



Multimer Policy on Data Privacy, Ethics, and Security For Participants and Partners

Values

Multimer values diversity, equity, and inclusion. We will not turn away any group of people based on race, religion, sexual orientation, income or level of physical activity unless the objectives of the study require observation of a specific demographic.

Multimer values the privacy and anonymity of our study participants (also referred to as “data contributors” and “contributors”). The process we follow in data collection allows our participants to choose when they want their biometric and location data to be collected and when they want to share that data with our analysts. When study participants share their data with Multimer, personally identifying information (PII) is never collected or stored by the Multimer platform. PII may be used by study coordinators, but this is outside the scope of Multimer’s platform. Study participants also reserve the right to immediately remove themselves from Multimer studies at any time. Multimer will not enroll study participants from vulnerable populations (including children, pregnant people, the incarcerated, and non-English speakers) without special training of all study personnel.

In accordance with and inspired by the Belmont Report of 1978, a seminal publication which laid out “Ethical Principles and Guidelines for the Protection of Human Subjects of Research,” Multimer prioritizes respect for persons, beneficence, and justice in all of its work with data contributors.¹

In accordance with guidelines released by the European Data Protection Board upon the enactment of the General Data Protection Regulation of 2018, Multimer also complies with regulation in regards to consent (WP251rev.01), transparency (WP260rev.01), personal data breach notifications (WP250rev.01), and the right to data portability (WP242rev.01) in all of its work with data contributors.²

¹ United States, Congress, “The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research: Appendix.” The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research: Appendix, Dept. of Health, Education, and Welfare, National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1978.

² “Guidelines on Your Rights.” European Data Protection Board, 24 May 2018, edpb.europa.eu/guidelines-your-rights_en.



Multimer Policy on Data Privacy, Ethics, and Security For Participants and Partners



Procedure

Before a study, the Multimer team and the customer will co-develop a list of questions the customer aims to answer and the objectives associated with those questions.

During the study, customers will be able to use the Multimer platform to access visualizations or charts related to biometric data during the study. During the study, the customer will not be given access to individual's biosensor or location data, however they will be able to access the aggregated biosensor and location data from the Multimer online platform. All Multimer platform data and software is stored on a secure, encrypted server.

All study participants, including employees of the customer organization, will be expected to sign an Informed Consent Form to indicate that they understand which kind of data will be submitted through the Multimer app. If incentives will be provided to the group of participants under study, participants affiliated with the customer organization may not be entitled to these incentives, pending a conflict of interest review by Multimer and the organization providing incentives.

After the study is complete, the customer will have access to the aggregate findings and will be able to parse through specific parameters such activity type or specific locations



Multimer Policy on Data Privacy, Ethics, and Security For Participants and Partners

such as neighborhoods or the kitchen of an office, for example. The customer will have access to an individual's data only upon the consent of the individual.

External parties

If a customer plans to involve a third-party to share findings before, during, or after a Multimer study, the customer must consult Multimer and disclose if the third-party has a different set of objectives from the customer.

Third party members will be restricted to the aggregate data from each study and will have to directly consult with Multimer if they want the data presented in a different fashion.

Multimer's team will conduct monthly audits of our datasets to ensure the safety of our study participants. If the Multimer staff finds a customer has shared data without our consent, Multimer will enforce the protections outlined in the Millennium Copyright Act. Perpetrators of illegal data sharing could face up to:

- Up to five years in jail
- Fines and charges of up to \$150,000 per file
- In addition to any other charges that might be brought against you, the copyright holder can file suit, which can result in legal fees and damages that must be paid.

Multimer seeks to understand how an individual's external environment impacts their neuro-physiological state. Multimer values the privacy and anonymity of our study participants (also referred to as "data contributors" and "contributors"). The process we follow in data collection allows our participants to choose when they want their biometric and location data to be collected and when they want to share that data with our analysts. Study participants also reserve the right to immediately remove themselves from Multimer studies at any time.

When working with customers, Multimer will only share aggregated and/or anonymized data collected and will never share individual datasets without consent. Multimer biosensor datasets are anonymized by individual and do not contain data specific to the race, gender or ethnicity of individual study participants. This document seeks to outline the information we collect on participants, how that data is analyzed and shared, and our study participants' rights throughout the Multimer workflow.



Multimer Policy on Data Privacy, Ethics, and Security For Participants and Partners

Information you share with us

When you enroll as a Multimer study participant, you may be required to share personally identifying information (PII) such as your name, phone number and email address. For indoor studies, Beacon location data will be automatically collected to identify your location, however, you have the ability to turn off this function by turning off the phone's bluetooth setting. When study participants share their data with Multimer, personally identifying information (PII) is never collected or stored by the Multimer platform. The biometric data will be stored on an Amazon Web Services server, and your PII will be stored on a separate encrypted server.

In addition, Multimer separates your biometric and location data from your PII to ensure safety. Throughout our analysis we will assign you a random identifier made up of number and letters. That will protect your identity from our staff, our customers and any third parties who want to access Multimer data. The research coordinators will be the only individuals to connect study participants with their biometric and location data.

PII may be used by study coordinators, but this is outside the scope of Multimer's platform. PII will only be used to contact you if you are responsible for returning Multimer equipment directly to Multimer personnel. All Multimer platform data and software is stored on a secure, encrypted server.

As a participant, you have the right to participate as much or as little as you want in the study itself. Multimer will never set a requirement for specific conditions in which you must contribute in order to be considered a valued data collector.

Multimer's Mobile App

Within the Multimer app, you may select your mode of activity within the mobile app. This includes working, collaborating, or socializing (in the indoor context), and includes biking, running/walking or driving (in the outdoor context). None of this data will be connected to your PII. The Multimer app can record the following data, with your consent:



Multimer Policy on Data Privacy, Ethics, and Security For Participants and Partners

App input	activity type (e.g. walk, bike, work, shop) in-app survey response written comments	ECG sensor	heart rate
GPS sensor	coordinates: latitude & longitude altitude/floor speed direction course accuracy	Pedometer	steps distance current pace floors ascended floors descended
EEG sensor	alpha (low/high) raw EEG waveform beta (low/high) eye blink gamma (mid/high) eSense: attention delta eSense: meditation theta	Under development	ambient sound ambient light
		Optional metrics	barometric altimeter gyroscope/accelerometer other metrics upon request

At the end of every Multimer app session, you will be prompted to fill out a short survey and/or comment on their session experience. When you share your data to Multimer’s servers, the data is separated from your contact information and will be analyzed with the aggregate dataset to examine commonalities or outliers in specific routes and/or locations.

If you feel uncomfortable sharing your biometric and location data with Multimer, users have the ability to completely erase their data at any time. This can be done by opening Multimer’s mobile app, selecting “Data” in the bottom right corner of the app and swiping left to delete individual data events.

The Multimer headset (also known as MindRider) collects EEG (electroencephalogram) brainwave data. Through our analytics platform, our data scientists are able to determine various levels of attention and relaxation by examining brainwave frequencies including alpha, beta, delta, gamma and theta. In the medical field, EEG sensors have been used to examine brain injuries such as concussions, monitor traumatic brain events such as strokes and study the progression of brain diseases such as Alzheimer's. Multimer only uses off-the-shelf wearables that are approved by the U.S.Federal Communications Commision for emitting standard levels of radiation used to transmit bluetooth signals.



Multimer Policy on Data Privacy, Ethics, and Security For Participants and Partners

As a study participant, you have the option to wear a MindRider and additional biosensors, including heart rate monitors, to provide more exact information related to your neuro-physiological state. You can also provide data through your own bluetooth-enabled wearables (e.g. devices manufactured by Apple, Polar, Garmin, et cetera). Your wearable biosensor data is separated from PII when shared to Multimer's servers.

Consent

Multimer accumulates the GPS coordinates of study participants through our mobile app. Data contributors' biometric and location data is stored within the Multimer app and won't be shared with the Multimer team until a contributor decides to upload their data. This means that a participant has the ability to share or delete their data at the end of every data collection session.

Multimer values the well-being of our contributors. If any contributor feels uncomfortable, unsafe or for any reason wants to exit a Multimer study, they have the ability and the right to cancel their participation immediately. If a person decides to exit a Multimer study, they will only be required to return any borrowed equipment to the study coordinator. In some cases, the study coordinators will consist of Multimer personnel; in other cases, the study coordinators may consist of personnel from a customer or other partner organization.

This information will be repeated at every study orientation and will be included in Multimer's Informed Consent Form. Before contributing data, study participants are expected to sign an Informed Consent Form to indicate that they understand which kind of data will be submitted through the Multimer app.

Relationship with customers

Multimer's customers range from non-governmental organizations, nonprofits, media companies, to architecture firms and city governments, all of whom are seeking a deeper and more exact understanding of how space affects a population's mindset.

When sharing the results with our customers, Multimer will never agree to share the individual data of our contributors, unless the individual gives their consent; otherwise, our customers will only have access to the aggregate findings of our studies.



Multimer Policy on Data Privacy, Ethics, and Security For Participants and Partners

At the beginning of every study, the Multimer team shares the following with our data collectors: our customers' interest in each study, the questions they are hoping to answer, and the objectives they are trying to achieve. If a data collector opposes any of our customers, or their partners, they have the right to remove themselves from the study.

For further information

Please contact the Multimer team at team@multimerdata.org or call Multimer at +1.646.627.8952.