

RP2021

DEVELOPING A GAMIFICATION FRAMEWORK FOR ENCOURAGING TRAVEL BEHAVIOUR CHANGE

Research Question

How can a mobile gamification framework encourage travel behaviour change?

How can persuasive technologies be utilised to instigate travel behaviour change towards local active transport trips in suburban environments?

How can smart phone technology be used to facilitate travel behaviour change?

Methodology

A pilot study will utilise new and existing smart phone applications to track active transport trips and introduce gamification techniques to ascertain the influence of persuasive technology on travel behaviour.

This will be undertaken as a revealed preference, mixed method study and will include online surveys and data collection through log analysis.

The pilot study will establish a base case threshold (or control group) through an online survey of current travel habits and tracking travel behaviour for the first week via use of the smart phone app.

Subsequent weeks will see the introduction of in-app gamification techniques to test whether they contribute to changed travel behaviour.

Anticipated Results

Data will be analysed to observe whether there has been any statistically significant change in active travel behaviour from the outset, to the end of the study period.

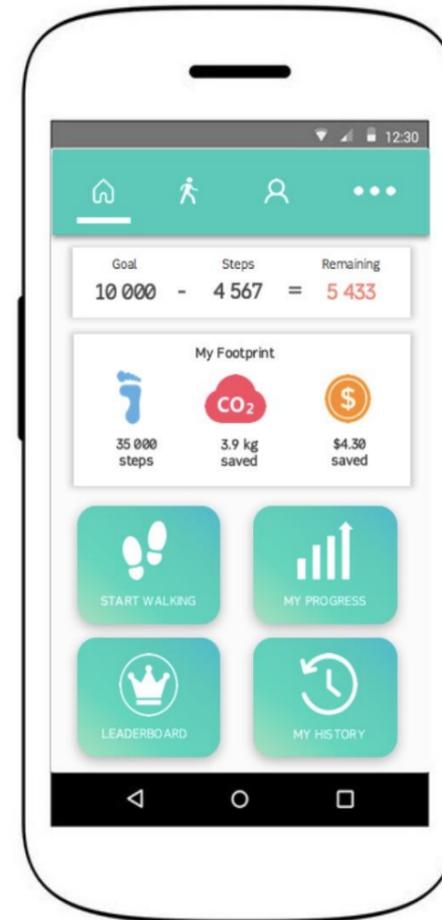
This research will contribute to:

- Identifying gamification techniques suitable for travel behaviour change programs and smart phone application use.
- Techniques that incentivise the user to participate in changed travel behaviour, while informing government of barriers and opportunities to improve active transport infrastructure and programs.
- Increased understanding of the use of persuasive technology and gamification techniques to support travel behaviour change and reduce greenhouse gas emissions.

Conclusions

The Pilot study is due to occur in March 2018. Current research demonstrates a lack of evidence on the impact of technology and gamification on travel behaviour change.

This research will expand on a limited body of research and should provide a tool for government, advocacy bodies and workplaces to encourage travel behaviour change.



Anticipated impacts

Anticipated impacts include:

- Enhancement of travel behaviour change programs through utilisation of gamification techniques.
- Evidence of usefulness of a gamification framework for travel behaviour change.
- Improved understanding on the use of gamification as a framework for facilitating travel behaviour change and shifting car trips to active travel trips.
- Data collection on travel behaviour that enables users to provide feedback to government on barriers and constraints to active travel.

Further information

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Gamification techniques to encourage travel behaviour change could stimulate shifts to lower carbon mobility options and improve feedback and monitoring on active transport