

# Emission Neglect: Do Consumers Underestimate the Energy Consumption of Digital Behaviours?

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## Abstract

Digital technologies pervade everyday life, yet their environmental impacts are largely invisible. We introduce the concept of emission neglect: the systematic underestimation of the energy use and carbon footprint of digital activities. Across two preregistered studies, participants estimated the energy use of 13 common digital behaviours and widely underestimated it. AI-related activities were a salient exception, judged more energy-intensive and not underestimated, consistent with public debate on AI's footprint. Underestimation also predicted lower willingness to reduce digital use for environmental reasons. A pilot framing experiment showed that immaterial wording ("in the cloud") reduced perceived energy use relative to material wording ("data centre"), especially among less digitally literate participants. Digital consumption thus appears as a blind spot in sustainable behaviour, calling for greater salience of its material infrastructure.

**Track:** Consumer Behaviour