

Nariaki Nishino

Co-creative Value Manufacturing: a methodology for treating interaction and value amongst artefacts and humans in society

ABSTRACT. This paper presents a new concept of co-creative value manufacturing, considering interaction among artefacts and humans in society. In response to recent social changes such as globalization of business, diversification of culture, individualization of lifestyle, environmental problems and short product lifecycles, manufacturers are confronted with difficulties in terms of creating product value. It has been observed that products with high functionality do not necessarily create value. The reason can be considered to be that value is created through interaction within an environment where artefacts with technology and humans who use products have been mutually interacting. Therefore, it is important to ascertain the mechanism of how value is constituted through interactions in a society. To treat such an issue, this paper first explains key concepts of emergent synthesis, co-creative decision-making, and value creation models as a basis for co-creative manufacturing. Then an approach integrating game theory, experimental economics and multi-agent simulation is proposed. Finally, this paper presents a research example using the approach, focusing on electric vehicle development.

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