

Considerate Design: empowering fashion designers to think about sustainability

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Fashion consumption in the UK has increased by 25 % over the last 5 years. Globalisation and fast fashion has pushed the price of fashion products down, while increasing their environmental impact across the globe. Both raw materials and garments travel around in unsustainable ways, factors which may not be taken into account when designing. However, long supply chains and physical distance between production and consumption in fashion have also increased the rate of production and consumption. Designers can no longer respond quickly to changing trends or negative customer feedback. Locally produced production runs were once flexible and tailored to the requirements of customers, producing more or fewer products in response to demand. Now, when the products on offer are not what customers really want, flexibility is lost, stock is unsold, and goods end up marked down in sales and feeding the waste stream. Considerate Design is a concept and process aiming to reduce the environmental impact of fashion consumption in two ways, (a) by giving customers what they want through customised products and (b) by helping designers to assess the environmental impact of the designs they are producing.

Mass customisation in fashion is becoming technologically feasible. It can shift production back to be close to the place of consumption. By better satisfying customer needs it may be possible to reduce the rate at which fashion products are replaced. We are developing methods to assess the cost of the design effort required in customisation to make customisation economically viable for new and existing business models.

It is extremely difficult for fashion designers to assess the environmental impact of a design and therefore they do not know how to target potential improvements. When they have choices to make, they select purely on aesthetic or financial criteria, rather than consider environmental impact. In trying to assess environmental impact, designers have to trade off very diverse factors, such as the costs of transporting the garment and its raw materials versus the impact that the disposal of the garment would have, as illustrated in Figure 1. The Considerate Design project works on identifying a set of factors and the extent to which they influence the environmental impact of fashion products. As many of these factors, such as transport, are themselves far from simple, they can be broken down further hierarchically, so that designers can visualise and assess individual factors. The paper will present a simple tool to assess the environmental impact of fashion products. It represents the impact of individual factors on a scale of low to high and thereby draws impact profiles of design alternatives. The designers can thus assess and compare the “footprint” of alternative design scenarios and target their efforts to reduce the impact of certain factors. At present the designers are required to put their own estimates into the tool so that it provides a visualisation of the connectivity of many complex factors. However, in the long run the tool can be populated with assessments of individual factors in order to reach a comparative overall measure.

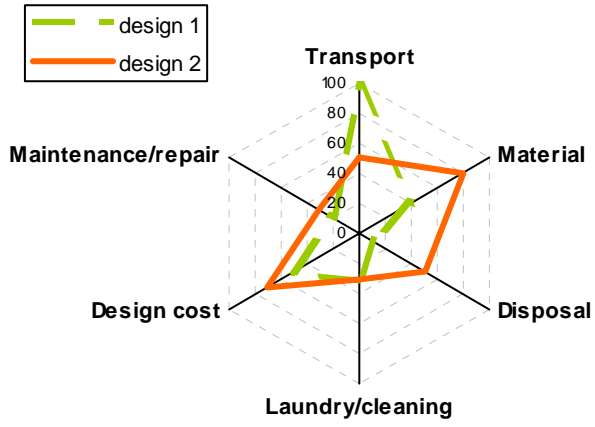


Figure 1 trade-off of impact factors of designs