

Fourth Annual UK Systems Research Challenges Workshop  
Helen Oliver, 15 February 2019  
The Alan Turing Institute/University of Cambridge  
Helen.oliver@cl.cam.ac.uk

## **Participatory Design Fiction as Inspiration for End-to-End Wearable IoT Device Design**

Wearables are boring. They scarcely get beyond the “black-slab incrementalism” of the smartwatch or fitness band, whose popularity results from their usefulness. Could we make connected wearables that are both useful *and* novel to enhance wearers’ everyday lives? It is long recognized that more focus on user-centred design is needed, but what if we went further and directly asked the users what they want? Such a blue-sky question, asked point-blank, stymies the imagination - we must find the right way to ask.

This research, which is in progress, describes a use of Participatory Design Fiction to inspire the user-centred design of a wearable IoT device. A technology probe, the Gallery Necklace, has been released to volunteers to wear in-the-wild. I will present the results so far and discuss the wider implications for wearable IoT system design and for Design Fiction as a tool for real-world actionable insights as well as reflection on the wider ethical and societal implications of the technology.