

The Future Generation of Fashion: How higher education contextualises sustainability as a key design tool

Dr Alana M James

orcid.org/0000-0002-6968-2412

Abstract

Sustainability in fashion has often been approached with caution, leading many to question the practical application of a responsible system within the second most polluting industry in the world. A series of complex challenges currently face the integration of these responsible ideals within the value chain, with practitioners, educators and students needing to work collectively to ensure the fashion industry is future proof. These key stakeholders need to not only possess the correct knowledge, but also be equipped with the correct creative skills. A human-centric approach to design education can help adapt the current fashion curricula, overcoming many highlighted barriers in creating the future generation of informed and confident industry professionals.

Background and Context

The term *sustainable fashion* has often been described as an oxymoron – two conflicting forces fighting against each other, pulling in opposite directions. Fashion, in its very nature is all about the new and contemporary, a constant evolution of change, season after season presenting the latest, fresh and different ideas. This wheel of constant change has been

intensified further with the development of the fast fashion business model, which aims to bring catwalk-inspired fashion to the mass market, as quickly and as cheaply as possible. This model is based on speed of delivery to market and has increased the amount of clothing available to consumers, moving away from the traditional two seasons per year to a constant drip feed of up to 16 collections per year. The provision of new fashion products at affordable prices has changed the consumer's relationship with garments, with large quantities of cheaper clothing often being preferred to lower quantities, purchased to last. Fast fashion, known for its tendency to be easily discarded and replaced is the antithesis of sustainable fashion with Stahel (2010) describing this premature product replacement to be hostile to ecological values.

In contrast, the principles of sustainability are built on values of longevity, alongside the reduction of impact and effective resource use, prioritising preservation of the environment for future generations. Opposing the speed of production, sustainable fashion favours the slow and considered design and make process, with a consequential increased value relationship between the owner and the product. Principles of circularity are increasingly being discussed as alternative practical applications in fashion. A circular model relies on values of material and resource efficiency and more importantly sufficiency, moving away from the traditional *take, make, dispose*, linear model of consumption (Webster, 2017). It is the reuse of value within an existing system which enables circularity, curtailing value loss embedded in products by keeping them in a circular model (Medkova and Fifield, 2016).

The stark contrast between the definitions of *fashion* and *sustainability* highlights the need for change, with a shift away from this unsustainable model slowly being recognised in the industry. Increasingly, fashion brands are waking up to the negative environmental and social

effects caused by the production of fashion. In some cases, steps towards change are being implemented with alternative methods being used to reduce this impact. From a materials perspective, high street brands such as Zara are consciously making a shift towards the use of organic and recycled resources and online retailers such as ASOS are no longer selling products made from mohair, cashmere and silk. Other brands have focused on second-hand market opportunities with H&M and Harrods engaging in the resale of pre-owned products. However, innovation in the design and production of garments tends to remain with smaller business operations where further risk and control can be contained. Brands such as Allbirds are making flip flops from Brazilian sugarcane and Mimycri create bags from discarded rubber boats used by refugees. Maldini and Balkenende (2017) support this, stating that issues lie where established companies are beginning to take the lead, but are not innovating, with disruptive innovation more likely to occur in start-up companies responding to societal change.

Sustainability is a broad and often unfamiliar territory to fashion students which often results in a lack of engagement within their design and production processes. However, this is not isolated only to students, with many industry professionals and educators often feeling overwhelmed and confused as to how to contextualize sustainability within their practice. The immediate challenge in this scenario is the education of professionals who currently work within the industry, with knowledge and skill parameters shifting as a reflection of this integration. This is also having a backwards knock-on effect on the skills and knowledge needed from fashion graduates and thus, the curricula being taught in the education system. The addition of sustainable principles requires educators to resolve the discipline's inseparable relationship with the concept of constant change and newness seen in fashion (Black, 2013). The need for change within the fashion industry needs to also occur in higher

education to ensure that a whole system reform can aid in the integration of sustainability in the fashion business model. This is emphasised by Williams, (2015); ‘The tensions of employability in the current paradigm versus graduate literacy in sustainability for roles that are needed but not yet recognised is challenging, especially for a discipline so closely related to current industry practice’.

Implementing Sustainable Principles

Sustainable education, a term coined by Sterling (2001) believes that if a difference is to be made that the focus should be on students and the values taught, teaching them to *care* and *conserve* rather than *compete* and *consume*. There also exists opposing forces in the teaching of sustainability in a fashion context at a higher education level. The traditional methods of teaching implemented support the *take, make, dispose* linear model of fashion, with students encouraged to keep up with the latest trends and reflect a constant change of aesthetic in their designs. Sterling (ibid) continued to explore the contrasts between traditional education and the teaching of sustainability; ‘most mainstream education *sustains unsustainability*’. This is said to be done through uncritically reproducing norms, fragmenting understanding, an inability to explore alternatives and rewarding dependency and conformity. The approach to teaching fashion has changed very little in the past few decades and is rooted in corporate globalisation and the traditional production-to-consumption model (Rees, 2003). However, it is the adaptation of curricula and its pedagogy that presents the greatest means to change, starting to educate the next generation of industry professionals to push forward an agenda of sustainability in fashion.

The need for a change in the design and delivery of the fashion curricula is widely acknowledged, however there remains a disparity between this acknowledgement and the practical implementation of sustainable pedagogy. Methods of teaching sustainability have in the past been scrutinised, however it has become apparent that traditional methods of teaching do not effectively embed values of sustainability within the creative practice of design. Tasci (2015) states that 'words' are not enough to fully understand the complexities of sustainability in the correct context, but that learning by seeing real-life examples is a much more effective method of student engagement. Experiential learning can often lead to more meaningful learning and often appeals more to creative students who appreciate a tacit sense of learning through their hands-on craft. Design students however need to have an appreciation for the principle of sustainability from a number of different perspectives to ensure a deep-rooted knowledge of the subject area. This cannot only be from the point of view of the creative design process, but rather the positioning of this practice within a global context. The understanding of the value and potential of sustainability from a social, environmental and economic perspective is key. This again however presents further challenges, but yet has the potential to see graduates leave university with a diverse foundation of knowledge, influencing employability opportunities. However, a reluctance to engage in content outside of the boundaries of their own discipline has in the past been evidenced by students (Benn and Dunphy, 2009).

In addition to academics, students and industry professionals have also acknowledged the need for a greater level of knowledge about sustainability and encourage the integration of this into fashion education (Armstrong and LeHew, 2014). The knowledge needed however is not confined to the parameters of creative practice, in addition to traditional fashion skills and knowledge future industry professionals are said to need knowledge of; environmental

regulations, chemical use, recyclability of materials, supply chain complexities, designing for waste reduction and ethical responsibilities (Pasricha, 2010).

Is Sustainability Changing Creative Education?

When considering methods of sustainable integration into creative practice, the design process is often remodelled to position human characteristics such as *empathy* as a leading driver towards change. This was first modelled by The Hasso Plattner Institute of Design at Stanford (Dschool, 2009), which positions *empathize* as the first stage of the design process, reflecting a human-centric approach from the very beginning. The positioning of this reflects the need for the designer to respond to human needs, ensuring that outputs are meaningful and useful to people. The need to position responsible design within a human-centric model is also reflected by Manzini (2014); ‘the search for a better life is human’.

Within a higher education context, this model has been implemented by leading higher education institutions such as the Centre for Sustainable Fashion at The University of the Arts London, where *empathy* is positioned at the beginning of their design methodology through the engagement of citizen participation. This stage is described as; ‘a journey can be taken through the principles of activation of citizen action to both engage wider audiences in the identification of needs and hopes, and to create a platform authorship of our futures’ (Williams, 2015). Their philosophy in education concentrates on a transition to sustainability through a focus on process, action and creative participation in contrast to output and economic sustainability (Fletcher and Williams, 2013), which is the focus of many more

traditional fashion programmes. It is this shift in thinking away from traditional fashion education that is needed to ensure complex problem solving and systemic change can happen.

When considering *how* sustainable principles can be practically implemented in to fashion education, many examples of best practice can be discussed. During a study conducted by the author, fashion and textile educators from three different geographical locations disclosed how they personally implemented these principles in to their teaching practice. Contributions were very discipline specific, with materiality and applied garment construction methods such as zero-waste pattern cutting, heavily considered. In addition to pedagogical content, participants also detailed their day-to-day studio culture, where more considered and preserved methods of working were debated. The reuse of fabrics, recycling disposal of waste and their level of engagement with sustainability far exceeded just their teaching, but stretched into their daily operations and philosophy as a considerate academic. Furthermore, after-school clubs, parent classes and competitions were also discussed as tools utilized in embedding sustainable principles in creative education.

In contrast however, the study also highlighted areas where there remained a resistance to incorporating sustainability into the fashion curriculum. A lack of support, time and resources were widely discussed as a prominent issue, with academics who are currently integrating sustainability into their practice feeling that it was only possible if they went above and beyond their responsibilities. A further challenge discussed was getting colleagues to see the value in teaching sustainability, with a potential change in teaching materials requiring more time and effort. The use of sustainable champions to help lead the way in departments was also discussed, however this approach created additional pressure for isolated individuals opposed to the adoption of a collaborative team effort. Other discussion suggested that

sustainability could potentially limit student creativity and that students did not dedicate their time to a fashion program to receive *bad news* about their creative practice.

The Role of the Educator

The changing needs of the knowledge and skills of design practitioners in the fashion industry has a significant consequential effect on the knowledge and skills base needed of the modern-day fashion academic. With future generations of creative industry professionals relying on the knowledge of their tutors and lecturers, the root change needs to begin with the academic, with their dissemination of knowledge being key in the integration of sustainable values. The recent acknowledgement for the need of such knowledge however results in a generation of academics who may not possess such knowledge meaning there is a gap within the knowledge cycle. The origin of this knowledge however is debateable, with many academics relying on an invested interest through their research areas to enable this knowledge to be passed on to their students, utilising research informed teaching methods. Just as with industry professionals and students however, a reluctance to engage from academics has been evidenced, with staff being uncomfortable to deliver materials out with their specialist knowledge. This resilience to change has been said to be due to a number a factors, including the compatibility with the individuals values, beliefs and personal motivations, the support provided from colleagues, managers and institutions and the extent to which the educator is comfortable with the change resulting in their lack of control during delivery (Van den Branden, 2012). Top down pressures from institutions can also result in a push-back in terms of engagement with sustainable pedagogy, with a lack of ownership in this scenario being said to be responsible.

Described as 21st century competencies, the societal challenges reflective of the contemporary fashion industry mean that equity between tutors and students as learners alike needs to be acknowledged (Van den Branden, 2012). The importance for educators to firstly be educated themselves is emphasised by Armstrong and LeHew (2014), who state that the integration of sustainability in higher education is not possible without a confident educator and that a need to enhance the knowledge of the relationship between fashion and sustainability is prominent. Van den Branden (2012) emphasises the need for educator training, with the development of this knowledge being paramount and the role of CPD and internal sharing of good practice needing to be explored. This shift however requires academics to go beyond industry-specific knowledge and training (Armstrong and LeHew, 2014), evidencing the ability to think in a non-linear way and solve complex problems. When applying this to a design context, problem solving is an inherent skill practiced by a designer, facilitating this change based on previous experience.

Current Challenges and Barriers

There are many barriers currently preventing further change within the educational implementation of sustainable principles. Whilst the positioning of sustainability in the fashion industry is changing, the integration of these principles remains non-mandatory and furthermore, often seen as an inconvenient additional factor which needs to be considered during the design process, adding to a long list of considerations and further complicating the job of the designer. The segregation of sustainability in terms of fashion product in the marketplace, also has the potential for creating further barriers towards change. Highlighting

sustainable values through selected product ranges, or as is often seen, through more basic product lines can provide positive connotations in terms of their primary role of raising the consumer awareness of sustainability. However, the more switched-on consumer would begin to question why all products currently being offered do not follow the same *sustainable* principles, with these being the exception to the rule rather than the norm. As with the fashion market, there has been a similar approach identified in the teaching of sustainability, with additional modules or courses often being an add-on rather than an embedded value. Sterling (2004) believes this approach to negate the theoretical grounding of sustainability, with these responsible values being auxiliary rather than foundational (Armstrong and LeHew, 2014).

Terminology also presents further potential barriers with *sustainability* now encompassing so many factors, it has almost lost meaning all together. Often used by many, without a depth of meaning or understanding, sustainability has become an overused buzz word that consequently lacks definition parameters. Often presented as an umbrella term and broken down further into sub-categories (e.g. environmental and social sustainability), the complexities of what this concept encompasses needs to be carefully deciphered. Due to this lack of real understanding and meaning, an interchangeability of terminology often occurs with terms such as green, eco, ethical and responsible also being used to often mean the same thing. This lack of clarity only poses further complications and mystifies sustainability, with many simply *switching-off* from engaging with these values on any level. The parameters of sustainability also remain ill-defined within an industry context, with no standards or requirements being implemented, meaning that the level of engagement remains very subjective. With consumer awareness growing, companies generally now engage in corporate social responsibility (CSR) to some degree, however *how* and *through what means* often

remains out with public knowledge due to a lack of publicising and communicating these activities.

Definition and discipline specific vocabulary is also an issue for students studying fashion programmes, with appropriate terminology failing to be integrated at a higher education level. Consequently, students do not possess the means to express their values and thoughts surrounding sustainability, let alone the skills to practically implement these principles in their practice. The sustainable lexicon remains a significant barrier to further integration in fashion, with a top-down approach needing to be embedded in fashion education. This approach however once again relies on educators to act as a catalyst to change, utilising their mixed levels of knowledge and skills in the area. It could indeed be questioned if fashion educators currently possess the required level of language skills to express connections between sustainability and fashion in a coherent manner. This again poses a further barrier which needs to be quickly overcome, as Bowers (2001) emphasises, language is inherently learnt through education, making integration of sustainability essential but very challenging.

Towards a Sustainable Future

It has been evidenced that the fashion industry is beginning to make small, incremental steps towards sustainability in the design and production of their products. Recognition of the negative environmental and social impact has long been acknowledged, however it is implementing the solutions to these issues that remains the real challenge. When analysing the key stakeholders within the problem space, a clear gap in knowledge has been evidenced in currently industry professionals, educators and students. Potential methods of obtaining

knowledge, specifically for industry practitioners and educators, remains ambiguous and needs further exploration, with current examples focusing on continuing professional development (CPD) programmes and self-motivated research interests. This top-down reliance of knowledge means that educators first need to be informed, prior to them imparting knowledge to their students.

The perception of sustainability within a fashion context needs to be approached differently, with knowledge and skills within these parameters becoming part of the designer's toolkit, embedding responsible values throughout their creative practice. In higher education, curricula should give credence to this area of knowledge just as focus would be paid to discipline specific skills such as illustration, pattern cutting and garment construction. This integrated approach would avoid issues of segregation and ensure that fashion students acknowledge principles of responsibility at every stage of their creative process.

The industry needs to begin to lead by example and demystify the parameters of sustainability within a fashion context. Not only would this allow comparability amongst companies, but could also direct the skills, knowledge and experience required of individuals leaving university. This would ensure that the graduate qualities required by industry are fulfilled and that students are *work ready*, following the completion of their education. Many institutions, both from a theoretical and creative perspective, are looking to the Sustainable Development Goals (SDG's) as a substitute to guide the development of curricula and direct student projects. The SDG's, developed by United Nations provide a blueprint to achieve a better and more sustainable future for all. They address the global challenges we face, including those related to poverty, inequality, climate, environmental degradation, prosperity, and peace and justice (United Nations, 2019). Whilst very relevant to fashion, these goals are

not discipline specific and could be related to a number of different sectors, this does however allow for creative interpretation and innovation from a student perspective.

The success of integrating sustainable principles within fashion education requires commitment and buy-in from multiple stakeholders, each with their distinctive role to play in the transition to future responsibility. Collectively, these parties have the ability to shape and future proof the fashion industry, ensuring that sustainability is embedded as a key skill in creative design disciplines.

References

Armstrong, Cosette and LeHew, Melody “Barriers and Mechanisms for the Integration of Sustainability Textile and Apparel Education: Stories from the Front Line.” *Fashion Practice* 6, no. 1 (2014): 59-85. doi: [10.2752/175693814X13916967094830](https://doi.org/10.2752/175693814X13916967094830)

Benn, Suzanne and Dunphy, Dexter “Action research as an approach to integrating sustainability into MBA programs: An exploratory study.” *Journal of Management Education* 33, no. 3 (2009): 276-295. doi: [10.1177/1052562908323189](https://doi.org/10.1177/1052562908323189)

Black, Sandy. “*The sustainable fashion handbook*.” London: Thames and Hudson, 2012.

Bowers, Chet "Challenges in Educating for Ecologically Sustainable Communities." *Educational Philosophy and Theory* 33, no. 2 (2001): 257-65. doi: [10.1111/j.1469-5812.2001.tb00267.x](https://doi.org/10.1111/j.1469-5812.2001.tb00267.x)

Dschool. “Welcome to the virtual crash course in design thinking.” Accessed March 19, 2017. <http://dschool.stanford.edu/dgift/>.

Fletcher, Kate and Williams, Dilys “Fashion education in sustainability in practice.” *Research Journal of Textile and Apparel* 17, no. 2 (2013): 81-88. doi: [10.1108/RJTA-17-02-2013-B011](https://doi.org/10.1108/RJTA-17-02-2013-B011)

Maldini, Irene and Balkenende, Ruud “Reducing clothing production volumes by design.” In *Product Lifetimes and the Environment 2017 – Conference Proceedings*. Delft University of Technology and IOS Press, 2017. [10.3233/978-1-61499-820-4-233](https://doi.org/10.3233/978-1-61499-820-4-233)

Manzini, Ezio “ Making things happen: Social innovation and design.” *Design Issues* 30. no. 1 (2014): 57-66. doi: [10.1162/DESI_a_00248](https://doi.org/10.1162/DESI_a_00248)

Medkova, Katerina and Fifield, Brett “Circular design-design for circular economy”. *Lahti Cleantech Annual Review* (2016): 32-47.

Pasricha, Anupama. 2010. “Exploration of the meaning of sustainability in textiles and apparel discipline and prospects for curriculum enhancement.” PhD Diss. Iowa State University.

Rees, William E. "Impeding sustainability." *Planning for Higher Education* 31, no. 3 (2003): 88-98.

Stahel, Walter. *The performance economy*. Basingstoke: Springer, 2010.

Sterling, Stephen. "Higher education, sustainability, and the role of systemic learning." In *Higher education and the challenge of sustainability*, pp. 49-70. Springer, Dordrecht, 2004.

Sterling, Stephen. *Sustainable Education: Re-Visioning Learning and Change*. Schumacher UK: Bristol, 2001.

Tascı, Burcu Gulay. "Sustainability: Education by Sustainable School Design." *Procedia-Social and Behavioral Sciences* 186 (2015): 868-873.

United Nations (2018) "About the Sustainable Development Goals." Accessed 22 February, 2019. <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

Van den Branden, Kris. "Sustainable education: basic principles and strategic recommendations." *school effectiveness and school improvement* 23, no. 3 (2012): 285-304. doi: [10.1080/09243453.2012.678865](https://doi.org/10.1080/09243453.2012.678865)

Williams, Dilys. "Fashion design and sustainability." In *Sustainable Apparel*, pp. 163-185. Woodhead Publishing, 2015. doi: [10.1016/B978-1-78242-339-3.00006-6](https://doi.org/10.1016/B978-1-78242-339-3.00006-6)