Speculative Designs for Emergent Personal Data Trails: Signs, Signals and Signifiers
(Supplementary Material)

Indicative Workshop Structure

This document presents the indicative workshop schedule. The workshop will be divided into four parts:

1. Identifying and ideating near-future personal data trails with respect to smart home/smart energy/smart cities, using speculative design
2. Further speculative design activities used to ideating the implications of these data trails, and how they may be utilised, exploited or interrogated (for good or evil),
3. Work towards a standardization of "*signs, signals and signifiers*" to acquaint users with these emergent data trails, and;
4. Next steps in securing a community of practice and (depending on participant willingness), preparing a special issue.

09:00 – 09:15 (15 min.)- Opening & Introduction

Welcome to participants, introduction of organisers, introduce purpose of workshop, and justify clustering of presentation topics.

09:15 – 10:45 (90 min.)- Presentations

Wishing to avoid the workshop as a mini-conference, authors will present their work in Pecha Kucha style, i.e. one slide per participant, five minutes per participant, with the order of presentations pre-curated by workshop facilitators, clustering presentations around similar topics. While each person talks, participants on the tables have two sets of post-it notes, pink (connections/synergies) and yellow (questions). As people present, the audience writes on post-it notes and annotates on butchers paper on each table.

10:45 – 11:15 (30 min.)- Coffee Break

11:15 – 12:15 (60 min.)- Discussion of emerging topics, organize working groups

Discussion of Emerging Topics: distillation of key findings with regard to management, navigation and informed consent of present and future personal data trials. From participants' research experience, facilitator-led distillation of key user (a) wants, (b) needs, (c) misunderstandings and (d) knowledge gaps.

Organise working groups: Based on synergies between workshop participants, collaboratively organise three working groups based on area of application or research synergies and common findings/common interests.

12:15 – 13:15 (60 min.)- Lunch *(Participants encouraged to attend informal lunch at Convention Centre's rooftop)*

13:15 – 14:15 (60 min.)- Journey mapping (Designing + Presenting to group)

Participants will map out (1) Journeys of their particular use contexts, identifying potential use cases (2) Attack Surfaces of each journey, i.e. potential data leakage points, risks and consequences associated with each emergent data trail. For each working group (topic area)- a visual map outlining user journeys and the corresponding attack surface for each journey; providing an overview of the nature of data and what kind of implications it would have on users; opportunities, dangers and user information needs and design opportunities to navigate and manage the data trail. Each working group will present to the remainder of the workshop.

Activity	Description	Materials	Outcomes
Journey Mapping & "Attack Surface"	Participants will map out (1) Journeys of their particular use contexts, identifying potential use cases (2) Attack Surfaces of each journey, i.e. potential data leakage points, risks and consequences associated with each emergent data trail	Butchers paper / sticky notes ~ cards, colour coded to allow differentiation between journeys and attack surfaces.	For each working group (topic area)- a visual map outlining customer journeys and the corresponding attack surface for each journey; providing an overview of the nature of data and what kind of implications it would have on users; opportunities, dangers and user information needs and design opportunities to navigate and manage the data trail

14:15 – 15:45 (90 min.)- *Signs, Signals and Signifiers (Part 1- working groups)*

Based on user journeys, attack surfaces and user information and design needs to navigate and manage each emergent data trail (previous activity), work towards the development of signs, signals and signifiers or other design tools necessary to acquaint users with a specific emergent data trail or journey.

Develop a portfolio of these indicators for various contexts of digital-physical world intersection points. Released on workshop website for use/further development. (2) Material props mocked up; mapped to this suite of possible signs, signifiers and symbols ~ again presented and collected as a curation of different forms of applying such a framework into a real-world setting to create a library that is shared on the workshop website for further work

Activity	Description	Materials	Outcomes
(1) Co-creating signs, signals and signifier and possible standards	Participants will design different indicators that will go into a portfolio of semiotics, specific to their own contexts	Cardboard/MDF/Velcro - Lasercut: Containers (shapes: circle, rhombus, triangle, inverted triangle, rectangle) Symbols (curate a library of symbols that 'may' be used; flaticon.com repositories) Text (placeholders) Digital/Interactive forms	A portfolio suite of signs, signals and signifiers - about various contexts of digital-physical world intersection points; Released on workshop website for use/further development

(2) Mapping suite of indicators to contexts	Participants will place designed indicators onto material artefacts to act as a reflexive discussion prop. One facilitator to curate indicators from previous session to be mapped onto materials.	Dependent on contexts; but could be cards (blank bank/travel/ID cards), Apps/throwaway phone screen containers, blank tablets, wearable device mockups (fitbit/smartwatch wristbands), card for participants to create their own (dashboards, smart meters etc), possibly short throw projectors for projection mapping concepts, laser lights etc.	Material props mocked up; mapped to semiotics ~ again presented and collected as a curation of different forms of applying such a framework into a real-world setting to create a library that is shared on the workshop website for further work

15:45 – 16:05 (20 min.)- *Coffee*

16:05 – 17:15 (70 min.)- *Signs, Signals and Signifiers (Part 2- whole of group)*

Comparison and translation of individual working group signs, signals and signifier mock-ups to applicable to all Emergent Data Trails studied (whole of group). Discuss overlaps, redundancies, convergence (e.g. prioritisation).

17:15– 17:30 (15 min.)- *Close and next steps*

(1) Facilitator wrap up, (2) Discussion of further work and development of community of practice, (3) highlight channels for further collaboration towards further development of conventions/tools, language development and special issue. Refer Post Workshop (below) for details.