Consumption | Individual communication

IC - (21036) - FOSTERING PRO-ENVIRONMENTAL SHOWER BEHAVIOUR THROUGH SMART TECHNOLOGY AND PERSUASIVE COMMUNICATION

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Background and objectives

Depletion of freshwater is a global environmental threat for humanity that is increasing with the climate breakdown. Yet water literacy and conservation are still under-researched. Showering is one of the most water-intensive behaviours, at home and away, also contributing to energy use and carbon emissions. This project aims at fostering pro-environmental shower behaviour using smart technology and persuasive messages.

Process and methods (for empirical research)
Randomised, covert control trials are developed in different contexts (i.e., seven tourism accommodations and two student accommodations), installing in shower cubicles an innovative smart technology that detects showers through different sensors and informs the user in real-time, via a displayed timer, how long they are showering for. In addition, different persuasive messages appealing to personal values are used in combination with the technology. Actual shower duration and time of the day are unobtrusively collected through the technology, measuring the effect of the behavioural interventions.

Main results (or main arguments in the case of critical reviews)
In tourism accommodations, shower duration (N=16,041) is found to be 13.56% shorter when the real-time information is provided compared to the control. The messages further reduce shower duration, with showers 21.27% shorter with the message appealing to selfless values. Similarly, shower duration (N=1,411) in student accommodation is found to be 24.41% shorter with the selfless message. Contextual factors (within and between) have also an effect on shower duration. Further longitudinal experiments are on-going using Greta Thunberg's messaging.

Implications for research and practice/policy | Importance and originality of the contribution
This intervention provides shower duration data about a hidden behaviour (i.e., showering) in different contexts. It enhances the role of appealing to personal values and contextual factors to foster pro-environmental behaviour, contributing to current behavioural change theories. Methodologically, the project uses innovative, smart, technology to provide information in real-time to the user and to measure actual shower behaviour. The project fosters pro-environmental shower behaviour, achieves water and energy reductions, and contributes to the Sustainable Development Goals 6, 7, 12, & 13.

Palavras-chave : water, pro-environmental behaviour, showering, tourism accommodations, smart technology, energy, actual behaviour