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Participatory Design Fiction for Wearables II: The Sequel

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Previously on Obstacles to Wearable Computing

- O1: privacy
- O2: impracticality of single use-case devices
- O3: integration into an IoT ecosystem
- O4: design for the smartphone, not the wearer = failure to innovate
- O5: failure to engage wearers emotionally

Requirements to Overcome the Obstacles

- O1: protect user privacy
- O2: enable multiple functions within and between devices
- O3: be integrated into an IoT ecosystem
- O4: serve as an extension of the wearer rather than the smartphone
- O5: appeal to the wearer's emotional as well as functional needs

Addressing the Obstacles: Software Infrastructure

(also previously)

- O1: protect user privacy
- O2: enable multiple functions within and between devices
- O3: be integrated into an IoT ecosystem
- O4: serve as an extension of the wearer rather than the smartphone

Hub-of-all-Things (HAT) personal data store

(just to be clear that it's a systems thing)

- individual database owned by the user (O1)
- allows contextualization of data from multiple sources (O2, O3)
- cloud microserver reduces dependency on smartphone (O4)

Addressing the Obstacles: Participatory Design Fiction

- O4: serve as an extension of the wearer rather than the smartphone
- O5: appeal to the wearer's emotional as well as functional needs

Main focus of the study

- elicits concepts directly from participants
 - most participatory studies begin with design exemplar
- allows nuanced expression of participants' desires
- creates an imaginative space to design for enchantment
- imagines wearables in sociotechnical context
 - allows ethics to be considered simultaneously

The Contribution

The FIRST study of **everyday IoT wearables** to:

- elicit concepts from
 - independent adult participants
 - using participatory design fiction
- in order to inspire user-centred design of real devices
 - with no predefinition of form, function or materials
- for participants to wear in-the-wild
- and revisit the design fictions to reflect on desired sociotechnical futures

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Phases of the Project

Chapter 1, section 1.7.3

- **Inspiration**

- participatory design fiction
 - storytelling
 - paper prototyping
 - illustration

- **Ideation**

- user-centred design of technology probe
 - 1-1 participant interviews
 - 10 proposed designs
 - vote on tech probe
 - design & build

- **Implementation**

- release technology probes
- issue HATs
- participant feedback
 - I Like/I Wish/What If?
- design prototype
- update stories

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Gallery Jacket, by Warren

- A jacket with a dynamic display of the wearer's own artwork on the back
- An icebreaker to show what's inside on the outside
- Get past small talk and connect socially
- Implemented as e-Ink screen on necklace/lanyard



A jacket for an artist on the outside looking in

Gallery Jacket II, by Warren: Utopia?

- What happens when there is a happy ending?
- Suddenly new galleries opened on the high street, niche creators were being recognized in shops.
- QR codes no longer forced people to online shops, but instead to apps that directed people to shops of local interest.
- Mental health and recovery rates were much higher allowing individuals to no longer feel crushed but to express emotion through art.
- Then again, the next question is: is there a happy ending?

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Gallery Jacket II, by Warren: Dystopia?

- So what do you believe?
- The violation of society and recent outbursts including the election showed that individuals had no control.
- What had been an object of desire and benefit to lesser unheard individuals, was now being abused.
- Propaganda was not only going out on television, Facebook and Twitter, but now false news was everywhere, walking down the streets.
- Design used and abused and knocked off for mass production.
- Society turned back to where it was before, the individuals in the corner being ignored again, events sabotaged and sacrificed for corporate greed.
- Images no longer had meaning and due to lack of censorship there was no happy ending, instead as sad as it started.

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Writing Our Own Ending

- Limited power of the individual
 - A heavy-hitting champion: Zuckerberg's virtuous twin
 - A turnip billionaire whose solution to world hunger was hijacked by corporate interests
 - Starts an alternative to Facebook called Turnipbook
- Fake news and propaganda
 - Masks all fake news with a picture of a turnip
 - How to make people WANT true news?
 - ...we didn't really have an answer to this one