Fashion at a Turning Point

Implementing the Sustainable Development Goals in Education and Business

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COPENHAGEN SCHOOL OF DESIGN AND TECHNOLOGY

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Editor's Introduction

Rasmus R. Simonsen, Editor
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This collection primarily represents the efforts of lecturers from the department KEA Design at the Copenhagen School of Design and Technology (KEA). Their research makes up the bulk of the collection and originated in the 2019 iteration of Educators' Summit, organised and convened at KEA. As a recurring event, Educators' Summit was born out of the Youth Fashion Summit (YFS), which, from 2012–2019, gathered students and faculty facilitators from around the world to address the challenges facing the fashion industry in relation to sustainability (see 'The Legacy of YFS' in this volume). Since the first Educators' Summit in 2016, each one has strived to facilitate discussions between educators, business representatives, and students who work closely with sustainability issues. In 2019, the Summit took shape as an intensive workshop, where the participants came together to discuss the so-called 'Eight Sustainability Priorities for the Fashion Industry,' as defined by the Global Fashion Agenda (Lehmann, et al., 2020). These Priorities cover such vital topics as Respectful and Secure Work Environments, Supply Chain Traceability, and Reversing Climate Change. Each Priority covers specific challenges, but the overall objective is to 'urge…industry leaders to investigate new business models outside current market mechanisms to drive change, implement innovation and tap into collaborative business opportunities' (Lehmann, et al., 2020). The discussions of the Summit yielded a number of important insights concerning the competencies that the industry needs to nurture and harvest in order to create enduring change. Many of the research articles collected in this volume namely address the competencies that educators should focus on instilling in students, so that, upon completing their educational programmes, they might enter the industry as sustainability change agents.

Before delving into the content proper of this collection, we might pause to ask, Why is it so difficult to affect change within the fashion industry? For starters, as Karen Blincoe points out in her contribution, 'Sustainability in Education,' the industry reaches across the globe and impacts just about every community in the world. We can point to numerous statistics and studies that show how problematic the industry is in relation to both environmental and human factors. But knowledge isn't enough. Indeed, as a 2018 report, *Threading the Needle*, published by the non-profit organization Textile Exchange, points out, systemic change won't be possible 'without all global and local actors—governments, the private sector, and civil society—playing their part' (Textile Exchange, 2018, p. 3). Since the problems plaguing fashion are universal, the solutions must be as well.

As an industry, and as a research topic, fashion can perhaps best be understood as what Timothy Morton calls a 'hyperobject.' Morton typically uses global warming as the best example of a hyperobject: it cannot be located in just one place or time—it exceeds normal classification. In this way, we can identify global warming only by its different effects, or traces—from melting

icebergs in Antarctica to devasting droughts in Africa, for instance. Like global warming, fashion is a collection of related events and objects that all point back to one concept, which nevertheless is far from adequate to describe or explain the massiveness and illusiveness of the phenomena underpinning it. As Morton puts it, 'the apparent traces of hyperobjects appear as indexical signs, like the footprints of an invisible person walking across the sand' (2013, p. 90). The fashion industry keeps evolving, and there is a certain sense that we are always arriving too late to fully grasp it—and thus too late to steer it towards a more sustainable future.

However, rather than throw up their hands, the contributors to this collection all stress the power of collaboration to affect change. In 'Mapping sustainability in Fashion Education,' Lene Hald interviews Robert Meeder (Academy of Design) and Gwen Cunningham (AMFI), each of whom deals with how they can help students develop the right kind of sustainability mindset. Meeder introduces students to Buddhist philosophy with the aim of making them more aware of all the connections that flow between actors and resources in the fashion industry. Cunningham takes a related approach, as she works with the Japanese concept of Ikigai, which means 'reason for being.' One of the findings from the 2019 Educators' Summit was namely that students require specific competencies to be able to connect values to actions. In her article, 'Cultural analysis as key: unlocking and igniting student potential,' Regitze Nehammer dives into the UNESCO report *Educational Sustainable Development Goals: Learning Objectives* (2017) to explore how self-awareness can be developed into a concrete competency. More or less explicitly, all the articles collected in this volume take their cue from the Sustainable Development Goals, which were formalised by the UN in 2015. In different ways, they show how students can work with the goals to connect and collaborate with specific actors in the fashion value chain. Helene Niclasen Jeune makes clear in 'Paving the way for conscious conversations' that in order to create meaningful change, the industry should focus on creating dialogic spaces where students, educators, and businesses could come together to align sustainability expectations with value creation. Dialogue is essential to creating enduring collaboration between actors, and, in 'What the fashion industry needs from students and graduates to speed up sustainability initiatives,' Penille Dalmose Christensen looks at how Danish fashion companies can benefit from students' analytical skills in assessing what kind of information and research each company should focus on to meet their individual sustainability needs. To get a better sense of how Danish fashion companies are working with implementing the Sustainable Development Goals, Lotte Nerup has interviewed Aiayu and COZE Aarhus. Based on her analysis in 'The use and acceleration of SDGs in fashion,' Nerup concludes that companies will be more successful at integrating the SDGs into their business models if they are able to draw on the skills and competencies of student interns and

recent graduates; doing so will help companies solidify the link between sustainable production and sustainable consumption. In 'Get savvy with sustainability,' Tina Hjort delves into the details of the eight key sustainability competencies as defined in the previously mentioned UNESCO report. Hjort explains how the fashion industry should learn to treat young fashion professionals as experts on sustainability, since they have a familiarity with the issues that stems from their ability to navigate and extract knowledge from a plethora of platforms in the global, digital world they inhabit. Rounding off the research portion of this volume, Berit Konstante Nissen and Lotte Nerup take a look at how 3D visualisation software can help fashion companies become more sustainable. One of the most direct positive outcomes of using this kind of technology concerns the optimisation of the product development process. Digitally, companies will be able to test fit, print, placement, and colour combinations without relying on physical samples. The potential financial and environmental impact of 3D visualisation software is undeniable. Furthermore, embracing this technological innovation would result in a less complex value chain, as the distance between designers, producers, and consumers would begin to shrink.

Looking forward to the next Educators' Summit,[1] the contributors to this volume propose a variety of solutions that would make the fashion industry more sustainable and perhaps also less of a hyperobject, as the connections between actors and resources become more transparent and manageable. ■

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[1] Due to the Covid-19 crisis, it is still not certain in what shape or form the 2020 Summit will appear.

Sustainability in Education

21st-century skills and competencies for a critical and transformative approach to sustainability in fashion within higher education.

Karen Blincoe, Advisor/lecturer in Sustainability and 17 SDGs

One of the most critical barriers to promoting sustainable development is ignorance. That means lack of education, knowledge, and information about the issues at stake. Sustainability is a complex, multi-facetted, and multi-dimensional concept and has therefore been open to myth creation, resulting in a proliferation of diverse information that distracts from the real issues. The concept has been interpreted and misinterpreted in numerous ways. As a remedy and tool to help us come to grips with the practicality of sustainability, the UN launched the 17 SDGs in 2015 in collaboration with representatives from the public as well as private sectors. The concept of sustainability now consists of 17 individual, interdependent goals that we must achieve by 2030. Having clear goals makes the task easier to embody, and education (SDG nr. 4) is a key instrument in making it happen.

Education in Sustainability Must Become Mainstream

Education in sustainability is not an obligatory subject in our primary and secondary schools or in higher education. At university level, only specific and focused courses deal with sustainability, although academic programmes on the topic are increasing. Making students familiar with and knowledgeable about the nature, challenges, and opportunities of sustainability must be the first step to be taken by educational establishments. All education should include topics on sustainability in general and now the 17 SDGs in particular. If the directive is not government-led, we must take action ourselves. Otherwise, we will not be able to meet the goals by 2030 or even by 2050.

It is therefore inspiring to have witnessed and participated in the Educators' Summit 2019. The summit focussed on the issues mentioned above, and the work generated was constructive and important. It is uplifting to note that the Summit will happen again in 2020, and that it has been expanded and become more far-reaching. The 2020 Summit has the opportunity to take a necessary step forward for higher education in general and for the fashion industry in particular.

Conflicting Aspects of the Fashion Industry

The predicament of the fashion industry is both constructive and destructive. On the one hand, the value of the global fashion industry amounts

to 3,000 billion dollars (3 trillion dollars), which is equal to 2 percent of the world's Gross Domestic Product (GDP) (Fashion United). The industry employs thousands of people around the world, and fashion products impact every single person's life today. As such, the reach of the industry could not be wider and more universal. The behaviour of the industry is therefore of paramount importance to a sustainable future. Fashion has changed over the decades and has become a science as well as a key economic factor, which gives it even greater power in shaping society as well as people's lives.

The negative side of the industry is the impact it is having on natural habitats in terms of pollution and misuse of resources, encouraging overconsumption and CO2 emissions. CO2 from the fashion industry amounts to 10% of the total amount emitted worldwide (Ellen MacArthur Foundation, 2017). The average consumer today buys 60% more items of clothing than they did 15 years ago. 70% remain unworn and approximately 30% of consumers wear items as few as 5 times before disposing of them. In addition, the industry has a reputation for allowing demeaning human behaviour at different levels of the production and supply chains. Fashion, hence, has a critical role and responsibility to change harmful environmental, industrial, and social practices by working to further sustainable development, becoming a different kind of trend setter and guiding people towards responsible consumption patterns.

To educate fashion students in sustainability at higher education establishments, a number of aspects need to be taken into account. The existing knowledge platform for ESD (Education for Sustainable Development) encompasses the UNESCO report *Education for Sustainable Development Goals: Learning Objectives* (2017). The report contains some excellent directives as key objectives that can be translated into pedagogical tools for educators. Objectives such as Anticipatory Competency, Integrated Problem-solving, Normative and Critical-thinking Competency, and Systems Thinking are on the list of eight learning objectives outlined in the report. Most of these are important skills for students to obtain, but to matter they need to be translated into practical tools for educators and become embedded in educational programmes. It is relatively easy to develop new theories in terms of how and what to do. The real difficulty lies in translating theory into practical application. This is an essential symptom of the sustainability crisis. There are many ideas but too little action. Now is the time for action. Leaders and educators in schools, colleges and universities must take responsibility for translating the new and available information into practical tools, knowledge, and skills, with which to teach the next generation.

When you are working with students and ask them to integrate sustainability into their work, they will need a variety of tools. Not only must they learn the basics of sustainability—the context in which the concept emerged, why it emerged, and, most importantly, what a sustainable world might look like—they will also need to know the methods and processes of how to achieve the goals and overcome the barriers. Doing so requires creativity, innovation, and the ability to think out of the box. It also requires leadership, courage, resilience, advocacy, and persistence. These are topics not generally taught in higher education, as yet, but they are essential when engaging in the required transformation processes. Educators must help students find the passion in their work, so that they are motivated to embrace the challenges and solve the critical problems we are facing. The

essence of a new fashion education should focus on allowing sufficient time for visionary and reflective thinking but also time to be critical and to embrace the topics mentioned above.

I encourage the leaders and educators participating in the next Educators' Summit to initiate a new fashion platform based on the Brundtland definition of sustainability and to design new education modules accordingly. The essence of the definition of sustainability deals with three key areas: the fulfilling of basic human needs including quality of life, the abuse and overuse of non-renewable resources, and, thirdly, the critical fact that humanity is dependent on the natural habitat for survival. As such, a new fashion paradigm should be embedded in creating lasting quality in people's lives within the carrying capacity of the planet rather than being focussed on the generation of profit, as is the mantra at present. The way governments worldwide have dealt with the Covid-19 crisis indicates that if deemed necessary, a change of direction can happen almost immediately. ■

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Sustainability in Higher Design Education: Interviews

Below are interviews with Robert Meeder, CEO at Academy of Design (AOD), and Gwen Cunningham, Lecturer and Sustainability Coordinator at Amsterdam Fashion Institute (AMFI). They each talk about how they define and approach sustainability in higher education. Robert underscores the importance of having a conscious mind-set, and Gwen introduces us to Ikigai, a Japanese concept that means 'reasons for being,' which they have implemented in their curriculum at AMFI.

Lene Hald, Ph.D.

ROBERT MEEDER

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LH: *How do you define sustainability?*
RM: Sustainability is a rather overused topic. There is the classic way of defining sustainability as having three main pillars: Environmental, social, and economic. I believe we also need to understand sustainability as a practice and a mind-set. I work with the idea of a conscious mind-set. This means training our ability to be empathetic, training our emotional IQ and being mindful about everything we do. We need people to be good and do good.

In order to nourish a sustainable approach, there needs to be an awakening within the students. I can teach them about it, but if they do not take it in, it does not matter. I work with this consciousness approach very concretely in my teaching. Especially the idea of being mindful is important; this is the core philosophy and fundamental concept behind sustainability. In this way, sustainability has a lot in common with Buddhist teaching, so I make it a point to take the students to a Buddhist monastery.

As a designer, you need to be truly mindful. We need to constantly ask ourselves, 'What am I really making?' However, it cannot only be an individual affair—it really has to start from the top with legislation. There is a need for rules and regulations. It has to come from government and ministry of education. Green education needs to be a standard practice. Various educations should come together. It should not be that hard pioneering to be the first. There should be a minimum expectation of sustainable fashion education.

LH: *How do you work with integrating sustainability in the curricular content?*
RM: I have been developing new curricula that are based on these principles. To me, education is circular rather than linear. This means that I see education as circles within circles. The first circle is year one, which references who am *I*, how I think, how I become aware of myself, my abilities and inabilities. The next circle is year two. This concerns the environment. Here we question what impact we have on the environment. This could relate to me and my town, my village and the local craft. The third circle is year three, which is concerned with me and my community and the industry at large. This year is about cultivating consciousness around these connections. The fourth circle, and the fourth year of study, relates to the global component. How do we connect with the world and collaborate with global brands? It is a rough framework. It is the 'Robert'-theory, but it is something I would like to unfold in my new work as CEO at AOD in Sri Lanka. I am trying to look at ways we can develop tools for change within the environment. And I hope this model might work.

LH: *How do you integrate sustainability in your didactic approach?*
RM: We teach stand-alone classes in sustainability such as supply chains, manufacturing, etc. And we encourage teachers to implement sustainability in their courses, but it is not required. So, we still need to work on full integration. We need to develop the consciousness of the students. The question, then, becomes how to teach consciousness and make the students aware of themselves, as in Buddhistic being. If they develop consciousness about what they are producing, they will focus on things that will better society.

LH: *How do you think sustainability could be unfolded on organisational levels?*
RM: We need to think holistically about it. How do our institutions, for example, handle waste? Too few universities work with renewable energy or re-use waste. We need to address issues of equal pay. Furthermore, we are constantly asking students to produce more stuff. We have thousands of student projects stored in a cupboard. We are hypocritical, or we do not own our own rules of practice, at least. I would like to create a curriculum that is sustainable within itself. Sustainability goals should be fundamental to everything we do. This means not only challenging design and business processes, but also how we teach. In many universities, money follows the students; the more students the more funding—this is not doing justice to anybody. It is not a sustainable model. We need to think about longevity in teaching. Sustainability is not about quantity over quality.

LH: *How do students and teachers perceive sustainability in practice?*

RM: More and more it is becoming the norm that the students demand a sustainable focus and that they are greatly curious about the topic. On the other hand, you are dealing with teachers that do not have any training; the generation above us does not get it. Some do not see the importance and think it is a trend that will go away. We don't necessarily know or have the answer on how to address this generational gap. One way is to let younger academics make sustainable a cross-generational handover.

LH: *Do you work with specific sustainability certifications, goals, or principles?*
RM: There are some great models out there; e.g. LEED certification for architecture and building industries, which is globally recognised. However, we do not have this in design education. We need a global model that will be internationally recognised and provide third-party verification. What I have encountered seems to be very local initiatives. We encourage cradle-to-cradle certification, but these initiatives are very ad hoc and not set in stone. Sustainability approaches need to be brought to the table by everybody: consumers, designers, manufactures, businesses, and legislators. We all need to become a little bit more aware, and we need to work together in order to reduce problems.

GWEN CUNNINGHAM

Lecturer and coordinator of sustainability at AMFI, the largest fashion institute in the Netherlands. She heads up the Textiles Program at Circle Economy.
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LH: *What definition of sustainability do you work from?*
GC: AMFI is built on a reality school concept, and the education represents the entire chain in the fashion industry, with a fashion branding, fashion management, and fashion design department. A close relationship with industry is core to our education, and the students must be hyperaware of what is happening in the industry. How to define a sustainable approach to education and a reality school concept is a constantly evolving discussion. Since 2016, we have been working to embed the concept of the circular economy into all aspects of the curriculum. However, even this holistic concept has its criticisms and gaps in its current formulation. Where is, for example, the social lens in the circular economy—it's there, but does it need to be thought through more? More recently, we are increasingly working with the SDGs, since this framework has a wider breadth. We are trying to decipher how we can connect to these goals through workable definitions.

LH: *Is there an overall strategy for how you work with sustainability at AMFI?*
GC: We have been committed to setting the vision very clearly. This means that the revised AMFI manifesto is a bold future statement that clearly articulates how we aim to build a community of changemakers who can enable fashion as a force for good. This is a quite significant call to action that gives a lot of power to both the student and the teacher and contributes a sense of urgency. It also cements a lot of work that has already been done and continues to be done to re-design the curriculum.

LH: *Do you have an example of how this curricular makeover has changed what you do at AMFI?*
GC: AMFI's own in-house iNDiViDUALS is a fashion brand, where third- and fourth-year AMFI students are primed to experience real-time fashion industry demands. The students do this full time for half a year. For over ten years, students have developed and produced a collection, which is then sold at retail points throughout the Netherlands. In 2018, we started to re-evaluate if the brand should still be imitating current industry processes. The

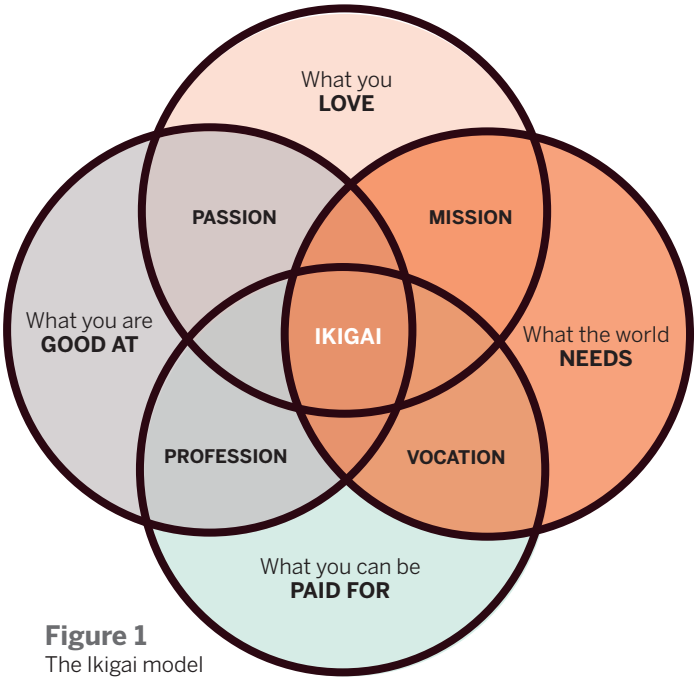

Figure 1
The Ikigai model

iNDiViDUALS team took a 'time out' and closed its doors for ten months in order to redesign its core mission and vision. The result is that it has shifted from a brand with an industry perspective, to a brand with an industry perspective. The revamped iNDiViDUALS acts as a lab and blueprint for industry: to challenge and rethink how we design, produce, sell, use and dispose of our products. This drastic re-design of the iNDiViDUALS brand has opened our eyes to a totally different approach to education. Shutting down the brand to make time for this development was a radical step, but based on the success of this AMFI has started to slowly re-design other aspects of the curriculum.
AMFI is currently re-designing its whole first year and working on a new curriculum with sustainability at is core. The entire year is built around the Japanese concept of Ikigai, which means 'reason for being,' and is used to indicate the source of value in one's life or the things that make one's life worthwhile.

Interestingly, blue zones around the world—areas where people live extraordinarily long lives, enjoy good health and mental wellbeing—demonstrate Ikigai. When researchers explored these blue zones, one of the pieces of research that came out was that these geographies and communities have a very strong sense of purpose, and this is partially why they live such fulfilling and long lives. Ikigai can be boiled down to the intersection between four fundamental questions: what you love, what the world needs, what you can be paid for, and what you are good at.

In the past few years, AMFI staff have been having lots of study days to think together about the future of our education and of our curriculum. We have been asking the question, 'How do we educate in ways that fit our purpose?' The students we see are different than just four years ago. And we anticipate that the industry will be changing rapidly, too. We saw that there was a need for us to shift from being teachers to become facilitators and coaches: a desire to help students find their guiding purpose in life. And Ikigai was one of the philosophies that we discussed and ended up putting forward as a model to follow, and it is now the backbone for the new first-year curriculum.

The Ikigai model (figure 1) will help students go through three different modules: 'what you love,' 'what the world needs,' and 'what you can be paid for.' We will leave 'what you are good at' for the second year.

The idea is that the students entering AMFI dive straight into a module on 'what they love'

Why do they want to be in fashion? What is their relationship with clothing? They do this by analysing their closet (calculating their CMI or closet mass index) and deep diving into one item that is particular meaningful to them—understanding where it came from, who made it, what is its quality, what are its historical roots, why does it have meaning to them? Then they move into 'what the world needs.' Here, they explore the traditional 'linear' fashion supply chain and its social and environmental impact as well as how new models, materials, and mindsets are being developed to solve these issues. And finally, 'what you can be paid for:' a series of labs where they will be equipped with hard skills such as sketching, pattern cutting, graphic design, sewing, etc.

Alongside this, there is a renewed focus on wellbeing, as we see a strong need for support and guidance from students on the topic of mental health. I think that especially in fashion education, mental health is not often a point of concern. We will have group coaching sessions to engage with this from the first day.

This focus on mental health arose from conversations regarding what skills, attitudes, and behaviours students that go through AMFI need to cultivate in order to be able to function and thrive when they graduate—both in the context of the fashion industry and the world in general. A lot of what we discussed was about being able to have empathy and collaborate, but also to have a level of resilience: being able to deal with changes and challenges in one's personal and professional life. Some might think of these as secondary or soft skills, but we see them as critically important, especially in regard to a future that is likely to be very uncertain. But how to build this into the curriculum? Teaching resilience is very different from teaching someone to make patterns or a brand book. This is where this focus on students' wellbeing blossomed from.

LH: *Have you encountered resistance towards this curriculum remake?*
GC: No, but we are also still in the planning stages of changing the first-year curriculum. We will kick off in September, and then we will see if challenges come to the surface. It has not been something that happened overnight, and it has been a very diligent process. It is true that when you start to change within the university there can be adverse reactions. However, AMFI is quite unique; because of its reality school concept it is quite agile and adept at refresning itself. This first year, curriculum change is the latest refreshment, and staff and students are very open to it. There has also been a big effort to bring everyone along. We've had study days away, and we did a whole programme of training for the AMFI staff on the circular economy to get everybody up to the same level of understanding and knowledge on the topic. If sustainability is really important to AMFI then it needs to be something every member of staff can speak to. It needs to have a common ownership. Even if it is not what you teach, you have to understand its relevance to what you teach. There has been a commitment from everyone to make this happen.
Students were also very involved in re-designing the curriculum, both in terms of the iNDiViDUALS reset and the first year programme. Students were involved continuously in various ways: by participating in focus groups and as 'expert' interviewees on their needs and desires for their education. They were kept in the loop and acted as our sounding board because we realised that if we didn't include them, we might make assumptions on what they wanted.

LH: *How are the students' perceptions of sustainability in practice?*
GC: AMFI is a big school, so it is hard to generalise. But from my observations, I see a difference in the student mindset since I started. First of all, it has become really obvious that now students already have knowledge on sustainability and social issues prior to attending university. You don't need to talk about *why* it is important, but, rather, you can move straight into a conversation around how we actually do something about it. The students have become better at engaging with and translating complex issues. Take for example the refugee crisis. Six years ago, a fashion design student might take an issue such as this, and they would translate it into a concept. They would develop an understanding around the topic and then, taking it as inspiration, extract colours and shapes to make a collection; however, it was an abstract and surface-level engagement. Now they go deeper and ask questions such as: What role does clothing play in the lives of a refugee community? How can it be a help or a hindrance? Or, how could the apparel and fashion industry help and directly make a difference there? For instance, a student last year built a creative collective together with refugees to co-create a graduation collection with them, and thereby focused on bringing direct value and benefit to an often-overlooked community in the Netherlands.

LH: *How do you work with sustainability as an institution (how do you handle waste, recycling and social sustainability/social dynamics)?*
GC: We have started using upcycled materials (e.g. donated hotel linen) for design tests (toiles), and we are moving more and more towards using digital process books to save on resources. A focus on virtual prototyping, using programmes like CLO and Lectra, is also training students to be more efficient in their design process.

We are also part of The Hogeschool van Amsterdam, which is doing a lot in this regard. We have a rooftop garden with beautiful plants and herbs that textile students use to cultivate pigments for dying textiles. When we host events—like AMFI's sustainability symposium, Beyond Green—we try to take sustainability issues into consideration when choosing vendors. Vendors should be practicing exactly what we are preaching.

Beyond AMFI and beyond the HvA, there has been a big push here in Amsterdam from the Amsterdam Economic Board to transition all education towards circular education. AMFI has been involved in the working group since it started. Together with fifteen primary, secondary, and tertiary institutions, we developed and launched a Manifesto for Circular Education: a call to action and commitment for universities and schools to start to integrate circular thinking into their curriculum. AMFI was one of the first signatories. It is now being scaled, and other institutions are joining.

We want fashion institutions to come together and build consensus on how education should address environmental and social issues by co-creating common frameworks, teaching methodologies, resources, and toolboxes. There is such great work happening globally, but this work should not happen in silos. Education could take the lead on this topic and show how to meaningfully collaborate to create lasting change in the industry. ■

The Use and Acceleration of SDGs in Fashion

Lotte Nerup, Lecturer in Sustainable Fashion Tech at KEA

As described in the Textile Exchange report *Threading the Needle* (2019), the SDGs offer a unique opportunity to align existing sustainability initiatives and accelerate the fashion industry's efforts to address important challenges concerning the global textile value chain.

If the SDGs are a driver for sustainability, it would be worth looking into how they can be integrated into educational programmes for sustainable change. The purpose of this research project, consequently, is to identify the skills fashion students need in order to improve how the SDGs are used in the fashion industry. Specifically, I will present insights into how the SDGs function, practically, within selected Danish fashion companies and how these companies report their progress to the United Nations Global Compact Communication of Progress (COP reports). Those insights are then compared with insights from the Textile Exchange's report *Corporate Fiber & Materials Benchmark: Insights. Action. Impact: SDG Insights* (2019). All insights are used to point out what skills fashion students ought to acquire in order to push the fashion industry in a more sustainable direction.

My enquiry is guided by the following two interrelated research questions: *How are Danish fashion companies working with the SDGs, and how do their efforts help make the industry more sustainable?*

To provide answers to these questions, I will explore the COP reports of Danish fashion brands. Additionally, I have interviewed brands that are dedicated to working with the SDGs and sustainability, more generally. The interviewed brands represent small- and medium-sized companies that have sustainability at the core of their business. Each brand has a different approach to implementing the SDGs. COZE Aarhus works with the SDGs through their company strategy. Based in Copenhagen, Aiayu's approach is more holistic, as they are trying to do more good, instead of just doing less harm, which indirectly implicates several of the SDGs. In addition to the different brands, I have interviewed Global Compact Network, Denmark, to get their take on how brands can become more valuable as they work more closely with sustainability efforts. After analysing the insights from the interviews and mapping the COP reports, I will draw on reports from the non-profit organisation Textile Exchange to present a global perspective on the SDGs in fashion, including data from companies within the textile industry. Finally, the article will list key

points related to which skills and insights fashion designers must obtain if they hope to accelerate the implementation of the SDGs in fashion.

Research Methods

As businesses are expected to play a key role in reaching the SDGs by 2030, it is relevant to look into how Danish fashion companies are reporting on the goals using the United Nations Global Compact Communication of Progress (COP) for 2018/19. A COP report is a voluntary annual report of a company's progress with implementing sustainability initiatives and, specifically, the Global Compact Ten Principles,[1] which are connected to the SDGs. The report is a commitment to working with the Ten Principles. When creating the report, the company can choose to add which SDGs they are working with in particular. I have analysed all the COP reports from Danish apparel companies with a focus on how they report on implementing the SDGs. Prior to my analysis, I enlisted second-year KEA students from the Sustainable Fashion Design programme who mapped the COP reports. The purpose with involving students in the research was to give them a foundation and insight into how Danish fashion brands report on their progress. The students were working on a student project at the same time, where they were supposed to integrate the SDGs into a concept idea for a fashion brand. The students worked within a framework that asked them to look for information relevant to my research project. Subsequently, the data was collected and made available to all students involved, giving them access to a wide range of relevant information regarding how the SDGs are used in the Danish fashion industry.

To gather insights from Global Compact about the use and value of the COP reports, a qualitative long-distance Skype interview with the Executive Director of the Danish Global Compact network, Sara Krüger Falk, and Corporate Sustainability Researcher at Global Compact Network, Denmark, Astrid Brünniche Lund, was arranged. The purpose of the interview was to get feedback on the insights from my analyses of the Danish fashion brands' COP reports. As mentioned above, I was also interested in how Global Compact think that brands can create value by reporting on their SDG work. Moreover, I was interested in their take on what skills a fashion designer would need to implement properly the SDGs in a company.

The interview with Global Compact Network, Denmark, served as inspiration for which companies could be interesting to interview in connection with implementing the SDGs in practice. Consequently, qualitative semi-structured, long-distance interviews with two Danish fashion brands were conducted in order to gain insights into how the SDGs are currently being realised in the Danish fashion industry. The two companies interviewed are small and

[1] By incorporating the Ten Principles of the UN Global Compact into strategies, policies, and procedures, as well as by establishing a culture of integrity, companies are not only upholding their basic responsibilities to people and planet, but also setting the stage for long-term success. This means operating in ways that, at a minimum, meet fundamental responsibilities in the areas of human rights, labour, environment, and anti-corruption (United Nations Global Compact, 2020).

medium in size, respectively, and they represent a mid- and a high-priced level of apparel and must therefore be expected to cover different target groups due not only to price but also to design, sustainability approach, and market availability. The size of the companies is found to be relevant as the report from Textile Exchange mentions that especially larger apparel brands perform best when it comes to integrating the SDGs (2019, p. 28). The explanation for this could be that larger companies often have employees dedicated to this type of work, which is often not the case in smaller companies. In these types of companies, the sustainability and CSR work is often handled by employees working in design or product development. Consequently, there is potential in looking at the companies in the small and medium category because they face more challenges in integrating the SDGs.
Both brand interviews were structured according to a semi-structured pattern using the same questionnaire. The semi-structured pattern was relevant as I wanted to compare answers but also have the option of asking follow-up questions (Brinkman & Tanggaard, 2015, pp.37–42).
The questionnaire was to clarify what challenges, opportunities, and values working with the SDGs might create internally and externally for the companies concerned. At the same time, the interviews sought to uncover what skills a fashion designer would need in order to work with the SDGs and sustainability from a business perspective.

The Textile Exchange's *Corporate Fiber & Materials Benchmark* report is used as a source for analysing the findings from COP reports and interviews. The report is a tool developed for the textile and apparel industry, covering companies' overall fibre and materials portfolio (Textile Exchange, 2019, p. 2). The report has an integrated SDG component which makes it a platform for sector SDG data gathering (p.6). I use the report to compare my findings against their data.

All the insights from my research are used to map what skills and knowledge a fashion designer can benefit from when the goal is to nudge the fashion industry in a more sustainable direction; at the same time, it might also be possible to challenge fashion brands' approach to working with the SDGs. Ultimately, I will point to the fact that educators need to teach fashion students thoroughly about the SDGs in relation to how they can be used to achieve a more sustainable value chain and product portfolio.

Analysis
COP reports are publicly available on the website of the UN Global Compact. They are submitted by the participant, enabling companies to communicate their efforts to support and uphold

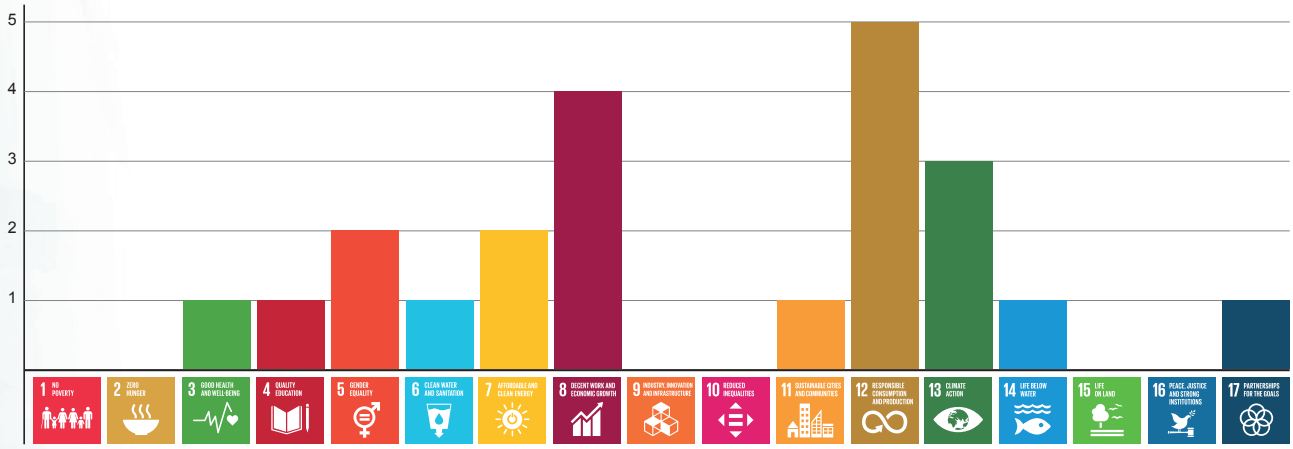

Figure 1

This figure shows which SDGs are mentioned and how many times in 2019 COP reports by Danish fashion companies.

the Ten Principles of the UN Global Compact. One could argue that the Ten Principles are the foundation for the SDGs. COPs can be created regardless of sector and size of company, although I am of course focussing on the fashion industry in this article. A COP is not necessarily read by the UN Global Compact and does therefore not certify the degree to which companies implement sustainability and social responsibility processes; instead, COP reports represent a commitment to drive a company in an ethical and responsible direction. When a COP report is submitted, companies can select which SDGs they are dedicated to implementing.

In general, the mapping of COP reports showed, surprisingly, that only a small minority of Danish fashion/apparel brands report on their progress through the COP system. Out of 1489 Danish fashion brands, only nine fashion-related companies (fewer than 1%) in 2019 documented their work with sustainability and social responsibility in the form of a COP report (Bisnode, 2020). Six companies out of nine relate their work to the SDGs. In total, eleven different SDGs are mentioned in the six COP reports, with an emphasis on SDG 12: Responsible Consumption and Production and SDG 8: Decent Work and Economic Growth. The COP reports show that most companies strive to implement one to three SDGs, although one of the companies have committed themselves to eleven SDGs. (Figure 1). In her interview, the Executive Director of Global Compact Network, Denmark, stated that although the SDGs are very present in the Danish context, only one new fashion company submitted a COP report in 2019. Most Danish COP fashion/apparel companies joined before or during 2016.

The Textile Exchange benchmark framework describes SDG 12 as a gateway goal for fibres and materials sustainability (2019, p.9). Figure 2 shows how dedicated work with SDG 12 can have a positive effect on six other goals. For this reason, when mapping the reports, it was positive to see that five out of six companies work with SDG 12.

The Executive Director at Global Compact Network, Denmark, Sara Krüger Falk, describes in her interview that there is a big difference in the quality of how companies work with the SDGs (Falk, 2020). She mentions that it is important that companies select targets for each SDG if they hope to dedicate themselves to a comprehensive and realistic strategy. None of the mapped COP reports mention specific targets for each SDG goal. According to Falk, SDG strategies must incorporate selected targets and argue for why each specific SDG is relevant for the company and how it can productively impact the entire value chain (Falk, 2020).

Figure 2

Falk believes that a company can use their SDG work to differentiate their brand. If the company could become aware of where they have a negative impact in their value chain, what challenges they are facing, and how they are trying to solve these challenges, the storytelling of the brand could embrace a more honest tone, which would track well with consumers who value transparency. Indeed, 'transparency,' as a concept, could be made part of a company's COP report, in addition to the Ten Principles of the UN Global Compact.

The question that needs to be asked is why so few Danish fashion companies report on their work with the SDGs through COP? Both COZE Aarhus (Hansen, 2020) and Aiayu (Heilmann, 2020) think that the small number of Danish COP reports stems from the fact that small/medium-sized companies cannot afford staff whose only role is to work on sustainability and social responsibility. As mentioned previously, often this area is covered by people in the design and product development departments. Additionally, since it is a very busy industry, there is nearly no time to engage in reporting on all the good sustainability work that companies actually produce. As Maria Heilmann says in her interview, 'one reason is the time it takes, and perhaps a lack of understanding if you are not trained to consider sustainability as part of the business model' (Heilmann, 2020).

Both the companies I interviewed stated that it is time-consuming to work with sustainability and with the SDGs in particular. They both believe that this type of work adds value to the brand and to the products; incorporating sustainability measures has the added bonus of making employees prouder of and more dedicated to their work. This is also an important factor, says Falk, if a company wants to stay relevant to new generations of designers entering the industry.

The two interviewed companies are dedicated to working with sustainability and social responsibility, but their approaches to the SDGs vary. Both companies were founded before 2015, the year when the SDGs were introduced. Therefore, the companies have had to integrate the SDGs into their strategies after the fact.

The Danish apparel brand Aiayu has integrated sustainability into every aspect of the supply chain from the beginning, fifteen years ago. Initially, the main purpose was to create an ethical business plan that respected all human

actors in the supply chain and to produce high-quality products. Fifteen years ago, it was not common to talk about sustainability in the apparel business, and a framework such as the SDGs did not exist. Maria Heilmann, Creative Director and founder of Aiayu, explains that she was inspired by how other companies' COP reports included the SDGs; in general, she began noticing an increased interest in the SDGs (2020). As a result, Aiayu decided in 2019 to turn their attention towards the SDGs to accelerate the impact of their work with sustainability and social responsibility. In their 2019 report, looking back at the last 15 years of the company, Aiaya demonstrated how they have actually, indirectly, been aligning themselves with 11 of the 17 SDGs.

When COZE Aarhus in 2015 was to write their first COP report they hired a consulting agency to help create a format they could use every year going forward. COZE Aarhus was advised to focus on a few SDGs and select specific targets from the selected SDGs with the aim to fully integrate the SDGs in as many parts of the company as possible. Lena T. Hansen, Head of Production at COZE Aarhus, says that focussing on six targets concerning SDG 8 and 12 has made it possible to integrate the goals into the company strategy (Hansen, 2020). Their strategy emphasises implementing SDG 8 and 12 throughout the value chain, from warehouse to supplier and to customer. Both Global Compact Network, Denmark (Falk, 2020), and Textile Exchange (2019, p.12) stress the importance of integrating a company's work with the SDGs into the main strategy as essential to maintaining a clear perspective.
Hansen goes on to suggest that the SDGs can be used in every aspect of the company to leverage their industry position. Moreover, the SDG focus at COZE Aarhus has affected the company's partnerships, moving them in a more sustainable direction as well, which has often resulted in win-win situations for several stakeholders in the value chain. COZE Aarhus have benefitted from their sustainability work in different ways: increasingly dedicated and proud employees and new partnerships with interesting suppliers that are devoted to research and development, which again helps COZE Aarhus optimise their products with sustainability in mind. Hansen says in her interview that COZE Aarhus employees react with pride when the company can report on a success story that they have been integral to bringing about. An example could be when the company received the Nordic certification, *Svanemærket* (The Nordic Swan)[2] (Hansen, 2020). Indirectly, working with certifications is a part of their work with SDG 12.

Both Heilmann and Hansen emphasise that they are looking for sustainability skills when hiring new employees. Heilmann prefers that new employees have a deep knowledge about sustainability and know how to obtain additional data about this area. However, she also realises that most of the people she hires join Aiayu because they are looking for a different approach to design and do not necessarily have skills related to sustainability. New employees, therefore, need to learn about sustainability practices when they start at Aiayu. Heilmann hopes that someday the company can afford to have an in-house person dedicated to research on sustainability, moving Aiayu in a new, explorative direction. Through an internship with a student from Copenhagen Business School, Heilmann has seen the benefit of including a new generation with strong research skills. She thinks that along with skills in research and sustainability, companies will face more questions from the next generation of fashion professionals about why, what, and how a company approaches sustainability within the value and supply chains.

[2] The Nordic Ecolabel is a label for non-food products. It was established by the Nordic Council of Ministers in 1989, and Denmark joined in 1997. The Nordic Ecolabel is used in all Nordic countries. Items branded with the swan mark are among the least environmentally harmful in that product group.

At COZE Aarhus, Lena T. Hansen looks for skills which are connected to SDGs 8 and 12. She lists three main areas of concern: materials, certifications, and technology—but she thinks education should receive more of a focus, based on her interactions with recent graduates and interns. To make the right sustainability decisions, designers need a deep knowledge about materials, how materials are produced, composition and material construction in a sustainable perspective, and deep knowledge about certifications used for textiles. Hansen also mentions technology skills—specifically skills related to technology used in production processes, such as new print and dying methods, and how different technology can be used to optimise the design and development processes. Right now, COZE Aarhus are looking at how they can optimise the design and development processes using Adobe Photoshop, and, in the future, they might look into 3D visualisation.

Conclusion

This research project has aimed to provide a perspective on how the SDGs are considered and realised at different Danish fashion brands by mapping Danish apparel COP reports, conducting interviews with Global Compact Network, Denmark, as well as with a small and a medium-sized, Danish fashion company.

Even though the SDGs are top-of-mind for the fashion business (Falk, 2020), surprisingly few Danish fashion companies report on their sustainability or SDG work in the form of Global Compact COP reports. As Sara Krüger Falk puts it, 'The low number surprises me. There is a huge potential for fashion companies to make use of this platform' (Falk, 2020).
My interviews with Aiayu and COZE Aarhus revealed two different approaches to working with the SDGs and sustainability in general. Both cases highlight the positive effect on several of the SDGs when supply chains become sustainable and when the link between sustainable production and sustainable consumption becomes firmer. This positive outcome of working with the SDGs matches what Textile Exchange write in their report (2019, p. 10). The two companies have different approaches to working with the SDGs, but they are both dedicated to continue pushing their value chain and supply chain in an even more sustainable direction.
Both Aiayu and COZE Aarhus are searching for designers with skills that can help them reduce the negative impact on both people and planet during product development, by implementing more sustainable designs.
As Falk says, 'education plays a key role. It is critical that the SDGs are part of the curriculum as early as possible in the programme. […] In this way, the students will enter the companies and be able to make a difference' (2020).

If education has a key role to play, educational institutions need to push the use and acceleration of applying the SDGs within fashion. Students must be knowledgeable about the SDGs and about the areas where the most impact is possible. To be able to work in a dedicated way with the goals students must learn about sustainability in general. But, most importantly, strong research skills within sustainability is a must. Having strong research skills makes it possible to continuously generate new knowledge about materials, production methods, certifications, and other relevant areas, which, ultimately, will lead to designing more sustainable products.

Acknowledgements

I would like to thank Executive Director at Global Compact Network, Denmark, Sara Krüger Falk and Corporate Sustainability Researcher at Global Compact Network, Denmark, Astrid Brünniche Lund for their expert interviews and advice. They also introduced me to Aiayu. Without the interviews with owner and designer Maria Heilmann from Aiayu and Product Director Lena T. Hansen from COZE Aarhus, this article would not have been possible. Thank you for being openminded and transparent during the interview. ■

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What the Fashion Industry Needs from Students and Graduates to Speed Up Sustainability Initiatives

Penille Dalmose Christensen, Lecturer in Sustainable Fashion Tech at KEA

This research article builds upon the conversations and debates from last year's Educators' Summit, which focused, overall, on how the concept of sustainability could be merged properly with higher education. Additionally, the Summit aimed to uncover the primary skills students need to make it in the fashion industry. Seeking to further expand on the findings of the Summit, I have interviewed three different Danish companies that each works with sustainability on different levels. Common to all three is the fact that they have experience employing KEA students and graduates. This paper, then, will focus on what the industry needs from our students and graduates to speed up sustainability initiatives.

At KEA, we work with a a curriculum that is tailored to our programme in sustainable fashion, but, at this juncture, we need to find out from the industry what they look for in students and graduates who are interested in entering their companies as interns or as new employees. As I aim to generalise the findings of my research, this paper strives to inform best practices in sustainable fashion education, not only at KEA but at other relevant institutions as well.
My research has been guided by two interrelated questions: How can academia and business collaborate to create a state-of-the-art curriculum in sustainable fashion? Are there any gaps between the current curriculum and what companies need and expect?

Theoretical Approach and Research Methods
The research for this article is based on semi-structured and qualitative interviews conducted with representatives of companies that have had interns or hired graduates from KEA.
My project has focused on Danish companies that are already working with sustainability in their business model. These companies need to isolate

their insights in order to help guide academics in their future research, analysing and comparing the curricula taught at different schools.

Desk research was performed on the UNESCO report on *Education for Sustainable Development Goals: Learning Objectives* (2017) to draw connections and similarities between the different skills needs in the sustainable fashion industry and in academia.

Presenting Three Danish Fashion Brands
This section will briefly introduce the three companies interviewed for this project:

Another View – Dorthe Brøgger, co-founder and creative coach.
Another View focuses on sustainable fabrics and processes in their production and business model. Furthermore, they are interested in the kind of mindset needed to design sustainable fashion. They have been working with a sustainability focus from the very beginning of the company, and Dorthe Brøgger is used to working with students from KEA as an external examiner and as a collaborator on different case assignments.

Skall Studio – Marie Skall, co-founder and designer.
Skall Studio aims to develop sustainable fabrics and production methods; they have a holistic mindset in terms of designing long-lasting clothes for women. The company is five years old and has incorporated a sustainability focus from the beginning. Skall Studio hires both internship students and recent graduates from KEA.

Noa Noa – Rikke Wienmann Mai, Head of design; and Pernille Holmen Andersen, Design and Buying Director.
Noa Noa is a well-known Danish womenswear brand established in 1981. They are in the process of implementing sustainability practices. Their main focus is on sustainable materials, sustainable solutions in the production phase, and the mindset of designing clothes that can last for decades in terms of style, quality, and colours.

The four interviewees answered questions in relation to:

- students' level of knowledge about sustainability,
- the future needs of students and graduates in obtaining knowledge and developing skills,
- necessary focal points in implementing sustainability in academia/curricula,
- different needs that employers must keep in mind when working with sustainability.

Analysing the Interview Findings
The interviews uncovered information regarding how different companies need specific skills in making their fashion more sustainable. In the following, I list the most important findings from the interviews, and these are exemplified with a few quotations.

Overall, the industry actors expressed a wish for students to employ an open mindset, which should not be fixed on reaching one right answer to a question or a case but rather on searching for different answers, even though they might run up against obstacles when communicating with suppliers who are not currently able to offer sustainable solutions (UNESCO, 2017, p.10). As Marie Skall puts it: 'We have difficulty finding suppliers who can meet our sustainability needs. For this reason, we have to develop a mindset of not giving up, as we continue striving to find the right suppliers. Our approach must be both critical and demanding' (2019).

Skall goes on to state that it is hugely important that students/graduates adopt a critical approach to new information in relation to sustainability; they must be able to ask critical questions and to dig deeper into the information they find: 'It is good that the students are informed and have a broad knowledge base and that they are able to look into the future and be critical of new information' (Skall, 2019).

Pernille Holmen from Noa Noa agrees with Skall, in large part, but in addition to being critical and inquisitive, students, to her mind, should also be able to compromise on their ideas when working with sustainability: 'I think it is important that you, as a designer, know that there will be some limitations on working with sustainable materials. You have to align yourself with what the opportunities are and with what is technically possible' (Holmen, 2019.)

Employers in the sustainable fashion business need to develop a sustainability mindset to consider sustainability at every stage of the creation process, from design through production to use; furthermore, they must create a process for understanding the needs of sustainability consumers. For students to develop a holistic sustainability mindset, Dorthe Brøgger suggests that they should be taught, from the beginning of their education, to implement this kind of thinking in 'every level of [their] life' (Brøgger, 2019).

Students and graduates need to know the craft of producing clothes, from sewing to choosing the right (sustainable) material; they must also know how to choose the right construction and detailing methods for the product to be sustainable, both in terms of creation and in terms of use. Marie Skall makes a point of emphasising the connection between design and production: 'You can use all the organic cotton in the world and have it freighted by ship, but if the end product doesn't work as a piece of design, it is all a waste. At Skall, we think the design should be spot on from the beginning and manufactured using solid materials. That way, we can put ourselves on the right sustainability course, to a large extent at least' (Skall, 2019). Rikke Wienmann Mai from Noa Noa thinks along similar lines: 'This way of thinking design through construction is also a big part of being sustainable and of making a good product. The clothes need to be worked out properly and they need to last' (Wienmann Mai, 2019).

To ensure that this process of designing with construction in mind is viable, companies need to research new materials and seek out new knowledge, using different platforms. The aim is to establish relevant future focal points in the industry.

'At this point, we are comfortable with our materials and would like to start working on new materials. We have talked to our internship students about that, and we can see they know more than we do. They are very informed about sustainability and the future, and that is very satisfying. We have talked a lot with them about that and we sense they are ahead of us, which is nice actually.' (Skall, 2019)

In her interview, Dorthe Brøgger from Another View talked about creating visions for the future by adopting new curricular focal points. She finds that there is a need for sustainability consultants to help companies change, setting out the best course forward by discovering what is most important to the company. Additionally, she believes that the business part needs to be emphasised, for students to help the industry find new sustainable business models and to help them properly price their products.

According to Homen from Noa Noa, there exists an urgent need for students to know more about CSR and certifications, which would equip them to ask critical questions and pose demands to suppliers. Attaining this kind of knowledge would then allow them to research further on new materials.

The Brøgger and Holmen interviews focus on similar mindsets and skills that the industry need to develop. Here it is possible to draw parallels to the aforementioned UNESCO report such as the importance of critical thinking (2017, p.10)—properly assessing knowledge and information but also developing empathy—in regard to the use phase of the product and to consumer needs. However, the interviews also allow us to build further on the report in relation to creating a more practical knowledge base. Moreover, it is clear that, depending on how fair and complex the companies working with sustainability are, different skills should be emphasised.

The UNESCO report is an important document that companies can reference, as they strive to become frontrunners, readying themselves to meet future sustainability demands. Higher education should foster critical thinking skills in students, based on the UNESCO report, so that they are ready to help the industry evolve once they enter the workforce.

Conclusion

The research presented in this article suggests that there are crucial differences between fashion companies in relation to how far they are on solving sustainability issues; therefore, it is important that the academic sector finds a way to best accommodate those differences, ensuring that our students will be able to act in different companies. Students will need to use their analytical skills in assessing companies, so that they can aptly meet their needs; likewise, they need to develop appropriate research skills that

will allow them to find the latest sustainability information. Crucially, in addition to their academic skills and competences, students must practice resiliency, facing difficulties head-on, as they help companies become more sustainable. Increasing their resiliency will also make them better suited to assess and implement new information for the benefit of companies. At present, as educators, we need to step up specific information in relation to CSR, certifications, new business models, and product pricing. Doing so will make it easier working together with the industry, other schools, and consumers.

My research has not revealed any specific gaps between academic curricula and the needs of the businesses I have focused on. The overarching insight is that students and graduates need to develop critical thinking skills in relation to working with sustainability, both in terms of present circumstance and in terms of the future. This insight should give educators a sense of possible directions to take when comparing their current teachings with the findings of this paper. The goal, after all, is helping students hone their skills and focus their mindsets to better be able to assist the fashion industry in speeding up sustainability initiatives based on the latest knowledge. ■

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Get Savvy with Sustainability

The future of humanity and of our planet lies in our hands. It lies also in the hands of today's younger generation who will pass the torch to future generations. We have mapped the road to sustainable development; it will be for all of us to ensure that the journey is successful and its gains irreversible

—United Nations, 2015.

Tina Hjort, Lecturer in Sustainable Fashion Tech at KEA

This article posits that the young generation are a force for change in the nexus between education, business, society, and the Sustainable Development Goals (SDGs). It scrutinises competencies needed by newly graduated fashion professionals to create valuable changes and accelerate sustainability in the fashion ecosystem based on the SDGs. Furthermore, it aims for a fruitful dialogue with relevant stakeholders within the fashion ecosystem to pave the way for sustainable development by interacting with this new generation entering the industry.

The focus on the young generation in this article is not to exclude other groups but to emphasise the importance of 'the voice of the next generation' (YFS) and to highlight the opportunities they have to bring sustainability to the attention of fashion companies. The hope is that their fresh, and sometimes radical take, will help shape policies and initiatives, thereby raising the level of sustainability efforts in the industry. This does not mean that the young generation have all the answers, but that they can offer, from their perspective, another view on the challenges and possibilities ahead. They are native to the perspective of sustainability challenges and possibilities due to the globalised world they have grown up in. As expressed by UNESCO, young people 'occupy a social position of limited access to resources and decision-making power that often acts to magnify the risks affecting them […]. youth are also often best positioned to change, redress, reconfigure and renew the social systems that place them at risk' (2018, p.159). Youth have an inherent openness and drive towards change, and it is of great importance to invite and include them as game changers to shape a sustainable future.

Research Methods

This research project is based on in-depth interviews with six participants. Chosen for their knowledge and engagement as professional advocates for sustainability in the fashion world, the interviewees are:
KEA Sustainable Fashion graduates Cam-Ly Nguyen and Christian Asner, henceforth referred to as 'the young learners;' Johan Arno Kryger and Peder Michael Pruzan-Jørgensen, experts in

dealing with sustainable fashion from a business perspective, who will be referred to as 'the sustainable business developers' in the remainder of the article; and, finally, representatives from the Education for Sustainable Development Goals, Jeppe Læssøe, and Marco Rieckmann.

The young learners featured in this research come from an educational background where the learning perspectives are based on Education for Sustainable Development (ESD): 'ESD aims at encouraging the transformation of education so that it is able to contribute effectively to the reorientation of societies towards sustainable development. This requires a reorientation of education systems and structures, as well as a reframing of teaching and learning. ESD concerns the core of teaching and learning and should not be considered as an add-on to existing curriculum or educational practices' (UNESCO, 2014, p. 20).

ESD has long been recognised as an approved approach to learning for sustainable development. Lately, with the adoption of the SDGs, this approach has gained new energy, serving as a fruitful environment for the scaling up and implementation of ESD (UNESCO, 2018, p. 25).

Current conversations in the fashion industry, in academia, in popular culture, and in a generally shifting global reality triggered many questions for me about how best to foster sustainability. These questions led me to research the discourse and level of cohesion between education, business, and society from the vantage point of the SDGs. The primary qualitative research was conducted from a phenomenological perspective to give voice to the informants' own experience. The semi-structured interview format was used to enable this. The article summarises the findings that arose from the research, based on the six informants' aspirations and supported by relevant secondary material, which further underlines their value and relevance. A particular emphasis was placed on how the young generation's competencies could suggest a path forward for sustainability.

Competencies for Sustainability

The title of this article, 'Get savvy with sustainability,' encapsulates well what the young sustainability-educated fashion professionals can bring to fashion companies. Savvy is often used in relation to technology; it implies that the savvy person has or shows 'perception, comprehension, or shrewdness especially in practical matters' (Merriam-Webster, 2020). Given the right conditions, the young fashion professionals are ready to act and to bring their savviness, their attunement to the necessity for proper sustainability solutions, into play.

My research has shown that young people obtain their knowledge of sustainability from many different settings and that they are eager to share their knowledge with peers and other fashion stakeholders. They develop their experiences, values, and competencies in a variety of ways, and these all play an important role in structuring their own awareness and engagement concerning sustainability and fashion. My research has also shown that, apart from the non-formal and informal learning settings, more and more educations are bringing sustainability to a formal setting (Rieckmann, 2019). This indicates that an increasing number of graduates will enter the job market with a well-rounded understanding of sustainability issues. Currently, many fashion companies are lacking sustainability competencies and awareness as a resource. This article sheds light on the sustainability competencies needed by young graduates to enable them to fill this void and help accelerate a positive change in fashion companies in the underdeveloped area of sustainability.

During their interviews, the six participants were asked to reflect on which competencies were important for young graduates to bring into the process of the acceleration needed in fashion

companies' approach to becoming sustainable. This was followed by an introduction to already recognised competencies for sustainable change. These are the key competencies for sustainability that are outlined in the report *Education for Sustainable Development Goals: Learning Objectives* (UNESCO, 2017, p.10). Referencing Rychen (2003) and Weinert (2001), the UNESCO report states that, 'Key competencies can be understood as transversal, multifunctional and context-independent. They do not replace specific competencies necessary for successful action in certain situations and contexts, but they encompass these and are more broadly focused' (UNESCO 2017, p.10).

The key competencies for sustainability are:

Systems Thinking Competency, Anticipatory Competency, Normative Competency, Strategic Competency, Collaboration Competency, Critical thinking Competency, Self-awareness Competency, Integrated Problem-solving Competency

While all these key competencies are important, some additional competencies began to emerge from the interviews I conducted. Some of these competencies were named directly by the informants while others have been devised based on the perceived intentions and direct opinions expressed by the informants. Some of the competencies I focus on in this project might appear in other contexts, and it is important to note that, in this article, the specific competencies will be elaborated on only in the context of this research.

The supporting competencies for sustainability are:

Curiosity Competency, Spirit-for-learning Competency, Creativity Competency, Tech Savvy Competency, Change Competency, Communication Competency.

The Notion of Change

Since the SDGs were introduced by the United Nations in 2015, a burgeoning number of companies, including numerous fashion companies, have started to express their sustainability efforts through these goals. Some of the changes called for are relatively easy to plan and execute while other changes call for long-term investment and a review of the whole value system of companies. How companies adapt to this profound change is a process that is still in its infancy and that calls for all related parties to take action to ensure that sustainable change can be accelerated through the fashion ecosystem. Now is the time to create a new plan for the future that will help us act responsibly and that puts restorative, regenerative planetary and socially responsible ethics to the fore. The vast global fashion business, the extended branches of its ecosystem, and the whole world would benefit if the SDGs and their interrelated complexities were at the core of all actions in the fashion industry. Change has begun, and we have all been invited to this re-evaluating and resetting of our goals and our very raison d'etre.

Changing the Mindset

Starting on the path of achieving sustainability is a multifaceted and difficult enterprise, but one that is essential if companies want to survive and thrive in the future. My research has shown that fashion companies seem to be addressing sustainability in four different ways: Companies that fail to address it; companies that try but fail; companies that address sustainability without changing their old business models; and companies that base their business models on a sustainable point of view. It has also showed that changing the mindset of the involved stakeholders in the companies is pivotal for the acceleration of sustainability in the fashion industry. As Johan Kryger says in his interview, 'a huge shift in attitude has to happen, and that is why I think the most interesting are the small companies that have a completely

different mindset; they adapt to the sustainability challenges in a whole new way' (2019). He believes that new brands that are built on this narrative and mindset can navigate the path towards sustainability much more easily. This viewpoint, that a company's fundamental outlook affects its ability to change, is shared by both the young learners and the sustainable business developers.

Imagining a different future and being able to deal with both risk and change is embedded in the Anticipatory Competency: 'the abilities to understand and evaluate multiple futures – possible, probable and desirable; to create one's own visions for the future; to apply the precautionary principle; to assess the consequences of actions; and to deal with risks and changes' (UNESCO, 2017, p.10). This competency is about being able to use one's imagination to 'see' different futures, not in a utopic, unattainable sense but in a way that is fully possible, yet remains to be realised; it means to imagine and critically explore potential futures (Læssøe, 2019). My research has also addressed how the Creativity Competency contains elements for change. In the context of this article, this particular competency is about having a conceptual mindset. As Christian Astner says, 'It is about concept development and trying to think out of the box, do some mind mapping, do some idea generation to start the creative process' (2019). From the perspective of the young learners, Astner addresses the importance of companies becoming interdisciplinary, for all involved to take part in the mind shift, and that each individual actor has a role to play. Shifting to a sustainable business model is a new way of thinking for some, but what might seem like a limitation for some will, for others, represent a possibility to innovate and create exciting change. To create change, companies must broaden their horizons and realise that there are alternative ways of working and of doing business, and, in this regard, academia can bring to the fore new, workable, sustainable business options (Kryger, 2019). The Centre for Sustainable Fashion points out exactly how academic institutions might help businesses make the necessary changes: 'Higher Education Institutions (HEIs) play an active role in fostering economic growth but they also play a vital role in shaping our societies, through contributing to new knowledge and our understanding about the world. HEIs are in a unique position to be able to reflect upon our current reality and develop new and relevant kinds of knowledge' (CSF, 2018, p. 8).

The Premise of Implementing Sustainability Changes

Addressing the willingness of the executives currently running the fashion world is absolutely key for radical change to happen. This is emphasised clearly by the Global Fashion Agenda: 'We urge you as industry leaders to investigate new business models outside current market mechanisms to drive change, implement innovation and tap into collaborative and progressive business opportunities. This is essential not only to future-proof your business, but it is also crucial for humanity to operate within planetary boundaries and to meet the needs of future generations' (GFA, 2020, p. 4).

In order to create a sustainable business and accelerate change, the willingness to radically alter the way fashion companies approach business is critical. In his interview, Kryger expressed the following concern: 'The companies do not know how, and they are not ready to make the unpleasant decisions that have to do with the bottom line—it all comes with a price. And I do not feel that there is a willingness yet, and there won't be until someone says it can pay off' (2019).

Even though *some* fashion companies have shown

a willingness to change and are in fact changing, there are still an abundance of possibilities and challenges that could be addressed to further accelerate a deeper, longer lasting, and radical change. As mentioned in the *Pulse of the fashion industry 2019 update*, which sets out to score the progress of the fashion industry concerning environmental as well as social and ethical factors, 'The fashion industry has shown progress toward better social and environmental performance over the year, but the slackened pace is alarming. We must increase the momentum to establish lasting impact' (GFA, BCG, SAC, 2019, p. 18).

In Pruzan-Jørgensen's interview, he also worries some companies are moving too slowly: 'The spirit of our times has gradually made fashion companies more aware about sustainability, and this has given them an idea of what they can work with. However, progress is slow, and it is not necessarily happening at a pace that matches the ambitions of the students' (2019). This also resonated with the young learners. As Astner says, 'The worst is that the companies do not keep evolving. That they kind of feel that, "now we have got this sustainable approach, now we have got this recycling, now we have like the green options." I think the worst thing for me is that they do not keep pushing forward' (2019). Astner's concern is followed by an even more radical suggestion from recent graduate Cam-Ly Nguyen: Since companies that are unwilling to change endanger not only their business but also the planet, the downfall of those companies means that there will be more room to thrive for brands that are actually sustainable (Nguyen, 2019). The question is how the meeting point between fashion companies and young engaged graduates can become most fruitful and accelerate sustainable change in the companies. At the end of the day, it most certainly would be preferable to include young and enthusiastic voices in one's company rather than face them as activists later.

My research indicates that the following competencies are relevant regarding how graduates and companies can come together: the Strategic Competency, which covers 'the abilities to collectively develop and implement innovative actions that further sustainability at the local level and further afield' (UNESCO, 2017, p.10); and the Change Competency, the ability to know when and how to address relevant parties and issues in order to enable constructive dialogues and transformative paths; furthermore, being vigorous and resourceful are key to initiating robust actions (Læssøe, 2019).

My research has shown an unexpected twist concerning the interpretation of what 'strategic' means to the informants. Some think that being strategic is usually something carried out at the managerial level (Kryger, 2019, Pruzan-Jørgensen, 2019). This notion led the informants to reflect on whether young people should find their way into the company and then slowly, as they advance, begin addressing the sustainability challenges and possibilities. Or if they should just roar ahead with their knowledge and engagement. My research indicates that if the strategic decisions and willingness to change remain rooted at the managerial level, the acceleration of the rate of change is not likely to happen. If the fashion industry continues this slow trajectory to embrace sustainability and doesn't harness the drive of the youth, it may find that they have found another setting to manifest their role as sustainability advocates.

From Knowledge to Knowhow

Knowledge about sustainability and fashion tech travels fast these days, and it is important that companies are aware of this in order to secure their business models and sustainability

initiatives (Kryger, 2019). As these changes are occurring in the ecosystem fashion companies are operating in, they are forced to change their working procedures to be at the forefront of this development. To do this, the companies need to build up not only new knowledge, skills, and competencies, but they also need to be able to transform these into the knowhow of their daily practical routines. A concern expressed by both the young learners and the sustainable business developers revolved around a knowledge deficit in some established companies. Even though the fashion companies have highly skilled employees, there seems to be a lack of knowledge and knowhow in relation to practicing sustainability; therefore, many companies are unable to meet the challenges or see the possibilities laying in front of them.

The Spirit-for-learning Competency—encompassing the joy, interest, and engagement to keep on learning for sustainability—is crucial for the companies to get onboard. It is important for all parties to keep on developing this competency, and, further, the companies need to be connected with the flow of new knowledge and knowhow. An easy way to achieve this is to connect and engage with young fashion actors.

In order to cope with the complexity of sustainability and applying it by finding practically-oriented solutions, the Integrated Problem-solving Competency becomes relevant, as it concerns 'the overarching ability to apply different problem-solving frameworks to complex sustainability problems and develop viable, inclusive and equitable solution options that promote sustainable development' (UNESCO, 2017, p.10). Furthermore, the Tech Savvy Competency is integral to turning knowledge into knowhow. As mentioned earlier, savvy is about showing 'perception, comprehension, or shrewdness especially in practical matters' (Merriam-Webster, 2020). Combined with tech and sustainability, savviness translates into the ability to push technologies that accelerate sustainability efforts. Nguyen and Kryger exactly pointed to this competency in their interviews (Nguyen 2019 and Kryger, 2019). The young sustainability-educated fashion professionals have something to offer here. Entering the market with the newest theories, methods, tools, and insights from different learning settings—including working on case studies and collaborating with different companies and organisations—they have acquired knowledge, skills, and competencies about sustainable approaches and new technologies relevant for companies to commit to sustainable change. Of all competencies, however, the Curiosity Competency is relevant in order to impel companies to research and learn to continuously be on the forefront of change. As Nguyen says, 'First of all, we have curiosity. Curiosity is very important because without it you would not learn anything' (2019). She goes on to reflect on how this curiosity will help the young fashion professionals to keep on searching for the best solution (2019). Again, here the combination of young and established fashion professionals should prove fruitful.

My research has also revealed that it is not always easy to bring together established teams and new graduates, who are eager to implement new approaches. In Astner's words, 'It is problem-solving, but I think it is maybe even more about the conflict of you coming into the company as a new graduate in an existing team with maybe two designers, three purchasers, and one like me. They are already established in the workplace' (2019). Knowing your own worth and possessing the Self-awareness Competency is important to gain a foothold when entering a new business team. As a recent graduate, it is crucial to have 'the ability to reflect on one's

own role in the local community and (global) society; to continually evaluate and further motivate one's actions; and to deal with one's feelings and desires' (UNESCO, 2017, p.10). The Self-awareness Competency should be combined with the Normative Competency: 'the abilities to understand and reflect on the norms and values that underlie one's actions; and to negotiate sustainability values, principles, goals, and targets, in a context of conflicts of interests and trade-offs, uncertain knowledge and contradictions' (UNESCO, 2017, p.10).

Safeguarding Systems

Moving towards a sustainable business model is a challenging and multi-layered process. Making the change to a circular model, it is vital to understand how the different systems involved are connected. This is the only way to do it successfully, but it will also reveal myriad business opportunities in the emerging landscape of sustainable fashion. My research reveals that both the young learners and the sustainable business developers are concerned with transitioning from the linear 'take, make, and waste' business model to its circular counterpart. Their concern does not revolve around the concept of circular economy itself, but, rather, how well companies understand the nuances of the concept and the fact that a circular model cannot just be an 'add on' to business as usual. The complexity of the concept of circular economy becomes clear when we consider that, '[a] circular economy is a systemic approach to economic development designed to benefit businesses, society, and the environment. In contrast to the "take-make-waste" linear model, a circular economy is regenerative by design and aims to gradually decouple growth from the consumption of finite resources' (Ellen MacArthur Foundation, 2020).

The oxymoron between sustainability and consumer-fuelled fashion plays out in different settings and in the transition towards the circular economy. As Peder Michael Pruzan-Jørgensen says, 'I really think the biggest gripe [of companies] is about circular economy because I do not yet see that consumption is going to change so much that it will become the solution to the huge environmental impact of the fashion industry. So I think we have to keep investing heavily in how we create a circular economy' (2019).

The main concern is that even though we can change to a circular economy, there is still the issue of how much we consume that needs to be addressed (Kryger, 2019. Pruzan-Jørgensen, 2019). The World Resource Institute has raised similar concerns regarding consumption: 'To ensure that the global community's social and environmental goals are met will require a full delinking of business growth from negative environmental and social impacts. To accomplish this will require fundamental shifts in the way consumer demands are shaped and met' (2017).

When integrated fully in the fashion ecosystem, the circular economy can disrupt 'business as usual' and lead a strong way forward. It calls for competencies that, in many cases, are new to the companies but that are nevertheless crucial for the change to happen. To safeguard the systems, it is important to acquire the Systems Thinking Competency, as it allows us 'to recognize and understand relationships; to analyse complex systems; to think of how systems are embedded within different domains and different scales; and to deal with uncertainty' (UNESCO, 2017, p.10). However, the Collaboration Competency becomes crucial to consider in this regard as well, since, to incorporate circularity successfully all the interconnected systems of the fashion industry need to work in the same direction, without individual trade-offs. The Collaboration Competency encompasses 'the abilities to learn

from others; to understand and respect the needs, perspectives and actions of others (empathy); to understand, relate to and be sensitive to others (empathic leadership); to deal with conflicts in a group; and to facilitate collaborative and participatory problem solving' (UNESCO, 2017, p.10). The Critical Thinking Competency was also addressed by all the informants as being important, as it is 'the ability to question norms, practices and opinions; to reflect on own one's values, perceptions and actions; and to take a position in the sustainability discourse' (UNESCO, 2017, p.10). This competency can aid in questioning the approach that companies take to the problem-solving process, making sure that the new approaches really do foster sustainable change.

Informing Decisions

Many of the informants in my research highlighted the importance of making decisions based on an informed sustainability foundation. Although there is a huge focus on accelerating sustainable change, at the same time as the SDGs are becoming more present in the fashion world, the change from the top might be long in coming for some companies. As Pruzan-Jørgensen puts it, 'Though the SDGs have opened the doors to the board of management in the fashion industry because the companies see the business potential in talking up sustainability, there is a concern that it might not really inform any real decisions yet' (2019).

My research has made clear that in order to accelerate sustainable changes within fashion companies, it is important that decision-making is based on strong foundations. Sustainability needs to be ubiquitous, appearing across and influencing all actions in the value chain. It is about sharing and bringing forward the enthusiasm, the engagement, the good stories, as well as the challenges that come with adopting sustainability as a main focus. Becoming a successful sustainability change agent requires specialised knowledge that can help companies make the best decisions and alert them to the flaws in the system. Education is key in this regard. As Astner says, 'The best scenario, in my perspective, is that people become more educated about sustainability. That customers and those who wear clothes actually become more educated and more aware of the choices they make' (2019). Another example is about changing consumer behaviours: 'You can see the business industry and the marketing industry have been working for years and years and years now to change consumer behaviour. But when it is so hard to change consumer behaviour to become more sustainable, it is simply because not many people in the marketing or business world are knowledgeable about sustainability' (Nguyen, 2019).

The young learners showed a huge interest in educating others, as well as in supplementing their own education with new knowledge as it appears. My research has revealed an interest in communication and sharing knowledge from many perspectives to propagate and accelerate sustainable changes. Moreover, my research has also made clear that developing an expansive learning platform—which transcends institutional curricula—is important to increase the knowledge, skills, and competencies needed in relation to driving sustainability forward. Examples of expansive learning include joining climate movements (Rieckmann, 2019) and becoming engaged in politics in relation to sustainability and the green transition (Astner, 2019). Some student informants have expanded their knowledge about sustainability through social media, articles, and books; some even cited an interest in teaching their fellow students and friends about sustainability (Nguyen, 2019). Young people, in general, are obvious drivers

of change: 'Young people have been engaged in environmental, sustainable development and justice movements for decades. Today, as the key stakeholder of sustainable development, they are increasingly voicing their concerns and leading the transformative action for a more environmentally sound, socially equitable and economically just future' (UNESCO, 2018). Young people care and are eager to help accelerate the sustainability change through their means and the different platforms, both physical and digital, they encounter as fashion professionals (Nguyen, 2019). The Communication Competency is of particular relevance here, as it concerns transforming, conceptualising, and conveying knowledge about sustainability through different channels in order to make sustainability ubiquitous in all parts of the fashion industry and in people's minds in order for all to make informed decisions along the way.

Conclusion

In this article, I have aimed to demonstrate the importance of bringing the new generation of fashion professionals' perspective into the sustainability debate. They are interested and capable, and they envision things being radically different from the traditional business-as-usual way. If invited to the table, young people will be of great value to future and ongoing sustainability efforts, both in relation to the companies that are less willing to change and those that are in the process of changing or that have already changed. My research has shown that the young generation might have an advantage as sustainability 'natives' as they take active part in today's globalised world; furthermore, their generation is exceedingly familiar with digital platforms and new technologies. All of the young learner informants I interviewed had very similar and overlapping perspectives concerning the challenges and possibilities when it comes to accelerating sustainability in the fashion ecosystem. There was one matter that made some informants feel conflicted, and that was how young people should go about introducing their knowledge to companies. Should they adhere to the old hierarchal system, slowly introducing their freshly acquired competencies as they rise through the ranks, or should they upset the status quo and charge ahead? In the end, they concluded that they should just simply advance in order to challenge 'business as usual.' In relation to ongoing knowledge formation, my research has also shown that it is important to consider several educational learning platforms as formal, non-formal, and informal for disseminating and educating others about sustainability. Again, young people are of great value, as they exist in the nexus between education, businesses, society, and the Sustainable Development Goals; companies just need to learn to tap into this flow.

Based on the SDGs, this research project set out to scrutinise the competencies that the young generation needs to create value and to accelerate sustainable change in the fashion ecosystem. Of particular interest in this regard is the meeting point between the young generation and the fashion companies. The eight key sustainability competencies were addressed by all informants as being important to establishing enduring points of convergence. The informants agreed that all the key competencies were relevant, although they sometimes differed slightly on how to interpret them. Even as the informants thought that some of the key competencies were more important than others, they still felt that they should all be included (Læssøe, 2019; Rieckmann, 2019). Many of these competencies were raised by the informants even before they were introduced to them by me during the interviews. Furthermore, a set of six new competencies were derived from the interviews. While that might seem like setting the bar high, looking at the variety of challenges and possibilities that

need to be addressed, I end up recommending all fourteen competencies as being equally important for the young fashion sustainability professionals to master in order to accelerate sustainability changes in the fashion ecosystem.

This project has further emphasised that there is a gap in the fashion industry concerning a lack of knowledge, knowhow, and sustainable awareness, which, however, can be augmented by the young graduates' competencies and ambition. If the companies are brave enough to give young graduates the chance to prove their worth regarding the sustainable transformation, together they can discover new perspectives, as they forge ahead on the road leading to a more sustainable fashion industry. ■

The key competencies for sustainability that are outlined in the report *Education for Sustainable Development Goals Learning Objectives* (UNESCO, 2017)

Systems Thinking Competency: the abilities to recognize and understand relationships; to analyse complex systems; to think of how systems are embedded within different domains and different scales; and to deal with uncertainty.

Anticipatory Competency: the abilities to understand and evaluate multiple futures – possible, probable and desirable; to create one's own visions for the future; to apply the precautionary principle; to assess the consequences of actions; and to deal with risks and changes.

Normative Competency: the abilities to understand and reflect on the norms and values that underlie one's actions; and to negotiate sustainability values, principles, goals, and targets, in a context of conflicts of interests and trade-offs, uncertain knowledge and contradictions.

Strategic Competency: the abilities to collectively develop and implement innovative actions that further sustainability at the local level and further afield.

Collaboration Competency: the abilities to learn from others; to understand and respect the needs, perspectives and actions of others (empathy); to understand, relate to and be sensitive to others (empathic leadership); to deal with conflicts in a group; and to facilitate collaborative and participatory problem solving.

Critical Thinking Competency: the ability to question norms, practices and opinions; to reflect on own one's values, perceptions and actions; and to take a position in the sustainability discourse.

Self-awareness Competency: the ability to reflect on one's own role in the local community and (global) society; to continually evaluate and further motivate one's actions; and to deal with one's feelings and desires.

Integrated Problem-solving Competency: the overarching ability to apply different problem-solving frameworks to complex sustainability problems and develop viable, inclusive and equitable solution options that promote sustainable development, integrating the abovementioned competences.

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Cultural Analysis as Key: Unlocking and Igniting Student Potential

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Looking at Danish higher education in sustainable fashion today, expectations regarding students' professional skills and competencies are well defined and evaluated. Currently, the fashion curriculum in Danish higher education mainly focuses on traditional learning objectives, which educators use to evaluate and provide students with feedback. In contrast with academic objectives, the personal potential of each student—concerning their ability to develop personal competencies and soft skills during their education—is not part of the curriculum at present. It goes without saying, therefore, that no processes are in place to evaluate or give students feedback in this regard. As personal competencies and soft skills are not part of the sustainable fashion curriculum, they tend to be neglected, and neither students nor teachers consider them to be primary to the education. However, sustainable fashion students should be provided the chance to unfold their personal potential and competencies, which would give them the courage to act and engage constructively and responsibly with the industry. According to a UNESCO report from 2017, *Educational Sustainable Development Goals: Learning Objectives*, 'The future generation need to be able to collaborate, speak up and act for a positive change' (UNESCO, 2017, p.10). For students to acquire these competencies, they need a substantial amount of self-awareness. The UNESCO report defines self-awareness this way: 'Self-awareness… [is] the ability to reflect on one's own role in the local community and (global) society; to continually evaluate and further motivate one's actions; and to deal with one's feelings and desires' (UNESCO, 2017, p.10). The report, furthermore, defines eight key competencies in advancing sustainable development; however, this paper will only focus on competency no. 7, Self-awareness, as so-called soft skills are very important to consider in advancing sustainable development as well as in activating the other seven key competencies. From an educator's perspective, the eight different competencies are highly academic in nature, and, going forward, the challenge will be how these goals can become an active part of the curriculum, both practically and pedagogically, within sustainable fashion programmes.

Research Purpose

The purpose of this research project is to gain a deeper understanding of the findings from the eight workshops held during the Educators' Summit 2019. Additionally, the aim is to uncover certain personal competencies that are crucial for sustainable fashion students to attain. Much of my research is based on the aforementioned UNESCO report. This report defines eight key competencies to advancing sustainable

development: 1) Systems Thinking Competency, 2) Anticipatory Competency, 3) Normative Competency, 4) Strategic Competency, 5) Collaboration Competency, 6) Critical Thinking Competency, 7) Self-awareness Competency, and 8) Integrated Problem-solving Competency. As mentioned, I will focus on competency no. 7, Self-awareness, since I want to explore the importance of students gaining personal competencies and how educational programmes can empower the next generation of sustainable fashion designers, ensuring that they will gain the courage and capability to create change for the future of the fashion industry.

Research Methods

For this research project, I have conducted a qualitative interview with Karen Blincoe, who has advised on the 17 SDGs (UNESCO 2017); additionally, I have interviewed five sustainable fashion students and recent graduates from KEA. As this article only focusses on self-awareness related to students, the choice was made to only interview one professional, Blincoe. Five sustainable fashion students from KEA were interviewed to gain insights into the student experience. The interviews were held between November 2019 and January 2020. They were conducted via Skype, face-to-face, or, in one instance, email. All interviews were recorded and subsequently transcribed before being translated from Danish to English. This interview method was chosen in order to arrive at an in-depth understanding of the diversity among, but also the similarities between, the five students who are at different levels of their education; I wanted to understand properly their perspective on the personal competencies that sustainable fashion students of the future need. The five students were specifically chosen because of their different practical and theoretical backgrounds as well as their individual approaches to sustainability. In the following, one keyword is written next to each name to indicate their approach to thinking about and working with sustainability.

The five interviewed sustainable fashion students from KEA:

- Johanne Rytter Stenstrup (class of 2017), owner of Sustain Daily. **Politics**
- Katrine Steinbach (class of 2019). **Creativity**
- Rasmus Lange (class of 2020). **Aesthetics**
- Kristian Blinksbjerg Kristensen (class of 2021), former schoolteacher. **Education**
- Katrine Maria Goli Jensen (class of 2021). **Upbringing**

The interview with Blincoe took the form of an informal conversation about her points of view regarding the future of sustainable fashion education and which of the eight key competencies for sustainability she finds to be the most important.
At the end of my analysis, I will provide answers to which actions educators should take to revise their programme/curriculum, with the aim of fostering student self-awareness.

Analysis

When young people decide to enter a programme in sustainable fashion, they each have different dreams of how to make a difference in this particular industry. This is a very important aspect for educators and institutions to take into consideration because it holds the key for students to stay motivated and passionate about sustainability and educational development. Passion and motivation can facilitate students

reaching their goals. Furthermore, aiming for specific goals makes students courageous, and courage breeds action.
The current generation is concerned about the climate, and, for some, this concern can lead to fear and paralysis, whereas others react with courage and a new drive towards action. A case in point is Greta Thunberg. She has become a role model to many young people, and she has channelled her passion into events such as Fridays for Future. At just 17, she is committed to action and has contributed to the climate debate in significant ways. Passion is Thunberg's driving force. Passion is the key to creating ongoing change within all different areas related to sustainability, and my interview with Blincoe namely focussed on passion as an affective quality that can lead to a greater sense of courage in students. Being passionate about something makes it easier to transcend one's own barriers, leading to a more courageous mindset and a greater willingness to take action.
Our conversation proceeded from the importance of being passionate to the barriers facing sustainability and education. As Blincoe puts it,

'The most important thing is to create a positive vision for the future of sustainability.
To make young people take action and participate in making the world more sustainable, students need to become passionate about sustainability; otherwise they won't be able to overcome all the barriers to sustainability that exist in the industry as well in society, generally. Students need to understand their own culture—including norms and values, and by that their belief system—to be able to face the complexity of sustainability. At the same time, the future curriculum of fashion education should be amended to contain other and different tools such as classes in principles of leadership, principles of activism, and principles about how to make changes, combined with the more traditional fashion tools such as sustainable design process, sketching, pattern making, sewing, and digital programs.' (2020)

Therefore, if higher education is going to drive sustainability forward, it is important to help students locate their passion, making them able to innovate and to push a sustainability agenda within the fashion industry.

When talking to former KEA student Johanne Rytter Stenstrup, she expressed something similar to Blincoe. Perhaps influenced by her background as an activist, Stenstrup says that, 'it is important to be passionate and to become your own advocate, which means taking charge of your own education, and not being afraid to say what you mean—speak up. Learn to create arguments; the best way to learn is by arguing for something that doesn't mean anything to you' (2019). By this, she refers specifically to the American cultural practice of debating the pros and cons of a particular issue until a consensus can be reached. Cultural differences are essential to consider in this context, as Danish culture does not promote the same kind of willingness to debate and argue; thus, Danish educators are faced with a challenge, but also a necessity to implement rhetorical principles of debate in domestic higher education to meet future sustainable fashion demands. When speaking about Danish culture—specifically Danes' unwillingness to argue and debate issues, as well as to tout their accomplishments—the concept known as *Janteloven* is crucial to consider. This 'law of Jante' is not an actual law but should be understood

instead as a set of unspoken social norms and rules, which can be traced back to Aksel Sandemose, a Danish-turned-Norwegian novelist, whose works of fiction included 'ten laws' that Danes still conform to. The primary laws governing Danish social interactions are law no. 1: 'Thou shalt not think that thou art something special' (Gopal, 2004, p.65) and law no. 3: 'Thou shalt not believe that thou art wiser than us' (p.65). Although not explicitly taught, these social norms and expectations are surprisingly still reflected in how contemporary Danish people behave and operate; the laws are therefore still culturally relevant, unfortunately. Author and journalist Michael Booth, living in Copenhagen, has observed in his book *The Almost Nearly Perfect People* that 'Jantelaw operates everywhere in Denmark on some level or another' (Booth, 2014; cited by MacLellan, 2016, p.1). Being aware of these cultural barriers and social norms can provide students with an understanding of their own belief system and the need for practicing new skills, which will hopefully help them break down some of these cultural barriers.

To help students practice new skills, particularly in relation to creating good arguments, educators could provide them with a range of general topics to argue against. Topics could include doing homework or participating in social activities, for instance. Topics could further be exemplified with a negative analogy such as 'Why *not* to climb a mountain'—an analogy that makes clear how difficult it is to take on a new monumental challenge. Climbing a mountain requires immense strength, courage, and perseverance—not to say economic resources—which are not unlike what it takes to make a difference in the fashion industry. Engaging students in this inverse form of argumentation, then, might stimulate their curiosity and challenge them to take on exactly what they have been asked to argue *against* doing. In this way, the mountain analogy contains a link to their future profession, as they will need to know in advance the arguments *against* embracing sustainability, so that they can counter them effectively; different stakeholders in the value chain will have different reasons for spurning sustainability initiatives, after all. Teaching rhetorical theory and strategies could lead students to feeling more self-aware and courageous, allowing them to contribute to the industry debate in constructive and important ways.

A former KEA student, Katrine Steinbach, in her interview, emphasises the specific kind of knowledge that would aid students in forming effective sustainability arguments:

'It would be great to have a module about suppliers and cold facts, so that we could learn how to create stronger and more convincing arguments, especially when talking about fabrics and production methods. This kind of knowledge would give us a more solid belief in ourselves […]. We should learn about argumentation, which would give us more courage to take action in the fashion industry.' (Steinbach, 2020)

Comparing the student interviews with Blincoe's insights, there are clear similarities, but also points of contrast, between what they see as important empowering competencies and the kinds of modules that should be implemented in the future programme of Sustainable Fashion at KEA. To students, rhetorical techniques are important skills to master, as they need to learn

how to engage with the whole value chain. To Blincoe, self-management and leadership skills could be a way for students to gain insights that, in the long run, would increase their courage to stand up for their own points of view when interacting with the fashion industry.
But finding the courage to speak up requires a great degree of self-awareness, which higher-education programmes would need to consider how better to foster. All five students and graduates interviewed are or had been longing for more facetime with a mentor, both during their studies to coach them on different cases and after graduation to keep up their self-awareness and motivate them to engage with the fashion industry.

Weighing all eight key competencies for sustainability, no. 7, self-awareness, is key in bringing the other seven together. By that I mean that without self-awareness—including feelings, desires, points of view, and cultural understanding—it can be difficult to generate and maintain the integrity to implement the other competencies to advance sustainable development.

In his interview, Rasmus Lange, a current KEA student, says that, 'I have become much more self-aware regarding what kind of "footprint" I have as an individual in my everyday life by learning about sustainability, even from a purely fashion perspective. Additionally, I have become much better at believing in myself and my own judgment' (2020). In this way, he suggests that theoretical and practical skills combined with his self-awareness have provided him with a better understanding of and belief in himself. Empowerment, courage—the ability to act and become self-aware—it all comes back to passion and motivation because if you are passionate about something, almost nothing can stop you. No passion, no action.
Blincoe puts it this way: 'The greatest barriers to achieving 100 % sustainability is the current culture—the way we are raised, the norms and values of our society, as well as the traditions we maintain' (2020). Blincoe's attention to culture relates to competency no. 7, concerning our role in the local community, since if future fashion students do not know the real cultural barriers and belief systems they are up against, it will be difficult to build their courage and, subsequently, to generate positive change.

Conclusion
During the interviews, it became obvious that self-awareness is more than a soft skill; rather, self-awareness covers specific and new theoretical and practical skills that are important if students hope to consider different perspectives and to create strong arguments. Incorporating these skills can provide the students with more self-awareness and give them the courage to speak their mind. Additionally, the students interviewed expressed a desire to develop a personal relationship to a mentor/teacher during their education, but also after graduation. This form of relationship would help them stay motivated, thus increasing their self-awareness, and by that also their passion for sustainable fashion and their desire to go out and make changes in the future.
Building courage and self-awareness, with the aim of taking action, comes back to passion and motivation because being passionate and motivated about what they do is crucial for students becoming fashion change-makers. Therefore, the ability to dig deeper into the

culture and norms that students are part of, in addition to their own belief system, can help them clarify which barriers they are up against. Therefore, cultural analysis can provide students with an in-depth understanding of their own belief system as well as the complexity and the barriers to sustainability within the fashion Industry.

Considering the future of higher sustainable fashion education, specific changes are needed, and new learning perspectives must be implemented into curricula if students are to meet future challenges within the fashion industry. Mapping the culture, learning about different industry perspectives, developing a rhetorical toolkit, and forming ongoing relationships with mentors can provide students with more self-confidence—thus making them able to engage constructively with the fashion world of today and in the future with new skills to go out and make the necessary changes, meet the environmental challenges, and create a 100% sustainable future fashion industry. ■

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Paving the Way for Conscious Conversations

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The overall purpose of this research article is to unfold the potential of educators to provide relevant competencies for students to become sustainable change agents in the fashion industry. Furthermore, the aim is to explore how educators and students can engage with companies on different levels to create mutual benefits for driving sustainability forward.

To that end, this article delves into the tension points between company culture and sustainability priorities within fashion companies, on the one hand, and the expectations of sustainability students, on the other hand. I will reflect on the role and opportunity education can play in resolving these tensions by focussing on specific competencies and engaging with companies on different levels.

My enquiry is guided by the following research questions: *How can we, as educators, support students as well as companies to become change makers for a sustainable fashion industry? Which competencies are needed for students to unfold their potential in working life to move sustainability forward?*

The research presented in this article will be of value to those who are interested in how best to integrate sustainability into higher education and how best to foster industry relations and collaborations.

The structure of the article is based on five key themes that invite for specific competencies to be explored further within a sustainability curriculum: knowledge gaps, aligning values and expectations, passion versus patience, manoeuvring as change agents, and conscious conversations. To begin, I will explore how industry and education actors can form collaborations with the potential to create new value for both sectors. Then, I dive into the different tension points that may occur when passionate sustainability students face the reality of day-to-day business environments. Based on my exploration of those tension points, I subsequently highlight the competencies needed for students to manoeuvre as change agents. Finally, I propose a set of conscious conversations between different stakeholders that may help them align their values and expectations, which could lead to mutually beneficial solutions for driving sustainability forward.

The inspiration for this research project came from conversations with students in the classroom and during the different iterations of the Youth Fashion Summit; furthermore, the discussions between participants at the Educators' Summit 2019 provided me with invaluable inspiration. These discussions were facilitated by KEA lecturers and consultants who had invited educators from design schools around the world to elaborate on and prioritise

competencies for a new sustainability curriculum. I sought to expand my research further by conducting six semi-structured interviews with sustainability professionals and company representatives from the Danish fashion industry. The semi-structured interviews allowed the conversation to go into directions that were not anticipated but which provided highly valuable new insights and influenced the scope of the research. Additionally, I conducted five structured interviews with international students and graduates within sustainable fashion and fashion management, a company leader, and an academic researcher. The structured interviews were conducted with the exact same questions for all participants to fit a tight video format that was produced for the Educators' Summit 2019. Transcripts of the interviews were analysed to identify opportunities and challenges within company and student encounters as well as to highlight their perceptions of each other. The findings were clustered into themes and further examined through the lens of existing research on sustainability in higher education.

The company representatives selected for this research project work with sustainability at different levels; some are just starting out whereas others have worked with sustainability for several years. The students and graduates were selected based on their having studied and worked with sustainability-related topics in the industry. The company leader, the sustainability professional, and the academic researcher were selected based on their engagement and knowledge of sustainability within the fashion industry.

An important element of this research project has revolved around understanding the perspectives and motivations of both company stakeholders and graduates without developing a bias towards one or the other. We need to understand the different perspectives of industry, academia, and students to prevent the most typical tension points addressed in this project, allowing us to build stronger collaborations with mutual benefits for a sustainable future.

Knowledge Gaps

The potential for strong education and business collaborations is more relevant than ever. The fast-changing landscape within fashion has accelerated sustainability initiatives, both in the industry and in society, broadly speaking. However, the deeper levels of necessary change have not yet materialised, and even ostensibly responsible companies continue to increase their production to keep pace with the consumer demands and the rise of middle-class populations around the world. New business models have not paved the way for traditional businesses to remake their strategies or to challenge the current expanding consumer-driven markets

(Putt Del Pino, et al., 2017). There is, however, an increasing belief among researchers and industry leaders that businesses that do not decouple their growth from resource extraction to find a circular business model will neither serve their customers and shareholders nor survive in the future fashion market. Johan Kryger, former Business Development Director at Global Fashion Agenda, frames it as 'almost a panic' among CEOs (Kryger, 2019). In other words, the possibility that new innovative and transformative companies will make traditional companies irrelevant is very real.

Throughout this research project, it has become clear that many fashion companies constantly feel behind in acquiring the latest knowledge in the fields of sustainability, technology, and innovation, which they require to keep up with an ever-changing industry. Often, companies don't allocate enough resources internally to research tendencies and opportunities in the market, whether it be innovative materials, production methods, or new business models. It is simply not a priority. Businesses have a major incentive to show growth and meet short-term targets in order to maintain their relevance to shareholders, rather than to allocate time and resources to rethink ways of doing business.

Educational programmes, conversely, need to take a long view, at the same time as they implement the newest knowledge into their curricula to stay relevant for their students and for the job market. Professor of Sustainability at Plymouth University, Stephen Sterling, emphasises the importance of giving students a holistic worldview, with the understanding that every single part of an object or a problem is plugged into a vast relational web of interconnectedness. He argues against a reductionist mindset where cause equals effect in a simplistic equation. The world is relational, and today's problems are often 'wicked,' meaning that one possible solution to a problem might trigger a host of other problems (Sterling, 2009). Educations that are capable of integrating into classrooms a holistic worldview, incorporating innovative and disruptive approaches to working with technologies and materials—as well as engaging in the larger context of design and business—are well-positioned to offer new, transformative value to a fashion industry hungry for knowledge.

Company representatives consulted for this project have generally shown a great degree of openness towards education as a place to seek the newest knowledge and inspiration for innovative solutions. Mina Engstrøm from Baum & Pferdgarten affirms that 'there is today a completely different perception of sharing knowledge than previously; we know that we will get so much further working with sustainability and innovation by knowledge sharing. In our network groups we discuss how to gain new knowledge and to ensure we get the people with the right competencies on board. Education is definitely a direction in which we look' (Engstrøm, 2019).
Different expectations aside, all three parties can benefit mutually from both small- and large-scale collaborations, which can lead to value creation for all. But the motivations and knowledge gaps need to be explored further, as the white paper from the Centre for Sustainable Fashion and Global Fashion Agenda suggests (2018). The paper captures discussions from Copenhagen Fashion Summit roundtables 2017 and proposes a shift away from the dominant hierarchies of education and industry interaction to debate instead what

education may offer the industry, and vice versa, as well as what kind of relationship education should have with industry and government actors.

Dylis Williams from the Centre for Sustainable Fashion defines academia and industry collaboration as 'an explorative space to realize present and future necessities and possibilities' (Williams, 2016). Her position is that we need to have a broader dialogue concerning knowledge, skills, and competencies. Moreover, the different stakeholders must seek to align their expectations in terms of sustainability visions and values. In her article, The will and the skill in Education for Sustainability (2016), Williams points out the necessity of remembering to look critically at both industry and education simultaneously, with the knowledge that academia and business must transform themselves and each other at the same time (2016).

This call for reflection is equally supported by Stephen Sterling, who urges us to reflect critically on why we think what we do, suggesting that we examine why we need certain competencies and not others, so that we may prioritise the most important ones (Sterling, 2014).

Aligning Values and Expectations

Unfortunately, academics, students, and businesses are not always aligned on questions related to sustainability. Company representatives have experienced interns that did not possess the craft skills needed to complete everyday tasks but were 'too revolutionary in relation to reality,' as Rikke Wienmann Mai from Noa Noa puts it (Mai, 2019). On the other end of the spectrum, students have experienced a very different reality going into their internships than they had expected, at times finding themselves trying to fit into two different worlds with little in common. There are multiple examples of tension points between business, education, and students that this article will explore further.

One tension point that can occur is when students are trying to find a voice as they enter a new organisation. Students explain that they hit a wall when they start working in a company, as there is little time allocated for discussing how and why practices are done in a certain way.

The company's culture might be different from what the students had expected and often far from the sustainability discussions they had been used to during their schooling. Alicja Jordan, a graduate from KEA, states that, during her studies, she was encouraged to push ambitious ideas and try out new things. However, the culture she encountered in working life was one where people were set in their way of doing things (Jordan, 2019). The industry reality students often encounter centres around getting collections out in time and ensuring that production processes and deadlines are aligned. This focus is often miles away from the urgency of creating meaning that occupies the mind of a young sustainability student or graduate. Previous research has equally emphasised that students find it difficult to connect their evolving sustainability principles and values from their education with current practices in the 'real' world (see, e.g., Miller, 2016).

Students who are eager to share their passion and knowledge about sustainability say that they have encountered both fear and suspicion from management. Felicia Szekezi, another KEA student, frames her experiences in this way:

'Every time you bring up sustainability or want to encourage them [the company] to bring the subject up, it is very quickly that you get put down, and they don't listen to you, and it is like there is a lack of respect of my knowledge' (Szekezi, 2019).

Gabi Miller, a researcher at London College of Fashion, suggests that the tension, in the first place, is due to the fact that businesses and students have different perceptions of what sustainability means. She points out the importance of finding a way for students and businesses to work together towards aligning their values (Miller, 2019). It would be possible to eliminate tension and frustration in the long term if both students and management could align their expectations in the beginning of a working period, for instance. Lauren Bartley, sustainability manager at Ganni, suggests that, 'The manager can acknowledge the student's needs, and at the same time give a realistic picture of where the company stands and which possibilities for daily sustainability tasks are available' (Bartley, 2019).

Ricardo Garay, a graduate from ESMOD Berlin, explains that the overall issue stems from a lack of understanding between well-intentioned, well-meaning, and eager students on the one hand and well-seasoned, experienced business people on the other. When the two meet, it can lead to a lot of tension if there is no structure or space in place for dialogue within the company to support these different mindsets and experiences (Garay, 2019).

Passion Versus Patience

The company representatives interviewed for this project suggested that students need to develop a good amount of patience and empathy if they want to influence the practices and direction of a company. Bartley points out that students need to understand the working environment and be sensitive to the current employees in terms of their past experiences and ways of working. Otherwise, they may end up creating more tension, and suggestions for different practices will not land in a fruitful way (Bartley, 2019). Mia Kappelgaard, former head of design at Samsøe & Samsøe, encourages students to believe they can make a difference, but they also need to know that it takes time to implement change, particularly if they find themselves at an older company. Working with sustainability is extremely complex, and there are many trade-offs that have to be considered carefully: 'It is crucial that we get students and graduates that are good at working in teams and collaborating. It is actually here that you can get things through. If you learn how to listen well and communicate with your colleagues this is where many doors start to open' (Kappelgaard, 2019).

Manoeuvring as Change Agents

Another tension point that has emerged over the course of this project is the language articulation barrier. Students have a hard time speaking the language of management. They might have great ideas and a fair understanding of the complexities of sustainability, but they have a hard time conveying their knowledge and ideas to people with a different mindset than their own. Since there is a lot at stake for companies to change their current practices, good argumentation skills are essential if students hope to get across to management their way of thinking.

Understanding company culture and structures is one important step for students to absorb the reality they will meet in their professional life. Thus, students must understand the hierarchical structure of a company, the decision-making

processes, as well as how different departments engage with employees' tasks and roles. Without understanding the ins and outs of a given company, students may end up feeling frustrated, as they will find it difficult knowing how to push the right buttons in order to build the necessary relationships they need to begin manoeuvring as change agents. Obtaining the right kind of company knowledge will prove beneficial for students, since they will then appear less naïve about how the company works. Johan Kryger suggests that students need to translate their enthusiasm for sustainability to something management can understand. They should use their enthusiasm as a tool, a 'can opener,' to get through to management in order to effect change; otherwise, he argues, 'they won't stand a chance' (Kryger, 2019).

Collaborative and Normative Competencies
This research project has revealed several important competencies. From the point of view of companies, collaborative competencies are paramount: students' ability to appreciate different perspectives (empathy), understanding how a company works, and from there build the right relationships with relevant employees and levels of management. Equally, my research points to a demand for a theoretical and technical foundation among students that should be paired with recent approaches to gathering field data and with methods of how to acquire new knowledge in structured ways.

From a student perspective, normative competencies are imperative: the ability to negotiate one's values and beliefs with different stakeholders and to communicate complex matters in a significant way using the language of management. Normative competencies also hold the ability to navigate conflicting interests and trade-offs—an ability which must be at the core of forming interrelations between stakeholders and sustainability priorities. From the discussions that surfaced during Educators' Summit 2019, these collaborative and normative competencies were equally emphasised as being key for students to become change makers in the industry.

Furthermore, systemic- and strategic-thinking competencies are frequently brought up as important competencies by various scholars, and these were also highlighted at the 2019 Educators' Summit discussion forum. Students need to grasp the complexity and the 'wickedness' of the problems facing our world today, but they also must be able to communicate about these complex issues, what it means to them, to businesses, and to a changing world (ES 2019; Miller 2019).

Conscious Conversations
Throughout this project, creating a space for dialogue has moreover proven important for supporting mutual value creation. In the following paragraphs, I therefore lay out a set of conscious conversations that would benefit different actors:

Conscious Conversation #1: Student and Management. There are different opportunity spaces for students and businesses to align their values and expectations as well as to challenge each other's mindsets and sharing perspectives. As my research suggests, this can be done in the initial phase of a working contract. Alicja Jordan, former KEA student and now CSR employee at Ganni, emphasises the importance of having a manager close by to both guide and support the student's ideas as well as to ensure that expectations are aligned (Jordan, 2019; Bartley,

2019). Ricardo Garay takes it a step further, as he says companies should invite young voices into their conversations on sustainability. He points to the company he is currently working for, Circular Fashion Systems, which has created a space that allows young employees with fresh ideas to connect with an experienced employee to investigate them together, thereby avoiding any decision bias (Garay 2019). In this way, traditional hierarchies can be challenged, and the risk of missing out on new ideas can be overcome.

Conscious Conversation #2: Company Employees. The fashion business works at an incredible speed, and employees are constantly working on several collections at the same time. Reflections on materials and production processes often happen on the spot with no time for assessing the best and most sustainable choices.

Creating a reflective space across departments, taking time out of office, and considering how things can be done in a different way can be incredibly beneficial for companies. Ganni are on this journey, and they have signed up for the UNDP/Deloitte SDG accelerator programme and joined KEA's Material Lab course on innovative materials. As sustainability manager, Lauren Bartley points out, 'it is so good to have this space and conversation outside the office. Because usually when you have these conversations it is when a product is about to be created or there is like a level of urgency or stress' (Bartley, 2019).

Higher education has the opportunity to provide such reflective spaces where new knowledge can be gathered in a comfortable, low-stress setting. KEA's Material Lab is just one example of such an explorative space.

Conscious Conversation #3: Business and Academia. There is a need across sectors and within businesses to have conversations about how to drive sustainability and innovation forward as well as how higher education can provide the most relevant skills and competencies that will allow students to generate new forms of value for fashion businesses.

These conversations can happen when companies pitch cases for students to work on, or when company employees take the time to listen and offer feedback to student solutions. Engaging with students directly gives the industry a chance to understand their acquired skills and competencies, while gaining insights about the curriculum of a specific programme as well as providing students and educators with insights about how fashion professionals think and operate, highlighting what is important to them.

Conscious conversations between educators and businesses about needs, visions, and values are equally important to better understand opportunities for change. In this context, Johan Kryger suggests that it could be beneficial for academics to translate their knowledge into a language that the industry understands. Doing so might entail placing less emphasis on the term 'sustainability' and more emphasis on innovation and technology, focusing on very concrete aspects of the value chain (Kryger, 2019).

Educators' Summit is a great example of an explorative space for conscious conversations about how we can provide value to each other and obtain a better understanding of what specific knowledge and competencies are needed to support a sustainable transformation in the fashion industry.

Conclusion

This research project sought to unfold the potential for educators to provide relevant competencies for students to become change agents in the fashion industry. Furthermore, it aimed to explore how these actors can engage with companies at different levels to create mutually beneficial solutions for driving sustainability forward.

Much of the current literature on sustainability in higher education underscores the great potential for business and academic collaborations. It is crucial, however, as this project has also indicated, that academic institutions, educators, students, and company representatives find a framework for better aligning values, expectations, needs, and competencies. Educators need to focus on collaborative and normative competencies in their teaching to inspire students to develop a collaborative and empathetic mindset, as well as to develop a strong sustainability and business language to help them manoeuvre more convincingly in a professional setting. For companies, it is about allocating time to align values and expectations with students in the first place as well as to create a space where students can contribute with their knowledge, ideas, and experiences in a supportive way. Furthermore, educators and businesses alike need to get better at exploring, articulating, and prioritising relevant competencies in the field of sustainability. Competencies are often articulated vaguely, leaving out many different interpretations of what the specific competency entails. By articulating competencies more precisely, educators can better frame a relevant curriculum to ensure that students are equipped to overcome any sustainability challenges they might face on the job market. Equally, it will help businesses find people with the right sustainability competencies for their transformative journey.

Finally, I have proposed a set of conscious conversations between the various stakeholders within educational institutions and businesses. These kinds of conversations will hopefully help alleviate the greater tension points between actors, align the different stakeholders, and pave the way for better collaborations between academia, students, and businesses. ■

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Using 3D Apparel Visualisation and Teaching to Develop New Skills and Possibilities

Berit Konstante Nissen, Senior Lecturer in Sustainable Fashion Tech at KEA
Lotte Nerup, Lecturer in Sustainable Fashion Tech at KEA

Industry 4.0 is predicted to change up to 50% of the work functions we know today. Some of the technologies associated with 4.0 can help drive the transformation towards a more sustainable fashion industry. In fashion, Industry 4.0 is characterised by the integration of the digital world with physical production. Technological changes today happen exponentially due to faster and cheaper computers—quantum leaps have been made in areas such as robotics, artificial intelligence, machine learning, 3D printing, and 3D visualisation. The transition to new technologies requires that fashion educators learn to instil in students a new mindset and technological skills, preparing them to work with big data, automation, and 3D design, for instance.

The KEA innovation project *3D Virtual Prototyping for the fashion industry* aims to investigate the relevance of 3D Virtual Prototyping tools (3D VP) for fashion and technical design students. Additionally, the project considers challenges and opportunities for Danish fashion companies by posing the research question: *How can 3D virtual prototyping be implemented as a relevant technology for KEA Design students and, in the long term, for the Danish fashion industry?*

Through a literature review, qualitative expert interviews, and observations of 3D workflows in large and small apparel companies, our aim is to explicate how the fashion industry works with 3D visualisation tools. Furthermore, we are interested in what skills and competencies fashion design schools should ensure that students obtain. In our research, due to new workflows regarding the implementation of 3D technologies, we see a need for 3D-targeted technological skills and a new mindset that challenges the traditional roles of fashion or technical designer.

From a student perspective, we have looked at 3D VP software providers and the opportunities and challenges they present to educational institutions in relation to software, hardware, and online services that can complement the teaching of 3D VP technologies. The companies and academics we interviewed for this project generally believe that 3D VP technology can

make a positive contribution to the sustainable transformation of the fashion industry. This article will try to shed light on this in regard to the product development process.
Our overall goal is to indicate where the apparel industry is heading with the integration of a 3D digital workflow and what new job opportunities 3D VP technology might create for fashion graduates.

Research Methods
We have conducted a literature review to map and evaluate the use of 3D VP in the fashion industry. To elucidate how the technology is being used in practice, we have held qualitative interviews with software providers, designers, brands, and other stakeholders in the industry, focussing on how 3D VP can function as an integral part of developing styles.

During company visits, work processes were observed with the purpose of mapping 3D VP effects. The companies interviewed represent the fashion industry widely and are located in Hong Kong, Germany, UK, Sweden, Holland, and Denmark. They represent everything from one of the world's largest clothing manufacturers to large and medium fashion companies to innovative start-ups that all tap into the possibilities of using 3D VP on a daily basis.
We conducted long-distance qualitative interviews with educational institutions that have had different experiences with integrating 3D VP into the curriculum. Those interviews provided us with knowledge about software use and competencies as well as about how teaching 3D VP can be organised.
To expand the empirical data, we participated in the PI Apparel Europe 2019 conference, where 3D VP was contextualised for the entire value chain in the fashion industry.

The project's empirical data were obtained during the period from November 2018 to October 2019.

New Workflows with 3D VP
3D VP technology is mostly implemented in large international companies or small innovative start-ups. Both types of companies work strategically with 3D technology, as they attempt to tap into the opportunities associated with digitising the value chain. Using 3D visualisation technology can speed up developmental activities by shifting physical prototyping to a virtual space, where new style developments can be tested and iterated early in the process as an aid to creating products that match the initial idea immediately, thereby minimising or eliminating the need for samples.

The majority of companies interviewed use 3D technology in the product development process to test fit, print, placement, and colour combinations; they also use it to visualise materials and, in a few cases, as a digital draping tool. Minimising the number of prototypes in the development process saves time and reduces the risk of sales samples not arriving on time. Additionally, some actors use 3D VP for approval within the company and from private label customers, buyers, and management. Integrating 3D VP across the value chain requires that entire collections be drawn in 3D, which takes time and entails a general transformation of the development process and associated workflows.

Danish United Textile Group (UTG) is an example of a company with a holistic strategic approach to implementing 3D technology. Their strategy aims to change the production company, UTG, to act more as a technology company going forward by digitising all workflows. UTG hopes to be able to cut 50% of physical samples moving forward after the integration of 3D VP (Brodie, 2019).

Furthermore, our research has uncovered a need for textile suppliers to provide digital twins of physical materials, which UTG and several other companies are working to meet together with their suppliers.

Both designers and pattern makers mentioned in their interviews that 3D visualisation offers an opportunity to strengthen products and the communication surrounding them. Compared to 2D sketches, 3D tools give designers a clearer and more accurate way to visualise their initial ideas.

Credit: Emma Langkilde Vammen - Pattern Design PBA19

Avatars from CLO3D: CLO rendering above is student work from an elective module in Fashion 3D virtual prototyping (KEA)

Richard Lindqvist from the Swedish company Atacac explains that, in his opinion, 3D VP has an additional benefit, as the technology encourages pattern cutters and designers to work more closely together (Lindqvist, 2019).
Atacac uses 3D VP through the entire value chain, from development process to sales and marketing. Atacac's business model leverages 3D technology in the creation of digital sales samples. They sell their products based on a 3D visualisation in their web shop. This is an example of a business model where the product is cheapest at the pre-order stage and subsequently increases in price. For marketing, Atacac uses 3D technology to stage products in ways that would not be possible with physical samples or models.

3D VP and the Need for New Skills
Our interviews with academics highlighted how important it is that students understand 2D patterns and pattern making before delving into 3D software. We have been able to substantiate this finding by analysing a test workshop that students participated in at KEA in 2019. The participating 2nd-semester students had a bit more difficulty navigating the 2D section of CLO 3D than 4th- and 6th-semester students. Our analysis showed no noticeable difference between 4th- and 6th-semester students or between Sustainable Fashion and Pattern Design students, for that matter. Experience from AMFI, where 3D VP has been included in the fashion curriculum for the past 10 years, shows that students become more proficient at 2D pattern making when working with the 3D VP software. Sandra Kuijpers, a teacher and researcher at AMFI, states in her interview that, 'The nice thing is that they [students] really enhance their pattern making

skills through the 3D visualisation [...]. They can really push it because they immediately can see what is happening.' Furthermore, experience shows that it is faster to work digitally with pattern making, allowing for testing more and faster (Kuijpers, 2019).

In order for 3D VP to make sense in terms of student-learning processes, the research shows a tendency for 3D VP to be included in the curriculum only after students have acquired a basic knowledge of fashion and pattern design during the first year. 3D VP offers significant advantages in the process of learning pattern making: for instance, a decrease in the time required to cut and sew test garments for fit and design assessments; in other words, it allows for faster and more individual design iterations. The software also enables new forms of garment visualisations. The transition from a 2D pattern to a 3D garment is fully animated in the 3D simulation; additionally, it is easy to explore and visualise the relationship between garment and body—different body types and sizes are aided by different maps and tools in the software (e.g., transparency tools). 3D VP can help strengthen students' understanding of several areas of fashion and pattern design in relation to understanding materials, form, fit, and print, to mention a few. Therefore, we can conclude that it is advantageous to integrate 3D VP from the 2nd semester onwards.

A surprising insight from the research was that some schools also offered 3D VP to fashion management programs, where these students had to learn how to navigate and handle files in a digital value chain. This is in line with how the company PVH Europe works to integrate and train their staff in the use of 3D VP. PVH are trying to integrate 3D VP throughout the value chain, and they want all employees to have knowledge of 3D VP.

Choosing the Right Software

There are several 3D VP software providers targeting the fashion industry—for example: Lectra, Browzwear, Optitex, CLO 3D, Gerber, and Tukatech. Our research does not point in a clear direction regarding the choice of 3D VP software. Many companies work with several different programmes at once. Companies that have not outsourced their pattern process prefer to use software programmes that originate from 2D CAD CAM, though often supplemented by CLO 3D.

We have observed that a preponderance of teachers and students prefer the user interface of CLO 3D. The availability of CLO 3D and its online tutorials and community are favourable features. Software prices are distinctly difficult to compare as some providers sell their software as a subscription, whereas others sell theirs for a one-time price. It has not been possible to obtain prices from all providers. However, CLO 3D has the advantage that anybody can gain access to the programme for a small fee, and students can get a 50% discount, which is a great advantage as they can continue to use CLO 3D after graduating.

3D VP as a Sustainable Tool

No doubt, 3D VP technology can aid in making the fashion industry more sustainable. However, it has not been scientifically proven yet, but looking at the data available from different software providers, 25–100% of physical samples can be avoided. A large German design company[1]

mentioned in their interview that as early as 2022 they expect their development process to have become 100% digital (Anonymous, 2019). Nevertheless, several companies stated that they will not be able to do without physical tests, but that the goal is to move from, for example, four test samples to one physical sample. Since it takes the same amount of water to produce a single t-shirt as the average, western person will consume in a year, the positive impact of fashion companies adopting 3D technology is immense, even if only measured in water consumption.

Another positive angle is that 3D VP makes it easier to work in a focussed way with fit in relation to diverse body types or sizes, thus avoiding costly errors in production. By reducing the number of physical samples, not only water but also raw materials, transport, money, and, not least of all, time are saved. Using 3D visualisation in the development process can save time as it becomes faster to test ideas and fit as well as to get a realistic image of a given design. As the development process accelerates, the time-to-market period becomes shorter, which can help make a company's products more relevant to the end consumer, resulting in increased sales. From a sustainability perspective, 3D VP can drive the fashion industry from a 'make-to-sell' to a 'sell-and-then-make' model.

3D VP and New Business Models

The research shows examples of companies that see digital fashion as a new business area. Atacac make their digital files of 2D and 3D patterns available as shareware, which they use in their marketing to gain external customers and to create user involvement. Carlings, a Norwegian clothing company, has sold digital fashion to be 'worn' only on social media—garments that only exist digitally and costs approximately € 30 after a digital tailor has visualised the purchased item on a personal photo. The Fabricant is a Dutch company that only produces digital fashion. They challenge what digital clothing can be, focussing on the kinds of needs that will probably arise when ordinary consumers get a digital twin (a personal avatar based on a body scan) for use on social media. Already now, international sportswear brands and fashion houses are developing digital twins of existing products that can be purchased for digital use in computer games such as Fortnite. At the PI Apparel Europe 2019 conference, blockchain was repeatedly mentioned as a way to verify the ownership of a digital product. Another example is Swatchbook, a vendor using specially developed fabric scanners to translate physical materials into a digital twin. To help with an optimal fit, Alvanon, a fashion technology company, provide customised avatars to match a company's fitting goals, either through pre-designed digital avatars, or through a 3D body scan of the company's fitting model.

Conclusion

3D VP is being used more and more in the globalised fashion industry, and the technology has an untapped and partly unexplored potential and positive impact in a sustainability perspective. For this reason, 3D VP is a relevant technology for fashion and technical design students. As a relatively new technology within the fashion industry, it can provide new job opportunities for fashion graduates with 3D

[1] The company in question wishes to remain anonymous.

3D VP Pilot workshop with the fashion industry.
Photo: Magnus Jølnæs Jacobsen

visualisation skills. These skills open up entirely new job areas such as designing digital apparel for the gaming industry and virtual garments for digital twins.

Our research clearly shows that becoming a skilled 3D designer requires a prior, advanced understanding of 2D-pattern construction, shape, and fit, as well as an understanding of the physical properties of textile materials. The positive news is that our research indicates that these competencies can be enhanced by the use of 3D visualisation software, which offers fast iterative processes. Our insights from the KEA test workshop suggest that it will be valuable for fashion students to begin with basic skills in 2D pattern construction, form and fit understanding, and material knowledge, followed by learning 3D VP, as together these may lead to a high-level of competency upon graduation.

3D VP is considered by stakeholders in the fashion industry as a tool to achieve a higher degree of digitalisation in the value chain—a form of digitalisation that enables cutting resources and time, thereby achieving a shorter time-to-market span. Additionally, in the long term, consumer involvement can be increased with the aid of digital fitting rooms (which will result in fewer returns from online sales), and a greater degree of customisation can thus be achieved. It is clear that digitalisation can create and support new and more sustainable development processes and business models that work to minimise the number of physical samples, allowing companies to focus on the sell-and-then-make model.

As the project's empirical data shows, 3D VP technology present the market with numerous advantages. However, we have also encountered challenges such as outsourced construction of 2D patterns, a current lack of digital fabric twins, and a shortage of staff with 3D visualisation skills. These are challenges, though, that companies are in the process of solving in their journey to integrate 3D visualisation.

For businesses to achieve long-term success with the implementation of 3D visualisation technologies, they must adopt a strategic, rather than an individual, approach. Any digital strategy should include the entire business. The 3D technology must be introduced to all staff groups

in order to create a sense of ownership and interest. A process of positive implementation requires that companies focus on what problems the technology can best help solve, adoption time, and a new mindset for all employees. Thus, companies are advised to start small but move fast—begin with the basics, as this is the most likely way to ensure a quick return on investment. Further, companies would do well to partner with relevant stakeholders and share experiences with colleagues across the industry. Finally, we would like to emphasise that our research shows that all interviewed persons—whether they be teachers, students, or designers—regard 3D VP technology positively. ■

Disclaimer
This article has been produced by a team from KEA, Copenhagen School of Design and Technology, which takes full responsibility for the article's contents and conclusions. Although the participating organisations and those experts who were consulted and acknowledged on the previous pages have provided significant input to the development of this article, their participation does not necessarily imply endorsement of the article's contents or conclusions.

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The Legacy of the Youth Fashion Summit**, 2012–2019**

In this section, we are taking a look back at the Youth Fashion Summit as it developed over the years: the participants involved, the themes, the partnerships, and the challenge outputs.

Helene Niclasen Jeune, Lecturer in Communication Design and Media at KEA

Each summit consisted of 2-3 day interdisciplinary workshops with 50-100 students organised around moderated and interactive discussions. Every year, a unique focus on the fashion industry was integrated into the workshops—from consumer engagement to circular fashion systems to gender equality. However, the summits have each year focused on the social engagement of the student participants as well as on meetings with industry experts. The participants developed solution ideas, fashion narratives, and made demands and calls to action, which were brought to life by the students themselves on the main stage during Copenhagen Fashion Summit.[1]

In the months leading up to each Youth Fashion Summit, a series of webinars provided the students with different approaches, tools, and inspiration from international lecturers and company representatives. The webinars aimed to engage the students early on and prompt them to reflect and work on solutions that prepared them for the summit, further enabling them to face the industry in confident and credible ways.

Between 2016–2019, the Youth Fashion Summit ran as a two-year programme where the same students were invited back to transform their demands into action points in collaboration with international fashion companies.

[1]'Copenhagen Fashion Summit is organised by Global Fashion Agenda, a non-profit leadership forum on a mission to drive urgent change in the fashion system to work within planetary boundaries and meet the Global Goals' (https://www.copenhagenfashionsummit.com/about/overview/)

VISION

The Vision of The Youth Fashion Summit was to empower the next generation of designers, communicators, and business executives to become change agents in a more sustainable fashion industry and a more sustainable world.

MISSION

The mission of The Youth Fashion Summit was to give the next generation of designers, communicators, and business executives a platform and the tools to influence the decisions of today, the effects of which will mostly be felt tomorrow.

PLATFORM

Youth Fashion Summit was a platform for students who are passionate about creating a sustainable fashion industry. Each summit provided an opportunity to influence the decisions of today in order to impact the world of tomorrow—harnessing the voice of the next generation. YFS was an annual event held in Copenhagen, and each year it culminated in an on-stage performance at the Copenhagen Fashion Summit. The Youth Fashion Summit was held six times in total. The platform continues to live on through the many networks that have been created by YFS participants.

COLLABORATION

The Youth Fashion Summit was formed through an ongoing collaboration between GFA (formerly DAFI) and KEA. GFA acted as lead on the overall framing of the summit, as they facilitated the contact to business partners and set up the YFS platform. KEA created workshop content, facilitated insight processes, and communicated with students and facilitators. Various international schools of design and business were invited throughout the years to take part in the process of preparing and facilitating workshops.

Youth Fashion Summit **TIMELINE**

2012

Youth Fashion Summit, 2 May 2012

Venue: A.P. Moller-Maersk, Esplanaden 50, Copenhagen.

Themes: Consumer engagement, Cost, Communication, Convenience, Consultation, Civil Society, Co-creation.

People: 100 students from 16 design and business schools from around the world.

Organisers: The Danish Fashion Institute (DAFI), NICE and Nordic Fashion Association partnered with KEA, Copenhagen School of Design and Technology

Partners: DAFI (now GFA), KEA, London College of Fashion

Panel experts: Eva Kruse, Danish Fashion Institute; Giorgio Pace, V Magazine; Martin Lidegaard, Minister for Climate, Energy and Building; Marko Matysik, Vouge; Kai Margrander, Glamour; Nick Main, Deloitte / Global Leader, Sustainability & Climate Change Services; Søren Stig Nielsen, Maersk Line / Sustainability; Mark Hachmann, Business Development, Lee & Fung Sourcing Europe Apparel

Olivia Burzynska-Hernandez, Programme officer, Meridian Group

'Working with the students at the Youth Fashion Summit was an inspiring experience. Each group of students I met with were well-prepared and asked insightful, thoughtful questions about how to improve the health and well-being of women working in the global supply chain... and how to improve the sustainability of the fashion industry overall. I look forward to seeing them transform the list of demands they announced at this year's Copenhagen Fashion Summit into impactful action next year.'

2014

Venue: The Royal Design Academy of Fine Arts Schools of Architecture, Design & Conservation (KADK). Philip De Langes Alle 10, Copenhagen.

Themes: RE-sources, RE-thinking, RE-arrange, Reach-Out, RE-connect, RE-organising, REliability. Overall focus on how to re-balance resources in relation to sector collaboration, biodiversity, population growth, circular economy, and material flow.

People: 110 students from 22 design and business schools from around the world.

Organisers: GFA and KEA

Partners: GFA, KEA, London College of Fashion, Design School Kolding, KADK, VIA University College, ESMOD Berlin, University of Bocconi, Central St. Martins, TED - Chelsea College of Arts, University of the Arts London, Catholic University of Milan, University of Applied Sciences of Southern Switzerland, C. ST Martin's College of Art and Design

Panel experts:
Catarina Midby, Head of Sustainable, Fashion, H&M.
Margaret van der Bosch, Creative Advisor, H&M.
Peter Ingwersen, Fashion Consultant & Board of Directors.
Ole Lynggaard Copenhagen.
Søren Stig, Senior Advisor, United, Nations (UNOPS).
Toke Falk Sabroe , Partner LeaderLab & Operations Lead, LAUNCH Nordic.

Pamela Mar, Supply Chain Innovation, Li & Fung

'It was invigorating and inspiring to go head-to-head with the students. While we all agreed on where the industry needs to go in terms of social justice and environmental progress, the students argued passionately that we can get there a lot sooner than many industry timetables. It was a good reminder of what society expects from us, and of what we should expect from ourselves.'

Youth Fashion Summit, 22 & 23 May 2014

Venue: The Royal Design Academy of Fine Arts Schools of Architecture, Design & Conservation (KADK). Philip De Langes Alle 10, Copenhagen.

Themes: Integration of The United Nations' Sustainable Development Goals (SDGs) in the framework of the workshops and the outcome. Social Agenda: Empowerment; Technological Agenda: Circularity; ECO Systems Agenda: Well-Being; Ecological Agenda: Flourishing; Resilience Agenda: Responsible Innovation; Culture Change Agenda: Prosperity; Collaboration Agenda: Participation.

People: 112 students from 31 design and business schools from around the world.

Organisers: GFA, KEA

Partners: London College of Fashion, Design School Kolding, KADK, VIA University College, ESMOD, Milano Fashion Institute, Whitecliffe College of Arts and Design, Amsterdam Fashion Institute, University of Bologna, and Saxion-University of Applied Sciences

Panel experts: Lars Fogh Mortensen, EEA, Hendrik Alpen Heuerman H&M, Benjamin Edwards NIKE, Angela Snow, NIKE, Hannah Jones, NIKE.

Dilys Williams, Director for Sustainable Fashion.

'By dreaming the future, sharing curiosity, and critical perspectives, these up-and-coming designers, makers, communicators, and business executives—both as individuals and collaborators—have the potential to make an impact and influence the industry. Youth Fashion Summit has proven to be a solid launching platform for the next generation to raise their voice about the development within the industry. This immersive experience, however, was much more than the sum of its parts – It presented important, imaginative and practical ideas for our collective futures, to those who contribute toward shaping our present. The interplay between the wisdom of experience and the vitality of unfettered imaginations is surely what we need in order to navigate new path that better mark the future world in which we would all like to live.'

Youth Fashion Summit, 9-12 May 2016

2016

2017

Venue: DR Concert Hall, Ørestads Blvd. 13, Copenhagen.

Themes: Based on the 2016 themes, the goal was to develop targets and action points that were to be transformed into a draft resolution. Second-year programme with students coming back a second time to draft the first-ever United Nations resolution on fashion, which was presented to the UN General Assembly in September 2017 in New York.

People: 50 students from 20 design and business schools from around the world.

Partners & Organisers: GFA, KEA

Panel experts:
Harsh Saini, Executive Vice President, Li & Fung
Hendrik Alpens, Sustainability Business Expert, H&M
Dax Lovegrove, Global Vice President CSR – Faustine Steinmetz, Designer. Swarovski
Lars Mortensen, Head of Group, International Cooperation and Eionet Coordination, EEA
Lu Yen Roloff, Communications Lead, Greenpeace

Johan Arno Kryger, Former Business Development Director at GFA.

'Bringing talented, young people together from all over the world showed that the real strength in this project became the power of networking. By using their different experiences, qualifications, and cultural backgrounds, the students came up with creative solutions unimaginable to the established industry. When the participants of the YFS left sunny Copenhagen in 2014, they – the next generation of decision makers – had formed and fused a network that will be powerful enough to change the world of fashion.'

Youth Fashion Summit, 9-11 May 2017

2018

Venue: KEA, Guldbergsgade 29N, Copenhagen.

Themes: Partnership with the United Nations Global Compact and collaboration with Pandora to promote SDG 3 & 5 in the jewellery industry.
SDG 3: Ensure healthy lives and promote well-being for all at all ages.
SDG 5: Achieve gender equality and empower all women and girls.

People: 112 students from 63 design and business schools from around the world.

Organisers: GFA and KEA

Partners: United Nations Global Compact, Pandora, AMD Berlin, California College of the Arts (CCA) San Francisco, Parsons School of Design, the New School, Saxion – University of Applied Sciences, Central Saint Martins, London College of Fashion, Whitecliffe College of Arts & Design Parnell, Savannah College of Art and Design, Hong Kong and Circular Fashion.

Feedback panel:
Pamela Mar, Director, Supply Chain Futures, Fung Academy and Director, Sustainability, Fung Management Limited
Hendrik Alpen, Sustainability Engagement Manager, H&M
Stephen Fairchild, SVP and CCO, Trine Pondal, Corporate Sustainability Manager, Mads Twomey-Madsen, VP Corporate Communications & Sustainability, PANDORA
Olivia Burzynska-Hernandez, Programme Officer, Meridian Group
Lars Mortensen, head of group, International Cooperation and Eionet Coordination
Charlotte Ersbøll, Senior Adviser, The United Nations Global Compact

Brittany Dickinson – Parsons School of Design, School of Fashion

'I am a big fan of the Youth Fashion Summit. It is an amazing opportunity for young people who are passionate about advancing the fashion industry toward a more sustainable future. The YFS participants I've worked with over the last two years as a facilitator are fearless, motivated, big-hearted, and big-thinking. As an educator, I've found that fashion students are eager to bridge the gap between industry and academia to find collective action on social and environmental issues, so an event like YFS is critical in cultivating the space to achieve this.

YFS not only connects like-minded individuals from around the world, but it also provides a platform for young people to speak to the industry at large and make their demands heard. YFS participants have the power to shape the tone of the Copenhagen Fashion Summit, as theirs are the first voices the audience hears. Positioning students on stage at the Summit breaks down hierarchies in the industry and amplifies a collective voice which is not afraid to tell it like it is. Their words are bold, their message urgent. Seeing the YFS participants on stage is arguably the most impactful part of the Summit, and often one of the most authentic parts of what is largely a highly polished event. I can't think of any other situation where young people have the ability to command the eyes and ears of the world's fashion leaders all in one place. What an incredible opportunity for the audience and the participants alike!'

Youth Fashion Summit, 13-15 May 2018

Venue: KEA, Guldbergsgade 29N, Copenhagen.

Themes: Partnership with the United Nations Global Compact continued. The students kept working with SDG 5: Achieve gender equality and empower all women and girls, within the framework of a case competition launched by Pandora. Pandora challenged the students to deep dive into the jewellery supply chain and deliver a guiding principle and concrete actions on how the industry can drive/improve gender equality (SDG 5) across operations and society. The main insights/recommendations were translated into a video presentation shown at Copenhagen Fashion Summit on 16 May

People: 38 students from 26 design and business schools from around the world.

Partners: United Nations Global Compact, Pandora, Global Fashion Agenda, Copenhagen School of Design.

Feedback panel:
Charlotte Ersbøll, Senior Advisor, United Nations Global Compact
Lars Mortensen, Products and Consumption Expert, European Environment Agency
Hendrik Alpen, Sustainability Engagement Manager, H&M
Harsh Saini, Executive Vice President of Sustainability & Compliance, Li & Fung
Stephen Fairchild, Chief Creative and Brand Officer, PANDORA
Jane Burchard, Assistant Professor at Jewellery, KEA

Jury:
Mads Twomey-Madsen, Pandora, VP Corp. Coms & Sustainability
Peder Michael Pruzan-Jørgensen, ORCA & CO. Director & Owner
Lene Hald, KEA, Ph.D. Photographic Design Anthropology
Charlotte Ersbøll, United Nations Global Compact, Senior Advisor

Viktor Stojkoski, University of Ljubljana, participant 2018-2019

What did you get out of participating in the YFS?
Most of all, connecting with hundreds of individuals that share the same vision for the future of fashion. Secondly, I got a global perspective on the challenges that the fashion industry has in driving sustainability forward. And finally, the knowledge and tools creating positive change.

Why do you think this event is so important?
Because it brings young sustainable fashion enthusiasts from around the world and provides them with a platform where they are infused and nurtured with hope and courage to continue their work in a collaborative manner.

Youth Fashion Summit, 13-15 May 2019

2019

Going Forward

On 30 June 2020, a wide range of fashion stakeholders and students met at a virtual roundtable called *A Call to Action: What Is Education's Role in Designing a More Sustainable Future of Fashion?* Many interesting points and questions were raised, but one thing that stood out was the need for better collaboration between businesses, educational institutions, professional organisations, and NGOs. We look forward to inviting you to Educators' Summit in the fall of 2020, where we will continue our collaborative effort to dive deep into the questions and challenges that surfaced during the roundtable. Please spread the word in your network about this important event.