

Participant Information Sheet

Multimedia recordings of realistic group conversations

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You are being invited to participate as a talker in the recording of speech materials for use in research. Before you decide whether or not to take part, it is important for you to understand why the research is being done and what it will involve. Take time to decide. You should only participate if you want to; choosing not to take part will not disadvantage you in any way.

Please read the following information carefully and discuss it with others if you wish. If you have questions or require more information before deciding to take part, please contact one of the researchers using the contact details listed below.

What is the purpose of the study?

In group scenarios, where several people are talking at once, it can be hard to hear what someone is saying. The project aims to develop improved signal processing techniques for smart devices worn on the head, such as augmented reality glasses, “hearables” and next-generation hearing aids. We refer to these devices using the generic term “head-worn microphone arrays.” The algorithms being developed by us, and other researchers around the world, may make use of spatial information about the position/orientation of the people present. To evaluate the effectiveness of these algorithms we are making high quality multimedia recordings of group scenarios made under controlled conditions.

Why have I been invited?

You have been invited to participate because you are a healthy adult of the age, gender, language and regional dialect required for our recordings. You will participate in groups of 6 and there will be up to five groups altogether.

Do I have to take part?

It is up to you to decide whether or not to take part. If you choose not to participate, you won't incur any detriment. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form.

What will happen to me if I take part?

You will attend one or more recording sessions. You will wear a headset containing a microphone to record your voice and a sensor for tracking your head position and orientation.

One person in the group, designated “the listener”, will also wear a prototype “head-worn microphone array.” This consists of a pair of safety glasses which has several microphones attached and a binaural headset which positions two microphones at the entrance to your ears. You have the option to consent and volunteer to be “the listener” but since only one person in each group can perform this role not everyone will be able to.

The 6 people participating in the recording will be seated around a table in two rows of three and asked to take part in the following activities, designed to make you talk in a natural manner:

1. Read text – you will each read aloud a few paragraphs of text, lasting approximately 30-60 seconds each.
2. Group conversation – you will take part in a short game as a whole group. This will last 5-10 minutes.
3. One-to-one conversations – you will talk to the person opposite you about a specific topic using prompts provided. This will last 5-10 minutes.

During the recordings, loudspeakers will be playing ambient noise at a level consistent with a typical café or restaurant.

To protect the privacy of the other participants and yourself, it is important that you do not refer to anyone using their real name or say anything which could be used to identify any of the participants.

You may consent and volunteer to participate in just one session or in multiple sessions. Each session will follow the same procedure and last up to an hour. Each session will be in a different room on the South Kensington Campus. All sessions will take place during June 2023.

What are the possible disadvantages and risks of taking part?

We do not anticipate any risks, discomfort or distress from taking part in this project. If you do experience any discomfort or distress, please inform the researchers.

What if something goes wrong?

If you are harmed by taking part in this research project, there are no special compensation arrangements. If you are harmed due to someone’s negligence, then you may have grounds for a legal action. Regardless of this, if you wish to complain, or have any concerns about any aspect of the way you have been treated during the course of this study then you should immediately inform the Investigator (Alastair Moore – alastair.h.moore@imperial.ac.uk). If you are still not satisfied with the response, you may contact the Imperial College Research Governance Integrity Team (rgitcoordinator@imperial.ac.uk).

What will happen to the results of the research study?

The recordings and a report detailing the method of data collection will be uploaded to a public data repository and linked to from the Speech and Audio Processing page of the Imperial College website (<https://www.imperial.ac.uk/speech-audio-processing/resources/>) so that other researchers can use them to evaluate their

signal processing algorithms. None of your personal information will be included in this or any subsequent report which uses the recordings. However, the recordings will contain your voice, from which it may be possible for someone to identify you.

Public access to the recordings will be maintained for 15 years. Please note, once the recordings have been published, they will be in the public domain. Therefore, once the recordings have been downloaded and used by other organisations they will be beyond the College's control. If you are not comfortable with this then you should not participate.

Who is organising and funding the research?

The research is being conducted by members of the Department of Electrical and Electronic Engineering at Imperial College London. The research is funded by Meta Platform Technologies, LLC (formerly Facebook Technologies LLC).

Who has reviewed the study?

In consultation with the Imperial College Research Governance and Integrity Team (RGIT), it was determined that this study is considered a "Service Evaluation" and therefore no specific ethics review is required.

Contact for Further Information

If you have questions about participation in the project or require further information, please contact the researchers before completing the consent form. If you would like further information at any point after you have completed the project, please contact the researcher using the contact details given below.

Dr. Alastair Moore
Electrical & Electronic Engineering
Imperial College
London SW7 2AZ
E-mail: alastair.h.moore@imperial.ac.uk

Thank you for reading this information sheet and for considering taking part in this research project.

Transparency Notice

SUMMARY INFORMATION SHEET

In this research study we (Imperial College London) will use information from you. We will only use information that we need for the research study. We will let very few people know your name or contact details, and only if they really need it for this study. These people will include Imperial Research Team members and support staff.

Everyone involved in this study will keep the data collated as part of this study, including your personal data, safe and secure. We will also follow all privacy laws and legislation that are relevant to the specifics of the study.

At the end of the study we will save some of the data in case we need to check it and for future research.

We will make sure it is unlikely that anyone can work out who you are from the reports we write.

How will we use information about you?

Research Study Title: Multimedia recordings of realistic group conversations

Imperial College London is the data Controller for this study. This means that we are responsible for looking after your information and using it appropriately Imperial College London will keep your personal contact data for:

- 2 years after the study has finished in relation to data subject consent forms.
- 2 years after the study has completed in relation to primary research data.

The study is expected to finish in July 2023.

For more information / confirmation regarding the end date please contact the study team, see **'WHERE CAN YOU FIND OUT MORE ABOUT HOW YOUR INFORMATION IS USED'** for contact information.

We will need to use information (including personal data and data created as part of the study) from you for this research project.

This information will include your

- name
- email address and
- phone number.
- Recordings of your voice and head movements,
- whether English is your native language
- gender
- age

People within Imperial College London and study team (see section 'Sharing your information with others') will use this information to do the research or to check your records (see information to be collected) to make sure that the research is being done properly and the information held (such as contact details) is accurate.

People who do not need to know who you are will not be able to see your name or contact details. Your data will have a unique study number instead.

We will keep all information about you safe and secure.

Once we have finished the study, we will keep some of the data so we can check the results. We will write our reports in a way that it is unlikely anyone can work out that you took part in the study.

LEGAL BASIS

As a university we use personal information to conduct research that will either be in the public interest, or the 'legitimate interests' of Imperial College or other organisations, as yet unknown, whose interests are to conduct world leading research and innovation aiming to deliver transformative impact for society.

Our legal basis for using your information under GDPR (UK GDPR and EU GDPR 2016/679) and the Data Protection Act 2018, is as follows:

- Imperial College London – when making the recordings our legal basis is “performance of a task carried out in the public interest” and for placing the recordings on Zenodo the legal basis is 'legitimate interests' held by the data controller;

We will conduct scientific research in compliance with the law and the recommendations and guidance published by the UK Information Commissioners Office (ICO). This will follow similar rules to health and social care research but may not meet the definition of the College's public interest task or requirement. In such cases we will be holding and using your data for what are called our “legitimate interests” where, as previously stated, the College aims to conduct world leading research and innovation aiming to deliver transformative impact for society. Scientific research should serve the public interest, which means that we have to demonstrate that our research has societal impact serving the interests of society as a whole.

INTERNATIONAL TRANSFERS

The recordings that are made public on Zenodo will be available to interested parties from around the world to use in further research.

SHARING YOUR INFORMATION WITH OTHERS

- We will only share your personal data with certain third parties for the purposes referred to in this participant information sheet and by relying on the legal basis for processing your data as set out above.

POTENTIAL USE OF STUDY DATA FOR FUTURE RESEARCH

When you agree to take part in a research study, the information collected as part of this study may be provided to researchers running other research studies in this organisation and in other organisations. These organisations may be universities or organisations involved in research in this country or abroad. Your information will only be used by organisations and researchers to conduct research in accordance with all relevant legislation including the GDPR (UK GDPR and EU GDPR 2016/679), the Data Protection Act 2018.

COMMERCIALISATION

Samples / data from the study may also be provided to organisations not named in this participant information sheet, e.g. commercial organisations or non-commercial organisations for the purposes of undertaking the current study, future research studies or commercial purposes such as development by a company of a new test, product, service or treatment. We will ensure your name and any identifying details will NOT be given to these third parties, instead you will be identified by a unique study number with any sample analysis having the potential to generate 'personal data'.

Aggregated (combined) or anonymised data sets (all identifying information is removed) may also be created using your data (in a way which does not identify you individually) and be used for such research or commercial purposes where the purposes align to relevant legislation (including the GDPR) and wider aims of the study. Your data will not be shared with a commercial organisation for marketing purposes.

WHAT ARE YOUR CHOICES ABOUT HOW YOUR INFORMATION IS USED?

You can stop being part of the study at any time, without giving a reason, but we will keep information about you that we already have because some research using your data may have already taken place and this cannot be undone.

- We need to manage your records in specific ways for the research to be reliable. This means that we may not be able to let you see or change the data we hold about you if this could affect the wider study or the accuracy of data collected.

WHERE CAN YOU FIND OUT MORE ABOUT HOW YOUR INFORMATION IS USED

You can find out more about how we use your information:

- by asking one of the research team
- by sending an email to alastair.h.moore@imperial.ac.uk, or
- by ringing us on 020 7594 6235.

COMPLAINT

If you wish to raise a complaint about how we have handled your personal data, please contact the research team first by sending an email to alastair.h.moore@imperial.ac.uk, or by ringing us on 020 7594 6235.

Following our response, if you are not satisfied please contact Imperial College London's Data Protection Officer via email at dpo@imperial.ac.uk, via telephone on 020 7594 3502 and/or via post at Imperial College London, Data Protection Officer, Faculty Building Level 4, London SW7 2AZ.

If you remain unsatisfied with our response or believe we are processing your personal data in a way that is not lawful you can complain to the Information Commissioner's Office (ICO) via www.ico.org.uk. The ICO does recommend that you seek to resolve matters with the data controller (us) first before involving them.