Tracey Benson, University of Canberra

Poster Title: Ignite*Energy : Supporting Behaviour Change Through The Use of UX and VR

Abstract: When considering energy consumption, it is a mistake to assume that people make economically rational decisions driven by costs. There is strong evidence that suggest that factors such as comfort, social norms and people's values all contribute to how energy is consumed at home. It is important to understand the choices that people make and what triggers them to make positive changes to their energy use. Clearly the best interventions are upgrades to appliances, building better housing and retrofitting existing dwellings but this is often not possible for renters and low income householders. This paper focuses on the potential of using virtual reality (VR) as a means to intervene into people's habits around daily energy use. The Ignite*Energy research project seeks to understand key barriers and incentives related to changing energy use amongst renters in the ACT. Research methods include a survey instrument and a workshop focused on triggering change in social behaviours around energy use through storytelling, personas and VR. The paper explores the concepts driving the design of the Ignite*Energy VR experience. Our focus is on creating an empathetic space for both visualising impact and reinforcing rewards which correspond to the energy saving choices offered through the VR interface. Literature review Energy efficiency behaviour change interventions are largely designed applying methods drawn from the broad fields of economics and psychology (Ã–lander 2014, Thaler 2008, Darton 2008). Participatory Action Research is seen as an appropriate method to engaging the workshop participants, which aligns with Shove's research into energy savings and comfort (2012). Proposed framework/concepts One of the key findings in the Powershift report (Russell-Bennett et al 2017) was the need for creating programs that were fit for purpose and tailored to the needs of the consumer. The larger aim of the workshop model is test some of these design and communications tools in the context of energy efficiency with the ambition to apply the model to other environmental and social contexts where changes of habit have a positive impact on environment, health and wellbeing. Some early studies regarding the benefits of VR experiences suggest that this technology can support an increased sense of wellbeing in a range of health settings - in particular with terminally ill patients, dementia, mobility impairment and mental health (Freeman 2017, Radford 2016).