

Sustainable consumption: contradictio in terminis or intriguing design challenge

Inaugural address – prof.dr.ir. Ruth Mugge

How we live our lives and the things we consume have changed drastically during the last decades. We now own many consumer products, such as washing machines, dishwashers, microwaves, cars, laptops, and smartphones, to help us with all sorts of domestic chores and that provide us with a lot of comfort. However, there is also the other side of the coin...

In comparison to the past, our present consumption pattern has a clear detrimental effect on the environment and the ecological footprint of the products that we buy, the amount of travelling that we do, and the energy that we consume is enormous. However, we only have one earth that has limited resources available, and that earth is thus greatly affected by our consumption pattern. As a result, one of the major challenges for today's society is to keep the present welfare level attainable for future generations. We all want our children and their children to enjoy the benefits that we experience from the different products that we buy. This implies that the harmful effect of acquiring this welfare level on the environment needs to be minimized.

As a Professor of Design for Sustainable Consumer Behaviour at the Faculty of Industrial Design Engineering (TUDelft), Ruth Mugge aims to contribute to this challenge by investigating how designers can change consumers' behaviours via the design of products and services. Specifically, it is important to encourage the following four sustainable behaviours among consumers:

1. *Choice for sustainable alternatives*; (e.g., encourage purchase of products made out of recycled plastics or more energy efficient products)
2. *Extend product lifetimes* (e.g., prevent premature obsolescence via repair and maintenance practices)
3. *Stimulate re-use* (e.g., encourage purchase of refurbished products)
4. *Alternative modes of consumption* (e.g., stimulate sharing, pay-per-use systems)

Encouraging these sustainable behaviours among consumers is not an easy task. People often lack the ability and motivation to change their behaviour on their own and sustainable products may trigger specific risks that can hamper acceptance. For example, a person may lack the skills and competences to fix her malfunctioning coffee maker, a refurbished smartphone may be considered more risky because it has already been used, and sharing a washing machine may be perceived as dirty.

In her research, Ruth Mugge explores how design can play a critical role in tackling these challenges. Via the design of the product, but also via the design of related apps and other service elements, designers can make certain benefits in sustainable products more prominent or add new benefits, they can reduce specific risks that people may see in these products, and they can trigger specific behaviours. Specifically, she aims to provide designers with guidelines, tools and inspiring product concepts to accomplish this difficult challenge.

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