

FAQ for Researchers. Ohmage 2.16, MWF, Mobility, Moves, Web.

FAQ FOR RESEARCHERS: Ohmage 2.16, MWF, MOBILITY, MOVES, & WEB

Following are several Frequently Asked Questions about Ohmage, Mobility, and the website. Participants will have access to a FAQ sheet that is similar, but less detailed than this one. This is the complete and thorough Researcher FAQ sheet.

There are currently 2 versions of Ohmage: Ohmage 2.16 for Android phones and Ohmage MWF for iPhone. The version that the question refers to prefaces each question.

Please see ohmage.org, demo.ohmage.org, and wiki.ohmage.org for more information.

Full video tutorials for Ohmage 2.16 and Ohmage MWF are available on Youtube:

Ohmage 2.16 for Android: <http://youtu.be/tYtbgQvzmvg>

Ohmage MWF for iPhone: <http://youtu.be/Zl1GAp2jtZY>

- Android / MWF: What is Ohmage?
 - Ohmage is a data collection application that allows for both the passive and active capture of data via a smart phone's internal sensing mechanisms as well as through a user's participation in various surveys.

It allows users to self-report and log their experience and then cross-examine their subjective responses with objective data automatically collected and processed by the phone. All data is time stamped and certain data (if desired) is tagged with GPS coordinates so that users might also gain insight into circumstances that may have influenced certain survey responses or physical data.

With the information that Ohmage provides, users can draw conclusions about their personal behaviors that they can then modify as desired (i.e. users with diabetes can take surveys about eating habits and stress levels and can cross-examine that with their blood glucose readings).

There are myriad practical applications for Ohmage, and users can customize their interactions with it in order to get the best possible experience and results from the program.
- Android / MWF: If I download and install Ohmage, what permissions must I agree to?
 - The following list includes all permissions (terms and conditions) that you agree to when installing the Ohmage application on a smart phone:
 - Storage: Modify or delete the contents of your USB storage
 - Microphone: Record audio
 - Your Location: Approximate location (network-based), precise location (GPS and network-based)
 - Camera: Take pictures and videos
 - Network Communication: Connect and disconnect from Wi-Fi, full network access
 - Your Accounts: Add or remove accounts, create accounts and set passwords, use accounts on the device
 - Sync Settings: Toggle sync on and off
 - System Tools: Access extra location provider commands, send sticky broadcast, test access to protected storage

- Affects Battery: Control vibration, prevent phone from sleeping
 - Your Applications Information: Run at startup
 - Network Communication: View Wi-Fi connections, view network connections
 - Your Accounts: Find accounts on the device, read Google service configuration
- Android: What is Mobility?
 - Mobility is a separate application that allows Ohmage to collect a user's physical activity status from the phone throughout the day in order to determine how often the user is still, walking, running, and driving. Mobility determines the activity status using a combination of accelerometer and location data, sensing how the phone itself is moving through space as well as how quickly the phone is changing locations via GPS.

Using the physical activity data that Mobility captures, users can detect patterns in their behavior, which can help to inform and to motivate new behavioral choices and patterns.

Mobility is a passive application, meaning that it runs in the background on the phone, and users will rarely, if ever, need to intervene in its processes. Once it is installed and turned on, it should collect and upload data completely automatically.

A user may, however, visit the Mobility page on his/her phone to view and monitor the captured data or to alter the settings.

***Currently, Mobility is only available for Android phones. For the time being, third party applications like Moves will be used with Ohmage on iOS devices.
- Android: If I download and install Mobility, what permissions must I agree to?
 - The following list includes all permissions (terms and conditions) that you agree to when installing the Mobility application on a smart phone:
 - Phone Calls: Read phone status and identity
 - Camera: Take pictures and videos
 - Your Location: Approximate location (network-based) and precise location (GPS and network-based)
 - Your Personal Information: Read calendar events plus confidential information
 - Storage: Modify or delete the contents of your USB storage
 - Your Accounts: Create accounts and set passwords, find accounts on the device
 - Network Communication: Connect and disconnect from Wi-Fi, full network access, view Wi-Fi connections
 - Your Applications Information: Run at startup
 - Affects Battery: Control vibrator, prevent phone from sleeping
 - System Tools: Access extra location provider commands, test access to protected storage
- MWF: What is Moves? (www.moves-app.com)
 - Moves is a separate application that collects a user's physical activity status from the phone throughout the day in order to determine how often the user is

walking, running, or cycling versus taking transport or sitting still. Moves determines the activity status using a combination of accelerometer and location data, sensing how the phone itself is moving through space as well as how quickly the phone is changing locations via GPS.

Using the physical activity data that Moves captures, users can detect patterns in their behavior, which can help to inform and to motivate new behavioral choices and patterns.

Moves is a passive application, meaning that it runs in the background on the phone. Once it is installed and turned on, it will collect and upload data completely automatically.

A user may visit the Moves application to view and monitor the captured data or to alter the settings.

- MWF: Why was I asked to use Moves? Or why was I not asked to use Moves?
 - Some studies require, or are enhanced by, the understanding of a person's physical activity level on a daily or weekly basis. And other studies do not require, or are not enhanced by, this information. Therefore, if you are involved in a study that would benefit from the collection of your physical activity data (i.e. a weight loss study, a stress study, a study concerning a chronic illness, etc.) you will likely be asked to install and run Moves on your phone, in conjunction with your participation in the self-report surveys in Ohmage.
- MWF: If I download and install Moves, what permissions must I agree to?
 - The following list includes all permissions (terms and conditions) that you agree to when installing the Moves application on a smart phone:
 - Storage: Modify or delete the contents of your USB storage
 - Phone Calls: read phone status and identity
 - Network Communication: Full network access
 - Your Location: Approximate location (network-based), precise location (GPS and network-based)
 - System Tools: Test access to protected storage
 - Affects Battery: Prevent phone from sleeping
 - Your Applications Information: Run at startup
 - Network Communication: Receive data from internet, view Wi-Fi connections, view network connections
 - Your Accounts: Find accounts on the device, read Google service configuration
 - Your Personal Information: Activity recognition
- MWF: Should I expect to see shortened battery life on my phone if Ohmage and / or Moves are always running in the background?
 - You will need to charge your phone fully once every 24 hours. Most users are able to run Ohmage / Moves consistently through a full day on a single full charge. However, this is true provided that their devices are models released within the last two years.

- Android: Should I expect to see shortened battery life on my phone if Ohmage and/or Mobility are always running in the background?
 - You will need to charge your phone fully once every 24 hours. Most users are able to run Ohmage and/or Mobility consistently through a full day on a single full charge. However, this is true provided that their devices are models released within the last two years (i.e. Samsung Galaxy S3, S4, Galaxy Nexus, etc.).
- Android / MWF: Concerning my phone's data plan, what is the minimum GB per month that I will need to run the applications?
 - You will need less than 200MB of data per month. Though we cannot be certain of the exact amount, it may in fact be less than 100MB per month, since the data transfers are compressed.
- Android / MWF: I keep getting notifications on my phone telling me to keep Wifi on. Why is this better than using my regular data connection?
 - Wifi allows the application data to transfer more rapidly and it helps to preserve battery life, since your phone spends less energy searching for and maintaining a data signal. Also, enabling Wifi will help your phone gather your location more easily, thereby putting less pressure on your phone's GPS.
- Android: I have noticed in my Mobility Control tab that Mobility is not recording the correct activity (i.e. it will record Drive when I am actually still, or it will record Still when I was out for a run). Why is Mobility not capturing my data accurately?
 - Unfortunately, some devices do not have very good GPS chips, and they can sometimes get "stuck". Also, Mobility uses a classification algorithm to determine the type of movement or activity that is occurring, and it will unfortunately produce a certain percentage of classifications that are inaccurate.
- Android: My Mobility data doesn't seem to be uploading automatically and/or I keep getting upload errors. What's going on?
 - In all likelihood, Mobility is having trouble simply because it can't establish a secure data connection with which to upload. A few things to consider are: 1) Do you have good connectivity or phone service where you are currently? 2) Is Wifi enabled? 3) How many data points are currently pending upload and when was your last successful upload?
If you have poor connectivity or phone service in your current location, try to enable and establish a connection via Wifi. If you are unable to use Wifi, try to upload later, perhaps in a location with better data or Wifi connectivity.
If you have good connectivity or are able to use Wifi, but the Mobility data is still struggling to upload, please check your Mobility Control tab to see how many data points are backlogged in your queue (under To Upload). If there are only a few points (in the tens or hundreds), please be patient as Mobility may resolve the issue on its own. However, if there are thousands of points in the queue and/or your Last Upload was hours or days ago, please let us know as soon as possible.

- Android / MWF (especially): I am having a lot of issues getting my data to upload and/or I am getting constant error messages all of a sudden. What do I do?
 - If you are very suddenly experiencing a lot of difficulty uploading and/or are receiving a lot of error messages, try logging out of Ohmage and then logging back in.
If the problem still occurs, let us know.
- Android / MWF: I can't log in! I'm putting in the correct username and password, but it still won't work! Help!
 - Make sure you're attempting to log in on the correct server (typically <https://pilots.ohmage.org/>). Check that your username is, in fact, entered correctly. And, finally, remember: Passwords are case sensitive. Please be sure that you have correctly capitalized and punctuated your password, before referring to us for help.
- Android / MWF: I'm concerned about privacy and security.
 - When a clinician registers with us to use Ohmage for their patients, we create the accounts for their patients using secure, randomized passwords. Our administrators, who have received appropriate training and have been given access to the servers, will be able to view your username, password, and data. However, only you, your clinician, and their research assistants will know which username and password has been assigned to you. Therefore, only the clinician and his or her assistants will know the true identity of any participant.
*** Note for Researchers only: If you require further information about technical specifications and/or data security protocols, please email Josh Selsky at josh@ohmage.org.
- Web (researchers only): I'm not seeing one of my participant's data in the Responses tab and/or in the Explore Data tab. What's going on?
 - Chances are, the participant in question has poor data or Wifi connectivity most of the time, and their phone has simply been struggling to upload their responses and Mobility points automatically. Have them check their Ohmage Upload Queue for any backlogged data. If there are surveys and/or Mobility points pending upload, have them manually upload their data, as described in Appendix A of the Ohmage User Guide.
They will likely need to monitor their Upload Queue from this point forward, or else you will continue not to see their data on the website.
- Creating a Survey (researchers only): Are there any guidelines I should follow when writing questions for my survey(s) to be used with Ohmage?
 - Always write your questions (and answer choices, where applicable) in the simplest, plainest English you can. The more simple and clear the wording, the more simply and clearly the data can be processed and analyzed in the end. Another reason to keep questions and answers simple is so that it all fits easily onto the mobile phone screen.

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- Ask as many questions as you need, but please remember that simple is better – try not to be redundant and don't overwhelm your patients.
- There are many types of questions to choose from: single choice, multiple choice, free response, number minimum and maximum (i.e. a rating scale). Make sure you choose the easiest option to understand in the context of the question being asked.

***We can always work with you to select the optimal question type and to phrase your prompts and responses more clearly and simply. Please don't hesitate to ask for help!