

Reporting Summary

Nature Portfolio wishes to improve the reproducibility of the work that we publish. This form provides structure for consistency and transparency in reporting. For further information on Nature Portfolio policies, see our [Editorial Policies](#) and the [Editorial Policy Checklist](#).

Statistics

For all statistical analyses, confirm that the following items are present in the figure legend, table legend, main text, or Methods section.

- | | |
|-------------------------------------|--|
| n/a | Confirmed |
| ☐ | ☒ The exact sample size (<i>n</i>) for each experimental group/condition, given as a discrete number and unit of measurement |
| ☐ | ☒ A statement on whether measurements were taken from distinct samples or whether the same sample was measured repeatedly |
| ☐ | ☒ The statistical test(s) used AND whether they are one- or two-sided
<i>Only common tests should be described solely by name; describe more complex techniques in the Methods section.</i> |
| ☒ | ☐ A description of all covariates tested |
| ☐ | ☒ A description of any assumptions or corrections, such as tests of normality and adjustment for multiple comparisons |
| ☐ | ☒ A full description of the statistical parameters including central tendency (e.g. means) or other basic estimates (e.g. regression coefficient) AND variation (e.g. standard deviation) or associated estimates of uncertainty (e.g. confidence intervals) |
| ☐ | ☒ For null hypothesis testing, the test statistic (e.g. <i>F</i> , <i>t</i> , <i>r</i>) with confidence intervals, effect sizes, degrees of freedom and <i>P</i> value noted
<i>Give P values as exact values whenever suitable.</i> |
| ☒ | ☐ For Bayesian analysis, information on the choice of priors and Markov chain Monte Carlo settings |
| ☒ | ☐ For hierarchical and complex designs, identification of the appropriate level for tests and full reporting of outcomes |
| ☒ | ☐ Estimates of effect sizes (e.g. Cohen's <i>d</i> , Pearson's <i>r</i>), indicating how they were calculated |

Our web collection on [statistics for biologists](#) contains articles on many of the points above.

Software and code

Policy information about [availability of computer code](#)

- | | |
|-----------------|--|
| Data collection | A chatbot interface created by HTML/CSS/Javascript hosted on a web server. Integrations with Eliza.js, OpenAI GPT-3, and Google Sheets. |
| Data analysis | Python on Deepnote. Code uploaded on Github: https://github.com/mitmedialab/nmi-ai-2023
DOI: https://doi.org/10.5281/zenodo.8136979 |

For manuscripts utilizing custom algorithms or software that are central to the research but not yet described in published literature, software must be made available to editors and reviewers. We strongly encourage code deposition in a community repository (e.g. GitHub). See the Nature Portfolio [guidelines for submitting code & software](#) for further information.

Data

Policy information about [availability of data](#)

- All manuscripts must include a [data availability statement](#). This statement should provide the following information, where applicable:
- Accession codes, unique identifiers, or web links for publicly available datasets
 - A description of any restrictions on data availability
 - For clinical datasets or third party data, please ensure that the statement adheres to our [policy](#)

The data and code are available on a GitHub repository, including all survey results and conversation transcripts: <https://github.com/mitmedialab/nmi-ai-2023>
DOI: <https://doi.org/10.5281/zenodo.8136979>

Human research participants

Policy information about [studies involving human research participants and Sex and Gender in Research](#).

Reporting on sex and gender	The study was set to be balanced between male and female sexes. Participants were asked to report their identified gender as part of the demographics survey. Analysis on how much gender affected survey answers was conducted, though the results were not conclusive.
Population characteristics	The characteristics of the population of participants for the two different experiments can be seen in Figure 4 of the manuscript. Male and female genders were mostly balanced. A notable portion of participants were in the range of 25-34 years of age (~30-36%). Participants tended to have some college but no degree (~23-30%) or a bachelor's degree (~24-38%).
Recruitment	We recruited the participants from an online participant pool using the website Prolific; this likely selected for individuals who were familiar with and interested in studies about technology, though we did not consider this an issue for our subject matter. Participants were prescreened to be fluent in English, and the study was set to be balanced between male and female participants.
Ethics oversight	MIT COUHES

Note that full information on the approval of the study protocol must also be provided in the manuscript.

Field-specific reporting

Please select the one below that is the best fit for your research. If you are not sure, read the appropriate sections before making your selection.

☐ Life sciences ☒ Behavioural & social sciences ☐ Ecological, evolutionary & environmental sciences

For a reference copy of the document with all sections, see [nature.com/documents/nr-reporting-summary-flat.pdf](https://www.nature.com/documents/nr-reporting-summary-flat.pdf)

Behavioural & social sciences study design

All studies must disclose on these points even when the disclosure is negative.

Study description	Our experiment has a 2x3 factorial design, with two different AI models (generative and rule-based) and three different motive priming statements (no motives, caring motives, manipulative motives). We collected quantitative Likert-scale data as well as qualitative free responses and conversation transcripts.
Research sample	Our sample is of English-fluent individuals with access to technology. The sample is balanced between sexes but not representative across other parameters such as age and ethnicity. We recruited the participants from an online participant pool using the website Prolific; these individuals must have access to technology. Participants were prescreened to be fluent in English.
Sampling strategy	The recruitment was stratified between male and female sexes, but sampling in the experimental groups was random. Each experiment was targeted to have 150 valid participants, with the goal of having at least 50 valid samples for each of the three groups. We wished to have a reasonable sample size for ANOVA. Both experiments had two rounds of collecting to gather more participants, though those who had already participated could not take the survey again. Data saturation was not considered; we predetermined our sample sizes.
Data collection	The data were collected online using a Qualtrics survey and did not require the presence of the researchers. Consequently, the researchers were blinded to the participants' conditions during the study. Embedded in the survey was an interface coded using HTML/CSS/Javascript that allowed the user to send and receive text messages with a chatbot; the interface included code that would send the transcript of messages to a Google Sheet. Participants answered questions in the Qualtrics survey as well.
Timing	In the GPT-3 experiment, data were collected on June 17-24, 2022. In the ELIZA experiment, data were collected on July 6 and September 8, 2022.
Data exclusions	21 of 181 participants were excluded from the GPT-3 experiment, bringing the total to 160 valid participants. 10 of 160 participants were excluded from the ELIZA experiment, bringing the total to 150 valid participants. We excluded participants with technical issues, less than four conversation turns with the chatbot, failed comprehension checks, or mismatched IDs between survey data and conversation data from the study.
Non-participation	In the GPT-3 experiment, 14 dropped out of participation (returned on Prolific) and 2 timed out. In the ELIZA experiment, 12 dropped out of participation and 4 timed out.
Randomization	Participants were allocated into one of three experimental conditions using a randomizer on the Qualtrics survey. The randomizer ensured that each experimental group was represented evenly.

Reporting for specific materials, systems and methods

We require information from authors about some types of materials, experimental systems and methods used in many studies. Here, indicate whether each material, system or method listed is relevant to your study. If you are not sure if a list item applies to your research, read the appropriate section before selecting a response.

Materials & experimental systems

n/a	Involved in the study
☒	☐ Antibodies
☒	☐ Eukaryotic cell lines
☒	☐ Palaeontology and archaeology
☒	☐ Animals and other organisms
☒	☐ Clinical data
☒	☐ Dual use research of concern

Methods

n/a	Involved in the study
☒	☐ ChIP-seq
☒	☐ Flow cytometry
☒	☐ MRI-based neuroimaging