

Proposal

Topic: Designing for a machine-learning world of multiple predictive systems

How Anticipatory Design Will Challenge Our Relationship with Technology

We're moving towards a future with ambient technology, smart operating systems and anticipatory experiences. This development is most welcome since the human brain is not made for a number of choices we have to make on daily basis. For my Masters Digital Experience Design at Hyper Island, I researched within the field of design and ethical challenges we face during the development of machine learning-based anticipatory systems. Topics like privacy, ownership (of data), level of automation, experience bubble and free will, will be covered.

As for format, I would like to suggest a presentation and/or panel discussion to debate the ethical challenges during the design process of anticipatory experiences.

Advancements in technology have brought many possibilities but also pushed us towards an increasingly complex and foremost noisy world. Back in the days, we used a middleman to process our actions (e.g. when needing a cab, we called a taxi service and only gave our address and desired time of arrival). Nowadays, much is automated. Both in design as in technology. We approximately make 35.000 decisions a day. This causes a lot of mental stress and decision fatigue.

And this is just the start.

We are at the dawn of an era at which machine and deep learning technology will be intertwined with our products and services, it is likely that soon, devices will know exactly what we want. This new reality in which design is one step ahead of users sounds promising but also comes with a lot of ethical- and design challenges.

A selection of ethical and design challenges:

- How will anticipated experiences affect our sense of curiosity?
- [...] and does it violate the concept of free will when experiences are fully automated?
- Who will be in control of our data when using machine learning-based predictive services?
- How will future relations with technology look like? Are we selecting our smartphones for example based on speed and amount of storage or based on the AI's personality?

- What if we do nothing? How will the future be if we sustain our current data and privacy ecosystem?

Design has always been crucial in the experience of a product or service. Design affects how we see, feel and think about things. The current set of design principles is insufficient for predictive services and products. It is unclear, what design principles are needed for products and services who interact with us, anticipate our needs and automate our experiences by deciding for us.

Although much has been said and written about anticipatory design, much is left to discover around this subject.

For the past few months, I have been talking to several experts, designers and users to identify key design challenges when developing machine learning-based predictive systems that anticipate our needs.

This exploration resulted in a clear overview of design challenges, ethical challenges and guiding design principles that should support project teams in their journey of making anticipatory systems.

By sharing my findings and insights, I hope to spark a debate around machine learning-based predictive and anticipatory systems. My aim is to scale this research after my masters.

A small introduction



I am a Dutch-born Experience Designer with a passion for technology and design. I am currently finishing my master Digital Experience Design that focuses on the role of design in an increasingly complicated world. I devoted my thesis on anticipatory design because the craft of designers will ask a lot of responsibility in the future. I want to give back to the design community by setting up the first set of guiding design principles that can help them in their design process.