

ABSTRACT

Calculating the Environmental Impact of Apparel Products

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All of the components of a garment's life cycle, from material production through to disposal, at the end of its life, have an impact on the environment. Consumer awareness and increasing sustainability concerns have prompted fashion companies to seek solutions. Designers have an important role in shaping the life cycle of a product from its inception. It is crucial that sustainable design strategies and tools can accurately measure the impact of a product during its complete lifecycle. One of the most effective methods for determining a product's environmental impact is a Life Cycle Assessment (LCA). It is a methodological tool that describes a product's environmental impact, from 'cradle-to-grave'. Existing tools that use LCA to aid designers are highly sophisticated, entail considerable time and skills, and are prohibitively expensive. There is a need for a simpler and more generic tool that can be used by designers on a day-to-day basis. My research addresses this gap through the development of a design tool that can assess the environmental impact of apparel products over their complete life cycle from 'cradle-to-grave'. Recognising the need for fashion designers to measure the impact of their products, this presentation will discuss the term 'reckon' as a critical component for achieving fashion sustainability. Along with reduce, reuse and recycle; 'reckon' is the fourth 'r' that brings new insights and decisions about the way things are designed and manufactured. Accurately measuring a product's environmental impact, will empower designers to reduce it and ensure their long-term viability.