FACULDADE ENGENHARIA
Departamento de Informática

Mobile Game to Encourage the Use of Greener Transportation

Project Proposal

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Objectives

The goal of this project is to create a mobile application that will allow users to reliably (and without cheating) register their usage of public transportation and greener travel options (buses, bicycles, scooters, train, walking, etc) and to participate in a game against other users. From a users's perspective, the goal of the game is to be as "green" as possible. Scoreboards will be shown players and their scores.

The application should have a credit based approach which attempts to give users more points for using greener options in order to encourage them to used these solutions. Ideally, the prototype developed should use the blockchain or simply the cloud but this will be a decision made during the development of the project.

Attempts have been done in the past to create apps for engaging users in the goal of increasing green transportation (e.g. [1]). The initial steps of the project (part of the literature review) will be to study these previous works and acquire insights from proposed solutions.

Work plan and expected timeline

T1 Literature review and initial familiarisation with the transportation context
(week 1 → week 3)

T2 Choose technologies to be used and prepare work environment
(week 2 → week 4)

T3 Gather requirements and define design for the app
(week 2 → week 5)

T4 Implement and test the app
(week 5 → week 13)

T5 Evaluation
(week 13)

T6 Report writing
(ongoing throughout the project with the final 2 weeks fully dedicated to report writing)

Expected Output

1. Project report
2. A mobile game that encourages the use of greener travel options
3. Conference Paper (depending on results and time available)

Bibliography

[1] Froehlich, Jon, et al. "UbiGreen: investigating a mobile tool for tracking and supporting green transportation habits." Proceedings of the sigchi conference on human factors in computing systems. 2009.
https://www.researchgate.net/publication/221514956_UbiGreen_Investigating_a_Mobile_Tool_for_Tracking_and_Supporting_Green_Transportation_Habits