

Informed Consent

Study Title: Fake Profile Detection in Social Networks

Researcher, Affiliation, and Contact Information:

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I invite you to participate in a research study. I am a PhD candidate at Harrisburg University of Science and Technology. The research design has been approved by the institutional review board (IRB) at Harrisburg University. I am conducting this research to complete my PhD degree. I will write a paper about the research findings. This form will help you decide if you want to participate in data collection for my research. The experimental study will take approximately 60 minutes of your time. Participation in this research is voluntary.

1. What is the purpose of this study?

As social media and digital personas play an increasingly large role in our day-to-day lives, digital identity verification is increasingly important. This study seeks to create a machine-learning model that analyzes users' behavioral footprints. For example, while users interact with social media platforms, they type, swipe, scroll, etc. The machine learning model will "learn" these behavioral patterns to measure the similarity among social media profiles.

2. What will be done if you take part in this research study?

The participants will be briefed about the project and explained that participation in the study is voluntary. Once they decide to participate, they will sign the consent form. Then, we would provide login credentials for dummy social media profiles for different social media platforms (Facebook, Instagram, and Twitter). The participants would log in to the social media platforms and create posts by typing (no copy-paste is allowed as we collect typing patterns). The topic of the social media posts shall revolve around but not limited to politics, economics, and current affairs. In particular, the participants shall be given a series of videos to watch. To complete a session, the participant will watch all the videos and, after watching each video, will post their thoughts/emotions on Facebook, Instagram, and Twitter. They will repeat that process for the second session as well.

The videos are listed below:

Session I/II

1. Our Deepest Fear Scene from "Coach Carter"
2. A clip of Will Smith slapping Chris Rock during the 2022 Oscars
3. An excerpt of President Joe Biden's speech to NATO on the Russia-Ukraine War

Throughout the exercises, participants' behavioral patterns (mainly typing (timings of key press and release) and mouse movements (the cursor coordinates, the speed, etc.)) will be recorded and saved. The primary investigator, Indrani, will use a dedicated MacBook Pro in the process. The participants will not use their accounts, but the accounts created by investigators and the posts made by the participants will not be public.

3. What are the possible discomforts and risks?

Participants may experience minor discomfort when typing on a Mac computer that is not their own. However, beyond this, no significant risks or discomforts are anticipated in this study.

4. What are the possible benefits to you or others?

You will learn about such an advanced study, be notified of the results, and may receive extra credit for participating in it.

5. Confidentiality

During the data collection phase, the following information will be collected: handedness (left or right), age, gender, and education level. The investigator(s) will safely keep all the data and PII in a password-protected drive. This demographic data is being collected to analyze the bias of the detection methods across people of different age groups, genders, and educational backgrounds. The anonymized data shall be published to conduct future research in this domain.

6. If you choose to participate in this study, will it cost you anything?

There is no cost for participating in this study. You can withdraw from the study at any point in time.

8. Will you receive compensation for your participation in this study?

Some participants from Huston-Tillotson University may receive extra credit for their courses as compensation for their time in the study.

9. Study contact for questions about the study or to report a problem

If any further questions arise, you may contact the Faculty Advisor, Dr. Amar Ramudhin, within the Department of ISEM at Harrisburg University at aramudhin@harrisburgu.edu. Alternatively, you can contact Dr. Abena Primo (acprimo@htu.edu), Associate Professor at Huston-Tillotson University. If the research team is not answering your questions, concerns, or complaints, you may also contact the Institutional Review Board Office of Harrisburg University by emailing irb@harrisburgu.edu.

I voluntarily agree to participate in this research program.

Yes No

Name of Participant (Print):

Signature:

Date:

Note: The principal investigator (s) must keep a copy of the signed, dated consent form and give a copy to the participant.