Role of Technology and Creativity in Fashion

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ORIGINAL ARTICLE

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ROLL OF TECHNOLOGY AND CREATIVITY IN FASHION ABSTRACT Human is a remarkable example of adaptability. The progress of human concept of fashion has also transformed over the ages. Human inventiveness has continuously appeared to create the desired changes within the textures, starting from basically covering their bodies with distinctive hide to protect them from various normal components in ancient times,

Abstract

Human is a remarkable example of adaptability. The progress of human concept of fashion has also transformed over the ages. Human inventiveness has continuously appeared to create the desired changes within the textures, starting from basically covering their bodies with distinctive hide to protect them from various normal components in ancient times, to planning extraordinary suits and textures woven from extraordinary materials to satisfy antagonistic natural prerequisites, such as space and forsake climate. With time the concept of fashion is also changing. Basically, technology is major factor behind changing of fashion trends.

The future of the fashion industry is difficult to predict, but these fashion industries are rapidly evolving, especially when it comes to meeting consumer demands, and new technology and creativity come with these emerging opportunities. All aspects of fashion, from the design process to the moment a piece gets into the hands of customer, are driven by technology and creativity. As consumers want access to new trends quickly and, most of the time, they don't want to have to step out their front door to get it. These are some of the primary elements that have influenced the future of the fashion industry in extraordinary ways.The world of fashion has started to be influenced by technology and creativity in industry trend. Fashion designers have the opportunity to line up and create trends that have endured for years, spreading themselves beyond fashion and creating a wat into cultural zeitgeist.However continuous monitoring of interaction between technology and creativity is necessary.

Keywords

Technology, Creativity and Fashion.

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Introduction

Textile and garment industry are one among the most important industries within the global market place. When taking into consideration to several components of the availability chain involved transforming raw materials into finished products and bringing those products to the ultimate consumers. The textile and garment industry supply chain includes the manufacturing and therefore the subsequent wholesale and retail sale of fibers, yarns, fabrics, apparel and accessories for men, women, and therefore the children also as home furnishings and textile dry goods.

Textile and garment industry's products are often divided into two general categories: basic and fashion (Kunz & Garner, 2007). Basic products don't change radically from one season to a different, while the drive behind fashion products is modified. On other hand, fashion is that the prevailing or accepted style or group of designs in dress or personal decoration established or adopted during a specific time or season. The style industry is involved within the creation, production, promotion, and sale of things that trigger psychological reactions associated with desires and wishes and are adopted by a gaggle of individuals for a limited amount of theirtime. To achieve success, fashion industries must change the essential qualities of a product on a daily basis, usually on seasonal basis, carefully encourage the will for the new products by transferring to the new items.

Consumer's lifestyles and behaviors are changing in response to social and economic changes (Wahlen & Laamanen, 2015). Consumer always inspired and astounded at the constant development of technology moving the style industry into a more efficient and artistic future. The ever-growing digital world exposes new opportunities for both creator and consumer. Amazing products are beginning of multidisciplinary combinations by using the talents of scientists, computer engineers, manufacturers and designers. Technologies are growing the way people shop, through social media apps, websites and retail shops. Brands are adapting to changes so as to urge their products ahead of their customers. The substantial growth of organized retailing, online shopping and fast fashion indicates that buyers became wont to a continuing stream of latest products and services.

Organized retailing is characterized by a controlling group or an outsized individual store as collection of chain stores, owned or franchised. The popularity of chain stores has influenced customer behavior by offering cheaper prices, a variety of goods and a number of locations, with the result that they are becoming more convenient and available.Fast fashion, however, has changed the retailing industry drastically and had successively caused the buying patterns and behaviors of customer to differ (Rosa, 2013). It consists of middle market or low-cost brands adapting into identical apparel with lower quality and cheaper prices what high-end brands display on their catwalks.

Another significant innovation profoundly affecting both the social and economic field is online shopping. The web allows consumers to surf, or explore the planet Wide Web for the knowledge and has facilitated the event of latest business model E-commerce. "E-commerce became a primary characteristic of the fashionable era and irreplaceable retailing platform" (Chen, 2009). During this process, the business transaction is completed through contact made on internet. Within short span of your time, the business world has seen considerable change thanks to internet technology; a completely new format for dissemination of data and for the sale of merchandise has grown to unforeseen proportions. Internet-based business transaction are often within the sort of selling or advertising goods and services, facilitating connects between business and customers (B to C) or business and business (B to B). The web phenomenon has deeply impacted on both consumers and retailers. Online shopping success is due to simplicity, comfort, flexible pricing and a wide variety of services with a relentless emphasis on making life simpler for its users (Chandrawati, & Wong, 2016).

Consumers also search online for items that they need to see in-store, from friends or relatives,

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on social media, on TV and other media before shopping online or in-store. The success of the web has therefore generated a replacement sort of consumer, the "Liquid Consumer" moving with no limits from one media platform to a different at anytime and anywhere. Technology has aided designers and manufacturers to satisfy this business environment challenges. It's crucial for retailers to start out embracing new technologies like shopping apps or websites with options that encounter shoppers' demands. The bulk of consumers are willing to receive more personalized offers and proposals supported their past shopping behavior before buying.

The idea of blending fashion with technology has been around for quite 30 years. This is often how technology is shaping the longer term of fashion. Technology has helped designers and producers face the demands of this market settings. There are two types of technology: process technology and information technology. Process Technology is hardware and/or software that facilitate the particular physical development of the merchandise. This category is often further sub-divided into computer aided design, computer aided pattern making and manufacturing and 3-D Body scanning/mass customization. Computer aided design programs helps in creative sketching, presentation boards, technical design, and textile design. Software programs used for these purposes include Adobe Photoshop and Illustrator and Lectra CAD. Computer Aided Pattern making includes digitizing existing patterns for grading and pre-production preparation, creating patterns from existing block pattern, digitizing draped muslins for completion on the computers, and customizing patterns for made-to-measure clients. Taking the method another step further, technological development has led to 3-D virtual assembly of the pattern then evaluating the pattern on a virtual model complete with animation to ascertain the virtual model walk, thus enabling changing of color, pattern, proportion and details of the planning before realizing it in actual fabric. Computer aided manufacturing includes cutting an outsized quantity of garments during a paperless environment, using automated spreading and cutting, and for a few of segments of the industry going all the thanks to automated assembly. Computer-aided manufacturing also includes supply-chain technology like software for Product Data Management and merchandise Lifecycle Management, both in local networks and on the web.

Information Technology refers to the various methods that one can communicate ideas, words, and pictures both locally and over the planet Wide Web. It covers all methods of distribution of information on the Internet: e-zines, podcasts, myspace.com, youtube.com, and blogs (accessed both by business professionals and consumers). In addition, Information Technology includes web-based trend forecasting agencies; both subscription-based like wgsn.com, and people with unrestricted public access options like style.com, elle.com, infomat.com, and patterncurator.com.

In innumerable forms, technology has facilitated the expansion of human culture. From the basic needs of a human, i.e. food, shelter and clothes, to advanced systems and health care, technology has been increasingly suffering from the critical and highly efficient tool of the era.Clothing has always been important for humans and it can all be amply expressed by one's clothes to display one 's culture and desires, social status, religious views, cultural diversity and professional status. Due to strong technical tools that reinforce and shape the creative ideas of fashion designers, a good range of showcasing various kinds of clothing is now possible.

Since, the mankind has begun to advance the trail of civilization, technology has developed gradually. Recently, however, certain fundamental developments, such as the invention of electronic chips, GPS networks, Wi-Fi networks, the internet, computers, sensors and advances in nanotechnology, have changed the world in a remarkable way. "Wearable devices are one of the most significant areas that have arisen from these continuing technological advances (Tao, 2005)."The word wearable technology is used to describe the confluence between clothing and technology. Wearable technology is also referred to as a material, a device, in particular a garment or an attachment worn on a body

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inspired by, developed or enhanced by digital or electronic technologies.A category of creative activity encompassing the different range of scientific and artistic processes carried out by the artists, fashion designers, technologists and hobbyists who make the merchandise wearable may also be listed.

Fashion and wearable technology appear to be a match made in heaven. Technologies and materials that make up wearable technology, including smart fabrics or e-textiles, nanotechnologies, nanofibers, LEDs, and shape-changeable polymers, are light and tiny while providing a variety of capabilities. For instance, metallic thread discreetly enmeshed during a fabric weave would allow a 'live' garment to transmit impulses to countless electronic devices either embedded in or external to the garment.The improved functionality of the software is therefore fundamental to the new definition of wearable technology.

Technology could also be considered as an interface between consumers and therefore the products. As there's development in technology, creative potential has also modified. Technology not only encourages, but nurtures, creativity. Via platforms like YouTube, anyone with an online link can sharpen their skills and be influenced by others, while meeting sites enable aspiring technicians, authors or designers to work together to explore ideas and techniques. Technology makes it possible for concepts and goods to spread more and more creatively.Creativity is multi-dimensional in nature, and often involves human attributes and attitudes because of the connection between creative people and their thoughts.Creativity comes from diverse areas, like psychology, business, engineering, design, education, mathematics, computing, and philosophy. Creativity may be a very emotive issue in fashion. Creativity is taken into account as a set of ideas that contribute to new solutions, ideas and theories.One of the main aspects of creativity is novelty and novelty. It is always a "old idea," but if it is done in a completely different way, a new kit, the same but recycled idea, it becomes a whole new entity. Creativity has been categorized as personal, where the invention could also be novel for the individual, but has been has been realized by somebody else, and historic, where the invention is novel for the whole culture and society (Boden, 1990).

Creative thinking is based on the same intellectual resources as ordinary thought (Boden, 1990; and Weisberg, 2006), and in relation to the creative contribution to the field, various forms of creativity have been defined (Boden, 1990; Sternberg et al., 2002; and Weisberg, 2006). Artistic creativity, a process of developing an idea with no specific goal, has been distinguished from scientific creativity where the problem space is usually defined (Boden, 1990; and Weisberg, 2006). The stages of the creative process can vary in number, and typically include stages related to planning, incubation, lighting, and assessment (Boden, 1990). These measures have been outlined in general terms (Boden, 1990; Ambrose et al., 2003; and Sartre et al., 2010), in relation to the designer and his or her interface with the product creation process (Cross et al., 1996; Cross, 1997; Dorst & Cross, 2001; and Aspelund, 2006), and in relation to fashion design (Lamb & Kallal, 1992; Fiore et al ., 1996; Suwa & Tversky, 1997; and LaBat & Sokolowski, 1992). Creativity related to fashion design has distinct characteristics. In addition to producing a novel (Weisberg, 2006) consumable product (Rhodes, 1961), fashion design imagination has the supplementary necessity of creating value (Csikszentmihalyi, 1996) by instilling enthusiasm and need for change (Wilson, 2003; and Kawamura, 2005).In order to shape the investigation and interpretation of the individual design process, conceptual models considering personal imagination have been created (Bailey, 1998; Lamb & Kallal, 1992; Le Pechoux, 2000; and Mete, 2006). Furthermore, the method of encouraging creativity in the teaching / learning system for fashion design has been paid attention to (Kim & Farrell-Beck, 2003; Dragoo, 2004; Rug & Reilly, 2004; Simpson, 2004; Lee, 2005; Murray, 2005; Rug & Chattaraman, 2005; Karpova et al., 2011; and Robinson, 2011).

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Both tangible and intangible events may refer to the term fashion. Behaviors that vary from one's choice of dress or decoration, one's way of socializing with peers, and one's choice of language and mode of communication are only a few examples.Such activities add to the fashion system (Hamilton, 1997; and Vinken, 2005), but they can occur independently of any commercial enterprise.Style implies to an element that is embraced for a limited period of time by a group of people (Diamond & Diamond, 2002) with a particular set of characteristics (Conway, 1997) (Wilson, 2003).Fashion products are represented by an abstract force in addition to the specific features of the design (Babcock, 1986), the integral components of which are development and change (Kawamura, 2005).In short, fashion is a method that "serves as a means by which products are systematically invested and disposed of substantive assets" (McCracken, 1986) and is "a function of any complex, industrial nation-state and is responsible for the manufacture, marketing and marketing of products associated with individual creation of appearances" (Hamilton, 1997). Therefore, the retail industry focuses on the retail system's business operations (Hamilton, 1997; and Vinken, 2005) and discusses multiple economic levels, ranging from selling low-priced budget goods to high-priced budget goods.

This complex structure exists within the framework of industrial societies that "willfully embrace, indeed promote, the fundamental changes that arise from deliberate human effort and the influence of anonymous social forces" (McCracken, 1986).As it both represents and influences the society in which it resides, today's fashion industry endures because of transition. All fashion companies or individuals involved in the production, manufacture, promotion and sale of products that: (a) have novel and distinct esthetic and functional characteristics; (b) trigger desire and need-related psychological reactions; and (c) a group of individuals are adopted for a limited period of time. Increased competition, increased market recognition and rapidly changing technology characterize the world of fashion designers today.

Creativity is present in a number of ways in the fashion industry, and commitment to creativity permeates all fields.Creativity that rejects the existing paradigm and leads the field in a new direction has been defined in terms of "historical creativity" (Boden, 1990). Boden also said, "The history of costume is really evolving. To do things that have never been done, or to view them in a way that has never been done, as, of course, everything is taken from the past. Creativity in fashion design is linked to market position (Eckert & Stacey 2003) and creating value (Csikszentmihalyi, 1999). Since the purpose of fashion design is to produce a product with a functional function, the innovative fashion designer's job is to attend to the consumer's needs in a subtle manner, creating a balance that the consumer understands and connects to, while at the same time identifying product characteristics that are unique and serve a purpose.

Technology does not repress creativity, in fact, technology build up creativity. The difference between the two is that creativity comes from observing, interpreting, and bringing new concepts and ideas to the world.Whereas technology allows the environment to be treated differently, accessing knowledge from anywhere in the environment.The reality is that technology and innovation go hand in hand and complement each other, making it possible to be more imaginative and productive. There are several main technical benefits that have an effect on creativity:

Innovation

Innovation is a continuous process that includes the adoption of new combinations, including the creation of new technology, goods and services. Technology is now shifting the direction of creativity.

Emerging Tools

It is important to focus on the numerous resources that have arisen from technology, such as 3D printing, digital content development and other forms of digital interaction, which offer experts the opportunity to explore new things and express themselves in a variety of ways.

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Accessibility

Technology has trained experts to think high, and thus, in many ways, it feeds imagination. There is an urge to innovate and develop, and with technology, they can reach a new direction and easily communicate with knowledge and people around the world.

The influence of technology may lead to homogenization of creativity if the design inspiration shifts from primary source in the natural environment to the internet where the information is filtered and two- dimensional. As a designer advance continuous monitoring of interaction between technology and creativity is necessary in order to preserve the beauty of the past while embracing the possibility of the future.

Conclusion

The fashion industry holds an undeniably important place within the world. Creativity and technology are great match together as both are future-driven, consumer-focused, and when combined appeal fast-growing segment of consumers. One among the foremost important reaction of the economic revolution was the mechanization of textile manufacture. The facility loom and therefore the well-equipped textile mills resulted during a huge increase within the amount of production by shortening the time required for production. Today, reproduction of novel material has been designed, and this has enhanced both the standard and adaptableness of materials. The so-called smart materials enable the assembly of clever fabrics, with high-end technology like atomic force microscopy and polymeric nanofibers going into the planning, manufacturing and testing of those fabrics. These techniques have proven to be highly useful for special applications, such as the design of spaceflight uniforms, swimsuits and military uniforms for the use of more rugged and adaptable clothing for everyday use. The role of computers in fashion technology is extremely important. The visualization of the ultimate design right at the conceptualization stage, right down to the best detail, making suitable modifications if so desired, automating several stages within the manufacturing process and, finally, accomplishing internal control procedures - all of them involve computing at different levels of complication. By creating an attention-grabbing design using CAD or running the computerized knitting and weaving machinery, automation is fast becoming the buzzword.

Technology and creativity are scaling tremendous heights and with it, so are all its applications. Textile and fashion design have future many promises and still be a standing example of the expertise of technology and creativity. As Clemens puts it, the best clothing ever made may be a person's skin, but in fact, society demands something more. So, the research for better clothing, better fabric and trendier garments is continues and nonstop served by technological advancements.

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