Dematerialisation, Rebound Effects and the Digital Divide

An outlook on the positive influences current dematerialisation and miniaturisation trends could have on a global level

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Abstract

Changing patterns in the way we process information require a new approach to problems pending in our society. There is a general opinion that Information and Communication Technologies (ICT), or more generally said, the new Information Society, will be able to positively influence one of the current pending problems in the society: the worldwide increase of resource use.

Nevertheless, the question prevails, if the ongoing industrialisation of the third world countries, and their adoption of information society technologies, will lead to an increase of resource use, or if it will be able to avoid the errors that have been made in the developed world. Strongly connected to this question, is the Rebound Effect, that could be defined as the increase of consumption linked to the reduction of limits to use a technology. These limits might be monetary, temporal, social, physical, linked to efforts, spatial or organizational. As these limits decrease in the developing countries, the rebound might be increasing and by this the resource use.

This paper looks at current trends and findings concerning this matter, both in the industrialised world and in the southern hemisphere. It also takes into account the current inequity in access to ICT on a global level, the so called Digital Divide. Further on it tries to identify and define strategies to soften the impacts, and promote an ecological, social and economical save – a sustainable – way to bridge the gap of the digital divide.

Keywords: Rebound Effect, Ecological Information Society, Information Technology, Knowledge Society, ICT, Internet, Digital Divide, Sustainability, Sustainable Development.

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