Facebook Habits: Prediction Survey (#[redacted])

Created: 02/18/2021 06:47 PM (PT)
Public: 03/19/2021 12:45 PM (PT)

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1) Have any data been collected for this study already?
It's complicated. We have already collected some data but explain in Question 8 why readers may consider this a valid pre-registration nevertheless.

2) What's the main question being asked or hypothesis being tested in this study?
We expect that, regardless of habit strength, posters will predict that they will (a) post again more quickly after receiving a greater number of favorable reactions and (b) post again more quickly after a platform change designed to facilitate positing.

Given that strong habit users were not actually influenced in these ways in our actual studies of Facebook use, our predictions are that the more frequent posters will be less accurate than the less frequent posters across these analyses.

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

Predicted responses to positive or negative reactions and comments on a post they have made (2 types of DV: how much time would pass until your next post; would you post again immediately vs. wait a long time)

Predicted responses to a change in platform design (put my friends' posts closer to the top of my newsfeed and added a prompt to post what I'm doing right now). Also 2 questions: how much time until your next posts; would it change your posting frequency.

4) How many and which conditions will participants be assigned to?
No experimental manipulations.

For the analyses, we will define groups of high and low automaticity (habits) / posting frequency. These will use the same distributions (standardized scores) as in the data plots for the interactions obtained in the original studies of actual Facebook use.

5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.
We will run linear regression models to assess the relationship between Facebook users' predictions about their behaviors (dependent variable) and their Facebook posting habits/posting frequency (Independent Variables). Then, we will use t-tests and ANOVAs to compare high and low posting habit/frequency users' predictions.

Secondary analyses: Possible covariates and potential additional predictors to test for interactions with our primary IVs include: Measure of Reward Responsiveness, other measures of Facebook use overall (how many years have you used it, how many friends you have).

Accuracy Comparison:

We will test accuracy of each group by comparing the actual and predicted mean values for each DV using t-tests or ANOVAs. In addition, we will calculate the percentage of participants who give the correct vs incorrect predictions.

We expect the weak habit users to be more accurate than strong habit users in their predictions--meaning that the actual and predicted measures should correspond more often for weak habit users.

6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.
Data may be excluded from participants for answers that are clearly mistakes (e.g. the number of hours or days of facebook use written by a participant is physically impossible). Participants who do not speak English as a first language or live in the United States will be excluded during data collection by MTURK's Cloud Research panels.

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.
A-priori power analysis was done in R, for small-medium F2 size of .05, suggesting a minimum of 196 participants to achieve > 80% power. We thus recruited 250 participants to ensure sufficient power even pending any possible elimination of outliers.

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

For the predicted reactions to rewards study, we will conduct analyses twice, once on the full sample and once on a subsample of participants who post at least once per week. The subsample matches the original sample used in the actual assessment of how Facebook users respond to rewards.

All data are already collected but have not been downloaded, cleaned, or analyzed. Thus, we are pre-registering our hypotheses and analyses.