Environmental Engineering and Management Journal xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
http://www.eemj.icpm.tuiasi.ro/; http://www.eemj.eu

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PROMOTE SUSTAINABILITY THROUGH PRODUCT DESIGN PROCESS BY INVOLVING THE USER

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Abstract

The concept of the sustainable development which is defined in terms of the triple bottom line (economic, environmental and social) is becoming increasingly important. Until now, however, the social aspects have been under-investigated in comparison to environmental and economic aspects. From the product design point of view there is an emergency for development tools and methodologies that are directly linked with the social pillar of sustainability. The research has as main target to discover the future role of designers and engineers to address sustainability as well as emerging priorities from societal to environmental challenges. Furthermore, the present paper presents a model named sustainability push & pull, which is focused on the cultivation of sustainable behaviour to the citizens. The key issue is the users/citizens participation during the product design process, playing an active role to the product development. The whole work was based on a framework which was built according to the direct communication between users and designers. Focused on this target, two new design for X methodologies a) Design for Promoting Sustainable Principles through user education and b) Design for Green Usability developed following the guidelines of the proposed User Assessment Tool. The research garnered responses from 72 participants who answered detailed questions during the whole design process. Data analysis was accomplished according to the data analysis process proposed by Miles and Huberman. The positive view to the whole process made clear that the used methodologies are friendly and very interesting for both the users/citizens and designers. The results from both the questionnaires and interviews show that it is also very educating while the proportions of knowledge about sustainability were grown up.

Key words: sustainability, design for promoting sustainable principles, sustainable user centred design practices, user research methods, sustainable behaviour

Received: January, 2018; Revised final: October, 2018; Accepted: December, 2018

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