

Design Canvas 101: Sustainable decision-making guide for 1st year apparel design students

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Low-grade textile waste streams destined for landfill or incineration have rapidly increased in recent years, driven by low-cost models of fashion business and unprecedented increases in textile consumption (WRAP, 2015). Reduced labor costs, economies of scale and transient trends net effect has meant increasingly compressed garment life-cycles. The environmental impact of 'fast fashion' forever cheaper, disposable garments has created a global industry with the infamous reputation of being world's second worst polluter (GCU Fair Trade Fashion Centre, 2016). Whilst post-consumer waste is often quantified in studies related to the fashion industry, its impacts a target for 'reduce, re-use and recycling' initiatives, post-consumer impacts are only a part of a garment's life-cycle, that are relatively equal to the impacts to production. How garments are designed, produced and supplied accounts for an average of 47% of garment's environmental footprint (Carbon Trust, 2011). This paper focuses on the key decisions made during the design phase of a garment and how they can greatly reduce a garments overall environmental impact for both production and consumption. Current students need to be learning differently in order to be prepared for a changing industry. This paper argues that DfE (Design for the Environment), should be embedded in the education of every fashion design student from freshman year onward; developing the talent pool required by fashion industry to design-out environmental impacts as it transitions toward a circular economy. It presents an example tool for embedding DfE into early fashion design curricula. The 'Design Canvas 101' presents sustainable fashion design as a methodological approach to student's ideation process, particularly around the decision-making concerning environmental impacts of their design within a garment's life-cycle. The objective of the canvas is to make sustainable fashion design a native domain, embedded to the extent that sustainable design is not an afterthought, but implicit in their design process.

The Design Canvas

1. Focuses on impact of decisions around materials selection of raw material origins and production impacts.
2. Uses a built-in simple scoring framework to encourage apparel design students to understand the implications of selecting different materials.

3. Has associated life-cycle narratives to help students learn about fashion supply-chains and the impacts of their decision.
4. Examines alternative textiles to those most common to highlight emerging sustainable innovations.
5. Balances commercial design priorities and sustainable implications so that students can recognise the challenges implicit in economy vs. ecology

The matrix has a problem-based learning approach where the student uses the matrix to explore the issues, encouraging research that informs decision-making, providing supporting resources to learn more about the interconnectivity and different priorities the canvas presents, aimed at empowering the learner to make the best choice for their particular design needs.

The canvas will be shared during the presentation along with an activity showing how it is used in a classroom setting.

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