



A mental model approach to design

The development of a framework on design for behavioural change

In a world with an ever-increasing overflow of information, what are we supposed to believe? Even credible sources are distrusted or no attention is paid to their communications at all. The RIVM (National Institute for Public Health and the Environment) is looking for new ways to communicate their findings in such a way that people do not only believe it, but also that they take it into account in their behaviour.

A new approach is proposed to find new compelling ways to communicate through design. In doing so, a new way to design for behavioural change in general is composed. The idea behind this approach is the following: People understand their world in a certain way. They have models in their mind about how all kinds of phenomena in this world work. These mental models help people to interpret and predict, which is fundamental to making choices on how to act.

Therefore, if we could influence those mental models, we get a new handle on guiding behaviour. This project has explored exactly that handle as it investigates the questions:

How can we influence people's mental models through design? And how can those mental models influence behaviour optimally?

Many examples of mental models and designs that embody them were analysed thoroughly. This resulted in a wide range of types and dimensions of mental models and designs, which were collected in a framework. The framework offers strategies to compose, evaluate and refine mental models and designs that embody them.

The framework, translated into a toolkit format, was tested with students. Although still lacking validation, the framework seems to be a good basis for further steps:

- The framework and the initial toolkit as drafted in this project are a good start for developing a more usable toolkit. The initial test results suggest that the many handles that the framework offers for designing mental models and their embodiments are mostly useful.
- The framework offers future research a comprehensive palette for analysing mental models and designs that carry them.

The mental model approach as explored in this project is relevant not only for the design of specialized behavioural interventions, but also for design in general. It uncovers, and provides handles on, an element of design that is widely applicable since many designs and communications explain (or could explain) a mental model.