Trust in the Machine: How Contextual Factors and Personality Traits Shape Algorithm Aversion and Collaboration

Data documentation.

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The data reported in the paper was collected in an online experiment that took place in several sessions. The experiment was divided into two parts: (1) the main task and (2) the psychometric questionnaires.

The file names that start with "experiment" contain the data from the main task, and the files that start with "psych" contains data from the psychological questionnaires.

The definition of each column in both datasets are as follows:

Experiment Datasets:

Column	Meaning
session_code	Experiment's automated session code
participant_code	Unique participant Identifier
treatment	Numerical treatment encoding. 3 = Baseline, 4 = Explanation, 5 = Payment and 7 = Automation
round_number	Round number
selection	Which alternative is selected. It can be 1 = product 1, 2 = product 2 or 3 = product 3
delegation	If this round was delegated or not. 1 = Yes, 2 = No.
automation	Binary idenfier if automation is on or off, only valid for the automation treatment
stop_click	Tracks if participant clicked on the "take control" button, only valid for the automation treatment
prob_1	Randomly assigned expected value (quality level) for product 1 (left)
prob_2	Randomly assigned expected value (quality level) for product 2 (middle)
prob_3	Randomly assigned expected value (quality level) for product 3 (right)
prob_selected	Expected value of the selected option
payoff_round	Payoff in the given round
payoff_total	Cumulative payoffs across the experiment
attraction_p1	Reinforcement learning attraction value for product 1
attraction_p2	Reinforcement learning attraction value for product 2

attraction_p3	Reinforcement learning attraction value for product 3
choice_prob_p1	Reinforcement learning choice probability for product 1
choice_prob_p2	Reinforcement learning choice probability for product 2
choice_prob_p3	Reinforcement learning choice probability for product 3
payoff_p1	It will be 1 if payoff was generated by product 1
payoff_p2	It will be 1 if payoff was generated by product 2
payoff_p3	It will be 1 if payoff was generated by product 3
perception	Self reported perception. 1 = positive, 2 = neutral, 3 = negative
payment_id_m	Random Id generated for participant payment purposes
earnings_t	Earnings (in euros)
active_time_sel	Active time tracked in the selection page (seconds)
active_time_fb	Active time tracked in the feedback page (seconds)
active_time_ss	Active time tracked in the selection page (seconds) - for testing purposes, can be ignored
animal_answer	Which animal was selected for the attention check
attention_answer	Only for the automation treatment, records participants' answers if the algorithm was supervised. 1 = Yes, 2 = No, 3 = NA
start_timestamp	Timestamp for each round
start_timestamp_readable	Timestamp for each round with datetime format
age	Reported age
gender	Reported gender
nationality	Reported nationality
university	Reported university
field_of_study	Reported field of study
income_level	reported income level

Psychological Questionnaire Datasets:

Column	Meaning
session.code	Experiment's automated session code
participant.code	Unique participant Identifier
b1	Big Five questionnaire
b2	Big Five questionnaire
b3	Big Five questionnaire
b4	Big Five questionnaire
b5	Big Five questionnaire
b6	Big Five questionnaire
b7	Big Five questionnaire
b8	Big Five questionnaire
b9	Big Five questionnaire
b10	Big Five questionnaire

b11	Big Five questionnaire
b12	Big Five questionnaire
b13	Big Five questionnaire
b14	Big Five questionnaire
b15	Big Five questionnaire
ba1	Attention question
ba2	Attention question
ba3	Attention question
ba4	Attention question
extraversion	Computed extraversion score
agreeableness	Computed agreeableness score
conscientiousness	Computed conscientiousness score
neuroticism	Computed neuroticism score
openness	Computed openness score
loc1	Locus of Control questionnaire
loc2	Locus of Control questionnaire
loc3	Locus of Control questionnaire
loc4	Locus of Control questionnaire
loc5	Locus of Control questionnaire
loc6	Locus of Control questionnaire
loc7	Locus of Control questionnaire
loc8	Locus of Control questionnaire
loc9	Locus of Control questionnaire
loc10	Locus of Control questionnaire
loc_general	General Locus of Control Scores
t1	Generalized Trust questionnaire
t3	Generalized Trust questionnaire
t3	Generalized Trust questionnaire
t4	Generalized Trust questionnaire
t5	Generalized Trust questionnaire
trust	Trust scores
start_timestamp	Starting time
start_timestamp_readable	Starting time in datetime format
payoff_total_final	Total Payoff (points)
payment_id_m	Random Id generated for participant payment purposes
earnings_t	Earnings (in euros)

For a full overview of all the options mapping in all questions, refer to the file "data.py" in the data folder.