The design process and design fiction

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The Scientific Method

- a process for experimentation that is used to explore observations and answer questions.

(sciencebuddies.org)
The engineering design process

- Define the Problem
- Do Background Research
- Specify Requirements
- Brainstorm Solutions
- Choose the Best Solution
- Do Development Work
- Build a Prototype
- Test and Redesign

The engineering design process is a series of steps that engineers follow to come up with a solution to a problem.

(sciencebuddies.org)
The Creative Design Process

- Design Thinking is a method designers use in ideation and development, that also has applications elsewhere. The method describes a human-centered, iterative design process consisting of 5 steps—Empathize, Define, Ideate, Prototype and Test. Design thinking is useful in tackling problems that are ill-defined or unknown. (interaction-design.org)
User centred design (UCD) is a framework of processes in which the focus is on usability goals, user characteristics, environment, tasks and workflow of a product, service or process at each stage of the design process.

Fig. 1. The User-Centred Design Approach (adapted from ISO, 2010).
Human centred design

Human-centred design is a design and management framework for interactive systems development that aims to make systems usable and useful by focusing on the users, their needs and requirements, and by applying human factors/ergonomics, usability knowledge, and techniques. This approach enhances effectiveness and efficiency, improves human well-being, user satisfaction, accessibility and sustainability; and counteracts possible adverse effects of use on human health, safety and performance. ISO 9241-210:2010(E)
CoDesign

- Participatory design or CoDesign is an approach to design attempting to actively involve all stakeholders (e.g. employees, partners, customers, citizens, end users) in the design process to help ensure the result meets their needs and is usable.
Design fiction

- Term coined by Bruce Sterling in his 2005 book *Shaping Things*;
- Definition: “the deliberate use of diegetic prototypes to suspend disbelief about change.
- Types of design fiction
  - work that draws directly on science fiction
  - work which draws on near future fictions, like critical design, that is often provocative and subversive.
  - corporate design fictions by companies like Google and Microsoft, which portray comfortable futures
Not really new…

- HCI - use of fictional narrative in the form of personas and scenarios.
- Short fictional vignettes used to summarise findings from user studies and to illustrate potential technologies.
- Early user scenarios focused on utility,
- More developed design fictions can also consider the social, psychological and ethical dimensions of technology development.
- Lately reflective design, value centered design, and critical design - developed as methods for eliciting more critical reflection and envisioning regarding the implications of interactive technology.
“As I’ve said many times, the future is here. It’s just not evenly distributed.” - William Gibson

- Prototyping as prop-making for a different kind of (near future) world

- Space may be the final frontier but it’s made in a Hollywood basement.
  - Red Hot Chili Peppers, “Californication,” 1999
Canonical and diegetic prototypes

- Canonical prototypes - focus on utility, functionality
- Diegetic prototypes (‘props’) - cinematic description of future technologies; “in film, they exist as “real” objects that function properly and that people actually use.” (David A. Kirby- The Future Is Now)
Canonical prototype
Diegetic Prototype

Techno Shaman
An Ikea Catalog From The Near Future

https://medium.com/design-fictions/an-ikea-catalog-from-the-near-future-e293938148bc
Resources

Design brief

- Go wandering in the city with your team. Try to imagine how the city could look like or function in the future due to a groundbreaking interactive technology that you are about to invent.
- Think about things that you would like to change, challenge or make disappear.
- Brainstorm on the go about potential solutions. Make some brief notes. Take pictures, take video snippets.
Design brief (2)

- Continue with desk research. Look for relevant research ideas, technologies, images. Has it been already done?
- Meet and discuss candidate ideas; sketch; choose the one with most potential you can agree on
- Describe the chosen idea; use a presentation mode that would suit.
- Meet with another group and present your idea. Write down any feedback.
- Write your own description of the idea.