



EXAMINE THE INFLUENCE OF THE INTERNET AS A CULTURAL SYSTEM ON CREATIVITY IN APPAREL DESIGN AND PRODUCT DEVELOPMENT

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ABSTRACT

Contradictory in nature, fashion consumption necessitates product attainment of quality and value for money, uniqueness, and brand identity, among other things. This research was conducted as part of a PhD dissertation examining the effects of computers and computer simulations on the design process, specifically how they affect the designer's ability to think creatively and come up with new ideas. The emergence of virtual worlds has significantly altered the conventional approaches to design work, such as research, ideation, and project communication.

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INTRODUCTION

"Culture" may refer to many different things. What people "think, do, and produce" are all examples of culture according to anthropologists. According to implicit cultural theory, a society's cultural norms are a system of concepts that includes values and other mental processes (Jantzen, 2004). The actions of an individual are mostly determined by the beliefs and behaviors that are common to their community.

Ethnic, racial, gender, and religious similarities are strong predictors of how similarly minded a group of people will be. On the other side, remember that group dynamics are not always indicative of a common culture. Different outcomes may result from the same group action, which might be influenced by a wide variety of causes. What matters most when defining culture is "whether" and "to what extent" cultural aspects are shared, as well as what those common elements are and how they originate from the culture as a whole.

Practices produce culture. Culture does not create either the act or its consequence; rather, it is the development of both the act and its effect that acquires significance in cultural contexts. An individual's behavior is influenced by the culture and society to which he or she feels a functional or psychological connection (Jantzen, 2004). Culture is the means through which designers come to comprehend the interplay patterns and the significance of those patterns.

Observing the actions of others and trying to understand the motivations behind their responses may be helpful in navigating this process. As noted by Razzaghi, Ramirez, and Zehner (2008), designers' cultural and social ideals have a role in shaping the products they create. These cultural traits point to a significant part of cultural effects on the designer. Thus, a designer's cultural beliefs and lifestyle choices may significantly impact the final product; cultural variations impact the way designers operate.



An article published not too long ago reflecting the opinions of two prominent designers illustrated how divisive the topic of creativity is within the fashion industry. Marks & Spencer and Laura Ashley's problems were attributed to inappropriate or boring designs, and the similar criticism was made about the lack of sales this season for the William Baird Group's brands Winds moor, Planet, and Precis Petite. The designer's status as an afterthought at many UK chain retailers is a contributing factor.

It has become more important for fashion designers to be able to anticipate trends and create work that is derivative rather than original. However, the inability to identify trends might be problematic.

LITERATURE AND REVIEW

Yogesh K. Dwivedi et al (2021) The development of digital and social media has forced businesses and consumers to adjust to a new normal. Businesses may benefit from social media and digital marketing in a number of ways, including cost savings, increased brand awareness, and increased revenue. Negative electronic word of mouth and an annoying online brand presence are, nonetheless, major obstacles to overcome. This article features the insights of digital media and social media marketing professionals. Experts also provide their insights on more nuanced topics including AI, AR marketing, digital content management, mobile marketing and advertising, B2B marketing, EWOM, and related ethical concerns. This study provides a significant and relevant addition to the area by pointing out the shortcomings of prior research, detailing the gaps in the literature, and offering new avenues of investigation that may help us get a deeper knowledge of digital and social marketing.

Natalia Särmäkari (2021) Recently, media outlets have discussed "digital fashion" as the industry's next big move. As part of a larger "fashion 4.0" digitization process, more and more designers are turning to 3D-software. This article provides context for the development of the digital fashion industry by analyzing the histories of two of its forerunners, Atacac and The Fabricant. Why and how are they using 3D modeling in their fashion design business? How are these companies reevaluating the place of fashion designers and the fashion design industry as a

whole? To support the claim that digital fashion is a new subfield of fashion design, this essay draws on sociology of professions, one that is breaking away from established norms in the industry and developing novel approaches of establishing its authority. As a result of the opportunities presented by new technologies and the need to boost self-esteem in the workplace by differentiating oneself on the basis of ethics, concepts, artwork, and craft, the modern fashion designer has evolved into the role of digital artisan. The emergence of the digital, or "phygital," sphere and a networked synergistic community of digital fashion is challenging the traditional definition of a fashion designer.

Maria Joao Pereira Neto et al (2018) In today's enlightened day, the uninformed end-user of yesteryear has given way to the knowledgeable, picky shopper who wants a product that will adapt to his changing demands. If we were formerly subject to the tyranny of global fashion labels, we now wish to be liberated from the fashion cycle's incessant impositions of time and the present. We have a broken fashion industry. The internet's continual flow of information dilutes the potency of fashion trends. Individual consumers may now establish their own "micro-trends" by articulating their own distinct tastes. Concepts like originality and quality will emerge with this clothing revival, resurrecting the mystique of special apparel. Increasingly, consumers are opting to personalize their clothing and accessories as a means of expressing their own sense of style and expressing their unique sense of self in the world. In an effort to better understand how human elements in user-based designs might be managed, this essay seeks to highlight the opportunities presented by customizable surface design in the fashion sector. This research is a component of a Ph.D. project examining the significance of textile finishes to the fashion industry.

Luís Ricardo Santos et al (2019) Recent decades have seen extraordinary technology advancements, which have profoundly altered our everyday lives and the interactions we forge with our surroundings. This phenomenon eventually shaped a person who is self-aware and self-sustaining by altering who we are and

what we believe to be. In the wake of rapid technological development, people increasingly feel torn between two realities: the real and the virtual. A body that learns to adapt to its changing conditions creates a new set of requirements for modern life. Even if governed by the rules of huge businesses and worldwide interests, the "individuality game" is open to all users, particularly young designers and design students, in this age of more individuality and far greater technical power at their fingertips. People seek their identities and validate themselves by the actions they do, the possessions they acquire, and the relationships they cultivate. As a very visible form of expression, fashion design provides a wonderful platform for the person to take pride in his unique identity while also expressing his ingenuity. This research was conducted as part of a PhD thesis looking into the effects of digital technology on the creative processes of humans, specifically in the context of the fashion design industry. The goal of this study is to get an understanding of human cultural and social evolution in order to determine the most trustworthy routes to an effective generative experience, taking into account human aspects and the users' prerequisites and expectations. It's an effort to plot where people really are in terms of their relationships to one another and to the wider world. Design research, idea creation, and project presentation are all fundamentally altered by the advent of digital environments. Those who wish to be ready for the unknowable future of fashion design must fully grasp the creative possibilities of digital languages. As such, the findings of this research will provide light on the traits, behaviors, and thought processes of tomorrow's fashion designers.

Natalia Särmäkari et al (2020) This article explores open-source fashion as a design philosophy and a phenomenon that challenges the conventional notion of fashion designers as sole creators of their creations. We suggest that

in today's data-driven digital society, the idea challenges the primacy of fashion design professionals. This study examines the role of open-source philosophy in fashion design as a form of authorship among industry professionals, and it does so by presenting three case studies that illustrate distinct approaches to implementing open-source ideas within the context of cutting-edge fashion design. The article is based on studies done in both 2018 and 2019. Authorship and expert-level considerations were applied to the case studies. We investigate if and how fashion designers challenge the authorial and professional norms of the fashion industry, as well as why they do so. Second, we examine how technology contributes to this kind of inquiry.

METHODOLOGY

Since there is a dearth of information on how fashion firms employ 3DVD technology to improve business procedures in their supply chain, we set out to fill this gap with our methodology. The review's grey literature sources included company and third-party industry reports, news articles, interviews, videos, presentations, and websites of fashion companies and projects that use 3DVD technologies to virtually simulate products, services, and processes all the way through the fashion supply chain.

We used the following criteria to examine the 36 firms that made the cut: See Figures 1 and 2 for more information on company age, industry, maturity, and size; Sustainable innovation and the use of 3D modeling, virtual reality, augmented reality, and 2D/3D scanning in the supply chain.

The study also let us see potential for BM innovation, in the form of shifts in value generation, distribution, and capture due to the rise of 3DVD technologies. Due to a lack of readily available data, we were unable to conduct a thorough analysis of shifts in each component of the BM canvas for this research.

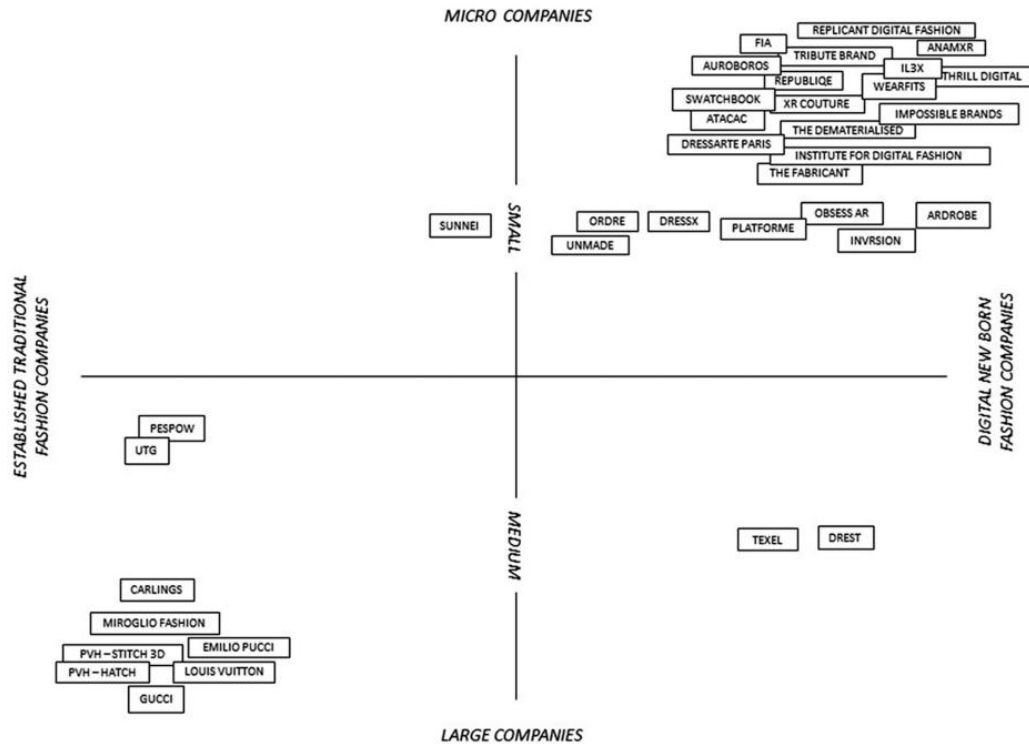


Figure 1. Taxonomy of mapping companies' dimensions vs. organizational typology

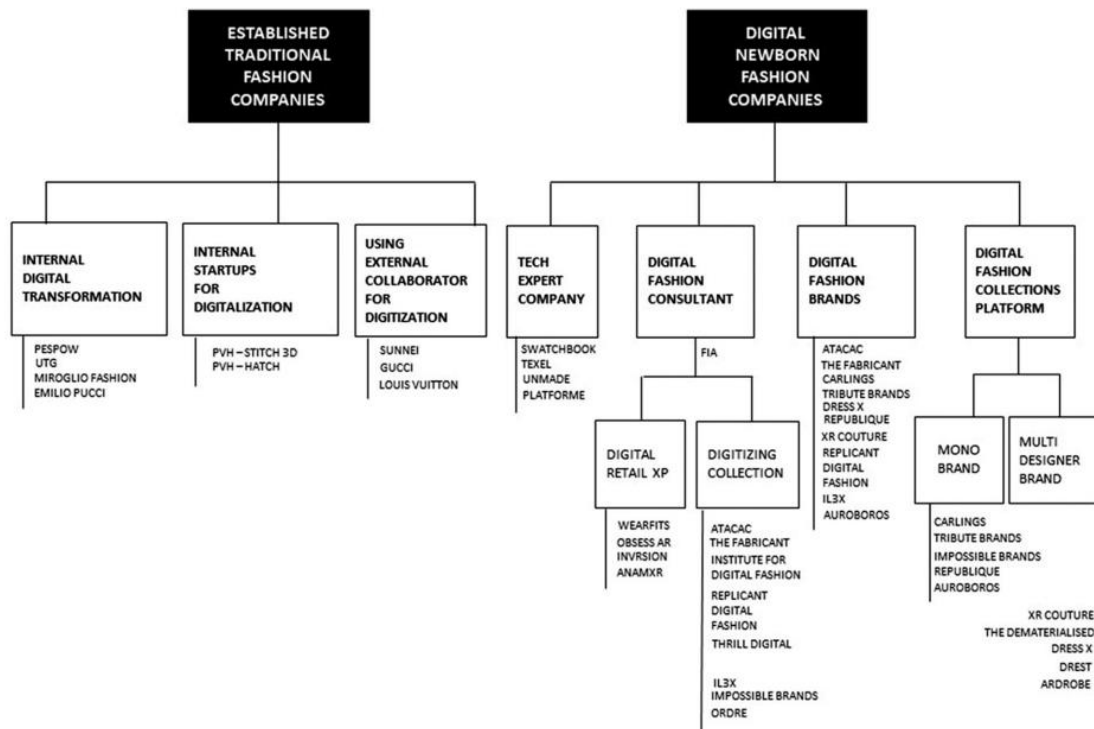


Figure 2. Taxonomy of digital transformation through 3DVD.

There are now two types of organizations that make use of 3DVD technologies: (1) long-standing fashion houses and (2) cutting-edge, digitally-born startups, SMEs, manufacturers, and e-commerce/retailing businesses. The first category has a three-pronged strategy toward digital disruption.

One way that luxury brands like Gucci, Louis Vuitton, and Sunnei are embracing digital transformation is by working with outside consultants to form strategic alliances with CGI specialist companies and digital fashion-design offices. Second, this cluster of businesses serves as an incubator for digital native enterprises. In



the end, they develop their own expertise in-house.

Micro and tiny digitally born fashion enterprises who make the most of 3DVD's capabilities are part of the second category. Examples of digital fashion consulting firms, which offer specialized technology-expert digitalization services.

Second, digital fashion labels like Atacac, The Fabricant, Replicant Digital, and I13x not only run their own collections, but also work as consultants for more established labels. To

round out the options, there are online fashion marketplaces that either offer their own lines or house various brands under one roof.

In order to explore and profit from the unique design and economic opportunities given by digital technologies, both types of companies employ 3DVD technology at different stages of the supply chain, thereby disrupting the conventional fashion supply chain in either a partial (i.e., value-chain-process-only) or a comprehensive (end-to-end) manner.

Table 1. Supply-chain transformation attributable to digitalization.

#	Cases	Country	Year of foundation	Established traditional companies		Digital-born			Company dimension				Technology used				Fashion supply chain transformation					
				Internal digital transformation	External collaborator/partnership for digital transformation	Digital fashion consultant	Digital fashion brands	Digital collection platform	Technology expert companies	Micro	Small	Medium	Large	3D AR	VR	scanning	Digital on-demand production	AI development	Design and development	Presentation B2B	marketing B2C	Manufacturing
1	Atacac	Sweden	2016			X	X					X	X	X			X	X	X	X	X	X
2	The Fabricant	The Netherlands	2018			X	X							X	X		X	X	X	X	X	X
3	Carlings	Sweden	2018				X	X					X	X	X			X	X	X	X	X
4	Tribute Brand	Croatia	2020				X	X						X	X			X	X	X	X	X
5	Dress X	USA	2019				X	X						X	X			X	X	X	X	X
6	Sunnei	Italy	2020		X									X	X			X	X	X	X	X
7	Republique	Singapore	2019				X	X						X	X			X	X	X	X	X
8	XK Couture	India	2020				X	X						X	X			X	X	X	X	X
9	The Dematerialized	UK	2020				X	X						X	X			X	X	X	X	X
10	Drest	UK	2019				X	X						X	X			X	X	X	X	X
11	Onire	UK	2014				X	X					X	X	X			X	X	X	X	X
12	FIA	UK	2013				X	X						X	X	X		X	X	X	X	X
13	Institute for Digital Fashion	UK	2020				X	X						X	X	X		X	X	X	X	X
14	Replicant Digital Fashion	Russia	2020				X	X						X	X	X		X	X	X	X	X
15	Thrill Digital - Thrill XR	UK	2020				X	X						X	X	X		X	X	X	X	X
16	Wearfits	Poland	2019				X	X						X	X	X		X	X	X	X	X
17	Ikx	India	2020				X	X						X	X	X		X	X	X	X	X
18	Impossible Brands	Italy	2020				X	X						X	X	X		X	X	X	X	X
19	Aldrobe	Italy	2021				X	X						X	X	X		X	X	X	X	X
20	Obssess AR	USA	2017				X	X						X	X	X		X	X	X	X	X
21	Inversion	Italy	2015				X	X						X	X	X		X	X	X	X	X
22	Anamer	USA	2020				X	X						X	X	X		X	X	X	X	X
23	PVH - Stitch 3D	The Netherlands	2018		X									X	X	X		X	X	X	X	X
24	PVH - Hatch	The Netherlands	2017		X									X	X	X		X	X	X	X	X
25	Pingwe	Italy	2016	X										X	X	X		X	X	X	X	X
26	United Textile Group (UTG)	Denmark	1968	X										X	X	X		X	X	X	X	X
27	Auroboros	UK	2018											X	X	X		X	X	X	X	X
28	Gucci App-Kee Sneakers	ITALY	2019											X	X	X		X	X	X	X	X
29	Louis Vuitton	Italy	2020			X								X	X	X		X	X	X	X	X
30	Swatchbook	USA	2017											X	X	X		X	X	X	X	X
31	Teal	Russia	2014											X	X	X		X	X	X	X	X
32	Miroglio Fashion	Italy	2018	X										X	X	X		X	X	X	X	X
33	Emilio Pucci	Italy	1947	X										X	X	X		X	X	X	X	X
34	Ure MADE	UK	2013											X	X	X		X	X	X	X	X
35	Platforme	Portugal	2016											X	X	X		X	X	X	X	X
36	Dressarte Paris	France	2018						X					X	X	X		X	X	X	X	X

The 3d Digital Environment

The virtual good may communicate with the user in a variety of ways:

I. Augmented reality

Allowing designers and customers to "try on" things using a computer-generated model. The

firm "Change of Paradigm" is a good illustration of this kind of technology advancement; it is changing the way conventional commerce works by creating fully immersive and interactive experiences based on 3D simulated material.



Fig. 3. 3D simulation as the future of fashion products promotion

The "Total Appearance Capture (TAC) Ecosystem" by "X-Rite Pantone" is another instance where the line between reality and simulation blurs.

The "Virtual Light Booth" is a state-of-the-art 3D technology that renders virtual objects to scale and in stunning realism.





Fig. 4. Photo of the “Virtual Light Booth” from “X-Rite Pantone” company

II. Virtual collections

Items designed to be worn in a digital environment. The Scandinavian fashion house Carlings is one example of a company offering virtual collections; in November 2019, they offered 19 3D virtual outfits that could be digitally added to the shopper's photographs.



Fig. 5. Shoppers wearing looks from Carlings' virtual collection

III. Virtual models

A computer-generated image (CGI) persona who wields power by their online persona and social media following. CGI influencers like Shudu, a virtual model with 100,000 followers, are becoming more popular.



Fig. 6. Shudu, a CGI influencer, wearing a designer gown

International exchange of imaginative products and services The Creative Economy's contribution to global commerce is one proxy for gauging the economic worth of the sector and its development through time. However, the definition of creative "goods" and "services" is vital to the mapping of commerce in these

categories, which in turn is dependent on the definition of the Creative Economy. For a more accurate assessment of the Creative Economy's impact on international trade, rather than focusing on the value of trade in "creative" goods and services, we should be measuring the creative content of all traded goods and services in the same way that carbon footprints are.

Table 4. Classification of creative goods

CER001	All creative goods	
CER002	Art crafts	Carpets, Celebration, Other art crafts, Paperware, Wickerware, Yarn
CER003	Audio-visual	Film, CD/DVD/Tapes
CER004	Design	Architecture, Fashion, Glassware, Interior, Jewellery, Toys
CER005	New media	Recorded media, Video games
CER006	Performing arts	Musical instruments, Printed music
CER007	Publishing	Books, Newspaper, Other printed materials
CER008	Visual arts	Antiques, Paintings, Photography, Sculpture

CONCLUSION

In the evolution of a clothing item, the prevalence of digital settings is unavoidable. As a result of humanity's current hybrid life straddling the virtual and real worlds, our cultural activities will undergo profound changes, giving rise to new forms of expression and identities. The fashion sector may benefit greatly from exploring new social and cultural requirements via the use of virtual items, which have numerous benefits of their own. As a result, it is crucial to learn how these digital worlds might facilitate the development of cutting-edge merchandise.

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