

Title of Project: Gathering Data on Pedestrians' Travel: A Smart Data Study in the Region of Waterloo

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To help you make an informed decision regarding your participation, this letter will explain what the study is about, the possible risks and benefits, and your rights as a research participant. If you do not understand something in the letter, please ask one of the investigators prior to consenting to the study. You will be provided with a copy of the information and consent form if you choose to participate in the study.

What is the study about?

You are invited to participate in a research study conducted by Ming Xu, under the supervision of Dr. Jeffrey Casello with the School of Planning and Department of Civil Engineering of the University of Waterloo. The objectives of this study are to understand pedestrian travel behavior within urban and suburban areas to inform the ways in which transportation facilities are planned and designed. The study is a component of a PhD thesis.

What does participation involve?

Participation in the study will consist of smartphone-based data collection and survey-based online data collection. If you choose to volunteer, you will be asked to install an app (MobiDiary_International) on your smartphone (Android only) and complete an online survey. From your smartphone, when running the app, we will gather your locations and times of day. When you turn the app off, there is no data being gathered. You are always in control of what you are sharing and uploading.

From the online survey, we will learn about the attributes of your household. We will never ask for your name or specific respondent information.

The smartphone application will passively collect GPS data from your phone to record your movement. This information will help us better understand how pedestrians travel to and within study areas (Central Transit Corridor, around the new ION line), so that future travel planning can predict how pedestrians travel in different areas, and how best to support this travel.

The optional one-time online survey will help us to understand general characteristics of the people who are traveling, such as age range and gender. The online survey will take 3-5 minutes to complete. You may decline to answer any questions that you do not wish to complete.



More generally, you can withdraw your participation at any time by uninstalling the application like any other app. You can request your data be removed from the study up until six months after the date the data are collected.

The app will be available for download on Google Play for free. It will require you to enable location sharing and send notifications in your phone. The application has to be turned on each time you wish to generate travel information. If you do not want to gather data, do not turn it on. We encourage four days of data collection, which should include weekdays and weekends. The data will be automatically uploaded to the server when Wi-Fi is connected. This app uses minimal cellular data when Wi-Fi is not connected (one-hour recording data is about only 1 Kilobyte). Following data collection, the first and last 2 minutes of each collection period will be aggregated to postal code level to prevent identification of your home or work address.

Who may participate in the study?

In order to participate in the study, you must be a traveler who is at least 18 years of age and lives within or near to the Central Transit Corridor, or who travels there regularly.

Gift Card Draws and Incentives

For every 12 hours of study data you provide via the app, you will receive 1 electronic ballot into a weekly draw for 2 \$10 Tim Hortons gift cards and a monthly draw for 1 \$100 Amazon gift cards. Your odds of winning one of the prizes are based on the number of individuals who participate in the study and the amount of time tracked by each participant. We expect that between 110 to 125 individuals will take part in the study. You will need a valid email address in order to sign up for the gift draw. Should you win one of the prizes, your email will be used to contact you. This email will not be used for another form of communication and will not be provided to any third parties. Email information will then be destroyed after the prizes have been provided. Any amount received is taxable. It is your responsibility to report this amount for income tax purposes.

To provide continuous battery power, all participants who provide at least 6 hours of data, will be given (for free) a portable phone charger that the participants may keep as a gift for participating in the study.

Privacy and Security

It is important for you to know that any information that you provide will be confidential. All of the data will be summarized, and no individual will be identified from these summarized results. Furthermore, the application is programmed to collect only GPS coordinates and will not collect any other information that could potentially identify you (such as unique identifiers from your phone). No question in the survey requires an answer, however, providing more information will improve the results and accuracy of the study. If you prefer not to submit your survey responses through the app or do not want to provide your email, please do not sign up for this study.



This study does not require your name or any identifying information. Only those associated with this study will have access to response records, which are secured and maintained with no personal identifiers on a password-protected computer database in a restricted access area of the University of Waterloo. We will keep our study records for a minimum of 7 years. When information is transmitted over the internet, privacy cannot be guaranteed. There is always a risk your responses may be intercepted by a third party (e.g. government agencies, hackers). University of Waterloo researchers will not collect or use internet protocol (IP) addresses or other information which could link your participation to your computer or electronic device without first informing you.

If you wish to participate please visit our research webpage at

[insert new link, this is an unpublished preview]

<https://uwaterloo.ca/waterloo-public-transportation-initiative/research-0/understanding-pedestrian-travel-behavior-using-smartphone>

complete the online survey at

[insert new link, this is an unpublished preview]

https://uwaterloo.ca1.qualtrics.com/jfe/preview/SV_b3hJvaoeMTEQ7UF?Q_SurveyVersionID=current&Q_CHL=preview

as well as install the smartphone application at

https://play.google.com/store/apps/details?id=eu.iums.smartmmi.contextdiary_international

This study has been reviewed and received ethics clearance through a University of Waterloo Research Ethics Committee (ORE#41368). If you have questions for the Committee contact Chief Ethics Officer, Office of Research Ethics, at 1-519-888-4567 ext. 36005 or ore-ceo@uwaterloo.ca,

For all other questions about the study, please contact either Ming Xu at xiaomeng.xu@uwaterloo.ca or by phone at 519-888-4567 ext. 32878, or Dr. Jeffrey Casello at jcasello@uwaterloo.ca or by phone at 519-888-4567 ext. 37538. Further, if you would like to receive a copy of the results of this study, please contact an investigator.

Thank you for considering participation in this study.

