Case studies for Design Informatics 1

Tutorial 4: Design Fictions

The session will start by taking attendance. The tutor will ask the students to sign in on paper this week as there is more content to cover.

Introducing Design Futuring and Design Fictions:

In this week's tutorial we will continue working on our case studies from last week, and try our hand at developing design fictions for these case studies. Specifically, we will explore how we can use design fictions to reflect on, question, and foresee technology and product innovation.

You might recall that in last week's tutorial, we identified one step of *Responsible Innovation* to be **anticipating** the potential future outcomes and unintended consequences of a given technology.

Design futuring is a category of design research that aims to support this form of anticipation. Design futuring is a popular research category in HCI and interaction design, and many academics in the Institute for Design Informatics utilise it in their work.

This week, we will get a taste of how we might utilise design futuring, specifically through developing **design fictions -** one approach to design futuring - to interrogate the potential implications of a technology for a given application domain.

A direct quote from Kozubaev et al.'s paper [1]:

> *"in design futuring, design is not used to solve an immediate problem but to produce knowledge through debate, contestation, reflection, etc. Furthermore, design futuring is concerned with future alternatives that differ radically from today. Crucial here is the active engagement with and questioning what the future could be (implicitly or explicitly) and how it provides an alternative to the present"*

That's to say, design futuring can produce knowledge by inviting the public to deliberate what a 'preferable future' or 'non-preferable future' might be.

The 'future' we refer to here is not one but many. In Dunne and Raby's book Speculative Everything [2], the 'future' can be explored through the "futures cone". The futures cone can help guide your design futuring process by encouraging you to think about the "type" of alternative future world and technologies you want to represent. It could be: **Probable, Plausible Possible, and Preferable.** (detailed explanation on the slides).

To stimulate creative thinking and ideation of futures, you may also find it useful to explore scenarios and technologies that are either more utopian or more dystopian.

Design fictions are developed through the creation of 'entry points' into an imagined world that help the audience understand what that world might look like.

For example, Revital Cohen questioned whether the ability to design with semi-living tissue would change the way we think about other living creatures and animals.

Here is how Dunne and Raby [2] introduce Cohen's work:

> "*Cohen proposes using animals bred commercially for consumption or entertainment as companions and providers of external organ replacement. The use of transgenic farm animals or retired working dogs as life support "devices" for renal and respiratory patients offers an alternative to inhumane medical technologies. With this project, she asks, could a transgenic animal function as a whole mechanism and not simply supply the parts? Assistance animals, from guide dogs to psychiatric service cats, unlike computerized machines, can establish a natural symbiosis with the patients who rely on them. Could a transgenic sheep matched to a patient's blood be used as a living kidney dialysis machine? During the night, the patient's blood would flow through the sheep, cleansed by its kidneys, and impurities would be urinated out of the system by the sheep in the morning. The project could be described as a form of "speculative ethics"—a tool for exploring notions of future excellent and future bad.*"

Activity 1: Understanding your chosen technology (10 mins)

Using Miro:
https://miro.com/app/board/uXjVLSBAxV0=/?share_link_id=972911927119

1. Get into the groups you worked with last time.

2. In your groups, discuss the future social, environmental and legal implications of a chosen case study. Think back to how we analysed the implications of service robots in hospitality through the ethical design framework in Tutorial 2

3. Share three potential implications on Miro.

At the end, the tutor will ask one person from each group to share with the rest of the tutorial group.

Activity 2: Envisioning a future scenario enabled by your chosen technology and context. (15 mins)

1. Complete the "What if" statement.

2. Tell us how far in the future your "What if" world is in –1 year time, 5 years time, 10 years time, 20 years time?

3. Tell us what sort of "everyday" and "mundane" situations people might experience in this world –i.e., what type of situations might you be trying to represent in your fiction?

4. Tell us what is unique, new, different, challenging, provocative about this world? How does it change everyday situations?

At the end, the tutor will ask one person from each group to share with the rest of the tutorial group.

Activity 3: Identifying "entry points" for your design fiction (15 mins)

Entry points are things that represent your future world. They might include marketing materials –such as an advert in a newspaper or a commercial on the TV. They might also include mock-ups of a future technology; "how to" guides explaining to a new owner how to set-up a technology; videos that show what it's like to live with the technology; fictional government policy documents that describe how the technology would be regulated if it existed. There are many more types of entry points beyond these examples.

Identify at least **5 possible entry points** into the world that your future technology will exist within. Think about a diverse set of entry points that, collectively, will give some idea to others the type of world your concept exists in.

At the end, the tutor will ask each group to share what they just discussed. What entry points have they chosen? Why?

Activity 4: Choosing an entry point and develop it (15 mins)

1. For the final activity, select the entry point you think is most interesting to develop.

2. Use the paper provided to draw out the entry point of your world. If it is a product, what does it look like? How would people interact with it? If it is an advert, what does it say, and what type of media is it advertised on?

3. Tell us how your entry point facilitated discussion about your chosen technology.

At the end, the tutor will ask each group member to show what they just created and take a photo of their work.

Wrapping up:

We have explored how we can use design fictions to reflect on, question, and foresee an application of a chosen technology within a specific context. We have also explored how we can facilitate conversation with stakeholders by offering an entry point to fictional worlds. If you are interested in learning more about design futuring, speculative design and design fictions, we recommend looking for more literature and thinking about how you might adopt such an approach to your own research project.

References:

[1] Sandjar Kozubaev, Chris Elsden, Noura Howell, Marie Louise Juul Søndergaard, Nick Merrill, Britta Schulte, and Richmond Y. Wong. 2020. Expanding Modes of Reflection in Design Futuring. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI '20). Association for Computing Machinery, New York, NY, USA, 1–15. https://doi.org/10.1145/3313831.3376526

[2] Anthony Dunne and Fiona Raby. 2013. *Speculative Everything: Design, Fiction, and Social Dreaming*. MIT press.