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Gender and AI adoption - Study 1: Students Robustness (#169979)

Created: 04/09/2024 10:59 AM (PT)

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1) Have any data been collected for this study already?

No, no data have been collected for this study yet.

2) What's the main question being asked or hypothesis being tested in this study?

We continue collecting data for the project "Will Artificial Intelligence get in the way of gender equality?". The first study seeks two purposes: (i) identify whether a gender gap exists in the adoption of ChatGPT and (ii) explore the underlying mechanisms driving any observed disparities. First, we collect a series of measures of ChatGPT usage to assess whether there is a gender gap in AI use, overall and on different margins of interest. In the event of a detected gap, the study will proceed to identify its underlying causes. For this purpose, we have pinpointed three primary factors influencing ChatGPT usage: preferences, perceptions, and exposure/experience.

As with the previous data collections, we anticipate observing gender-based disparities in ChatGPT adoption and usage. This time, we incorporate a series of questions for the following purposes:

1. Use a more objective measure of use of ChatGPT.
2. Evaluate whether men and women identify the image in the prompt elicitation task as an optical illusion.
3. Evaluate expectations of students about how ChatGPT will be beneficial for the labor market.

3) Describe the key dependent variable(s) specifying how they will be measured.

1. Willingness to use ChatGPT: participants will be presented a hypothetical scenario, where the main outcome is to indicate how likely are you to use ChatGPT throughout this course, in a scale from 1: Very Unlikely to 5: Very Likely. One treatment has an additional questions that corresponds to indicate how likely are you to use ChatGPT during the exam, in a scale from 1: Very Unlikely to 5: Very Likely.
2. Usage of ChatGPT: we obtain a measure of how often they use ChatGPT and for which tasks.

4) How many and which conditions will participants be assigned to?

This is a vignette study where participants will face a scenario where they participate in a course. There is one level of randomization:

1. Whether the professor allows or forbids the use of ChatGPT. This randomization is between subject.

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.

Linear regression over the Willingness to use ChatGPT across treatments. We will also pool the Likely and Unlikely levels of the scale, and perform analysis over two dummies, one with value 1 if answer is Likely and another with value 1 if answer is Unlikely.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.

This data has two purposes:

1. To evaluate the robustness of measurements and to collect new variables.
2. To increase the sample size on the main analysis, adding to observations from previous collections.

In purpose 1, we will only exclude participants who started the survey outside of 20 minutes from the time at which the survey was implemented in classroom.

In purpose 2, we will exclude participants who started the survey outside of 20 minutes from the time at which the survey was implemented in classroom and who answered a similar survey in November 2023.

7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.

The study is made during lecture in one bachelor's course, where we expect around 300 participants to attend the lecture and participate.

8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)

Nothing else to pre-register.