

Visualising personal travel data to foster persuasion

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Abstract

To date, limited research has been published on the effectiveness of interventions which encourage society to make greener transportation choices (Froehlich et al. 2009). An area that has yet to be explored within this field is providing people with personal journey data feedback. This paper explores the different ways (design dimensions) that personal car journey data can be visualised and the different reactions they evoke in relation to their potential to foster persuasion. Results from an online survey ($n=68$) showed that the less data centric visualisation was preferred; it was considered the most informative and thought provoking and was judged as most likely to change future travel habits. Participants reported that the less data centric visualisation allowed them to link/see the health benefits of not driving which was found to be potentially very persuasive. The data dimension visualisation was participants' second choice. In both cases, the simplicity and clarity of the layout were found to be key factors that contributed towards participants' preferences. In the second stage of this research, the less data centric and data dimension were explored with car drivers ($n=17$), using their personal journey data. Each participant assessed the visualisations in terms of the messages it conveyed, it's potential to foster persuasion towards short car journeys and how it might be embedded in day-to-day behaviour.