

Exploring The Role Of The Re-Designer In a World With Ai

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Abstract

This paper defines and explores the role of a *Re-Designer* within the context of technological innovation, aiming to challenge the linear methods of production and consumption within fashion. Currently almost all clothing is designed to have one outcome, and when garments are no longer desirable, unsold, or damaged, they are rarely repurposed in their original form. Remanufacturing, although a potential solution to enable future textile applications, remains a small-scale industry, associated with high labour intensity.

Previous research conducted by the authors, utilised an action research approach to explore how 3D fashion design software could encourage and streamline remanufacturing by creating a digital library of component pieces, enabling garments to be rendered digitally before physical manufacture. This paper advances these findings to explore the future role of a *Re-Designer* considering evolving technologies, including artificial intelligence (AI).

This research demonstrates the short-comings of AI utilisation in remanufacture due to it learning from current behaviours, meaning that it continues to operate within current industry constructs. However, it also proves that technology can assist in the initial stages of design for remanufacture of clothing by positioning its use at the beginning of the product lifecycle, as well as the end of the useable or desirable life. This shift in the application of AI anticipates and facilitates *design for re-design*, bringing a new skillset and remit to the designer.

Key Words: Re-Designer, Remanufacturing Garments, Artificial Intelligence (AI).