A Digital Human for Kindness and Stress Information During the COVID-19 Pandemic: A Feasibility Study

Participant Information Sheet

You are invited to take part in a study looking at the feasibility of a digital human for delivering kindness and stress information during the COVID-19 pandemic. The digital human in this study is made by Soul Machines Ltd, a New Zealand based technology company. A digital human is a computer-based animation of a human that has artificial intelligence. To participate in this study, you must speak fluent English and either be an adult aged 70 years or older, or an adult aged 18 years or older with an underlying medical condition that increases risk of severe illness should COVID-19 be contracted.

This project is run by Kate Loveys, a PhD Candidate in the Department of Psychological Medicine at University of Auckland, and supervised by Professor Elizabeth Broadbent from the Department of Psychological Medicine at the University of Auckland, and Associate Professor Mark Sagar from the Laboratory for Animate Technologies at the University of Auckland. Mark Sagar is the CEO of Soul Machines Ltd (an artificial intelligence company), which supports Kate Loveys with a PhD stipend and contracts Elizabeth Broadbent for consultancy work.

It is important to read this document carefully so that you can make an informed decision about whether you would like to participate.

Purpose of the study: This study aims to evaluate the feasibility of a digital human for delivering kindness and stress information during the COVID-19 pandemic.

Eligibility: We are recruiting at least 30 adults aged 70 years or older, or aged 18 years or older with at least one of the following underlying medical conditions: A serious respiratory disease (such as chronic lung disease or moderate to severe asthma), a serious heart condition, an immunocompromised condition (such as undergoing cancer treatment, smoking-related illness, bone marrow or organ transplantation, haematologic neoplasms, immune deficiency, uncontrolled HIV or AIDS, prolonged use of corticosteroids and/or other immune weakening medications such as disease-modifying anti-rheumatic drugs), a BMI of 40 or higher, diabetes, chronic kidney disease, undergoing dialysis, liver disease, and/or a pregnancy at the third trimester stage.
Participants must have English fluency and, if aged 70 years or older, must receive a score of 25 or higher on the mini mental state examination prior to enrolment.

**What would happen if you chose to participate?**
If you choose to participate in this research, we will first ask you to complete a 10-minute online questionnaire about your demographic characteristics and health status. You will then be required to interact with a digital human online for at least 15-minutes daily over a one-week period. At the end of the week, we will ask you to complete a second online questionnaire that should take about 20 minutes. This questionnaire will ask you to evaluate the digital human and report on how you are feeling.

*Digital Human*
As part of this study, you will be asked to interact with a digital human on a daily basis for one week. During week, you will be required to participate in the kindness module module and the stress module, and then you will have the choice to complete other activities with the digital human. Some modules provide psychoeducation or activities pertaining to promoting mental health and social well-being. Some of the other activities you can engage in with the digital human include finding out information about COVID-19, New Zealand history, business, or remote work.

*Your rights as a participant:* Participation in this study is entirely voluntary (your choice). If you choose to participate, you can change your mind at any time without giving a reason and without any traceable to you until up to 2 weeks after you have finished the study. You will be given a copy of this document to keep.

*Compensation:* You will receive a $30 shopping voucher at the end of the study as compensation for agreeing to participate in this research. You will receive this irrespective of whether you withdraw during the study.

If you were injured as a result of this study, you would be eligible to apply for compensation from ACC just as you would be if you were injured in an accident at work or home. This does not mean that your claim will automatically be accepted. You will have to lodge a claim with ACC, which may take some time to assess. If your claim is accepted, you will receive funding to assist in your recovery. If you have private health or life insurance, you may wish to check with your insurer that taking part in this study won’t affect your cover. If you report experiencing extreme loneliness or stress at the end of the study, the researchers will provide you with information on further mental health support for you to access which includes helplines.

*Risks and discomforts:* The procedures outlined in this protocol are completely non-invasive and have been performed in other research settings.

*Data storage:* All data will be securely stored in electronic format by the researcher at the University of Auckland. A copy of de-identified summary data will also be stored at Soul Machines and held in a secure, encrypted server. Consent forms will be stored in a locked filing cabinet in the researcher’s office at the University of Auckland and will be kept for a period of six years. All data will be destroyed after a period of six years.
**Confidentiality:** All personal information will remain strictly confidential and no material that could personally identify you will be used in any report on this study. Your name will only appear on the consent form, which will be coded with an identification number so that your identity is kept confidential on all data files. After completion of the study, all confidential data, including computer data files, will be kept for six years to allow for publication and re-analysis, after which time it will be securely and confidentially disposed of. Research publications and presentations from the study will not contain any information that could personally identify you. We will publish the results but not the data itself. The purpose the data are collected is to investigate the research question, publish results in a journal paper and/or presentation, and improve the digital human software. During the interactions, the digital human will continuously collect speech and video data in order to communicate with you, however this data is not recorded or saved and will not be analysed by the researchers or Soul Machines Ltd. The digital human’s data collection and use process is in keeping with the General Data Protection Regulation (GDPR).

**Results:** A summary of the results of this study in non-academic language will be sent to you if you wish. As it takes some time to analyze the results of studies, it may be more than a year after your participation that you receive this information.

**Technology confidentiality:** We hope that you will enjoy your participation in the “A Digital Human for Kindness and Stress Information During the COVID-19 Pandemic: A Feasibility Study” (Research) being conducted by the University of Auckland and Soul Machines Limited. We do ask that you do not discuss your experiences during the Research with anyone. As this research forms part of Soul Machines’ world leading research program, we are insisting that you do not engage in media interviews or discussion, or blog or make any other form of account of your experience, including on your own social media. Accordingly, before you take part in the Research, we ask that you sign the acknowledgments related to technology confidentiality outlined in the consent form. It is a condition of your participation in the Research that you accept the acknowledgments outlined below. If you do not wish to sign the acknowledgments, you are free to withdraw from the Research. If you have any questions, please email privacy@soulmachines.com. You will be asked to acknowledge and agree to the following:

a. I will not make any video and/or audio recordings or take any photographs of the Research or my participation in the Research.

b. I will not publish any articles (including any video and/or audio content) or make or authorize any public comments relating to or referring to the Research or my participation in the Research.

c. I do not work for or contribute to any media organization.

d. I have had the opportunity to ask questions and have them answered to my satisfaction.
We appreciate the time you have taken to read this information. If you have any questions please contact:

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**For any concerns regarding ethical issues you may contact:**
The Chair
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Approved by the University of Auckland Human Participants Ethics Committee on 06/07/2020 for 3 years. Reference no. 024752.