

Accelerating Sustainability in Fashion, Clothing and Textiles

Chapter 29 _Draft 3

The use of digital pedagogies for accessible and equitable teaching and learning of Fashion Design for Sustainability: a case study.

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Fashion Education in a time of Ecological Crisis

We find ourselves in the midst of an ecological crisis. The all-encompassing knowledge that dominant human activity is breaching our planetary boundaries and perpetuating inequality amongst each other. This calls for those societies with the power and the means to do so to re-examine and redesign our practices. Education is a leverage point for fundamental shifts in society, and we are at a time when the role of education must facilitate transformative learning, that is: unlearning some established patterns of thinking and behaviour, re-learning sustainable patterns where appropriate, and new learning to be able to recognise, create and engage with necessary alternatives (Sterling 2013).

The modes and methods of designing and delivering teaching and learning in Higher Education settings are under review at local level within individual institutions, such as University of the Arts London where the authors are located, and more broadly in the Higher Education sector in the UK and internationally, with a focus on accessibility and inclusivity (Stevenson & Budd 2021, UNESCO 2021, QAA 2021).

‘Higher education needs to be a fierce advocate for free and open access to knowledge and science when it comes to academic scholarship, learning materials, software, and digital connectivity, among others. Importantly, the term ‘open’ does not only address availability and ease of access but also implies that individuals are able to modify and manipulate information and knowledge.’ (UNESCO 2021, p75)

Fashion education has a long tradition of serving the industrial practices of fashion (Vogue Business, December 2021), and the work of UAL’s Centre for Sustainable Fashion (CSF) has been challenging this tradition, cultivating relationships between industry and academia that are built on mutual trust, openness, collaboration and co-design. CSF’s partnership with global luxury fashion group Kering (2014-2020) is one such example, where tutors, researchers, designers and sustainability experts came together to co-design new models for fashion education through the discipline of Fashion Design for Sustainability, with a shared vision to empower fashion graduates with not just knowledge about sustainability but to nurture competences for new fashion practices that put human and planetary health first. Kering have been acknowledged for demonstrating sustainability initiatives including their Environmental Profit and Loss accounting and playing a key role in the Global Fashion Agenda industry consortium.

Fashion Design for Sustainability involves conceiving, realising and communicating multiple ways in which fashion activities can create prosperity at micro and macro scales whilst consuming less of the earth’s finite resources (Williams 2021). It is essential that the teaching and learning of fashion acknowledges our complicity as humans in ecological collapse and social inequity. Through education, fashion design, business, and media can be explored safely and radically with the goal of restoring and regenerating our social, economic, cultural and ecological systems.

During a five-year partnership, CSF and Kering co-created teaching and learning programmes for fashion students at London College of Fashion, UAL, intrigued by the idea of exploring fashion as a contributor to a nature- and humanity-centred future. These welcomed a diverse mix of students from a spectrum of fashion disciplines – communication, business and design, theory and practice. Through a 15-week taught

curriculum for master's level students, Empowering Imagination, CSF and Kering sought to develop new fashion expertise and talent that could shape and respond to our era, linking knowledge-led aspects of learning about fashion as products, services and business with values-led ones that articulate and realise human dreams and capabilities (Williams & Toth-Fejel 2016). With students working collaboratively in teams, the ambition was for all involved to become changemakers in fashion's creativity, regardless of background or specialism. Each year for five years, cohorts of 40 students explored the context of our times from different perspectives, to identify how fashion might transform itself and contribute to transformed societies, cultures, and economies, responding to one of a set of challenges. The course's aims were:

- To inform and inspire a range of students from across existing masters programmes in a range of topics (including courses in design, business and communications) to develop imaginative and innovative practices in fashion within a global context.
- To enable students to innovate and engage in developmental processes and with collaborative working practices.

Over five years, the course engaged with a total of 198 students from 16 masters-level courses at LCF in traditional face-to-face mode. Due to the success of the partnership and growing demand for accessible fashion sustainability education outside of traditional Higher Education delivery modes, the course was reviewed and redesigned for a new global audience of online learners. Staged on FutureLearn, the British digital educational platform¹, the 15-week taught MA became a 6-week digital-only programme using the Massive Open Online Course (MOOC) format and becoming the first fashion and sustainability course to be delivered on the platform. Since its launch it has enrolled more than 83,000 learners from 191 countries.

¹ www.futurelearn.com founded in 2012 by The Open University

Reconsidering the MOOC

Whilst the history, nature, and structure of MOOCs are controversial we can trace three elements. The open element derives from the Open Educational Resources movement, a term first coined at a UNESCO Forum in 2002, which places emphasis on creating easier access to free educational material, (McClure 2014, p.272) and MIT's OpenCourseWare project launched in the spring of 2001 became emblematic of the movement. This innovative initiative saw the Institute publish materials from all MIT undergraduate and post-graduate subjects freely and openly on the web for permanent world-wide use (Abelson, 2008). Copyright permitting, for the past twenty years users have been able to access a range of pdf lecture notes, videos, assignments, and quizzes. The user is expected to create their own learner journeys and the OpenCourseWare has been designed as a repository for the publication of course materials as opposed to an interactive learning experience.

The online, and course elements of a MOOC can be traced to what is now considered the first MOOC 'CCK08', developed by George Siemens and Stephen Downes in 2008 (Downes, 2012). Delivered through the University of Manitoba, the course was free, online, and engaged 2,300 students worldwide (Stephen & Jones 2014). The intention was to explore the affordances of digital platforms, and the possibilities held within the notion of networked communities (Downes 2012). Could online networks foster communities of learners who were autonomous; diverse; open; and connected? And if this could be achieved, how would this "connectivist" approach - that asked students to immerse themselves within their environments in order to discover and to communicate - change the ways in which institutions approached learning and engagement beyond the traditional campus model? 'CCK08', encouraged students to create content in multiple places online and not just within the course site, and explicitly asked them to comment on each other's posts and share ideas. What Siemens and Downes were offering in their design of 'CCK08' has now become known as the cMOOC, where the emphasis lies with the relationship between the course content and a community of learners, as opposed to the xMOOC, based on a more traditional classroom structure and a focus on quizzes and other forms of assessments (Stephen & Jones

2014, p.346). Of interest here, is Siemens' and Downes' emphasis on the community versus the material 'exams and credentials are shorthand used to create a screening process [...] the community that forms around the courses or subjects are a lot more important than the content.' Was this approach, of cultivating personal empowerment a suitable response to the urgency and the action needed in the middle of an ecological crisis?

The early excitement around MOOCs steadily gathered pace and by 2012 MOOCs as learning tools, were being developed by Higher Education and Cultural institutions alike (Weller, 2014). However, the cost of creating and maintaining MOOCs and online learning platforms at scale, the low levels of completion rates and the perceived static nature of MOOCs and large online learning platforms meant that by 2015 this approach to digital learning had quietly disappeared as a viable offer from most HE institutions (Chung and Ho 2016). Furthermore, there was an unevenness to the range and diversity of courses offered via MOOCs. STEM subjects (Science, Technology, Engineering, Mathematics) had typically dominated the MOOC landscape but in 2013, art historians Beth Harris and Steven Zucker partnered with a number of art institutions and galleries to create short form films and accessible content, allowing global audiences to access collections from leading museum and galleries. Hosted on the Khan Academy platform, this was a concerted effort at engaging with networked communities specifically interested in the arts and humanities. These learners were looking to engage in discourse and praxis and needed to evaluate their learning in ways beyond the quizzes and exams offered on xMOOC platforms.

A particular concern for educators interested in using digital platforms to provide spaces for creative thinking, was the pattern of learner engagement typical of MOOCs. As the weeks progressed student numbers typically declined. MOOCs for the most part were generally short as participants were usually adult learners and these courses functioned as taster sessions. Conversely, arts educators were designing courses that demanded that as the weeks progressed, engagement ramped up. Learners were expected to become more vocal and crucially, be able to share their practice the further they progressed. This also raised questions around how a learner's journey could be scaffolded in the absence of a tutor and if

learners were expected to communicate, what would this mean within the context of a global audience engaged with an English language course. These questions were at the forefront of the development process for CSF's MOOC and the ways in which the team approached fashion and sustainability education for a networked community of learners.

FutureLearn & CSF: Fashion and Sustainability: Understanding luxury fashion in a changing world

By the time CSF embarked on designing a MOOC in 2017, online courses delivered at scale had been available for nearly a decade. Yet when the course titled 'Fashion and Sustainability: Understanding Luxury Fashion in a Changing World', launched in February 2018 on the FutureLearn platform there were only 30 courses in the Creative Arts and Media category; FutureLearn's portfolio of courses at the time numbered 1000 (Shah, 2018). Launched by the Open University in 2012, FutureLearn had been identified by CSF as the most suitable platform for hosting the MOOC. Research had shown they had higher average completion rates than other platforms, and they had expanded the demand for MOOCs to new audiences of users who were older and more female than those in the United States (Gibney, 2013; Paar, 2012). Although FutureLearn encouraged the inclusion of quizzes, the platform design and user journey weren't determined by their inclusion and emphasis could be placed on the use of FutureLearn discussion forums or engagement on third party social media sites, and interactive digital platforms. Thereby achieving a key ambition of the CSF MOOC and UAL's Creative Attributes Framework; storytelling and the ability to share your learning with a wider audience. (UAL, 2016)

The MOOC was designed as a free six-week course and participants were encouraged to spend three hours on their weekly studies. Drawing on the connectivist approach it aimed to provide a platform for informed decision-making, futures thinking, critically reflexive practice and cross location knowledge

exchange, to equip participants to be changemakers through creative design, entrepreneurship and communication skills. A range of topics are explored including:

- Why Sustainability in Fashion? - Perspectives from academia and industry explore the environmental, social, cultural and economic imperatives for rethinking fashion's practices.
- Contextualising Sustainability for a Changing World – A deeper dive into theoretical frameworks such as human rights and planetary boundaries, plus the creation of individual manifestos for the learners.
- Material Dimensions: Sourcing for luxury fashion – introduction to why materials matter, and the Materials Innovation Lab at Kering.
- Informed Decision Making: Tools and methods for measuring environmental profit and loss in luxury fashion.
- Creative Possibilities - using design for sustainability methods and processes to generate and explore ideas.
- Creative Realisation - revisit, reflect, refine and share a manifesto for fashion and sustainability.

To date 83,878 learners from 191 countries² have explored key sustainability issues, agendas and contexts associated with luxury fashion, and the course is expected to be online until at least 2023. The MOOC received a prestigious Green Gown award in 2018 as part of the Next Generation Learning and Skills category³.

The ambition of the MOOC has been to empower a new kind of fashion graduate with the skills and capabilities to realise sustainability practices and to innovate within the industry. To address the issues concerning language, dynamism, retention and engagement, a variety of materials to suit a variety of learning styles were developed. The MOOC provided both short form film and audio content.

Explanatory articles were accompanied by a diverse range of downloadable materials (text, diagrams, and

² Learners enrolled between 20 February 2018 and 18 August 2022

³ Green Gown Awards are an annual programme recognising exceptional sustainability initiatives being undertaken by universities and colleges across the world and coordinated by Environmental Association for Universities and Colleges (EAUC).

templates). These highly designed materials not only made the learner journey accessible to different learner styles, but users were expected to share these resources beyond their immediate desktop space through padlets. In the absence of a shared physical learning space the materials were a point of tactile connection across a global, digital divide. It was also decided that whilst CSF could not provide a permanent community manager to engage with the users, a light touch approach to moderation, where CSF staff would jump in to answer questions and engage in discussions would benefit and enhance the learner journey.

A debate was staged during week 3 of the MOOC where learners were asked to answer a provocation, and over a 48-hour period they were actively encouraged to engage in an online discussion with their peers and members of the CSF team. Digital noticeboards (Padlets) which redirected users away from the FutureLearn site were created to collate mixed media responses, and learners were asked to share images and create their own short form films and audio responses, thereby diversifying the ways in which they could communicate with one another and reflect on their learning.

Collaboration and New Learning

A key feature, and a potential source of tension of the MOOC was the relationship between the higher education institution CSF, and the industry partner, Kering. The pedagogic principles of fashion design for sustainability (Williams and Stevenson, 2012 cited in Williams. D. & Toth-Fejel, K. 2017) which inform the MOOC are a result of ten years of work in the field at CSF. They ensure that learners are not only learning about sustainability but are also developing skills and competencies for sustainable thinking and practice. These pedagogies reference the work of UNESCO, Sustainable Development Goals (SDGs), and theorists such as Stephen Sterling and David Orr, and foreground for learners in relation to fashion the context of planetary boundaries and human equity. The experimental and open-sourced nature of this approach is at odds with the typical industry and academic partnerships which are often based on a service

provision model meeting employability needs of an existing industry, rather than preparing for speculative futures. The MOOCs required and indeed demanded a different approach which in this instance took shape in the form of knowledge exchange. An open, trusting, collaborative practice was established and nurtured for all involved, representatives from both industry and academic partners. This resulted in a curriculum which offered learners access to leading business insight and practice in relation to sustainability, combined with an exploration of personal values in relation to sustainability, leading to a values-led critical exploration analysis of fashion and its role in the world through agendas of culture, economy, environment and society. The course could not have been delivered without the mutual trust of both partners through an ongoing multi-faceted collaboration, and this informed a best practice case study for how HEIs collaborate with industry (Williams 2016).

The course was designed to not only benefit fashion students, educators and industry professionals, but to also offer insights for sustainability-engaged learners from other industries and disciplines. Cross-disciplinary learning is essential in the development of sustainable behaviours and practices; the course demonstrates this point by having established an engaged community of learners from a wide range of vocations and locations ranging from educators, undergraduates, business professionals, designer-makers, retirees, entrepreneurs, and hobbyists; with representation from all continents. It was extremely important for all partners to ensure free access to all course attendees. As funding models have changed in the MOOC market, CSF have insisted that the content remains free to access for a timed period of eight weeks from enrolment, thus ensuring accessibility.

Feedback collated from across the course has indicated that learners are concerned about how to integrate sustainability into their work. Employees and employers have ambitions to instigate operational changes within business that could result in incremental impacts for better practice. Learners include industry professionals from brands such as Victoria Beckham, Vivienne Westwood, Stella McCartney, Hugo Boss, Adidas and Patagonia. By offering a unique space for industry representatives, students and educators to engage in study collaboratively and interactively, the MOOC enables the fusion of different perspectives.

This in turn indicates an appetite to enable a breaking-down of hierarchical barriers for systemic and cultural change regarding fashion and sustainability.

‘This course has given me a framework to understand what is wrong, and how to fix it in a real, tangible way. I have recommended it to many of my friends who work in fashion, it is an incredible resource.

While the problem is overwhelming, you have framed it in a way that makes it digestible, and makes it feel like we can tackle this problem if we face it.’ (Anonymous learner)

In its first run the MOOC followed an expected pattern. The 10,000 learners who signed up before the course started to drop off by week 2 to 6,222. What was unexpected was the number of active learners who stayed with the course until week 5. These 1500 participants engaged with the Design Challenge which asked them to follow a series of steps, as a means of identifying and developing an idea using a human-centred approach. The reaction from the learners and the work they shared via the online Padlet walls provided a glimpse into how we might engage this community in affecting change towards sustainability. Whilst Padlet is now a commonly used tool across UAL in 2018 it was still a relatively under used platform. Its inclusion during the MOOC provided an insight into how we might engage with students beyond the boundaries of a traditional campus setting. We now had a platform that was easily accessible and where users could post images, short form films and text as alternative ways to engage with and respond to research and academic discourse. Learners noted that the design challenge process was time-consuming and daunting, yet they had found the process exciting. Feedback from learners tells us that on completing the course, many feel empowered to explore creative possibilities for fashion and sustainability and have an understanding as to how they might affect change within their own local and personal environments.

‘The course has made a palpable change in the way I view fashion and the climate crisis, while still giving me hope. I’m currently writing my business plan and frankly a huge amount of it I have only realised and developed because of this course - it has led me to put all the puzzle pieces in place and hopefully create an exciting sustainable business that focuses on biodiversity!’ (Anonymous learner)

Further experimentation

In 2019/20 CSF also further experimented with the MOOC by taking it back into the master's courses and piloting a blended learning version making use of the in-house digital learning platform Moodle and more traditional face to face activities. The 6-week online content was extrapolated over 15 weeks, with the addition of in person group sessions to discuss, collaborate and prototype beyond the digital space, a 'blended learning' model. The group of 15 students from a range of fashion courses were grouped into small teams and were tasked to meet weekly to collaborate and develop cross-disciplinary responses to the challenges. The face-to-face sessions took place in non-traditional locations such as art galleries and in nature. Sadly, the course was mid-way through when the Covid-19 pandemic interrupted delivery and reverted to being purely online, with limited scope to gather complete data. The teaching and learning landscape changed overnight through necessity.

Through an internal qualitative review of the Fashion & Sustainability course comments and feedback it was identified that a significant limitation was in only having contributions from mostly UK-based academics and European fashion professionals. The innovative nature of the MOOC for the academic and industry partners resulted in only reaching within their own organisations for contributions to the narrative. If CSF and Kering were to build on this new knowledge it was important to find ways to extend perspectives and arguments beyond the Eurocentric viewpoint, and in doing so, better reflect the challenges and experiences of this new global community of fashion and sustainability learners and meet the need for more accessible and inclusive education. A follow up portfolio of MOOCs was launched by CSF in 2021 – Fashion Values, also in collaboration with Kering. These four courses each offer 4-week deep dives into fashion and sustainability through the lenses of Nature, Cultures, Economy and Society, building on the framework established in the first course, and developing more complex ideas and provocations from an extensive faculty of academics, practitioners, designers, activists and commentators

from a range of global locations. This approach was more complex to design and deliver but built on the knowledge and experience gained through the first course.

An additional learning from the first course was the need for ongoing administrative and academic input and review points after the point of delivery. The design of the MOOC allows it to run without a community manager or regular academic facilitation however, the continued popularity of the course above and beyond original expectations has meant that CSF has undertaken regular content and feedback reviews to ensure relevance and accuracy. For example, reflecting and linking world events such as the Covid-19 pandemic and the Black Lives Matter movement to relevant moments in the course.

Conclusions

New transformative models of fashion education are needed if we are to shift dominant fashion practices away from those that are contributing to ecological crisis, towards those that are restorative and regenerative of planetary health and human equity. These models should be visible across existing education institutions and infrastructure but also within new experimental environments that disrupt the Higher Education sector and nurture lifelong learning.

Digital spaces open possibilities for transformative, accessible and inclusive teaching and learning. The MOOC and the subsequent blended delivery highlighted that not only could engagement happen at scale, but that digital interfaces did not necessarily impede collaboration or meaningful exchange. Developing interactive content for learners in this way proved challenging and exhausting at times for the academic and digital teams developing the course, and the process demanded an iterative approach that is often at odds with an academic calendar. Yet it has allowed CSF to connect cohorts of learners that would not otherwise learn together. The use of art and design and sustainability pedagogies, and the emphasis on a user journey that was both visual and text based allowed to experiment and challenge traditional MOOC formats, leading to FutureLearn highlighting ‘The approach from the CSF contained three key elements

that we now know, from our research across the platform, impact the effectiveness of a course: duration, endorsement and social engagement [...] Fashion and Sustainability: Understanding Luxury Fashion in a Changing World' used FutureLearn's social learning capabilities to encourage discussion and debate throughout the course [this] has since been studied and has informed FutureLearn's automated social learning prompt to ensure engagement across our courses.' (FutureLearn, 2022)

The MOOC demanded commitment and openness from the participants, but it also asked questions of the LCF team who were used to creating content within a HE system, where learners are enrolled, tracked via the VLE systems, and monitored during tutorials and other pastoral structures. Presence, normally understood with the context of attendance sheets and faces sat on rows of chairs, meant something else now. It wasn't always obvious that participants were present at all, and in some instances the team didn't find out that any kind of impact had taken place until months after the participant had engaged with the community and the content. The MOOC demanded trust and an acceptance that users learn in different ways and that we, the institution, couldn't control every aspect of the learning process.

Industry and academic collaborations should be based on principles of trust, openness and collaboration, establishing supportive environments for co-learning for all participants. When these working principles are put into practice then new opportunities for fashion education can emerge. Without shared ambition and mutual respect between the industry and academic stakeholders, the opportunity to create the MOOC on the back of the master's curriculum would not have happened. Cycles of ongoing action and reflection have cemented a long-term meaningful partnership between CSF and Kering. This has enabled the Fashion Values partnership with IBM and Vogue Business, launched 2021, further committing efforts towards a global models of accessible education.

In summary, the learnings taken forward are as follows:

- MOOCs can offer innovative and accessible transformative spaces for fashion education connecting learners that would traditionally not learn together.

- Industry-Academia collaborations offer opportunities for values led and technical learning to be co-designed to develop new skills and competencies in fashion design for sustainability.
- Art and design disciplines offer new approaches to digital learning design and delivery not previously seen in delivery of STEM subjects offering higher engagement through the use of creative pedagogies.
- Online faculties and industry examples must be diverse and representative to ensure inclusivity for the global communities of learners created through MOOCs.

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