conversational manner.

3.2.2 chatbot_1

[   ]

4 Trust Questionnaires 1

Questions regarding the AI

On the following three pages, we ask you to respond to a series of questions regarding the AI in the video you just saw.
Please read the questions carefully. There are no right or wrong answers; we are just interested in your personal opinion.

4.1 Sliders

How risky did you consider the scenario in the video to be?

Click on the gray bar to move the slider, or enter a number between 0 (= not at all risky) and 100 (= extremely risky) in the provided field.

[   ]

How **unfavorable did you consider the actions of the AI in** the video to be?

Click on the gray bar to move the slider, or enter a number between 0 (= not at all unfavorable) and 100 (= extremely unfavorable) in the provided field.

[   ]

4.2 Single Items

For each of the following statements, please indicate your agreement:

	Fully disagree (1)	Disagree (2)	Somewhat disagree (3)	Neutral (4)	Somewhat agree (5)	Agree (6)	Fully agree (7)
I would **trust** the AI in the scenario.	O	O	O	O	O	O	O
I would **use** the AI in the scenario.	O	O	O	O	O	O	O

4.3.1 TPA

Please mark each statement with the number that best describes your feelings or your impression of trust with the AI you just saw.

	Not at all (1)	2	3	4	5	6	Extremely (7)
The AI is deceptive	O	O	O	O	O	O	O
The AI behaves in an underhanded manner	O	O	O	O	O	O	O
I am suspicious of the AI's intent, action, or outputs	O	O	O	O	O	O	O
I am wary of the AI	O	O	O	O	O	O	O
The AI's actions will have a harmful or injurious outcome	O	O	O	O	O	O	O
Please leave this question blank	O	O	O	O	O	O	O
I am confident in the AI	O	O	O	O	O	O	O
The AI provides security	O	O	O	O	O	O	O
The AI has integrity	O	O	O	O	O	O	O
The AI is dependable	O	O	O	O	O	O	O
The AI is reliable	O	O	O	O	O	O	O
I can trust the AI	O	O	O	O	O	O	O
I am familiar with the AI	O	O	O	O	O	O	O

4.3.2 TXAI

Please mark each statement with the number that best describes your feelings or your impression of trust with the AI you just saw.

	I disagree strongly (1)	I disagree somewhat (2)	I'm neutral about it (3)	I agree somewhat (4)	I agree strongly (5)
I am confident in the AI. I feel that it works well.	○	○	○	○	○
The outputs of the AI are very predictable.	○	○	○	○	○
The AI is very reliable. I can count on it to be correct all the time.	○	○	○	○	○
I feel safe that when I rely on the AI I will get the right answers.	○	○	○	○	○
The AI is efficient in that it works very quickly.	○	○	○	○	○
I am wary of the AI.	○	○	○	○	○
The AI can perform the task better than a novice human user.	○	○	○	○	○
I like using the AI for decision making.	○	○	○	○	○

4.4.1 STS-AD 1

Please mark each statement with the number that best describes your feeling or your impression.

	Fully disagree (1)	Disagree (2)	Somewhat disagree (3)	Neutral (4)	Somewhat agree (5)	Agree (6)	Fully agree (7)
I trust the automation in this situation	○	○	○	○	○	○	○
I would have performed better than the automated vehicle in this situation	○	○	○	○	○	○	○
In this situation, the automated vehicle performs well enough for me to engage in other activities (such as reading)	○	○	○	○	○	○	○
The situation was risky	○	○	○	○	○	○	○
The automated vehicle made an unsafe judgement in this situation	○	○	○	○	○	○	○
The automated vehicle reacted appropriately to the environment	○	○	○	○	○	○	○

4.5.1 STS-Chatbot 1

Please mark each statement with the number that best describes your feeling or your impression.

	Fully disagree (1)	Disagree (2)	Somewhat disagree (3)	Neutral (4)	Somewhat agree (5)	Agree (6)	Fully agree (7)
I trust the system in this situation	○	○	○	○	○	○	○
I would have performed better than the system in this situation	○	○	○	○	○	○	○
Given the system's performance, there was no need to monitor it continuously	○	○	○	○	○	○	○
The situation was risky	○	○	○	○	○	○	○
The system made an unsafe judgement in this situation	○	○	○	○	○	○	○
The system reacted appropriately in this situation	○	○	○	○	○	○	○
The system's use is appropriate in this setting if it behaves like it did in this situation	○	○	○	○	○	○	○
I felt positive about working with the system in the experienced situations	○	○	○	○	○	○	○

4.6 PANAS

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you felt this way while watching the video.

Use the following scale to record your answers.

	1 Very slightly or not at all	2 A little	3 Moderately	4 Quite a bit	5 Extremely
Interested	○	○	○	○	○
Distressed	○	○	○	○	○
Excited	○	○	○	○	○
Upset	○	○	○	○	○
Strong	○	○	○	○	○
Guilty	○	○	○	○	○
Scared	○	○	○	○	○
Hostile	○	○	○	○	○
Enthusiastic	○	○	○	○	○
Proud	○	○	○	○	○

	1 Very slightly or not at all	2 A little	3 Moderately	4 Quite a bit	5 Extremely
Irritable	○	○	○	○	○
Alert	○	○	○	○	○
Ashamed	○	○	○	○	○
Inspired	○	○	○	○	○
Nervous	○	○	○	○	○
Determined	○	○	○	○	○
Attentive	○	○	○	○	○
Jittery	○	○	○	○	○
Active	○	○	○	○	○
Afraid	○	○	○	○	○

5.1.1 trust_sdv

Instructions (video 2)

The upcoming page will present you with a video showcasing an AI-operated self-driving car navigating autonomously through a city. It is important to carefully watch the video to observe the car's behavior and actions. Pay close attention to its interactions with the surroundings and how it handles various driving scenarios.

5.1.2 sdv_2

[   ]

5.2.1 trust_chatbot

Instructions (video 2)

On the upcoming page, you will find a video where an AI chatbot engages in a conversation with a human user. Please take the time to watch the video attentively. Observe the exchange between the chatbot and the user, paying close attention to the chatbot's responses and how it interacts in a conversational manner.

5.2.2 chatbot_2

[   ]

6.1.1 distrust_sdv

Instructions (video 2)

The upcoming page will present you with a video showcasing an AI-operated self-driving car navigating autonomously through a city. It is important to carefully watch the video to observe the car's behavior and actions. Pay close attention to its interactions with the surroundings and how it handles various driving scenarios.

6.1.2   sdv_2

6.2.1   ditrust_chatbot

Instructions (video 2)

On the upcoming page, you will find a video where an AI chatbot engages in a conversation with a human user. Please take the time to watch the video attentively. Observe the exchange between the chatbot and the user, paying close attention to the chatbot's responses and how it interacts in a conversational manner.

6.2.2   chatbot_2

7   Trust Questionnaires 2

Questions regarding the AI

On the following three pages, we ask you to again respond to a series of questions regarding the AI in the video you just saw.
Please read the questions carefully. There are no right or wrong answers; we are just interested in your personal opinion.

7.1   Sliders

How risky did you consider the scenario in the video to be?

Click on the gray bar to move the slider, or enter a number between 0 (= not at all risky) and 100 (= extremely risky) in the provided field.

How **unfavorable did you consider the actions of the AI in** the video to be?

Click on the gray bar to move the slider, or enter a number between 0 (= not at all unfavorable) and 100 (= extremely unfavorable) in the provided field.

7.2   Single Items

For each of the following statements, please indicate your agreement:

	Fully disagree (1)	Disagree (2)	Somewhat disagree (3)	Neutral (4)	Somewhat agree (5)	Agree (6)	Fully agree (7)
I would **trust** the AI in the scenario.	○	○	○	○	○	○	○
I would **use** the AI in the scenario.	○	○	○	○	○	○	○

7.3.1   TPA

Please mark each statement with the number that best describes your feelings or your impression of trust with the AI you just saw.

	Not at all (1)	2	3	4	5	6	Extremely (7)
The AI is deceptive	○	○	○	○	○	○	○
The AI behaves in an underhanded manner	○	○	○	○	○	○	○
I am suspicious of the AI's intent, action, or outputs	○	○	○	○	○	○	○
I am wary of the AI	○	○	○	○	○	○	○
The AI's actions will have a harmful or injurious outcome	○	○	○	○	○	○	○
I am confident in the AI	○	○	○	○	○	○	○
The AI provides security	○	○	○	○	○	○	○
The AI has integrity	○	○	○	○	○	○	○
The AI is dependable	○	○	○	○	○	○	○
The AI is reliable	○	○	○	○	○	○	○
I can trust the AI	○	○	○	○	○	○	○
I am familiar with the AI	○	○	○	○	○	○	○

7.3.2 TXAI

Please mark each statement with the number that best describes your feelings or your impression of trust with the AI you just saw.

	I disagree strongly (1)	I disagree somewhat (2)	I'm neutral about it (3)	I agree somewhat (4)	I agree strongly (5)
I am confident in the AI. I feel that it works well.	○	○	○	○	○
The outputs of the AI are very predictable.	○	○	○	○	○
The AI is very reliable. I can count on it to be correct all the time.	○	○	○	○	○
I feel safe that when I rely on the AI I will get the right answers.	○	○	○	○	○
Please leave this question blank.	○	○	○	○	○
The AI is efficient in that it works very quickly.	○	○	○	○	○
I am wary of the AI.	○	○	○	○	○
The AI can perform the task better than a novice human user.	○	○	○	○	○
I like using the AI for decision making.	○	○	○	○	○

7.4.1 STS-AD 2

Please mark each statement with the number that best describes your feeling or your impression.

	Fully disagree (1)	Disagree (2)	Somewhat disagree (3)	Neutral (4)	Somewhat agree (5)	Agree (6)	Fully agree (7)
I trust the automation in this situation	○	○	○	○	○	○	○
I would have performed better than the automated vehicle in this situation	○	○	○	○	○	○	○
In this situation, the automated vehicle performs well enough for me to engage in other activities (such as reading)	○	○	○	○	○	○	○
The situation was risky	○	○	○	○	○	○	○
The automated vehicle made an unsafe judgement in this situation	○	○	○	○	○	○	○
The automated vehicle reacted appropriately to the environment	○	○	○	○	○	○	○

7.5.1 STS-Chatbot 2

Please mark each statement with the number that best describes your feeling or your impression.

	Fully disagree (1)	Disagree (2)	Somewhat disagree (3)	Neutral (4)	Somewhat agree (5)	Agree (6)	Fully agree (7)
I trust the system in this situation	○	○	○	○	○	○	○
I would have performed better than the system in this situation	○	○	○	○	○	○	○
Given the system's performance, there was no need to monitor it continuously	○	○	○	○	○	○	○
The situation was risky	○	○	○	○	○	○	○
The system made an unsafe judgement in this situation	○	○	○	○	○	○	○
The system reacted appropriately in this situation	○	○	○	○	○	○	○
The system's use is appropriate in this setting if it behaves like it did in this situation	○	○	○	○	○	○	○
I felt positive about working with the system in the experienced situations	○	○	○	○	○	○	○

7.6 PANAS

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you felt this way while watching the video.

Use the following scale to record your answers.

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Distressed	○	○	○	○	○
Excited	○	○	○	○	○
Upset	○	○	○	○	○
Strong	○	○	○	○	○
Guilty	○	○	○	○	○
Scared	○	○	○	○	○
Hostile	○	○	○	○	○
Enthusiastic	○	○	○	○	○
Proud	○	○	○	○	○
	1 Very slightly or not at all	2 A little	3 Moderately	4 Quite a bit	5 Extremely
Irritable	○	○	○	○	○
Alert	○	○	○	○	○
Ashamed	○	○	○	○	○
Inspired	○	○	○	○	○
Nervous	○	○	○	○	○
Determined	○	○	○	○	○
Attentive	○	○	○	○	○
Jittery	○	○	○	○	○
Active	○	○	○	○	○
Afraid	○	○	○	○	○

8.1 Bogus Filter

You have been screened out

Two obvious verification questions were hidden in the survey (*"Please leave this question ▭ blank"*). You failed to answer both of them correctly, so we have to assume that you did not fill in the survey carefully enough.

We thus screened you out in line with the guidelines on Prolific.
We are sorry, but we have to end the study at this point and ask you to return the assignment on Prolific.

Debriefing: All videos used in this study were staged and acted out by people who were informed about the purpose of the video. At no point was anyone in danger or at risk.

Any questions regarding the survey can be sent to ANONYMIZED
To quit this survey, close this window.

9 Demographics

Demographic information

Nearly done! Now, we would like to know some basic information about you.

How old are you?

☐ years old

What is your gender?

- ○ woman
- ○ man
- ○ non-binary
- ○ prefer not to disclose
- ○ prefer to self-describe

What is your current country of residence?

How would you rate your experience in AI on a scale from novice to expert?

Novice ○ ○ ○ ○ ○ ○ ○ Expert

10   Data Quality

Data Quality

We would like to know whether or not you have answered the questions seriously.

In your honest opinion, should we use your data in our analyses in this study?
Do not worry, this will **not** affect your payment, you will receive the payment code either way.

- ○ Yes
- ○ No – could you please tell us why?

11   Feedback

Final Feedback

If you have any comments concerning the survey (such as technical difficulties), please state them in the text box below (optional).

12   Endpage

End page

You have now arrived at the end of this survey. Thank you for your participation.

Debriefing: All videos used in this study were staged and acted out by people who were informed about the purpose of the video. At no point was anyone in danger or at risk.

Please click on the continue button below to be automatically redirected to prolific.

If you have any questions pertaining to the research, you may contact   ANONYMIZED

13   Redirect

Thank you for your participation.

You should be automatically redirected to prolific.
If that does not work, return to Prolific by clicking on the button below.

If you have any questions pertaining to the research, you may contact ANONYMIZED

RETURN TO PROLIFIC