

Participant Information Sheet

Project title:	Facial Expression Recognition for Mental Well-being
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Before you decide whether to take part, it is important for you to understand why the research is being done and what it will involve. If there is anything that is unclear, or you have any questions, please feel free to contact the researcher/s.

If you decide to take part, please keep this information sheet for your records and sign a consent form.

Participation in this study is voluntary. You are free to withdraw at any time, without providing any reason.

Who are the researchers?

We are researchers from the School of Computer Science, University of Glasgow.

What is the purpose of the study?

Mental disorders, such as depression, profoundly affect individuals, causing emotional distress and impairing daily life. Existing diagnostic tools like the Structured Clinical Interview for DSM Disorders (SCID) are crucial but depend heavily on subjective evaluations and active communication, making them time-consuming and less effective, and even infeasible for individuals with communication difficulties, such as those with brain injuries. This highlights the pressing need for tools to complement existing assessment methods.

Facial Expression Recognition (FER) technology provides an opportunity to address these challenges by analyzing facial expressions to detect subtle emotional patterns that might not be apparent through conventional assessments.

This study seeks to explore FER in assessing mental well-being. As the first step, we will explore with the general population who can communicate, before we investigate it for people with difficulties of communications. Using a platform powered by the ResEmoteNet model trained on the FER 2013 dataset, the research compares facial expression patterns—such as lost interests or reduced variability—with self-reported mental health questionnaires. The aim is to evaluate the potential of FER to enhance mental health research by developing practical,

emotion-based tools that enable more efficient assessments. These findings will also lay the groundwork for future studies involving diverse and clinical populations, supporting the integration of FER into broader mental health care strategies.

Why have I been asked to take part?

You have been invited to participate because you expressed interests and responded to our call for participation. Your involvement will help us better understand how facial expression patterns relate to mental health indicators.

Do I have to take part?

No – participation in this study is entirely up to you. You can withdraw from the study at any time, without any penalty.

What would I be required to do?

As a participant, you will complete the following steps during the study:

1. Questionnaires and Basic Information Collection:

You will fill out a brief demographic survey and complete questionnaires, such as the PHQ-9. These will be administered digitally for ease and confidentiality. This is only for our research and is non-diagnostic in nature. And the results will not be reviewed by clinicians or mental health professionals.

2. Watching Videos and Providing Feedback:

You will watch light-hearted video clips, such as scenes from *Mr. Bean*, for approximately 15 minutes. While you watch, the platform will capture your facial expressions using a webcam and recognize emotional patterns in real time. Afterward, you can review the system’s detected emotions and confirm or correct them to improve accuracy.

3. Follow-up:

At the end of the session, you will be informed that you can contact the research team for any follow-up questions or concerns.

Are there any risks associated with taking part?

The study poses minimal risks but may involve minor discomfort or fatigue. You will be asked to watch approximately 15 minutes of clips from Mr. Bean, carefully selected to evoke feelings

of happiness and amusement. These videos are enjoyable for people from diverse cultural backgrounds, and the session will be conducted in an informal, relaxed, comfortable, and private setting.

You can pause or stop the session at any time. The study environment will be quiet, well-lit, and equipped with comfortable seating to minimize any potential discomfort.

Your data, including photo data and other collected information, will be stored on password-protected systems. Personal information, such as consent forms and questionnaire responses, will be stored separately from the study data. Questionnaire responses will be anonymized and will be used exclusively for research purposes. You also have the right to withdraw your data at any time if you wish.

Are there any benefits associated with taking part?

You will be offered light refreshments, including cookies, scones, and coffee, during the study to ensure their comfort and create a welcoming environment. Your contributions will also advance understanding and technology that supports mental well-being.

What will happen to the results of this study?

The results will inform the design of a facial expression recognition platform aimed at improving mental health assessments and care. Findings will likely be published in peer-reviewed journals or presented at conferences, where all data will be fully anonymised and non-identifiable.

Data protection and confidentiality.

All the data, including photos, anonymized questionnaire responses, and recognition outputs, will be stored on a password-protected system (e.g., OneDrive), accessible only to authorized researchers involved in this project. Consent forms and any personal information will be stored separately from the collected data to prevent linkage.

To advance efficiency and transparency in scientific research, we plan to share some of our data for open science. However, because photo data could be extremely sensitive, after reviewing your photos, you could have three options to choose from and sign a consent form.

1. Use for open research – You may choose to allow your photos to be used beyond this research project and for other research purposes to contribute to open science. We

plan to adopt an End User License Agreement (EULA) to make sure the dataset will only be available for research purposes, but not for commercial use or to be shared with third parties.

2. Use for this research only – You may choose to allow your photos to be stored throughout this PhD project. Once the project is completed, the photos will be deleted. Access to the photos will be restricted to authorized researchers in this project only.
3. Immediate Deletion – You may not wish for your photos to be stored, photos will be deleted after facial expression recognition is performed and photos are reviewed, which means only the extracted features, not the photos, will be retained for the research.

What are my data protection rights?

Your right of access can be exercised in accordance with the Data Protection Law. You also have other rights including rights of correction, erasure and objection.

Who can I contact if I have questions or concerns?

If you have any further questions or concerns about the study, please contact:

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Updated information.

If the research project changes in any way, an updated Participant Information Sheet will be sent to you by e-mail.