Study Information Sheet for Research Participants

IRB Reference No.	IRB-2020-05-005
Study Title	Emotional Resonance with Digital Entities: A Study on Affective Responses to Computer-Generated Faces
Principal Investigator & Contact Details	Associate Professor Xu Hong xuhong@ntu.edu.sg

Introduction

You are invited to join our research study. Please read and understand this information sheet carefully. We will explain the study, answer your questions, and provide a Consent Form to sign when you are ready. You will receive a copy to take home.

You are invited because we would like to investigate the human affective responses towards artificial agents.

This research aims to find out how human emotional responses vary when interacting with artificially created faces, as compared to human faces.

We plan to recruit participants from any institution over all age groups over a month.

Procedures

If you decide to join our study, you will be asked to calibrate your USB webcam to track your eye movements and then observe a screen which will present images of artificial and human agents to you. There will be questionnaires mid and post-study. Your participation will last approximately fifteen to thirty minutes. The study will involve no visit to any laboratory.

If you participate, this is what will happen:

1. Upon registration of interest for the study, participants will receive a link to the study.
2. On any date during the study duration, the participant may open the link of the portal.
3. Participants will be presented with this Study Information Sheet and an Informed Consent Form which they may sign, scan, and send to us via secure cloud storage.
4. Upon receipt of the form, the participant will be able to enter the test environment, where the browser will expand to a full screen and initiate calibration.
5. The participant will be asked to enable webcam access for the site. Note: NO video data leaves the participant's device! The device will record you, after which, the data is taken, analysed, and destroyed on the participants device. No one will receive the recordings.
6. The participant will be shown a series of dots to calibrate the eye tracking algorithm.
7. The participant will be shown a series of images (each for 1.5s at a time) and gaze coordinates will be recorded. There will be questions after each image shown.
8. After the study is complete, the participant will be asked to fill out a questionnaire and submit the deidentified data.

At any time during the procedure, the participant may elect to withdraw from the study.

Voluntary Participation and Participant's Rights

Your participation in this study is entirely voluntary. You can withdraw at any time without giving a reason. Your decision to withdraw or not participate will not affect any benefits you are otherwise entitled to. If you choose to stop participating, please inform the researchers. Research data collected until the time of your withdrawal will not be kept and will be removed promptly.

If you withdraw, you will be required to press a button on the test portal and confirm your withdrawal. You will receive an email receipt of your decision and any data you have provided to us will not be used.

The investigators may stop your participation at any time if it is in your best interests, or if you do not follow the study instructions.

If any new information arises (including but not limited to serious adverse events, or changes in research plans) that may affect your willingness to continue participation, the Principal Investigator (or their representative) will promptly inform you (or your Legally Acceptable Representative, if relevant) and seek further consent if required.

If minors reach 21 years old during the study, they will be contacted for further consent to continue participation.

Risks and Discomforts

Participants may experience slight headaches or eye strain due to the flashing images and nature of the investigation.

Benefits

Participants will receive NO DIRECT BENEFIT from participating in this study.

Compensation

You will be not receive any compensation for your time as this is an online study involving no travel to/within NTU campus.

Confidentiality of Data

Your participation in this study will not involve the collection, use and disclosure of data in an individually identifiable form (or "Personal Data"). "Personal Data" means data about you/your child/your ward, which makes you/your child/your ward identifiable from (i) such data, and/or from (ii) other information which we have or likely have access to. This includes written, visual, video, and audio data/recordings.

It is understood that the requirement to enable camera permissions for the study may cause some unease in participants. Rest assured that absolutely no video data will be collected, stored, or transmitted to anyone. We perform video analysis on your device and only collect numerical coordinates of your eye gaze on the screen. For your further assurance, if you understand JavaScript code, we make all source code of our study's web portal available for you to browse. Additionally, at the end of the study, you may review the data before submission.

Personal Data and data collected for this study will be kept confidential and stored for a minimum of 10 years in a secure environment within NTU. Access will be restricted to the Principal Investigator, study team members, and School Administrators. Your records, to the extent of the applicable laws and regulations, will not be made publicly available, in accordance with the NTU Privacy Statement.

However, the Ministry of Education, other government ministries, or regulatory agencies, and the NTU Institutional Review Board will be granted direct access to your Personal Data to check study procedures and data, without making any of your information public. Your Personal Data may be shared with government bodies when acquisitioned by law or when ordered to do so by a court or legislations.

By signing the Informed Consent Form attached, you (or your Legally Acceptable Representative, if relevant) agree and consent to the: (i) collection, access to, use and storage of your Personal Data and research data, and (ii) disclosure to, and use and storage by, authorised service providers and relevant third parties, whether located in Singapore or overseas, for the purposes of this study.

Data collected are the property of NTU and MOE. In the event of any publication regarding this study, only de-identified research data will be used. Such de-identified research data may also be deposited in a publicly accessible data repository (such as the Digital Repository of NTU).

Any **anonymized** data obtained during the course of this study will be stored and used **only** for the purposes of this study. Your *Personal Data* will **not** be used for future research, unless otherwise consented by you in the accompanying Consent Form.

Whom to Contact if You Have Questions

If you have any questions, complaints, or feedback about this research, or in the event of any injuries during the study, please contact Principal Investigator: Associate Professor, Dr Xu Hong via e-mail at xuhong@ntu.edu.sg. If you have any technical questions regarding the study, please contact Student Investigator: Janav Nagapatla via e-mail at 21janav.nagapatla@acsians.acsi.edu.sg.

This study has undergone ethics approval by the NTU Institutional Review Board. If you want an independent opinion to address concerns, questions, complaints, or feedback; or require information regarding your rights as a research participant, please contact:

NTU Institutional Review Board

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