



Breaking the Rebound: Exploring Strategies for Sustainable Consumption

Background

The efficiency paradox refers to the observation that improvements in resource efficiency often lead to increased consumption, which can offset the environmental benefits achieved through greater efficiency. This phenomenon is known as the rebound effect, and it presents a challenge for sustainable transitions. For instance, if energy-efficient light bulbs become widely adopted, it can lead to a decrease in energy consumption per bulb. However, if people leave their lights on for longer periods because they believe they are using less energy, the overall energy consumption can increase. Rebound effects can occur in many areas, including transportation, food, and consumer goods. Addressing this issue requires a deeper understanding of the mechanisms that drive rebound effects and the development of policies and practices that can mitigate them. Without doing so, sustainable transitions will remain elusive, and we risk exacerbating rather than solving environmental problems.

Approach

Based on an initial analysis of existing environmental psychology and information science literature on rebound effects and the efficiency paradox, various interaction concepts to reduce or neutralize the effects of sustainability related rebounds are designed, implemented as a software prototype and then evaluated as part of a user study.

Based on Bachelor or Master level the thesis is adapted.

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Focus in this project

Software Prototype
Interaction Concepts
User Evaluation