

TECHNOLOGY AND CREATIVITY:
FASHION DESIGN IN THE 21ST CENTURY

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by
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TECHNOLOGY AND CREATIVITY: FASHION DESIGN IN THE 21ST CENTURY

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I dedicate this dissertation to my sons, Matei and Ioan Stroescu, who are continuous sources of inspiration and joy.

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CHAPTER 1: INTRODUCTION

Statement of the problem

Creatively harnessing the zeitgeist, or spirit of the times, and translating its inspiration into unique, timely, and marketable fashions has been the key to survival of apparel companies since the early 20th century. Increased global competition makes the development of a financially successful fashion product more difficult than ever, however technology has significantly increased efficiency in many components of the supply chain (Kusterbeck, 2008). In the fashion business, it is the designer's role to translate cultural influences into new products (Lamb & Kallal, 1992). This research was developed to enhance the understanding of fashion design in the post-modern context: How has technology influenced the creative design process?

Focusing on creativity in fashion design, this study evolved using a grounded theory (Denzin & Lincoln, 2000) approach to qualitative inquiry. Luxury-level fashion designers and industry executives in France and the United States were interviewed in depth regarding creativity and the influence of technology, specifically the Internet, on the fashion design process. Data analysis led to defining a typology for creativity and a typology for technology in fashion design in the global competitive environment of the 21st century. Through relating these typologies to various dimensions of the work of a fashion designer, the study contributed a new perspective to the social-cultural and ideological shifts that are occurring.

The following chapter defines key concepts, provides an historical context, and discusses the theoretical domain under which the areas of inquiry were established. A brief explanation of the research method and purpose of the study ends the chapter, defining the framework within which the study was developed and executed.

Definitions

The Discipline

The textile and apparel industry is one of the largest industries in the global marketplace when taking into consideration the many components of the supply chain involved with transforming raw material into products and bringing products to the final consumer. The textile and apparel industry supply chain includes the manufacture and the subsequent wholesale and retail sale of fibers, yarns, fabrics, apparel & accessories for men, women, and children as well as home furnishings and textile soft goods. “In 1996, apparel was the 10th largest trade category as a share of all world merchandise trade (exports); textiles were the 9th largest category” (Dickerson, 1999, p. 183). In 2004, Textiles and apparel were ranked third in worldwide commercial exchanges, behind automobiles and electronics. (http://www.industrie.gouv.fr/cgi-bin/industrie/sommaire/dec/decl.cgi?DECL_ID=1243&_Action=200

Because the textile and apparel industry requires relatively small capital investment and low-skilled labor, this industry has been instrumental to the economic growth of underdeveloped countries since the industrial revolution at the turn of the 19th to the 20th century (Dickerson, 1999, Glock & Kunz, 2007).

Textile and apparel production continued to contribute significantly to the economic development of newly industrialized and developing countries (Glock & Kunz, 2007). By 2007, the Global market value of the textile and apparel industry was \$1,671,1 billion. The United States apparel industry grew by 2.4% from 2005 to 2006 and reached a value of \$295.5 billion (Datamonitor, 2007).

The Fashion Industry

Textile and apparel industry products can be divided into two general categories: basic and fashion (Kunz & Garner, 2007). Basic products do not change radically from one season to the next, while the driving force behind fashion products is change. *Fashion* is defined as “1) the prevailing or accepted style or group of styles in dress or personal decoration established or adopted during a particular time or season.2) [When capitalized] such prevailing customs or styles considered as an abstract force” (Webster’s Third New International Dictionary, 1986).

Kawamura (2005) builds on the second definition above and refers to fashion as such prevailing customs or styles considered as an abstract force whose integral components are novelty and change. McCracken (1986) describes fashion as a system that “serves as a means by which goods are systematically invested and divested of meaningful properties” (McCracken, 1986, p. 76). Hamilton describes “the *fashion system* per se, which, as a function of any complex, industrial nation-state, has the responsibility for the production, marketing, and merchandising (Kean, 1997) of products associated with the construction of individual appearance” (Hamilton, 1997).

Dickerson (2003) describes *The Fashion Business* as all companies and individuals concerned with the design, production, and distribution of textile and apparel goods. Frequently included under the discussion of the fashion business are components of the industry such as accessories, jewelry, and perfume (Dickerson, 2003). The production of basic apparel items does not depend on the same abstract driving force based on novelty and change, and therefore basics were not a part of this analysis.

The *Fashion Industry* is, for the purpose of this study, all companies or individuals involved in the creation, production, promotion, and sale of items that (a) have specific aesthetic and functional properties, (b) trigger psychological reactions related to desire and need and (c) are adopted by a group of people for a limited amount of time. The *Fashion Industry* operates within the context of industrial societies that “willingly accept, indeed encourage, the radical changes that result from deliberate human effort and the effect of anonymous social forces” (McCracken, 1986, p. 76). In order to remain successful, companies must change the aesthetic properties of a product on a regular, usually seasonal, basis, carefully cultivating the desire for and need of the new product by transferring to the new item an abstract force similar to the one that created the meaning which initially pushed the outgoing product into popularity.

The study of the *Fashion industry* is complex and encompasses a wide variety of disciplines including aesthetics, design, product development, economics, global business, marketing, consumer behavior, operations, and management as well as anthropology, psychology, and sociology. The *Fashion*

Industry has been examined at many economic levels, from low-priced mass-market apparel to custom-made couture garments selling for thousands of dollars each, and all price levels (or price-points) in between. A common theme that joins all of the areas, however, is attention to the concept of change. Today's *Fashion Industry* endures because of change as it simultaneously reflects and affects the culture in which it exists.

The Luxury Segment of the Fashion Industry

Luxury, as defined by the American Heritage Dictionary, is "something inessential but conducive to pleasure and comfort; something expensive or hard to obtain" (luxury n.d.). Taking a narrow view of this definition, most items that the average consumer today owns can be considered a luxury; it is essential to own one pair of shoes, for example, and inessential to own five. In today's developed economies, owning five pairs of shoes is not generally considered a luxury, however. For the purposes of this study the luxury segment of the *Fashion Industry* will be defined by companies that sell goods of superior character costing the consumer over 200 percent more than the cost of an average comparable item.

This definition distinguishes the Luxury Industry from the "New Luxury" category as defined by the Boston Consulting Group (2005): "premium-quality goods [that] cost up to 200 percent more than average ones but win devotees among middle-market consumers because of their technical benefits and emotional resonance" (Boston Consulting Group, 2005). Author Pamela N. Danziger (2005) is noted for her book, "Let Them Eat Cake: Marketing Luxury to

the Masses as well as the Classes," is president of Unity Marketing, a luxury market research firm (Jones, 2005) and is the founder of the The Luxury Consumer Tracking Service (<http://www.researchandmarkets.com/reports/c83248>). This service defined three levels of luxury consumers they survey: Near-Affluents, Affluents, and Super-Affluents:

-Near-Affluents, with household incomes of \$75,000-\$99,999, that represent 12.2 million households or 11 percent of all U.S. households.

This segment represents 20 percent or less of the total sample and is representative of the "trading up" luxury market.

-Affluents, income of \$100,000-\$149,999, who make up 10 million U.S. households or 9% of all households, and account for approximately 40 percent of the survey sample each quarter. This segment represents the prototypical American 'new luxury' consumer.

-Super-Affluents, the income segment making \$150,000 and above, that represent the highest spending segment in all categories of luxury, and who make up 5 percent of U.S. households, or 5.6 million households.

This segment makes up about 40 percent of the survey sample each quarter. This is the most highly affluent segment of the population.

(<http://www.researchandmarkets.com/reports/c83248>)

The luxury industry had been growing steadily for the past decade. "The typical luxury consumer spent \$13,820 on average buying luxuries from January to March 2006, up 18 percent over luxury spending in the same period last year

[2005]" (D'Innocenzo, 2006). Recent economic turmoil has resulted in reduced luxury spending, however (Jones, 2008). "After growing at about a 10 percent clip for the last several years, the luxury market , except for pockets at the very high end, has slowed dramatically" (Jones, 2008). Luxury companies are adjusting their promotional strategies to attract the economically strained *Affluent* and *Near-Affluent* consumer categories (Anonymous, 2008). The *Super-Affluent* end of the luxury market is traditionally impervious to recessionary times "as of fall 2008, luxury brands continued to resist the wider consumption slump" (Lisanti, 2008). Regardless of the fluctuations in luxury sales volume, the luxury category maintains relevance in the fashion industry because it is key to developing in consumers psychological triggers for desire and need, one of the integral components of a fashion product.

The Internet, the World Wide Web, and E-Commerce

Technology, in a general cultural context, is defined as any physical object in our environment (Hamilton, 1987). For the purposes of this paper, the focus is on a technological phenomenon that was developed in the mid-20th century by the US military and came into mainstream usage in the 1990s – the Internet. The Internet (internet, n.d.) is a network of computers possessing the capacity to transfer information around the world. The World Wide Web uses the Internet as a vehicle to communicate information, including text, graphics, videos and sound to anyone with the corresponding receiving technology, which today means a piece of machinery, or hardware and software called a *web browser*. Only one Internet/World Wide Web combination exists; however the WWW is not the only

vehicle that transfers information through computer networks. Other systems exist, including EDI (Electronic Data Interchange), Intranets, and Extranets. These other systems function in a similar manner to the Internet, but access and use is restricted.

The Internet allows users to surf, or explore, the World Wide Web for information and entertainment and has facilitated the development of a new business model, e-commerce. E-commerce is the process of transacting business through contact made on the World Wide Web. Within a short 14-year span the business world has seen considerable change due to Internet technology; an entirely new format for the dissemination of information and for the sale of merchandise has grown to unforeseen proportions. Internet-based business transactions can be in the form of selling and/or advertising goods and/or services, facilitating connections between customers and businesses (B to C) and/or businesses and businesses (B to B). Online sales for the non-travel (retail) category in December of 2006 surpassed the billion-dollar mark, the highest level achieved during a holiday season to that date, and reflected a 24% increase over same-period sales in 2005 (Anonymous, 2006). Online sales remained a strong consumer channel even in the difficult economical setting of 2008, “US online retailers saw a 15% jump in sales on the Monday following the Thanksgiving weekend compared with last year” (Birchall, 2008). This rapid technological shift to the Internet is embraced by some, frustrates others yet affects everyone, consciously or subconsciously. This study was designed to

explore the direct or indirect influence of the Internet on the creative product development process in the luxury fashion apparel industry.

The luxury apparel industry has resisted entry into the e-commerce sector (Passariello, 2006) however the luxury online presence has been growing (Corcoran, 2008). “According to Forrester Research, luxury online sales, including jewelry and designer fashions, rose 28 percent to \$3.2 billion last year from the previous year. That was faster than the 22 percent increase in total online sales, excluding travel, which reached \$109 billion in 2005” (D’Innocenzio, 2006).

Analyzing the depth, scope, and affect of the online sale of luxury products is not the focus of this study, although that would be a fascinating endeavor. This study focused on the aspect of the World Wide Web that fosters the dissemination of information, particularly information that is inspirational to designers for the creation of luxury fashion products. The interrelationship between Luxury products and the Internet is relevant to this study only as it pertains to the product design and development process.

Historical Context

The Origin of Luxury Fashion

Because the luxury segment of the *Fashion Industry* was the focus of this study, understanding the evolution of fashion leadership will facilitate solid comprehension of the importance of the luxury segment of fashion and its relevance to the exploration of technology and creativity in fashion design. Today’s *Fashion Industry* roots reach far back into European history and are

particularly evident when examining the evolution of aristocratic dress. For over 900 years, using expensive fabrics in dress has been important in order to reinforce superiority in the political and social structure. Sumptuary laws dating as early as 1279 in France defined the value of the fabric one could use in direct proportion to the amount of wealth one possessed (Heller, 2006). Such laws were difficult to enforce, however their existence imposed psychological barriers and laid the groundwork for the evolution of luxury fashion.

In the 17th Century French King Louis the 14th, guided by Jean-Baptiste Colbert, his finance minister, carved an effective plan for economic and political dominance by emphasizing quality, creativity and craftsmanship while practicing sound economic principles (DeJean, 2005, Grumbach, et. al., 2007). At this time, in addition to cultivating French leadership in matters of cuisine and decoration, King Louis the XIV's court became the fashion center of Europe (Grumbach, et. al., 2007). Not only did his court dictate the clothing and accessories of its followers, but the Sun King's government fostered a climate that developed unique and inventive methods of branding the French court's image and making it desirable to people in other countries (DeJean, 2005, Grumbach, et. al., 2007).

In order to create need for the French style and to enhance French influence on neighboring courts, Louis XIV's government expanded the use of fashion dolls, or *poupées de mode* that was initiated in the fifteenth century by Isabeau de Baviere, wife of Charles IV when she "instructed the court embroiderer to create a doll's wardrobe in the latest French style to send to her

sister, Isabelle, the queen of England" (Grumbach, et. al., 2007, p. 17) The fashion dolls were dispatched to fashionable dressmakers in the French provinces and even sent to many countries; from Spain to England, as far east as Russia, and even across the Atlantic to Boston and New York. The sumptuous fabrics, laces, details, silhouettes, shoes, and hair styles of the French court were adopted by those with the financial means to follow the latest fashion trends (DeJean, 2008, Grumbach, et. al., 2007). These fashion dolls were an effective marketing tool, because in addition to providing an aesthetic attraction to the commissioner of the design, the dolls provided the dressmakers with details that aided them in constructing the garments (Grumbach, et. al., 2007).

In order to expand even more the influence of French style, under Louis XIV's reign fashion journalism was born. In 1678, Donneau de Visé wrote in the January edition of *Le Mercure Galant* that he "would report on the latest fashions for the benefit of the provincial nobility and those in foreign courts, so they could remain knowledgeable of the latest trends" (Grumbach, et. al., 2007, p. 17). The text included a reference to the French suppliers of the components of the garments and was accompanied by illustrated fashion plates created by artists working for the court. These publications were the seeds for the fashion magazines we know today. Beautiful and enticing, they enlarged the scope of French influence in matters of taste because they not only portrayed the apparel and accessories of the French court, but also the interiors – creating an overall image or mood of the lifestyle of the French aristocracy (DeJean, 2005). By the

late 19th century the *fashion doll* tradition was replaced by printed magazines. In an attempt to maintain style dominance despite the tragedy of war, however, *fashion dolls* were created once again and sent outside of France during both the first and second World Wars.

Before the mid-18th century, there was a very strong division between the aristocracy and the common people, and the clothing people wore strongly reflected that division (Perrot, 1994). Fashion, or styles adopted by a group of people for a limited time, existed only at the aristocratic, or luxury, level. Trade with foreign lands introduced new materials and colors to the aristocratic wardrobe, such as silk and dyes from the East. Fashion change, however, was extremely slow compared to today's standards, taking years and sometimes decades before adoption of new styles.

Style changes that did occur were a reflection of the political/trade environment and the aristocracy was secure in its fashion superiority. Common people wore rough-hewn, simple clothing that lacked shape and color; sometimes the urban common people who lived in towns around the castles were able to procure "hand-me-downs" from the aristocracy, but even those were usually in poor condition (Perrot, 1994). The late 18th century changed the clear, unshakable class division through dress due, in large part, to two notable revolutions: the French revolution and the industrial revolution.

The seeds of modern fashion can be traced to the end of the 18th century, when the French revolution created the breeding-ground for the middle class to flourish. Prior to the French revolution, there were basically two classes of

people; the commoners and nobility. The common people revolted against the aristocracy in the French revolution (Censer, 2003, Perrot, 1994), marking an important transition from a feudal-based monarchy to a democratic, capitalistic system. The process of large groups of people choosing to adopt styles that led to modern fashion began when the French commoners gained full access to the sumptuous wardrobes of the nobility and courtesans just after the Revolution, giving the freedom of garment choice to the individual. Prior to this period, as mentioned previously, the manner in which one dressed was highly regulated through sumptuary laws and decrees by the King (Steele, 1988, Perrot, 1994, Heller, 2006).

Because the French Revolution essentially eradicated the aristocratic level of society in France for a period of time (Grumbach, et. al., 2007), a burgeoning category of society germinated; the bourgeoisie, merchant, or middle class (Perrot, 1994, Vinken, 2005). Members of bourgeois society achieved status and respect, not from their birthright as the aristocrats did, but by acquiring political or economic power. The most public display of this newly acquired status was through dress. The use of dress at this time continued to serve highly political and social means, however with a significant shift. Whereas pre-revolutionary restrictions on dress served to isolate the upper class from the lower class, after the revolution a commoner or provincial could access and emulate the upper class by accumulating wealth and dressing like them (Steele, 1988). Despite the proletarian impetus from which the French Revolution evolved, even those who prior to the revolution condemned showing wealth and power through

possessions eventually began to do just that. Class distinction was once more created through outward appearance, in particular dress. In this new fluid society, the upper echelon watched with unease while the rising middle class emulated the cultured class by dressing like them.

Immediately after the revolution, the rising middle class wore clothing cast-offs from the upper class, which created a thriving second-hand business in Paris. This second-hand clothing was often dirty, infested with disease and insects, and truly posed a health hazard at times (Perrot, 1994). Fortunately at the turn of the 19th century the unhealthy second-hand clothing business was replaced by inexpensive ready-to-wear. The industrial revolution set the stage for mass fashion by introducing machines and systems that enabled the production and sale of multiple garments at accessible prices. Although the quality, fit, materials and craftsmanship of the ready-made clothing was not as good as the cast-off's, ready-to-wear gained such popularity that the second-hand business faded significantly by the mid 19th Century (Perrot, 1994).

The Industrial Revolution, which began in the 18th century and flourished in the 19th century, facilitated the process of changing social status by enabling the “man from the street” with a savvy business sense to operate a successful company and rise to social levels never before imagined. “During the industrial revolution, machinery not only revolutionized manufacture and material life, but also thought, belief, and ideology” (Wilson, 2003, p. 60).

The Haute Couture

While technology was enabling the mass production of apparel, high society continued to search for ways to differentiate themselves from the masses. In the face of the inconvenient ability of the lower class to emulate the upper class through dress, a new business model called the *Haute Couture* emerged (Grumbach, et. al., 2007). To maintain superior status the cream of society was compelled to change their style of dress more often than ever before. The desire for high quality craftsmanship and original, unique design ideas fostered a climate ripe for the advancement of the luxury *Fashion Industry*, beginning by the development of the *Haute Couture*.

During the mid-19th century Charles Frederic Worth, an Englishman, went to Paris and infiltrated high society. Capitalizing on the upper class's need to distinguish themselves from the lower classes through dress, Worth set the foundation for the distinct branch of the apparel industry that became known as the *Haute Couture*. By offering unique, beautiful and exceptionally well-made clothes to Empress Eugine and elite members of Parisian society, Worth and his successors facilitated the process for clothing to clearly distinguish the classes in the new paradigm created by the industrial revolution.

True to the protectionist tradition established by King Louis IV and Jean-Baptiste Colbert, the French government formed the *Chambre Syndicale de la Haute Couture* in 1868 (Grumbach, et. al., 2007), and this highly regulated sector remains today part of the national patrimony. Catering to the luxury, upper-level of society with innovative and creative designs, the *Haute Couture* industry

established France as the undeniable center for fashion leadership in the modern western world until the mid-20th century.

From the 1900s to the 1940s the French *Haute Couture* was a dynamic industry where designers experimented with silhouette, structure, fabric, and technique. Study of early 20th Century fashion history revealed *Haute Couture* designers whose creativity, research, and development pioneered revolutionary directions in apparel development. A few notable examples include Paul Poiret, Mario Fortuny, Madeline Vionnet, Mme. Grès, Cristobal Balenciaga, and Coco Chanel.

The following designers combined technological innovations with design excellence and marketing acumen in a manner that revolutionized fashion.

Fortuny developed a unique method of silk pleating and broke away from tradition when he applied it to a formless column-like silhouette (www.fortuny.com/Mariano/History.html), Vionnet manipulated the grain of the fabric, enabling body-hugging yet form-flowing silhouettes unattainable previously (Tortora & Eubank, 2005). Mme. Grès worked with a fabric manufacturer to develop a new supple silk jersey used in her sculptural draped gowns (Personal communication with Mme. Picot, 2006). Balenciaga also worked with a fabric manufacturer to develop silk gazar, a light yet structured fabric used in his voluminous dresses and coats (Personal viewing of Balenciaga exhibit at the Musée du Textile du Louvre, Paris, 2006). Poiret and Chanel changed the direction of fashion through visionary marketing prowess rather than technical development. Paul Poiret liberated women from the binding corsets

and brought inspiration from the orient into the designs he produced. He also expanded his business into perfume and the decorative arts (Grumbach, et. al., 2007). Among Coco Chanel's many contributions were the introduction of costume jewelry, the "little black dress", and the use of knit fabric for daywear (Tortora & Eubank, 2005).

The quantity of apparel produced in Paris at this time was significant. In 1910, there were 350,000 sewers and 150,000 artisans working in the *Haute Couture* industry (Personal communication with Dider Grumbach, June 21, 2006, Grumbach, et. al., 2007). Fashion change reflected the turbulent political and cultural times in which it functioned. Silhouettes went from structured in the 1910s to free-flowing in the 1920s and 1930s to structured again in the 1940s and 1950s. The *Haute Couture* flourished, and up to the 1960s, 60% of the women in France had at least one piece of *Haute Couture* clothing in her wardrobe; "ready-to-wear was for the poor" (Personal communication with Dider Grumbach, June 21, 2006, Grumbach, et. al., 2007).

Design diffusion through imitation.

Once again following the principles established by King Louis the XIV, a key element of French fashion dominance was the distribution of fashion information. The industrial revolution facilitated this process, enabling not only distribution of fashion news through magazines, but also through the sale of patterns, or *patrons-modèles* to dressmakers. Since the beginning of the nineteenth century when the development paper patterns and tools for drafting them made reproducing French styles easier, Parisian dressmakers sold patterns

to entrepreneurs from outside of Paris who used them to adapt the Parisian styles for their local markets (Grumbach, et. al., 2007). Fashionable garments and/or *patrons-modèles* had been shown at all of the French international exhibitions “in 1855, 1867, 1878, and 1889... the French fashion display enjoyed particular success and prominence in 1900” (Grumbach, et. al., 2007, p. 69).

In the 20th century, further industrial developments, including increased international travel, spurred the French fashion industry to disseminate news of the styles through a rather unique process. Unlike when the French government sent static fashion dolls to neighboring courts, this time the mannequins were live young women, and retail executives from the United States, Canada and other countries were invited to Paris to attend the private showings of the designer’s *Haute Couture* collections. Those business people were able to purchase designs for reproduction, complete with samples and patterns. The Chambre Syndicale de la *Haute Couture* issued “passports” to these select people, which gave them entrance into the shows and at the same time committed them to buy a certain amount of designs to reproduce. (Personal communication with Dider Grumbach, June 21, 2006, Grumbach, et. al., 2007). Buyers from luxury-level department stores such as Bergdorf Goodman and Henri Bendel in New York and Eaton’s in Toronto (Palmer, 2001) as well as entrepreneurs such as Hattie Carnegie of New York built very successful businesses by reinterpreting *Haute Couture* designs for the North American market and selling them under a private label

(<http://query.nytimes.com/gst/fullpage.html?res=9C07E3DF1E39F932A35750C0A960958260&sec=&spon=&pagewanted=all>).

World War II and the diffusion of fashion leadership.

The Second World War changed many things in the world, including the nature of the *Haute Couture* and the tradition of undeniable French fashion leadership. As was the case so many times in the course of history, during the Second World War fashion became a tool for political control. Under German occupation, the *Haute Couture* was closely mediated. German officials closed every design house that did not fully collaborate with them, and many designers moved to the south of France or were forced to close their businesses. (Personal communication with Mme. Collette Picot, July 3, 2006).

Hitler recognized the importance of the *Haute Couture*, and attempted to move the *Haute Couture* industry to Berlin (Grumbach, et. al., 2007). If not for the diplomatic talent of designer Lucien Lelong, then President of the Chambre Syndicale de la *Haute Couture*, Hitler would have succeeded in taking the *Haute Couture* from France. Mr. Lelong managed to convince the German officers that physically moving the machines and the people would not successfully recreate *Haute Couture* in Berlin. He emphasized there was a particular element of *Haute Couture* that could only be found in France, especially given the large network of artisans that supported the designers (Grumbach, et. al., 2007). The German government maintained control over the *Haute Couture*, during the war however.

It was at this time, following German principles of discipline, that the Chambre Syndicale de la *Haute Couture* developed the strict set of rules one

must follow to be considered a member. The occupying German government chose a list of 45 couturiers or designers who had the right to receive fabric rationing, and sometimes to obtain free fabric. Under such control, the Chambre Syndicale developed rules defining the number of sewers, number of times a collection should be presented, number of pieces in the collection, etc. that characterizes the *Haute Couture* category. Today those rules state that the designer must show at least 35 designs twice a year at a fashion show in Paris and that each “garment [presented] must be made completely by hand, from a pattern that is customized to fit the buyer, in a Parisian atelier that employs at least 20 seamstresses” (Binkley, 2007). The *Haute Couture* “label is a legally protected appellation which can only be used by couture houses which have been granted it. Such houses are listed on a decree issued yearly by a special commission of the Ministry of Industry” (www.modeaparis.com/va/toutsavoir/index.html).

Under German occupation, Paris was inaccessible to foreigners (Grumbach, et. al., 2007), and the work of American designers was appreciated at levels never before realized. Instead of establishing a “new” *Haute Couture* industry, however, designers in the United States developed a different category of fashion – casual sportswear for the middle- and upper-middle classes. Claire McCardell was the pioneer for the concept of sportswear separates, or diverse pieces that are merchandised together and can mix-and-match to create a look unique to the customer (Tortora & Eubank, 2005). This concept set the pace for American design for the duration of the 20th century. Subsequent designers

including Donna Karan, Calvin Klein, Ralph Lauren, Liz Claiborne, and Tommy Hilfiger built empires by designing sportswear separates for the middle- and upper-middle class.

In the immediate aftermath of the Second World War the *Haute Couture* saw a rebirth and flourished. Designer Christian Dior drew the attention of the entire world to his “New Look”. This style changed the silhouette from the wartime boxy, masculine form using a minimum of fabric to a wasp-waist, demure, feminine and luxurious look that took many yards of fabric. Dior’s design was in part the result of business collaboration with the fabric manufacturer Boussac (www.tendances-de-mode.com/2007/11/29/561-dior, Grumbach, et. al., 2007). Boussac had commissioned Dior to create a market that would use its products; thus his designs included skirts that required an average of 5 yards of fabric. Global acceptance of this sensual “New Look” reflected the times. Femininity came to the forefront as men returned home from the war and women wanted to dress to please and attract those men. The post WW II economies in the United States and Canada flourished, and North American customers once again became the most important clients of the French *Haute Couture* for two more decades.

Shifting Paradigm for the Fashion Industry

The late 1960s brought cultural upheaval in the Western world, spearheaded by the youth of the day revolting against the Viet Nam war. The fashion industry was affected by this phenomenon in many essential ways, including further diffusion of fashion leadership from the Parisian nucleus and

less interest in the *Haute Couture* (Grumbach, et. al., 2007). A shift from a producer-focused fashion industry to a consumer-focused fashion industry, the rise of ready-to-wear through improved technology and offshore production, and brand development through licensing are three key elements of the fashion industry shift at this time.

The rise of a consumer-driven marketplace.

From the beginning of *Haute Couture* to the mid-1970s, the end user had virtually no influence on the styles produced by the designers. Each season consumers waited anxiously to see what they were supposed to wear in the industry-driven environment. Technological advances together with the drastic social and cultural changes of the late 1960s and early 1970s influenced the mindset of the consumer. The new consumer expressed desire to have a voice regarding the products consumed.

Combining a new consumer awareness paradigm with the US recession in the late 1970s, retailers in the United States began to realize that in order to continue to grow sales, listening to the consumer was imperative. The traditional retailer's function of merely buying and reselling shifted to include specification buying, developing a new business category called private label. Specification buying enabled retailers to contract for specific garments directly with the manufacturer and to bypass the wholesale level completely. Available consumer product assortments at affordable prices increased exponentially, resulting in a saturated consumer market and drastically heightened competition. The "American Mall Phenomena" took off with flying colors, and retailers proliferated.

With this profusion of retail space and products, people naturally began to exercise their right of choice to a greater extent. Competition became and remained fierce.

As early as the 1970s consumer advocates such as Ralph Nader brought attention to harmful characteristics of certain products, obliging manufacturers and retailers to practice more responsible product development. Beginning in the 1990s and continuing into the 2000s consumers added to their list of demands concepts relating to social justice and sustainable practices. In order to remain successful retailers and manufacturers continue to be compelled to define the needs and desires of the customer and work to satisfy those needs while at the same time searching for ways to keep costs down to increase profit and attract market share.

The proliferation of ready-to-wear and offshore production.

Previous to the 1980s, apparel production in the US was an essential part of the gross national product (Glock & Kunz). Cities like St. Louis, Kansas City, Dallas and Atlanta, had thriving apparel manufacturing districts, where designers and seamstresses worked together to produce a diverse range of clothing (personal conversation with Anne Brownfield, April, 2005). In the mid-1980s, however, companies began contracting with factories in low-wage countries in order to cut costs and remain competitive. Such offshore production enabled a proliferation of product offering and contributed significantly to overextended consumerism (McCracken, 1986). By the end of the 20th century, only a fraction of textile and apparel manufacturing remained in the United States, creating a

new paradigm where the fashion business focus shifted from manufacturing management to merchandising, design development and process management.

Brand development through licensing.

The concept of brand development in the fashion industry began with the birth of the *Haute Couture*. Charles Frederic Worth and his contemporaries were the first entrepreneurs to create a label and sew that label inside the garments produced (Grumbach, et. al., 2007). This ingenious marketing tool created desire and demand for garments possessing that label, or brand, only. From that point forward the *designer label* has been a hallmark of quality and desire. The notoriety of a designer brand can entice the consumer to purchase more than apparel. In the early part of the 20th Century, Jean Patou's insight guided his company to use its *Haute Couture* name to sell non-apparel luxury products. Patou collaborated with a perfume manufacturer to produce *Joie* which had the Jean Patou name on the label and was promoted as "The most expensive perfume in the world" (<http://recherche.prodimarques.com/parfum--jean-patou.html>, Etherington-Smith, 1984). The luxury image surrounding the *Haute Couture* label of Jean Patou enabled the perfume to be sold at a high price.

Patou's pioneering business acumen established a foundation for one of the most lucrative segments of the luxury fashion industry today: licensing. The sense of the term licensing in this context relates to the exchange of money for the use of a designer or company's name, copy written logo or other visual image. In 1948, Prestige hosiery in France and Christian Dior entered into the first licensing agreement between a designer and an accessory manufacturer.

Christian Dior was not required to purchase inventory from Prestige hosiery; the exact details of the agreement are not accessible at this time, but in principle Dior gave Prestige hosiery the right to use his logo and name while in return Prestige hosiery gave Dior a percentage of sales of the products bearing his name. In the mid-1960s the *Haute Couture* houses of Yves St. Laurent, Hubert de Givenchy, and Pierre Cardin were the first of the *Haute Couture* businesses to begin licensing their couture names to ready-to-wear (Personal communication with Dider Grumbach, June 21, 2006, Grumbach, et. al., 2007). These *Haute Couture* firms did not want to engage in the ready-to-wear business, but realized the earning potential of the ready-to-wear market and contracted with a separate company to design and manufacture ready-to-wear that was sold with the namesake label. Licensing agreements have taken various forms, allowing the designer to have varying degrees of product design control.

The most common contemporary product categories for which luxury-level companies enter into licensing agreements are perfume, handbags, sunglasses and shoes. However Bill Blass chocolates and Courrèges hubcaps have appeared on the market at different intervals. Licensing of a prestigious name, applied too liberally, can actually result in the name losing its status. Pierre Cardin, for example, was an extremely talented, visionary *Haute Couture* and ready-to-wear designer in the 1960s, but through extensive licensing his name had lost its value; one can find a 3-piece Pierre Cardin luggage set for \$79; no longer a luxury item (Matlack & Sager, 2005). Licensing remains an important component of the luxury industry marketing mix, however (Kissi, 2007).

Estimated worldwide retail sales of licensed fashion products in 2007 was \$39.8 Billion (Bowman, 2008). The accessory industry especially flourished under licensing agreements. “Sunglasses are the third-fastest growing category in luxury goods after shoes and handbags” (Anonymous, 2007).

In order to build a brand image strong enough to induce the customer to purchase a 5-ounce bottle of water for \$80, luxury-level companies invest heavily in research, development and promotion of creative apparel. “*Haute Couture* has become a valuable asset and, for the houses that have preserved it, a competitive advantage, a standard for all the products – ready-to-wear, accessories, and perfume, that carry the label” (Grumbach, et. al., 2007). This study focuses on that important component, exploring how the luxury-level creative design process is evolving in today’s technologically-dominated environment.

The post-modern luxury environment.

Analysis of the post-modern luxury environment revealed that emerging economies maintained the greatest potential for luxury sales growth. The 20th century saw apparel manufacturing grow from cottage production to a multi-million-dollar industry with large factories and far-reaching economic and political implications. Improved technology and increased offshore production in developing countries facilitated the relatively new design category of retail product development and branding, while at the same time creating new markets for the luxury industry.

Since the time of the Industrial Revolution in the United States to the current economic/industrial *revolution* in developing countries, employment in the textile and apparel sector has been an integral component to economic development. The affect on the consumer has been two-fold. On the one hand, lower-skilled workers engaged in gainful employment so they were able to fulfill their family's basic needs, contributing to a growing middle-class. On the other hand, entrepreneurs with a good business sense have built wealth without heavy investments, enabling them to become upper-class luxury consumers. The money earned on both ends of this spectrum contributed to a higher overall standard of living, and also contributed to a growing spiral of desire for material objects.

As the standard of living rose, so did the potential to consume. For example, in 1992, 57.3 pounds of textiles per capita were consumed in the United States, compared to 6 pounds of textiles consumed per capita in India (Dickerson, 1999). The rising standard of living influenced the thought process, or ideology, of the population, shifting the focus away from struggling to meet basic needs to desiring a wide variety of styles and features for basic items, developing a perceived need for products that had not previously existed.

Extensive global advertising and promotion contributed significantly to the growth of the luxury industry in this fertile environment, defining the emerging economies of China, India, and Russia as the strongest growth markets. “The [southeast Asia] region’s fashionistas already account for about half of all luxury

goods spending in the world... Sales of luxury goods in China rose 30 % last year [2007]" (Bowman, 2008).

Producing creative, high-priced apparel and presenting it in high-profile fashion shows has been recognized as the foundation for fashion brand development (Grumbach, et. al., 2007). The establishment of fashion brands based on creative and innovative research and development in turn enabled further commercial exploitation of those brands through licensing of the brand image to products that continue to be accessible at prices relevant to the growing Near-Affluent and Affluent consumer populations. This study explored creativity and technology focused on the luxury segment of the textile and apparel complex because of the creative liberties employed by producers for this category. Similarly, Cappetta, Cillo, & Ponti (2006) chose the luxury fashion industry as a model for stylistic innovation because of its dynamic nature.

The relevance of stylistic innovation is so transparently obvious in the fine fashion industry that its analysis may lead one to draw insights that go beyond this industry to develop concepts that might be applied to other industries where the role of style is likely to be somewhat more latent. (Cappetta, Cillo, & Ponti, 2006, p. 1274)

Technology created new environments for social and business interaction.

The pattern of millennium transitions, system revolutions, social transitions, and change that happened at the turn of the 20th century was revealed yet again at the dawn of the 21st century. In the 1990s a technological revolution based around computers and the Internet began transforming

business in general and the fashion industry in particular. The Internet is most widely used in urban areas of developed countries; however its availability is growing constantly across the globe, especially in developing countries (Kunz & Gardner, 2007, Walmsley, 2008). From 2000 to 2008, Internet use in Africa grew 1,031.2% in the Latin America/Caribbean area 66.9%, and in the Middle East 1,176.8% while in Europe growth of Internet use for the same period was 266% while in Oceania/Australia Internet use grew 165.1% and in the US only 129.6%. Internet use in Asia, where over half of the world population is located, grew 406.1% in that 8-year period (www.internetworkstats.com/stats.htm).

New business types have emerged and flourished formed around Internet-based transactions. Companies today must consider both the physical and the virtual environments. Mulit-channel retailing now includes selling on the Internet. Terms like *click-and-mortar* have come into the vocabulary; this defines businesses having both a physical building and a virtual presence on the World Wide Web. In December of 2008, retail giant Bloomingdales announced the elimination of its catalog division, shifting all of its “direct-to-consumer efforts to the Internet” (Gallagher, 2008). The consumer interface for many companies, however, exists exclusively through the World Wide Web. Companies can function from a garage or home office selling merchandise to thousands of customers around the world by developing and maintaining a *web page*, which is a visual representation of the company and its products that is accessed on the Internet.

Computer technology facilitating the communication of information, or *information technology*, is integrated at every stage of the textile and apparel supply chain, from design, production, and distribution to marketing, sales, and the consumer (Kunz & Gardner, 2007). Adopting Internet-based PLM (Product Lifecycle Management) systems has become a key component to the financial success of an apparel business (Kusterbeck, 2008).

A relatively recent development, and a characteristic of the “Web 3.0” (Woods, 2008) generation of Internet evolution, is the virtual environment. This is a web space where avatars representing people and businesses function in a virtual world, exchanging actual money for goods and services. Second Life is the current leader in this area, with self-proclaimed 1,652,979 logins in a 60-day period, and \$US 1,815,719 dollars spent in a 24-hour period.
[\(<http://www.secondlife.com>\).](http://www.secondlife.com)

In addition to these new business types, innovative forms of information dissemination have evolved. *Search engines* were developed to help the user find information about a particular subject amid the vast resources available on the Internet. *Google*, through its founders’ technological and business prowess, has become the leading search engine; the common phrase “*I Googled it*” referring to the fact that one put a term into Google’s search engine to see the results shows how deeply the use of Google has penetrated society. E-newsletters, news and information websites, and e-zines (Internet-based magazines) are also components of the new *Information Technology* environment based on the Internet.

The Internet is also changing the way people work together due to its easy access and the fact that individuals may choose to remain anonymous. This paradigm facilitated a democratic user-generated environment where anyone could contribute. Thomas Friedman (2006) defined the term *open sourcing* where Internet users can play a part in the development of ideas and products. *Netscape*, the first Internet browsing software, was created by the founder giving open access to multiple contributors. Through an open, auto-monitoring process, best practices from a wide range of specialists created a product that changed the face of the World Wide Web (Friedman, 2006). The *open sourcing* concept has evolved into *crowd sourcing* (Newsweek, December, 2008). *Crowd sourcing*, or harnessing the knowledge of groups of people, has created innovations such as Wikipedia, the world's largest online source for definitions. Initially, the validity of information on Wikipedia was questionable because it was a non-regulated process of information posting. The founders of Wikipedia, however, have developed a monitoring and validation process that has brought Wikipedia from a place to find anecdotal information to a serious resource for knowledge. Branching off of the Wikipedia success, individuals and businesses can now build a *wiki* around any topic and invite participants to work together in a virtual environment to solve a problem, create a document, share best practices, develop a concept or produce a resource for knowledge (Bell, 2009). The top five technologies created through *crowd sourcing* as of December 2008 are: Wikipedia, Facebook, Digg, Linux, and Yelp (Newsweek, December, 2008).

Other outlets for individual expression on the Internet are *Blogs*, or Web logs, and *Podcasts*. *Blogs* are personal journals that individuals post on the Internet and become popular according to the number of people who find them and read them. *Podcasts* provide recorded audio clips that can be downloaded onto small playing devices and taken nearly anywhere. A podcast can be a type of audio journal, can provide entertainment, and also can be used for educational purposes.

A new concept, *social networking*, is developing rapidly on the Internet as well. *Myspace.com* and *Facebook.com* are websites with a system whereby individuals create an online presence and develop community ties in a completely virtual environment, sharing blogs, videos and photos. *Linkedin.com* provides a similar format for professional networking. *Youtube.com* facilitates sharing of videos among individuals and businesses around the world.

The influence of these new technologies on fashion is undeniable. Ann Watson, Vice president and fashion director of Henri Bendel, a New York Department store emphasized the natural cohesion of social networking and fashion:

“MySpace is a platform for self-expression, personal broadcasting, human contact, discovery of culture, and is a creative hub of readily accessible ideas ... So when we talk about how fashion is all about the individual style it is the influence of pop culture promoting the individual through self-expression platforms like MySpace (Feitelberg, 2008).

Capitalizing on the social networking phenomenon in-house, retailer Wet Seal created a proprietary social networking community that targets teens in April of 2008. By August the company stated that “1.2 million outfits have been created, and the site has generated a 10 percent increase in revenue” (Corcoran, 2008, September).

A unique approach to meshing the capacities of the Internet with fashion lies in the latest development by Tommy Hilfiger: Tommy TV. This Internet-only music video station targets the 18-24 year-old consumer (Jones, 2008). While the site is intended to be a “marketing initiative” (Jones, 2008) and doesn’t directly promote products, the home page does provide a link to the Tommy Hilfiger e-commerce site.

These examples are only a sampling of the ways the Internet is reshaping communication and business in today’s world, and new phenomena are developing so quickly that at any given time an attempt to give the “latest development” would be out of date. This study addressed the influence of some of these communication technologies on the creative fashion design process.

The creative class.

The 1990s also marked a turning point in the development of a new class of society, the creative class (Florida, 2002). Richard Florida, an economist who teaches at Carnegie Melon and the Brookings Institution, defines the creative class as “people who add economic value through their creativity” (Florida, 2002). The transition from the 19th to the 20th century saw the rise of a new class, the bourgeoisie, that was not based on birthright as was the case for the

existing noble class, but on the capacity to create wealth. In a similar manner, this creative class is characterized not by wealth but by the capacity to create. Members of the creative class can come from many walks of life and economic backgrounds. Class distinction in the 20th century followed the Marxist theory that the ability to rise to an upper class depends on the ability to “own and control the means of production, workers, and their employ” (Florida 2002). Analysis of the current cultural, economic and technology-based environment revealed that “little analytical utility remains in these broad categories of bourgeoisie and proletarian, capitalist and worker (Florida, 2002 p. 68),” that were so important in the first part of the 20th century.

Members of the creative class do not gain their status through management of physical property. Their capital is their creative capacity. The one element that draws members of the creative class together is that their function in the economy is to “create meaningful new forms” (Florida, 2002). These forms must not necessarily be tangible; new business practices and working methods are included in the creative class repertoire. Florida (2002) defines two components of the creative class: the “Super-Creative Core”, and the “creative professionals.” The creative professionals work in a “wide range of knowledge-intensive industries, such as high-tech sectors, financial services, the legal and healthcare professions, and business management” (Florida 2002 p.69). The Super-Creative Core, which was analyzed for this study, is a group of scientists and engineers, university professors, poets and novelists, artists, entertainers, actors, designers and architects, as well as the thought

leadership of modern society: nonfiction writers, editors, cultural figures, think-tank researchers, analysts and other opinion-makers. (Florida, 2002)

This study focused on the segment of the Super-Creative Core that interacts with the design of apparel and accessories for the luxury fashion industry. Designers of today function in an environment that is characterized by increased competition, enhanced consumer awareness, and rapidly-developing technology. In order to adapt to and thrive in this changing environment, it is essential to understand how these changes influence the creative process. This study contributed to a better understanding of the creative process in today's luxury industry and the affect of technology, specifically Internet technology, on creativity.

A global competitive environment.

As mentioned previously, competition has always been an important component of the *Fashion Industry*. In the global economy of today, however, due to the combination of immediate and rapid dissemination of information about fashion trends, the lack of copyright protection, and the ability of the industry to quickly respond to change, it has been extremely difficult to always create full financial benefit from creative fashion design ideas. For example, companies that are global fashion leaders, such as Prada from Italy saw the spring designs they revealed on the runway in October in Milan appear in lower-priced retail stores such as H&M (Murphy, 2008) in January, before having presented the styles on the Prada retail selling floor at the planned delivery date of March. Another leader in the area of quick turnover of apparel production is

Zara, a company based in Spain that has been producing fashion-forward clothing with a 30-day concept to consumer cycle for several years. The Zara state-of-the-art facility near Barcelona is a benchmark for companies looking to shorten the production cycle. These companies function due to a combination of the manner in which technology facilitates the proliferation of fashion trend information and the lack of legal repercussions for copying fashion designs. Such overt, rapid copying of fashion designs poses a multitude of problems for the fashion leaders, not the least of which is the inability to amortize investment in research and development.

The lack of copyright protection in the United States for creative fashion designs is especially delicate given the fact that every other developed country provides some type of protection for creative fashion designs. Representatives from the Council of Fashion Designers of America, the French Chambre Syndicale de la Couture et du Prêt a Porter, and the Italian Fashion Industry Association went to Washington D.C. in 2005 (personal communication with Dider Grumbach, June 21, 2006) to lobby with representatives of Congress and succeeded in finding a senator, Congressman Bob Goodlatte (www.apparelandfootwear.org/LegislativeTrends/DesignPiracyProhibitionAct.asp) who has sponsored H.R. 5055, the Design Piracy Prohibition Act that will put copyright restrictions on fashion designs in the US. Copyright protection is not embraced by all members of the US *Fashion Industry*, however. Trend forecaster and analyst David Wolfe stated that

The [fashion] industry thrives 'because of, and not in spite of, a lack of copyright protection' ... because of the give-and-take among designers, Mr. Wolfe said it would be difficult to distinguish between a design that is copied and a design that is a product of inspiration.(Palank, 2006)

In general, the Council of Fashion Designers of America has lobbied for passage of this bill, while the American Apparel and Footwear Association has been opposed. Negotiations between the two powerful American Fashion Industry trade associations resulted in the AAFA's rejection of the CFDA's proposal (Ellis, 2008, March 10). Combining the nebulous nature of defining what constitutes truly original designs, the potential legal disputes, trade interruption, and the packed Congressional schedule, it is unlikely that this bill will pass the US Congress in the near future. (Ellis, 2008, and

[www.apparelandfootwear.org/LegislativeTreaNews/DesignPiracyProhibitionAct.a
sp](http://www.apparelandfootwear.org/LegislativeTreaNews/DesignPiracyProhibitionAct.asp)). Balmer, (2008) disputes any increase in creativity due to copyright protection, citing examples in creative design areas outside of fashion. The relevance of copyright protection to this study lies in the influence of the phenomenon on the creative process.

Technology, Mystery and Surprise

Technology as a threat.

In this technological revolution where computers are replacing many of a designers manual tasks current fashion designers find a similar situation as artists did at the beginning of the industrial revolution:

Art was embattled. ‘From today painting is dead’ was one response to the daguerreotype, forerunner of the photograph. The appearance of mass-produced artifacts opened a gap between art, including craftsmanship, on one side and machine-made imitations on the other – the unique and the kitsch, high art and the popular. The artist found himself both more important and more threatened. (Wilson, 2003)

Does the fashion designer find him or herself more important and more threatened than ever before? Not only are the producers of apparel learning of fashion trends faster than ever before due to the Internet phenomenon, but consumers are doing so as well. Increased consumer awareness of global fashion trends most certainly affects a designer’s work, for the fashion process is built around mystery and surprise; maintaining those two elements in this new paradigm is quite challenging, yet essential to selling success. This study explored the fashion designers perception of the influence of the Internet on the designer’s role in the creative process.

Process technology and information technology.

Technology has aided designers and manufacturers to meet the current business environment’s challenges. Because technology is a broad term and in order to clarify the discussion of this phenomenon, types of technology were divided into two categories: *Process technology* and *information technology*.

Process Technology is hardware and/or software that facilitate the actual physical development of the product. This category can be further sub-divided into computer aided design, computer aided patternmaking, computer aided

manufacturing and 3-D Body scanning/mass customization. Computer aided design encompasses programs that facilitate creative sketching, presentation boards, technical design, and textile design. Software programs used for these purposes include Adobe Photoshop and Illustrator, Point-Caree, In-Design, and Lectra Kaliedo. Computer Aided Patternmaking includes digitizing existing patterns for grading and pre-production preparation, creating patterns from existing slopers, digitizing draped muslins for completion on the computer, and customizing patterns for made-to-measure clients. Taking the process 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 see the virtual model walk, thus enabling changing of color, pattern, proportion and details of the design before realizing it in actual fabric. Computer aided manufacturing includes cutting a large quantity of garments in a paperless environment, using automated spreading and cutting, and for a few segments of the industry going all the way to automated assembly. Computer-aided manufacturing also includes supply-chain technology such as software for Product Data Management and Product Lifecycle Management, both in local networks and on the Internet.

Information Technology refers to the many methods that one can communicate ideas, words, and images both locally and over the World Wide Web. For the purpose of this study, it includes all of the previously-mentioned Internet-based information dissemination methods: e-zines, podcasts, myspace.com, youtube.com, secondlife.com, and blogs (both by industry

professionals and by consumers). In addition, *Information Technology* includes web-based trend forecasting agencies; both subscription-based such as wgsn.com, and those with free access, competitor's websites as well as a myriad of options with public access such as style.com, elle.com, infomat.com, and cottoninc.com. This study has focused on the *Information Technology* component of the technology paradigm because it is an area that has received little attention in the literature.

This review of the context in which today's *Fashion Industry* functions is by no means comprehensive. The select components included here are intended to ground this study in the historical foundation and to examine its evolution in order to better explore the contemporary environment in order to effectively project future changes.

Theoretical Domain

Cultural Change and Anthropology

The analysis of cultural change is rooted in an anthropological tradition. This study drew from the cultural materialist perspective which categorized the cultural environment into three components: ideology, social structure, and technology (White 1959, Harris 1980, Hamilton 1987). Hamilton (1987) explained that this framework was particularly effective to use when analyzing the textile and apparel industry. All three researchers, White (1959), Harris (1980), and Hamilton (1987) remarked that most often change in technology stimulates change in the other two components of culture: social structure and ideology. Consequently, this study made a vital contribution to understanding cultural shifts

occurring within the apparel industry in the early 21st century because it analyzed the technological phenomenon of the Internet and its influence on fashion design creativity.

At the beginning of the 20th Century, Leslie White's (1959) work examining the affect of technology on cultural change was a revolutionary break from the then-dominant theory of cultural evolution. Cultural evolution is rooted in the belief that as a culture evolves the changes taking place are improvements from the previous stage, leading to the "good of humankind". As his career progressed White introduced a different paradigm for change, in which the resulting change is not necessarily for such a good and noble end; he remarked that in some instances change is detrimental to the culture. An example given to make this point is the dominance of the automobile industry in the USA during the 20th century, creating a method of transportation that is polluting & destroying our environment (Barrett, 1989).

When examining cultural change, White identified certain vectors that become dominant due to various cultural conditions and observed how those vectors affect change. White remarked that the most frequent vector for change in culture is technology, as in the above automobile example. The cultural condition for this study is the technologically-dominant early 21st century apparel product development environment, and the vector for change that was examined is the Internet. As with the automobile example above, the affect on the fashion design process was examined, not from a cultural evolutionary perspective

where change is considered inherently good, but from the viewpoint that the vector may be beneficial or detrimental to the cultural environment studied.

Relating this concept to the fashion industry generates thought-provoking domains of inquiry that helped shape this study. Does the use of technology enhance the creative process or does it limit the boundaries of creativity and impose parameters of uniformity relative to the capacity of the technology? Does the proliferation of information through the use of technology result in a customer who is more interested in a creative product, or is does this information saturation remove the elements of mystery and surprise? Is the creative designer's work facilitated by the availability of *Information Technology*, or does the simple nature of the availability of the information render it useless to the creative fashion design process? These and other domains of inquiry helped formulate the content of the interviews.

Anthropologist Marvin Harris (1968) built on White's concepts, and is most well-known for his work examining cultural change from a structural perspective that is known as cultural materialism. Both White (1959) and Harris (1980) were strongly influenced by Karl Marx, however this study breaks away from the Marxist-influenced cultural materialistic perspective by incorporating another of White's concepts, that of culturology, or culture as a system autonomous from its physical surroundings (White, 1975).

Culturology and the Internet

Some scholars, and even White himself at one point, found a contradiction between the two concepts; how could a culture exist as an autonomous system

without material components? Since the time of their discourse, however, an entirely new culture has developed that truly does traverse the physical and economic environments. Although the very existence of the Internet depends on physical machines that have the capacity to link together, those tools for accessing the Internet merely facilitate the existence of this new culture, much as the earth provides a place for people to interact. The Internet resembles many of the characteristics of culture that White described. It is “indifferent to the welfare...or very existence of man” (White, 1975, p. 11); it obeys “laws of its own” (White, 1975, p. 159).

The Internet reaches across national, cultural, and economic boundaries creating a new phenomenon not yet experienced by humankind. The Internet is a viable example of White’s culturology; he just didn’t live long enough to see it exist. This study expanded the concept of culturology and combined it with cultural materialism by examining the use of the Internet across cultures, time, and space to explore the affect of technology on social structure and ideology in the luxury-level fashion designer’s world.

Cultural Materialism and the Fashion Industry

Hamilton (1986) used the cultural materialistic perspective to develop a metatheory for cultural analysis that is particularly appropriate for examination of the fashion industry. Hamilton’s metatheory (1986) divided culture into three layers, technology, social structure, and ideology, similar to Harris’s structure, infrastructure and superstructure. Technology refers to the physical artifacts in the culture, social structure to the way groups form to complete the tasks

necessary for survival, and ideology to the intellectual force behind their behavior that defines the paradigm or world view of the members of the culture. When change takes place in the technology layer, the effect is easily remarkable (Harris, 1968, White, 1975, Hamilton, 1986).

Hamilton (1986) expanded the three basic layers or components of culture by developing mechanisms for adaptation which guided the researcher through exploring the context in which the culture exists in order to probe deeper into the interaction between the creative process and the Internet. Exploring the relationship of the mechanisms of economic organization, political organization, family and kinship organization, socialization, ideological organization, arts and aesthetics, and communication (Hamilton, 1985) to the components of culture shaped this inquiry in the context of examining technology and creativity in fashion design. Applying Hamilton's (1987) Metatheory to the phenomenon was extremely helpful, although by following the grounded theory (Creswell, 1998) research process throughout data collection and analysis the areas of inquiry were expanded and adapted according to emerging themes.

Research Method and Purpose

This study examined the creative process in fashion product development and the affect of Internet technology on the creative development of luxury-level fashion products. Over the course of the past 10 years, the Internet has grown in importance. The literature review revealed many studies exploring the affect of the Internet from the perspectives of consumer behavior and business practices

but none that examines how the Internet affects the *Design and Product Development* stage of the apparel chain.

This study examined the current dynamic between designers in the luxury fashion industry and the Internet from a cultural materialistic perspective and has increased understanding of the ways that the Internet is or is not used to inspire creativity in luxury-level design. The literature review showed many published studies that explore the Internet in terms of consumer behavior and e-commerce; however the affect of Internet technology on the design and product development phase of the fashion industry supply chain has not been addressed.

Through a series of in-depth interviews in an international context following the grounded theory approach, this study explored the concept of creativity separate from as well as within the apparel development context and examined ways in which technology influenced the creative process. Designers and industry professionals at the luxury level in both the US and France were asked questions relating to the creative design and product development process: how they perceive creativity, where they find inspiration, where/if the creative process shifts according to the price-point, target selling price, or the customer, how technology has influenced their work, and related areas. The complete interview protocol (Creswell, 1998) can be found in the Appendix.

Grounded Theory

According to the grounded theory tradition (Denzin & Lincoln, 2000), each interview was analyzed immediately. Using the constant comparative method, I drew emergent categories from the data. Following interviews were affected by

the insight gleaned, either confirming or disconfirming those categories and in some cases evolving into new directions. Further analysis established relationships between the categories, resulting in theory that is grounded in the data. The methodology chapter explains this process in depth.

Application of Findings

This study developed a better understanding of the creative process in relation to fashion design and the influence of the Internet on creativity in the design and product development of luxury-level fashion. Drawing on the results, designers, educators, students, managers, business owners, and art directors alike will be able to improve their working methods, resulting in more efficient, beneficial and profitable endeavors. Managers and business owners will be able to make more educated decisions regarding the acquisition of software and subscription-based services. They will have a better idea how to support the creative efforts of their designers, thus resulting in higher productivity and profit margins.

Educators will find this study useful as they develop curricula that prepare designers, product developers and managers to work in this new paradigm where use of the Internet is prominent. Designers will gain by applying best-practice principles to their own working process and by consciously understanding the changes that are taking place at social structural and ideological levels of their immediate micro-culture and the larger macro-culture in which the fashion industry functions.

CHAPTER 2: LITERATURE REVIEW

To develop a foundation for effective exploration of the influence of technology on the creative process in fashion design, literature from several sources was examined. Readings relating to qualitative research methods, theory development, relevant academic research and analysis, business methods, current trends and shifts in the apparel industry and the world economy were used to form the basis for this research. The dynamic nature of the subject of technology and creative fashion design combined with the topics' dependence on forces outside the academic arena led to enhancing the academic literature review with extensive readings in trade publications.

A review of the literature from academic sources for this study included journals and books specific to the field of textiles and apparel, but also those relevant studies pertaining to retailing, consumer sciences, anthropology, psychology, aesthetics, design, marketing, economics and business. This survey of literature revealed that the influence of Internet technology on creative fashion design inspiration is a specific area that has received little attention in both academic and trade press.

Fashion

In a rather simplistic manner, Diamond and Diamond describe fashion as "a style accepted by the majority of a group" (2002, p.90). Style is defined as "the combination of design features that give a garment its distinctive appearance" (Conway, 1997, p. 202). Fashion, according to Webster's Third New International

Dictionary is “1) the prevailing or accepted style or group of styles in dress or personal decoration established or adopted during a particular time or season. 2) [When capitalized] such prevailing customs or styles considered as an abstract force” (1986).

Recent writings about fashion from outside of the United States focus on the cultural aspects of fashion. Kawamura (2004, 2005) from Japan, Vinken (2005), from Switzerland, and Wilson (2003) from England, contributed to the discussion in distinct, complementary ways. One common characteristic of their work, however, was that each of the authors began with a discussion of the controversial nature of fashion studies, describing ways that the study of fashion has been marginalized in academic circles, criticized in feminist circles and reduced to simple buying and selling in business circles (Kawamura, 2005; Vinken, 2005; Wilson, 2003).

Fashion has also been defined in terms of a socio-cultural phenomenon (Workman & Freeburg, 2009). Barbara Vinken of the University of Zurich examined “trends and cycles in the fashion system” (Vinken, 2005) by discussing the social-cultural divisions fashion reflected during the 18th and early 19th centuries, defining the mid-19th to mid-20th century as the era of “One hundred years of fashion”, and establishing the present as a period of post-fashion. Vinken’s discussion of fashion differed from others in that she focused on the “correlation of three major conceptual articulations: the division of being and mere appearance; the division of the sexes; and – inseparably linked to the latter –division of the classes” (Vinken, 2005, p. 4). Vinken referenced Thorstein Veblen

who, in *Theory of the Leisure Class* (1919), articulated a foundation for discussing gender and class distinction in dress.

Kawamura, in her book, *Fashion-ology* (2005) works to establish fashion as a legitimate sub-field of sociology, through an exhaustive literature review. She successfully defined *Fashion* as an abstract force, separate from clothing or any other vehicle that may be used to convey the fashion concept. In addition to this important contribution, Kawamura examined the sociological environment that fostered fashion, examining cities and cultures that promote the development of fashion. As a precursor to *Fashion-ology*, Kawamura (2004) wrote the *Japanese Revolution in Paris Fashion*, where she described how shifting their businesses to Paris catapulted Japanese designers such as Kenzo, Yoji Yamamoto and Hanae Mori to global renown. She also defined the evolution of the fashion system in France in the 20th century and how that influenced the global fashion system. The role of France is also highlighted by Parmal who, together with Didier Grumbach (Grumbach, et. Al, 2007), defined the historical foundation for contemporary French fashion and describe its role in the larger fashion system.

Early in her book, *Adorned in Dreams*, Wilson (2003) grounded a discussion of fashion as “dress in which the key feature is rapid and continual changing of styles” (Wilson, 2003, p.3). Later in the text she contributed to the discussion of the separation of the concept of fashion from dependence on the physical artifacts that provide a tangible representation of the concept. Wilson (2003) combined a historic discussion of fashion with contemporary themes that

provided a well-rounded analysis of the phenomenon. “Fashion is a branch of aesthetics, of the art of modern society. It is also a mass pastime, a form of group entertainment, of popular culture. Related as it is to both fine art and popular art, it is a kind of performing art” (Wilson, 2003, p.60). Although some, especially those in the fine and performing arts, may find this description to be overstated, for those who truly understand the complexities of the phenomenon of fashion Wilson has quite effectively described the essence of fashion in today’s cultural and business environments.

The *Fashion business* is defined as all companies and individuals concerned with the design, production, and distribution of textile and apparel goods (Dickerson, 2003). Frequently included under the discussion of the fashion business are components of the industry such as accessories, jewelry, and perfume (Dickerson, 2003).

Although many who write about the social/cultural/psychological aspects of fashion preface their work with a discussion about the many ways fashion is reluctantly accepted in academic circles (Kawamura, 2004, 2005; Vinken, 2005; Wilson 2003), obvious strides have been made to bring the fashion discussion into a more respected light. Within the past 10 years, an additional academic journal, *Fashion Theory*, provides a platform for critical analysis of the phenomenon of fashion in a highly academic manner. A search of the *Fashion Theory* archives, however, revealed no attention given to the relationship between creativity and technology. Berg, the publishers of *Fashion Theory*, has announced the launch of another related journal, *Fashion Practice*. This journal’,

called for exploration of design theory and technology in relation to the fashion industry, an area of academic exploration this study specifically addresses.

In addition, the fashion, academic and journalistic communities were startled in 2006 when Washington fashion columnist Robin Givhan received the Pulitzer Prize for criticism “for her witty, closely observed essays that transform fashion criticism into cultural criticism”

(<http://www.pulitzer.org/year/2006/criticism/>). In an interview, Givhan described her approach to fashion writing, “If there's one thing that I can do, it would be to convince people that when they get dressed in the morning, they are participating in fashion. That's what it is. Fashion is what you wear and how you want to present yourself to the world” (Moriarty, 2006, p.26).

Creativity

Research about creativity generally comes from three fields: business, education, and philosophy. Philosopher Jean-Paul Sartre (1940) approaches the imaginary from an existentialist perspective. His discussion of the “consciousness of imitation (Sartre, 1940, p. 26)” is quite relevant to the process of creativity in fashion design, where “the sign consciousness serves to motivate the image consciousness … at the same time, a functional transformation of the perceived object, which passes from the state of signifying matter to the state of representative matter” (Sartre, 2004, p. 26). Sartre continues to discuss ways in which the non-real influences our perception and therefore the reality that we recognize, describe and create. This study examines the non-tangible

phenomenon of the Internet and how it influences the designer's perception of creativity and the creative process.

Sartre developed a "phenomenological psychology of the imagination" in which the creative process passes through four stages: Consciousness, Quasi-observation, Post the object as nothingness, and spontaneity (Sartre, 2004). Ambrose et.al. (2003) describe a similar progression in the creative process:

(1) broad, comprehensive, open and purposeful, selective perception; (2) analyzing and synthesizing; (3) logical combining and free associative thinking; (4) a broad general knowledge base and topic-specific knowledge; (5) 'pieces of reality' and imagined elements.

(Ambrose et. al., 2003, p. 88)

Creativity in design has been described as flowing through the following steps: "(1) Inspiration; (2) Identification; (3) Conceptualization; (4) Exploration/Refinement; (5) Definition/Modeling; (6) Communication; (7) Production" (Aspelund, 2006, p. 10). Fiore, Kimle & Moreno (1996) completed a review of aesthetic literature and reported their findings by grouping them in components for the design process: (1) the logical mental component; (2) the unconscious mental component (3) the sensual component; (4) the emotional component; and the (5) spiritual component. Labat and Sokolowski (1999) describe a 3-stage design process comprised of the following stages: (1) Problem definition and research; (2) Creative Exploration; (3) Implementation. Lamb and Kallal (1992) developed an apparel design framework that includes

these steps: (1) Problem Identification; (2) Preliminary ideas; (3) Design refinement; (4) Prototype development; (5) Evaluation; and (6) Implementation.

In Linda Melrose's phenomenological study of the creative process (1989), she conducted long interviews with "individuals who are described by their peers as exhibiting exceptional creativity" (Melrose, 1989, p. 5). In addition to addressing typical areas related to creativity that involve the creative process, she explored many personal psychological factors, such as childhood experiences, life issues, and self-perceptions and examined ways they influenced the individual's creativity.

Frequently cited in texts that discuss creativity is Howard Gartner's (1993) work, *Creating Minds*, which began by discussing approaches to creativity, then continued to explore the lives, work, and *minds* of some of the most creative people in the last century and a half, such as Gandhi, Freud, Stravinsky and Martha Graham. He then analyzed his findings and pondered the evolution of creativity and creative education into the 21st century.

An anthology of prominent psychologists and educators contributed to a body of work that explores a wide variety of views on the creative process. Most relevant to this study of creativity in fashion design is the chapter on "Art and Science, Ancient and Modern: A Psychoeconomic Perspective on Domain Differences in Creativity" (Ambrose et. al., 2003, p. 131). In this chapter, Daniel Rubenson discusses constraints on the creative process, including time constraints, balancing challenge and ability, major creativity and every-day creativity, the dichotomy of *appropriate* and *original*.

The importance of creativity in today's business world is effectively discussed in Harari's book, *Break from the Pack: How to Compete in a Copycat Economy* (2006). Harari describes the "Copycat Economy, where everyone has access to the same resources and talent, where the Web is the great equalizer and where the market's twin foundations are imitation and commoditization" (Harari, 2006, p. 16). Through case studies this book provides thought-provoking principles relevant to effective business leaders in the 21st century.

Creativity is so important in the new economy that Richard Florida (2002) describes a new social category called the *creative class*; a distinct group that is defined, not by the material objects they possess, but by the creative contributions they make to the economy. Florida describes the "3 T's of economic development: Technology, Talent, and Tolerance" (Florida, 2005, p. 37). He argues that creativity flourishes and develops best in an open, diverse environment. Thomas Friedman (2006) emphasizes the importance of creativity, not only in the production of tangible products, but also in the creation of business models and in the ways individuals adapt to the changing global environment.

There has also been a heightened awareness of creativity in fashion demonstrated through the topic of a symposium sponsored by New York fashion schools. In 2006, an organization called Initiatives in Art and Culture sponsored a conference at The Parsons New School called *Cutting Edge: Fashion and the Avant-Garde*, where leading fashion designers spoke about creativity in their work

(www.artinitiatives.com/public/Upcomingconferences/CuttingEdge/tabid/56/Default.aspx).

Technology

Discussion of technology and fashion centers around these themes: apparel development and assembly, the interactive in-store experience (Zargani, 2007), supply-chain efficiency, mass-customization, and e-commerce. A search on April 10, 2007 of the archives (from 1994 to present) of the benchmark US apparel industry trade publication *Women's Wear Daily* using the keywords "design technology" rendered 21,126 results. An order to gain a sense of relatively recent interest on the topic, a search of the WWD archives with the term creativity restricting the results to the last five years (2003-2007), lent 677 results. Interestingly enough, the first four articles, when sorted for relevance, were from France, Japan, and Spain, respectively, revealing a need to explore this topic from a North American perspective.

Academic study of related topics

Related studies in textile and apparel academic journals included analysis of local economic activity in Houston, Texas (Park, 1985), analysis of the influence of computer technology on the apparel industry and education in Quebec, (Hill, 1993), and the perception by apparel industry business owners of CAD service companies (Coelho, 1994). Koza (1996) explored efficient learning environments for computer-based technology in the fashion design area. Beard (2001) and Mathur (2001) researched the learning process when teaching of fashion design is grounded in the use of computer technology.

The creative apparel design process has had limited attention in the academic literature. Although Swearingen (1999) had the word creativity in the title, her work focused on fit and body image. Bailey (1998) proposed a conceptual model about the creative design process, based on personal documentation of line development. Beatrice Le Pechoux (2000) explored the language of creativity with the scope of contributing to efficient communication in the design development process. Grant McCracken (1986) explored cultural meaning in consumer society, addressing the characteristics of the fashion industry to illustrate concepts related to culture and consumption. He defined product designers as “agents who gather up cultural meaning and affect its transfer to consumer goods” (McCracken, 1986, p. 77).

Teaching creative apparel design is a subject extensively covered in proceedings for the International Textile and Apparel Association Annual meetings. Murray (2005) completed a qualitative study exploring the creative process experienced by fashion design students and found that the students' creative process paralleled the steps defined in literature that describes the creative process. Rudd & Riley (2004) described a course in which they focused on a variety of fashion illustration techniques to generate creative design ideas. Similarly, Lee (2005) explained a process of generating creative design ideas through integrating a systematic and holistic approach to collection development.

Kim & Beck (2003) worked with students who chose to adopt the Lamb & Kallal (1994) apparel design framework to follow while creating experimental fashion designs. Student evaluation of the process revealed support of the

framework as an effective guide in the creative development of fashion design ideas. Rudd and Chattaramman (2005) provided a comprehensive overview of the theory development and corresponding models and frameworks in relation to fashion design and product development. Building on those models, the authors described a capstone course in which the students chose an existing brand and developed a line for that brand. Dragoo (2004) described a similar process of guiding students to focus on a specific brand in the product development process. Both of these papers incorporated student presentations to representatives from an outside company that gave positive feedback. Lee (2003) described collaboration with a local carpet manufacturer to develop a creative interaction that enabled the carpet manufacturer to gain insight from the young designers at the university.

Design inspiration was examined in an international context where Mete (2006) described a research project in which she examined inspirational sources from both the student and industry points of view in Turkey. A pivotal paper published in the *Long Range Planning Journal* by Paola Cillo and Gianmario Verona (2008) explores innovation strategies in fashion firms in a manner that renders the data applicable to any industry where new product innovation is important, applying the findings to the small electronics industry. The authors contribute to the study of the process of change and “highlight the importance of triggers exacting change” (Cillo & Verona, 2008). The research defines two types of firms, those that are market-driven and those that are designer-driven. Technological innovation has traditionally pushed consumers to purchase new

electronics, however Apple, Inc. has demonstrated that innovative design can push sales when using existing technology. The luxury industry has been studied in the context of innovative design development because of the dynamic and easily noticeable importance given to stylistic changes (Cappetta, Cillo, & Ponti, 2006). Similarly, a study of the fashion industry in Montebelluna in Northern Italy rendered conclusions relevant to the general development of creative networks in industrial districts (Aage, & Belussi, 2008).

The closest research to the topic of this study, technology and design creativity, discovered so far focuses on the use of computer software programs to facilitate the design process. Secor (1994) researched the interaction between computer usage and its affect on styling and creativity. She used quantitative methods to determine the primary reason that companies implemented CAD, and concluded that computer technology had a positive effect on the designer's styling and creative performance. Campbell and Parsons (2004) described the evolution of their creative process in response to the technologies of digital printing of 3-D imagery and video, posing questions related to the intersection of image and form. Consumer interest in mass customization and co-design of apparel was explored by Ulrich, Anderson-Connell & Weifang (2003) however the study did not address the aesthetic and creative implications of such an endeavor.

In the first of a three-part review of aesthetics literature, Fiore, Kimle & Moreno (1996) focused on the creator and the creative process, defining creativity as "the developed skill of bringing about something new and valuable"

(Fiore, Kimle & Moreno, 1996, p. 32). They examined psychological, educational, and socio-cultural, influences on the creative individual. Their analysis of the literature related to the creative process brings to the discussion some very interesting concepts, including the idea that “the creative process includes sensory satisfaction resulting from the engagement with the art medium” (Fiore, Kimle & Moreno, 1996, p. 36). The summary section of this article called for the type of research I propose here, by stating, “Researchers could identify whether and how the introduction of new technology has an effect on the aesthetic experience” (Fiore, Kimle & Moreno, 1996, p. 38).

Theoretical domain

Hamilton (1987) developed a metatheory defining a paradigmatic perspective derived from cultural anthropology that is particularly appropriate for this study.

Dress is a sub-cultural system, unique in its particular cultural manifestation but universal in the fact of its expression. Like the macro-cultural system in which dress functions, the cultural sub-system of dress consists of three primary and distinctive but interrelated and interactive components: technology (material culture), social structure (social behavior), and ideology (beliefs, attitudes, values). These components cut across the various mechanisms through which human groups organize themselves as social beings to adapt and survive. These mechanisms include: economic organization, political organization, family and kinship

organization, socialization, ideological organization, arts and aesthetics, and communication. The interactive nature of the components and mechanisms of culture imply a dynamic system of influence and change (Hamilton, 1987).

This study examined on the fashion system while probing into influences upon the cultural arbiters of fashion. Hamilton (1997) also posed some questions relating to the interaction between the macro-level culture and the fashion system that aided in shaping this research.

What are the mechanisms by which the macro-level cultural and fashion systems evolve a menu of fashion forms and meanings to present to individuals who then select, reject, and reshape [them]? How are presentations to individual consumers pre-edited, and according to what agendas? (1997)

Hamilton's paper called for a

meta-analysis of fashion -- an assessment of what we know about fashion: how it is conceived; how it operates in individuals' lives over time as they negotiate their own social worlds; how it operates in the marketplace where consumers and generators of fashion interface; how it operates among macro-level generators of fashion; and how the answers to these questions vary across categories of fashion consumers, fashion-system arbitrators, and cultural systems (1997).

This is an enormous task, more than any one professional could hope to accomplish in a lifetime; this research project will address a part of that request, exploring the work of the generators of fashion.

Affect of the literature review on the research process

This review of literature has provided a solid foundation in the study of technology, creativity, and fashion design. Although some researchers suggest that grounded theory research be done without an extensive literature review, I agree with McCracken (1988) that “the good literature review is a critical process that makes the investigator the master, not the captive, of previous scholarship”. It is important to understand the current status of study in the field, in order to define the “conscious and unconscious assumptions of scholarly enterprise” (McCracken, 1988). Having read and analyzed the work presented has enabled me to define ways in which my research is distinct from work that has been previously completed, hopefully contributing significantly to the field of fashion study.

CHAPTER 3: METHODOLOGY

Conceptual Approaches to Social Science Research

Since the early 20th century, social science research has been dominated by two, in some ways contradictory, paradigms that concern both epistemology and methodology. While there are variations on these two themes, and different scholars use different language in writing about them, they may be generally described as *positivist* versus *interpretivist* approaches to social science research.

In summary a positivist approach assumes, usually implicitly, that there is one reality and one truth to be discovered, and that human behavior is measurable. Thus, in the conduct of research, value is placed on *control* over the *process*, and the approach is a linear one. The emphasis in the conduct of research is on reinforcing conceptions of objectivity and precision in measurement. Because of these emphases, positivist research in the social sciences is usually referred to as *quantitative*. In such studies, the research goals and the steps in achieving them are established *a priori*, that is, early in the process, and when established, they cannot easily be altered once the research process is underway. Moreover, the nature of studies thus implemented tends to be deductive and result in a confirmation, refinement, or refutation of some existing theory. Finally, a positivist approach to research assumes that the theory used and the *a priori* established research questions are the most relevant

to the overall research goal. Such studies are usually deductive and do not lend themselves to new theoretical development.

By contrast, an interpretivist approach assumes, often explicitly, that there is no single reality. Researchers who assume an interpretivist approach, therefore, rely on theory as a guide, allowing the unfolding data to suggest the next step. The researcher negotiates the research questions, data collection, and data analysis, throughout the process. It follows that interpretivist research, the implementation of which is usually called a *qualitative* approach, may not always lead to where the researcher initially intended to go. Thus, high value is placed on an *a posteriori* research process, one that encourages the researcher to go where the data lead. Such studies are inductive, thus inviting the possibility of new theoretical development.

Qualitative Research and Design Strategy

Qualitative research, as defined above, is an important part of an "interpretive science in search of meaning" (Geertz, 1973). Human beings impose meaning on their environment; thus, the rules that apply to the study of non-human phenomena do not apply to the study of human phenomena. The findings that are presented are the phenomena studied, answering *why*, and *how*, rather than *what* and *when*.

Various types of qualitative approaches may be used by researchers to explore diverse phenomena. Participant-observation, case studies, and group and individual interviews are commonly used approaches (Creswell, 1998). In participant-observation the researcher tries to immerse him or herself in the

subject of the study to become a member of that group. One observes and participates as much as possible in order to understand the context in which the phenomenon of interest manifests. This is a complex process, because it is difficult to pass from an *etic*, or outsider viewpoint which produces abstract, conceptual language regarding what the researcher now knows about the subject, to an *emic*, or inside viewpoint, in which the researcher attempts to get at the subject's understandings of themselves and *their* conception of reality. Participant observation requires a large amount of time and the data collected can be vast, depending on the specific research study. A less extensive yet equally valid approach to qualitative research is the case study. The case study method was not chosen because a “bounded system” (Stake, 2000) is required for an efficient case study. In order for it to function, the case must have an established set of patterned behaviors that are consistent and sequential, which is not the situation for this study.

There are two approaches to interviewing. One is the focus group, which is basically a group interview. The use of focus groups was developed initially by marketing researchers, typically employed when the researcher is not certain of the specific research question and wants to explore a theme to see where it might lead. When the researcher is interested in a topic she or he believes will render richer data if respondents can play off one another, a focus group provides a forum for exploration. Respondents may not even be aware of the specific research goals. Individual comments affect the contributions of the

others, and it is the role of the researcher to guide the discussion in a productive way.

Individual interviewing is the most personalized and intimate approach to qualitative data gathering. Rapport building is important, and the researcher must be conscious of the ways in which he or she may bias the interview data. Planning and rehearsing the interview process is important to provide continuity in data collection, as well as to enable the researcher to obtain the maximum amount of data from each source

The Long Interview

Working from the assumption that the Internet is a relatively new component of the apparel system, I completed long interviews (McCracken, 1988) of fashion designers and industry professionals to investigate ways in which the phenomenon of the Internet enhances or hinders the fashion design process, explored barriers to its use, advantages to its use, and the Internet's projected affect on the future of the apparel industry. Long interviews were the most appropriate data gathering method for this research for several reasons. Aside from considering the extensive time and logistical commitment that participant observation would require, it is unlikely that in the competitive fashion industry companies would open their doors to a researcher who they could perceive as violating their privacy. A long interview, in the words of Grant McCracken "gives us access to individuals without participant observation, unobtrusive observation, or prolonged contact. It allows us, in other words, to

achieve crucial qualitative objectives within a manageable methodological context" (1988).

The primary topic of this research addressed design inspiration for luxury-level products. An important part of the study examined the creative process and the affect of the Internet on creativity, using fashion design creativity as a subject of study. Interviews explored areas such as: How do designers perceive creativity? How important is creativity in fashion design? How does today's technology affect a fashion designer's creativity? How does the product's price point/target market affect the level of creativity a designer strives for? Another component of the study looked at a designer's inspiration. What sources do luxury-level designers refer to for inspiration? How do they use these sources? What is the relationship between the inspiration and the product category? Between the inspiration and the consumer? These areas were explored to build rapport and set the foundation to probe into the designer's perception and use of technology. Questions related to the designers' use of technology, both *Process Technology* and *Information Technology*, led to questions that explored how technology affects the designer in other areas, such as travel, quantity and quality of work, and the designer's perception of customer expectations.

Exploratory perspective: Unifying Metatheory for Clothing and Textiles

Hamilton's (1987) *Unifying Metatheory for Clothing and Textiles* functioned as the springboard for reflection as I developed the domains of inquiry and the resulting interview schedule. Drawing from White (1959) and Harris (1980), Hamilton defined the components of culture as technology, social structure, and

ideology, while identifying mechanisms for adaptation within a culture as economic organization, political organization, family and kinship organization, arts and aesthetics, communication, ideological organization, and socialization. Examining the cultural environment in which a fashion designer functions from this paradigmatic perspective provided a thorough analysis of the phenomenon from a variety of standpoints. Drawing from this inspiration throughout the research design, data collection and analysis processes, the domains of inquiry evolved into areas that went beyond the initial interview schedule.

Exploring the designer's ideology, I attempted to establish the interviewee's current creative state and to examine his or her position relative to the concept of inspiration. Using Hamilton's (1987) mechanisms for adaptation, I looked at ways in which the social structure feeds into this ideology, exploring the economic and political organization, focusing on the Internet's influence on the decision-making process which brings a design to the consumer. Socialization, family and kinship mechanisms spurred the examination of the structure of the social/cultural network of activities surrounding the fashion design process when the Internet is involved.

Addressing the arts and aesthetics mechanism in relation to technology, I explored the designer's use of technology, discussing the methods used to design: drawings by hand and/or computer, both technical and fashion drawings; draping &/or patternmaking; methods used for inspiration: travel, Internet, trend information services, magazines and software programs. In addition to identifying tangible evidence of the use of technology, I explored how technology

has changed the structure of the design process, including issues related to the ideological mechanism by exploring the concept of the Internet as a threat, creating the uncertain and unknown.

Following the communications mechanism in relation to technology, social structure and ideology, I probed into the designer's relationship with the consumer, asking questions related to the role the consumer plays in the designer's creative process, and how the designer gains consumer information. Questions such as the following evolved by including the communication mechanism: How does the designer think that the consumer gets his/her information? In what ways do you consider the consumer when designing clothing at the beginning of the process?

Domains of Inquiry

This cultural analysis was used as a foundation for developing the domains of inquiry which shaped the interview schedule. Although by nature an exploratory study evolves during the research process at the onset this study addressed the following domains of inquiry:

1. How do luxury-level designers perceive creativity?
2. How does the Internet influence the work of fashion designers at the luxury level?
3. How does luxury-level fashion design incorporate the popular customer-centered approach to product development?
4. What are the values that shape the luxury-level designer's work?

5. How does the Internet influence the values and behavior of luxury-level fashion designers?
6. With the advent of the Internet and its complex implications, is there a paradigm shift in the luxury-level fashion designer's behavior?

The interviews were enriched by using the grounded theory method to expand these initial domains of inquiry. The resulting process enabled developing a typology for creativity and for technology while exploring the Internet as a vector for change in the working methods of fashion designers.

Determination of Subjects

Subjects were chosen for this study based on the principle of theoretical sampling (Creswell, 1998). I chose a group of participants with the similar characteristic of having professional experience in the creative product development phase of apparel development for the luxury fashion industry. To recruit participants, I approached a number of designers and industry professionals in France and the United States, most of who agreed to allow me to interview them for this study. After gaining approval from the Institutional Review Board, the data collection process was accomplished by completing long interviews (McCracken, 1988) with 11 fashion industry professionals who have experience in the luxury market and who were accessible. Figure 3.1 provides the profiles of these participants broken down into relevant categories.

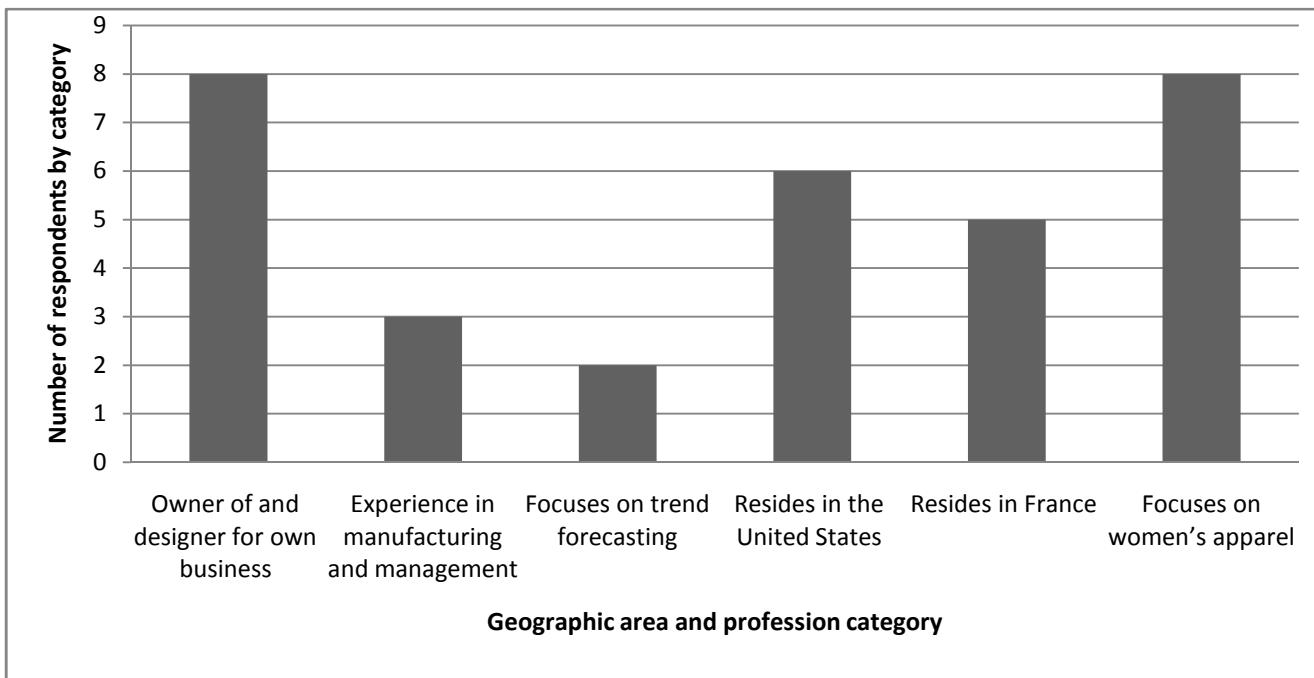


Figure 3. 1 Respondents by geographic area and profession type.

Although the French participants all work in Paris, the American participants are located throughout the United States. Three of the participants live in the Los Angeles, California region, and one lives in each of these locations: Chicago, Illinois; New York, New York; and Columbia, Missouri. While the study's intent is not to compare and contrast the two countries, in choosing participants I strove to include professionals of similar profiles from each country. One of the trend forecasters works in France and one in the US. I interviewed a French designer who shows during the *Haute Couture* shows and a New York Designer who sells at the couture price point. I interviewed a textile designer based in France, and one based in the US. I was able to interview the President of the Chambre Syndicale du Prêt à Porter et des Couturiers in Paris; however his counterpart in the US, the President of the Council of Fashion Designers of

America refused the interview. I was able to interview a former President of Design of a major US apparel corporation, however, and consider her position to be parallel to the French Chambre Syndicale president in many ways, given his industry experience.

The participants range in years of experience. The two trend forecasters and three of the designer/owners are in their early to mid 30s, having received a formal fashion education and having worked in the fashion industry since graduation. The two textile designers and two of the owners/designers range in age from 45-65. Three of these have received a formal fashion education and have been working in the fashion industry since graduation. One studied creative writing and has been working in fashion for 15 years. Two of the participants are over 65, and have been fashion industry professionals their entire adult lives. Both of these received a marketing/business education. The participant nationalities are American, French, British, and Australian. Participant birth countries include China, England, France, Australia, Morocco, and the United States. The diversity of the participants in age, geographic location, origin, and experience lends credibility to this exploratory study, providing the potential for a wide range of responses. At the same time the unifying characteristics, related to education, experience and current professional activity provide necessary cohesiveness to the process.

The interviews were digitally recorded and then transcribed by the researcher into Microsoft Word documents. Those documents were manually analyzed using the *open* coding (Creswell, 1998) method after each interview.

After completion of all of the interviews, I learned the *Nvivo* software through completing the tutorials, converted the .doc files into .rtf files and began to code the interviews using *Nvivo*. The first step of analysis using *Nvivo* was to continue the open coding process by coding each interview response according to the questions on the interview protocol, creating *trees* and *nodes*, or categories of responses, in *Nvivo*. This process of open coding led to axial coding (Creswell, 1998), as I identified variables that led to specific phenomena and concepts. I then identified *a posteriori* themes that related to strategies participants developed in relation to those phenomena in subtly interesting ways, which, in *Nvivo*, created new *trees* and *nodes*. Having coded all of the interviews, I then opened the “questions” nodes and coded within each question to determine commonalities among responses and to discover new areas of thought. Overall the process resulted in 14 free and 57 tree nodes, or categories and subcategories of responses.

Having completed all of the *Nvivo* data analysis in a paperless format, on the computer screen, I then printed out each of the categories, or nodes, of related concepts. Returning to a more traditional qualitative data analysis method, I then read all of the data and hand-coded any additional themes. After this thorough analysis, being sure that I had included the examination of the context and consequences of the phenomena and concepts drawn from the data, I organized the related themes into a cohesive manner with a logical flow, explored relevant literature and wrote the data analysis chapter. The final phase in the data review process was to re-read each of the initial interview transcripts,

enriching the findings where appropriate, ensuring that data for the categories were saturated (Creswell, 1998).

Grounded Theory

The foregoing discussion has described data gathering and analysis strategies common to qualitative researchers. In addition to choices regarding how to generate data, qualitative researchers also make philosophical decisions, explicit or implicit, regarding their approach to data gathering and analysis. The approach taken in this study is one of grounded theory, explicated first by Glaser and Strauss (1967) and then by Strauss and Corbin (1990). In essence, grounded theory is an approach to data analysis intended to lead to the discovery of new theoretical concepts or understanding about the phenomenon under investigation. As such, while previous theory and research may be useful in directing the initial conversations with participants, the researcher is quick to abandon any pre-determined agenda for investigation, within limits, of course, and follow, with regard to the general topic, where the participant leads. Thus, the researcher opens the door to the discovery of relevant phenomena, understanding, and relationships among phenomena and concepts that s/he may not have previously considered at all. This approach, then, celebrates the likelihood that the participant's categories and content are more germane to understanding the phenomenon under investigation than are the researcher's preconceived assumptions regarding what would be important to explore.

Fundamental to grounded theory analysis is the idea that data are analyzed, at least initially, soon after they are generated, and preferably before

other data are collected. As a result, the researcher is most likely to identify some idea or theme, one which otherwise might well be lost altogether, and explore it for its efficacy and content with successive participants. The initial analysis consists of identifying concepts, categorizing, searching for seminal relationships among them, and *constantly comparing* (Glaser & Strauss, 1967) or checking one's understanding from one point in time against new data and understanding.

These data were analyzed in a way consistent with the foregoing description, with the identification of concepts, categories, and relationships among categories. After each interview, notes and/or recordings were reviewed, transcribed and analyzed for themes and categories. That process alone resulted in more systematic consideration of interview data than would occur by simply repeating the same interview protocol for each interview. Relationships among categories began to emerge during the data gathering process, and subsequent interviews integrated emerging categories. By the end of the data-gathering process a meta-analysis of data using *Nvivo* software enabled a global view of the research data.

Working, therefore, from the above interpretivist social science paradigm, this study examined the effect of change in technology as it affects the development of luxury-level fashion products. Within the anthropological tradition, this qualitative research project applied the grounded theory method and developed themes relative to creativity and the influence of the Internet as a cultural system on apparel design and product development. Working from the

assumption that the Internet has created change in the apparel system, the study's intent was to explore ways in which this phenomenon improves or hinders the fashion design process, barriers to the Internet's use and application, advantages to the use of the Internet, and the projected implications of Internet use on the future of the apparel industry.

The goal of grounded theory qualitative studies of this type is to discover concepts and develop theories based on those concepts. Although theory development is not required in academic study (Pederson, 2007), it has been noted that the field of clothing and textiles has experienced significant, yet limited theory development (Pederson, 2007). This study established a typology for creativity in fashion design and explored the influence of technology on a fashion designer, leading to theory development related to creativity in fashion design and the influence of Internet technology on fashion designers.

CHAPTER 4: DESCRIPTIVE FINDINGS AND ANALYSIS

Transcripts from interviews with luxury-level fashion designers, industry executives and trend forecasters from the U.S. and France were analyzed. The interview schedule began with a general discussion of creativity and the creative process, eventually shifting the focus to creativity in fashion design, looking at inspirational sources and finally discussing creativity and technology in relation to fashion design. All of the interviews covered each of these domains of inquiry, although none of the interviews strictly stayed with only the pre-established questions. Following grounded theory (Denzin & Lincoln, 2000) principles, questions were added and adapted as each interview was analyzed in order to build upon the concepts discovered during the course of the research process. The analysis of data that follows flows loosely through the same structure as the interviews, however themes discovered from the data independent of the domains of inquiry are integrated as the researcher deemed relevant.

The Creative Process

Defining Creativity

The initial question asked was, "What is your perception of creativity?" Responses ranged from overarching comments to synthesized, direct definitions. When the discussion narrowed to the respondents' reaction to his or her personal creative development, comments ranged from objective, macro-oriented descriptions to subjective, personal responses. Overarching comments related to the concept that creativity is part of every aspect of life. "It's really a key word of

life; there is creativity in food, in architecture, even in the everyday behavior of people. We have to be creative" (AVH, 2007). "Creativity is necessary and never-ending. Nothing exists without some creativity. Creativity is everything" (GL, 2007).

I know that is kind of abstract, but I really think we come to earth to realize that we are creators....in reality everyone has that mission; we are here to create a reality. And my view of it is if we are going to create a reality let's make it as beautiful and joyful as we can....it is divine, and within all of us. (SK, 2007)

Other responses were synthesized, direct definitions. "[Creativity] is the ability and the desire to solve problems without a preconceived concept of the outcome of the process; creativity is having the enthusiasm and the opportunity to solve the problem" (TP, 2007). "Creativity is the stimulation of the imagination; the utilization of the imagination" (AL, 2007). "Creativity is thinking differently" (GL, 2007).

A central theme relative to several responses related to the personal and individual nature of creativity. "Creativity comes from the human mind" (TP, 2007). "Somebody who is able to think outside of the box" (WM, 2007). "I perceive it as the expression of individual desire" (SK, 2007). "I don't look for it. It's more like it comes to me naturally" (MT, 2007). "Creativity is some way to give something of ourselves... Creativity is a really hard process because you really give something from inside" (AVH, 2007).

Creativity Blends Intellect and Emotion

The creative process begins internally, where intellect and emotions blend, developing imagination that "is stimulated by knowledge" (AL, 2007). "Yes, [creativity is] being able to learn. That [creativity] is part of the greater process; [it] is having a lot of space to learn so that the new ideas can come in" (SR, 2007). The knowledge base required for the creative process was described as far-reaching.

Knowledge, of course, not simply to memorize things, but knowledge based on observation, on the sensations of things; interest about life. That is the knowledge. Books are a part of it, but not only books. Books are limited. Real knowledge comes from life. So when we explain for ourselves the mysteries of life, and gain knowledge, of course, from books, we stimulate the imagination and we go toward creation and new ideas... The true grand designers know it all well; they know the great classical ballets, they know ... you know what I mean. There is such stimulation, such a high level of creativity that to be situated in the ignorance of all that, you are frankly very poor. (AL, 2007)

While the previous participants described creativity in a rather objective way, the following participant comments reflect the inextricable connection between gathering knowledge and creativity. "I am inspired by everything. I grew up in a creative environment. I have my inspiration book and I walk away from everything with an inspiration" (GL, 2007).

I think it is just my attitude. That is usually the key. My personality really

just, I guess it's the way that I see things. A lot of times I don't talk a lot, but my mind is constantly thinking all the time. I like to listen to a lot of people and think about their lives. I think that is key for me. People's lives and how people live. (MT, 2007)

The following designer described her very personal process of discovering the *mysteries of life* [italics added].

It takes time. When I was a student, I had no creativity at all. No, no, no, no. I was the best at the cut [pattern drafting, draping, and garment assembly]; I was very good. I took one day to finish my work, and they gave three days to everybody and I would help the other students. But to draw, in terms of creativity... I was very good at taking a sketch and making it into a muslin toile. But to find an idea... that is why I didn't think I was never going to do fashion, because it was impossible for me to sketch something that was a little bit, uhm, interesting. And I think to find this creativity you have to really suffer or something like that. Because I remember just before I really launched upon my business, I was suffering so much about many things and I was questioning myself a lot. And I didn't do it just like that, I waited about 6 months to note things and said, ok... So creativity also goes with a suffering moment. It doesn't have to make you suffer all your life, but something has to break inside to take out the creativity. (AVH, 2007)

Creativity in Fashion Design

The Importance of Creativity in Fashion Design

When discussing the importance of creativity in fashion design, all participants indicated that creativity is important to fashion design. "It is the mantra of our industry. It is the beginning and the end of the conversation. We all say we want new thoughts, we want creativity, we believe that we support creativity. It is the word on everybody's lips" (TP, 2007). Creativity is especially important if a designer's image or brand has been developed with a focus on creative design.

For us, the clients and the press and everybody always looks for something very creative. It is hard, because sometimes you want to be simple, and at the same time if it is simple, they don't even look at that. Like Dries Van Noten, like Alia, [the collection] has to keep the hand but at the same time has to be creative. It is very important. It is 70% of all of the world of fashion. It is very important. (AVH, 2007)

Categorizing Creativity

As the interviews probed into the subject of fashion design and creativity, responses tended to categorize creativity in fashion design, giving rich descriptions to define the categories. Some respondents spoke about the distinction between true creative designers and *other* designers. Two male respondents with 35+ years of experience in the French fashion industry made a point of saying that true creative fashion designers are very rare. "Well, it is really changing the history of costume. To do things which have never been done, or

anyway to interpret them in a way which was never done, as of course everything is taken from the past" (DG, 2007). "The creator creates history, he doesn't follow history. It is not a soldier, it is not someone who follows, it is someone who brings an image...the true creators...are very rare by definition in the entire world" (AL, 2007).

Although the preceding comments relate to general concepts regarding creative designers, more specific parameters were defined in terms of concept, fabric, and technique. "I think [creativity is] always wanting to change and not being very interested in what is happening now, always thinking about what is coming next....always being interested in this new thing" (SR, 2007).

What made me become a creator compared to somebody else?

Let's talk about a very easy brand name... [such as] Gap. We would never call that a creative company. But we will say Prada is creative, but not Tommy Hilfiger. So what has changed the perception? I think it is in terms of the cut and the fabric and the concept of the line. (AVH, 2007)

[Creativity is] very important. That is the key. You could be, you know, your pattern could be so great, but if you don't have that idea, if you don't have it, then it is not going to come. It is the whole package. You have the idea; that is 60% of it. And then the technical side of it is what it makes it happen. (MT, 2007)

Creative Barrier or Catalyst?

Furthering the exploration of concepts related to distinguishing types of creativity in fashion design, discussion led to defining to the components of a

fashion designers' work that are considered creative. Nearly all responses linked creativity to the fashion product development process. Analysis of the data revealed that the characteristics of fashion product development centered on the obligation of the fashion designer to satisfy the needs of a market. Responses ranged from identifying a dichotomy between creativity and marketing to expressing confidently that a fashion designer's success depends on his or her ability to understand the marketing complex.

Creativity and Marketability

Creativity and marketability were described as conflicting paradigms by French respondents, "It is by virtue of the laws of imitation that we obey fashion. It is nearly by a protestation against these laws of imitation that fashion tries to be creative" (AL, 2007). Creative design was described by a French trend forecaster as the antithesis of marketing-based product development that focuses on defining the customer's needs, as stated,

They do focus groups, questionnaires to interview people, etc. And that is all stuff that taints the creative process. We are very turned off by that. I think that fashion designers who are very creative, especially high-end fashion designers, are turned off for the same reasons. Everybody feels like it's a publicity machine; something evil. (PF, 2007)

This French designer described the importance of a designer's ability to understand the customer and of the subtle exchange that inherently takes place when a customer selects a product:

Why is he successful? Because he is subconsciously, at the base, he is

in the mind of each client that he addresses. There is a transmission: why does a client buy? Because she recognizes, subconsciously, when looking at a designer's work, a harmony that she feels. (AL, 2007)

The harmony that the customer feels doesn't happen per chance. This French designer went on to describe the macro-environment and the way in which the rules of a target market evolve.

The world is rigid, especially the capitalist world we live in. We receive so much media and information and images that form our taste, and it is from there that certain targets are launched in rapport with each market segment. Together with our knowledge of the real process [and the] receptivity of images of this or that subject when we are a good designer, we try to create a collection with the goal of fitting within the rules of the target. (AL, 2007)

Creativity as a Competitive Advantage

Building on a similar world view, the following respondents described a global marketing system which makes producing a creative product nearly the only way for a designer to develop a competitive edge.

Today [because of globalization] price is no longer an issue and in a sense the world is one country as the frontiers and barriers fade. [Globalization] means that we can produce everywhere so that price is no longer a divisive issue. The new technologies make this possible for everyone. You can design in London or in NY, print in [New] Deli and produce in Hong Kong. The differentiation is given by creativity [not price].

The creativity which really builds the brand is more important than the price and generally the product...Creativity becomes the necessary element for a brand to become international. It [creativity] supersedes marketing in importance. (DG, 2007)

The reality of all these big brands with all this marketing has also [been] trying to cut out the young designers because they [big brands] take all the space in the magazines as advertisers and all the space in the [editorial] pages because the editors use them to get them to advertise more. They take all the air from the rising designers. So the only way to get a brand to rise is to sell. And to sell the only way [to sell] is to keep the creativity, so it is related. (AVH, 2007)

Constraints to Creativity in Fashion Design

Consumer taste.

The fashion design process inherently includes developing a product for a target market which includes meeting the needs and desires of that market. The evolution of the creative process is therefore influenced by factors relating to the end consumer. Respondents addressed attention to consumer needs in terms of taste and level of receptivity to innovation.

When examining the definition of taste, one notes that the word has many connotations. For the purpose of this study, taste is considered in terms of the following concepts.

Some consider taste as a mere sensibility, and others as a simple exercise of judgment; but a union of both is requisite to the existence of

anything which deserves the name. An original sense of the beautiful is just as necessary to aesthetic judgments, as a sense of right and wrong to the formation of any just conclusions or moral subjects. But this ‘sense of the beautiful’ is not an arbitrary principle. It is under the guidance of reason; it grows in delicacy and correctness with the progress of the individual and of society at large; it has its laws, which are seated in the nature of man; and it is in the development of these laws that we find the true ‘standard of taste.’(taste, 2008)

Understanding and pleasing the consumer’s taste was addressed by French designer AVH (2007) as well.

What is sad is that creativity sometimes also has to go with taste; the taste of the general population and this is the most difficult of things. Paco Rabanne is a very creative person, but some people don’t like his work; they hate it. In a way Dolce & Gabana has creativity, but the woman they drive is a bimbo woman. But it is also creativity. (AVH, 2007)

Consumer taste in terms of the above comments can be described as refined or popular. A Paco Rabanne customer would have a refined taste, understanding and appreciating the beauty of subtle, unusual design characteristics, having learned to appreciate the research and development behind a creative product. A customer with a popular taste level draws on the influences in popular Western culture, especially those related to sexuality and beauty. This customer’s impression is more impulsive and less reflective than the customer with a cultivated taste, and can be seen in the type of customer

attracted to the Dolce & Gabana line described above.

Being attentive to the taste level can enhance a designer's success if it enables him or her to better define a niche market, however some creative work is misunderstood. Creating a product that is creative yet widely accepted offers a particular challenge due to the relative nature of consumer taste and the sometimes limited capacity of consumers to developed refined taste that allows them to appreciate and value the creative process.

I think they [customers] are so overwhelmed by an overload of merchandise and logoed merchandise and the fact that now luxury is so democratized that they feel they need to find more special pieces and more unique pieces so they use this to set themselves apart. But that doesn't necessarily always equal the more creative product. It just means the more expensive.... So these people who want to acquire luxury are not necessarily the same people who have the taste to be able to identify creativity and value the creative process as much.

I think the uniqueness [and creativity] is in the handmade; in the importance of folklore or history or tradition and craft. I think that sort of creativity is even more valued by people who have a more refined taste. Which I think is more about artisan and tradition and couture. And even if it's not couture, just using couture processes. (PF, 2007)

Receptivity to innovation.

American designers GL (2007) and TP (2007) each made a point to distinguish a fashion designer's creativity from an artist's creativity. "Fashion

can't exist without creativity, but creativity of a different kind; not art. Creativity is thinking differently. There is creativity in consumerism" (GL, 2007). "In our industry, because this is a profession and it is not a fine art, because we are in the business to sell clothes, creativity is the thing that we talk about, but we don't want too much creativity" (TP, 2007).

American designers also made it a point to qualify the type and amount of creativity in fashion products:

We don't want things that are too unusual; we want things that are sort of evolving from what came before, but things that are too radical are too extreme for most people to accept. Creative product can be unusual, but is not always unusual; not necessarily very different. It is something that is somewhat different. It can be very different, but it doesn't necessarily have to be. (TP, 2007)

People think that to be different you have to be disturbing. Either that or they don't know better. It's really black or white to them. Either it is really normal or really 'over there' which is considered as creative. But really creativity is not 180 degrees away from the norm. I think the most important thing is that creativity doesn't have to be weird. (WM, 2007)

A Typology of Creativity

Influences

Price-Point and Creativity

When asked if a product's price influences creativity, responses confirmed that creativity is required in fashion design regardless of the price-point, or target

selling price of the product “If you have a budget of a million dollars or a hundred dollars, you start at the same place, and the work after that relates to your price point” (CD, 2007). “In the old days it [price] used to be [a determinant of creativity], but Target has disproved that. They do some amazing creative [products in] everything” (WM, 2007). The nature of the creative activity that follows the initial inspiration differs, however, according to the intended final purchase price.

And then obviously, [we design] to the market’s purchasing power. If, for example, we do *Haute Couture*, that costs a fortune. Of course it could make people dream a lot more than the [lower priced] target market. But it is inaccessible from a simple financial point of view. (AL, 2007)

Creativity as Problem Solving

Lamb & Kallal (1992) defined problem identification as the first step in their apparel design framework, as did Labat and Sokolowski (1999) when defining three stages of the design process. Building on this concept, we see that the type of creativity applied in fashion design depends on the problem to be solved. “We are under the misconception that the luxury level market exercises more creativity, but I think in some cases it is a greater creative challenge to work within a price point” (TP, 2007). Several responses echoed the sentiment in this quote, revealing that design creativity can be separated into two categories: exploratory/experimental creativity and process/logical creativity. Exploratory creativity requires highly developed technique, materials and craft.

Process/logical creativity exacts a heightened awareness of operations, management, methods and technology.

Leadership Creativity or Adaptive Creativity

At the highest price point, the problem to solve relates to discovering the path to a fashion forward, innovative, unique, superbly crafted garment made from the finest materials. “I think it [creativity] is at a point where it has never been before where because of the prices going so high we have the freedom and ability to do what we have never done before” (PF, 2007). This description correlates to the concept of experimental creativity. Combining experimental creativity characterized by focusing on highly developed technique, materials and craft with the concept of creating a product that is fashion-forward and innovative brings us to a new term: *Leadership Creativity*. *Leadership Creativity* often caters to the customer with refined taste as described in a previous section.

Leadership Creativity is often found at the higher price-point because it requires investment in research and development. “Creation is always expensive by definition” (DG, 2007).

I think that a lot of the time especially in the luxury industry, creativity allows more expensive processes to be done and you know more amazing techniques and more complicated ways and more complicated patternmaking and all that kind of stuff. So I think that makes the more creatively made things more expensive, so I think that people are ready to invest more to have more special pieces. (PF, 2007)

As the price point lowers the problem to solve relates to translating sophisticated design ideas into products that can be manufactured in large quantities and have the allure of high-priced design but are adapted in such a way to make them attractive to the budget customer, from both the aesthetic and economic standpoints. Designing for the lower price category draws on skills related to the spirit of the process/logical creativity described in the previous section. “I would say that probably there is a lot more pressure and those people are cranking out a lot more clothes than I do [at the designer price-point]” (TP, 2007). Combining the concept of process creativity which involves a heightened awareness of operations, management, methods and technology with the challenge of creating a product with well-established parameters or limitations gives us the term *Adaptive Creativity*.

When we do a collection that is targeted to a specific market, we are naturally obliged to take into account the time needed to manufacture the piece, the cost of the fabric, to all these elements that make the product become a product that corresponds to the buying power of the market for which we are designing. (AL, 2007)

Creativity Type Not Bound to the Product's Price

Designer SR, who focused on *Leadership Creativity*, produced garments at designer and bridge price-points, demonstrating that within a limited range, price-point is not a determinant to the application of *Leadership Creativity* in all cases.

When I worked for Kenzo, we would create trends, not follow them. So for me working at Kenzo, price point did have a certain importance, and I think that is why, as time went on, I was more successful because I knew that I had certain things that are on the top of the triangle [fewer, more expensive pieces] that can be anything that I wanted it to be. I didn't have to worry about it at all. It just had to be absolutely beautiful. And you didn't worry about the price. But then I knew there were certain techniques that looked quite good, were very useful, they were very reasonable techniques, price-wise, and I knew how to use them when appropriate. I knew there were other techniques that were expensive, so you had to have a really good idea of when to use them. With experience that meant that you could balance the collection in a way that there was a fair chance if you had some expensive pieces and some less expensive ones. (SR, 2007)

The following designer sells at the luxury level price-point. She practiced *Leadership Creativity* when developing the unique fabrics she created from fiber manipulation. In contrast, she used the Internet as a source to research the competition in relation to garment silhouette and style, for which her developmental approach reflected *Adaptive Creativity*.

Yes, it [the Internet] helps me understand what everybody else is expecting; what they are doing now. Market research...sometimes I go to the tabloids, you know the *Vogues* in the different countries and when I

see a designer I find interesting, I will then go to that designer's website.
(SK, 2007)

Another designer recognized the difference between *Leadership* and *Adaptive Creativity* and chose *Leadership Creativity* when defining a career path in order to avoid having to adapt design ideas to the constraints of a market.

I really don't look at price point. I am more looking at creativity. Creativity more than price point. That is why I started my own line. I knew that if I was working for someone else, they would always be like, yeah, that is great but it is going to cost a lot to produce that style or finish, you know. I am more looking at quality and the design of it; price is the last thing. (MT, 2007)

One designer likened the price/creativity question to the process of developing fine art: "I know it [price] should [be a consideration] but [it's] probably not [something I think about]. It is more like I'm painting. I don't think a painter thinks how much could I sell this painting for" (SK, 2007)?

Creativity Type Related to Customer's Taste Level

Another concept that surfaced when discussing creativity and price-point relates to receptivity for and understanding of the unusual, taste level (refined or popular), quantity produced, and price. *Leadership Creativity* is rare because "true artists are not that many in any field" (DG, 2007) and because "People who understand advanced creation are not that numerous; if everyone understands a product that means it is not new. Of course it seems a little pretentious to say that, but it is true in art, and it is true in every industry" (DG, 2007).

The consumer's lack of refined taste creates a resistance to advanced creativity and can relate to the geographic and social/cultural environment, as described by SK (2007):

A lot of what I have done is such outrageous imagery, that it can't really be worn on the street. It is more like theater or costume, you know. Like, I know, let's just call them hippies, people that wear strange things and they are really wild and really costume-y. I'm trying to move away from that [outrageous imagery] because of the urban environment and marketability and what people would really wear. People won't wear that [extremely creative product] in St. Louis, Missouri. They will come up to the piece, and they will love it, but they get to that point where they say, "Where would I wear this?" (SK, 2007)

Designers also described a psychological link for the consumer between a higher price-point and receptivity to *Leadership Creativity*. "I think the main difference between upper price and lower price clothing is that consumers can usually spend more money for clothing that is more original and more unique" (TP, 2007). "So I think that makes the more creatively made things more expensive, so I think that people are ready to invest more to have more special pieces" (PF, 2007).

Another designer described the system in which *Adaptive Creativity* developed and flourishes at the mass market level: "We live in an industry of parasites; they go into stores and copy clothes. They don't think about volumes and shapes and so on. They are just copying clothes and manufacturing them, hopefully at a lower price point" (WM, 2007). Similarly, SR (2007) stated:

"Fashion, as I understand it, - I don't know what percentage, but a HUGE part of the industry is based on copying, and that doesn't interest me at all." CD (2007) described two types of creativity in relation to price point as well

...it depends on the level of the industry you are working in... further down the line, as you start working for some of those other companies, like Forever 21, who is just knocking things off, it [*Leadership Creativity*] is not necessarily as important. These people are creating a look based on someone else's look. For the followers, or the Forever 21's, it is more how to translate what the other people are doing into your price point. There is some creativity in that, too. (CD, 2007)

Interdependence of Creativity Types

These two types of creativity feed off of each other. Figure 4.1 shows the correlation between *Leadership Creativity* and *Adaptive Creativity*. The predominance of *Adaptive Creativity* can be seen as a catalyst to *Leadership Creativity*, and *Adaptive Creativity* finds its direction from *Leadership Creativity*.

I think a lot of it comes in the way everybody is shopping and rubbing off items. It looks like... you know the mess about fashion if the merchandiser becomes a designer just by shopping and picking 10 garments and redoing them in a different color. And if that is what fashion design is today, you know these higher end designers are just so disgusted by that they just want to get back to authenticity. I think that is what is pushing them to do it. (PF, 2007)

<p>Leadership Creativity</p> <p>PLC: Product with Leadership Creativity</p> <ul style="list-style-type: none"> • Creating a product that is fashion-forward and innovative. • Focusing on highly developed technique, materials and craft 	<p>Adaptive Creativity</p> <p>PAC: Product with Adaptive Creativity</p> <ul style="list-style-type: none"> • Creating a product with well-established parameters or limitations. • Heightened awareness of operations, management, methods and technology
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Figure 4. 1 The Correlation between Leadership and Adaptive Creativity

Adaptive Creativity is challenging in many ways because without taking a leadership position, the adaptive designer still has the task of making something different, new and desirable.

If it doesn't evolve nobody is going to buy anything new; so creativity is [very] connected to the word new, or fresh. You know, just the next step. You don't have to go all the way to the top of the ladder, just move it along. The whole idea of fashion is giving somebody a reason to buy something new. So if you don't have creativity then you don't move it to the next level. (WM, 2007)

In reality a stylist, designer, is not really a creator. It is a man of synthesis. That means that it is someone who studies the images that the true creators, who are very rare by definition in the entire world, have created, and he will work on these images to use them to serve the market he is addressing. (AL, 2007)

Although globalization has given designers access to many more low-cost production options providing a wider selection of details available at lower cost, the process of developing the budget product is still *Adaptive* due to the structure of the market in regard to fashion leaders:

Now, even at a lower level all kinds of things can be made by hand, in India or China, so you are very, very free. But having said that, I guess that someone working for H & M does have certain parameters. I mean they are following the style; they are not creating the style. (SR, 2007)

Technology and Creativity

A Typology of Technology in the Fashion Industry

As the conversation approached the subject of technology, asking the question, "How does technology impact fashion designers today?" Responses ranged from confident statements that technology inhibits creativity to guarded statements qualifying ways technology helps creativity. One respondent described how designers are inherently influenced by technology because designers synthesize the world around them and technology is part of today's environment.

Each period has had its revolution. Technology is the real revolution of our day. It has changed the morals and the relationships among people...We are the receivers-emitters of our time period, and we cannot ignore technology. (AL, 2007)

After discussing the respondent's initial response to the question, the researcher defined a typology for technology in fashion design, explaining the two categories defined during the literature review: *Process Technology* and *Information Technology*. *Process Technology* relates to the hardware and software that enable the product to be produced. *Information Technology* relates hardware and software that facilitates communication of ideas, images and information. As Figure 4.2 indicates, the Internet is the area where these two types of technology intersect.

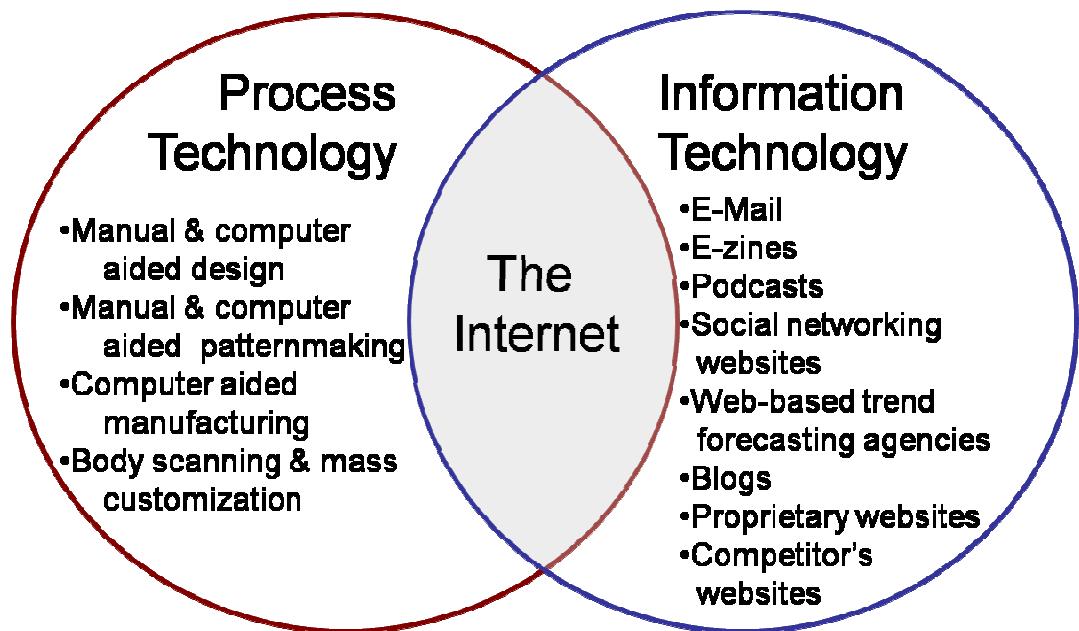


Figure 4. 2 The intersection of Process Technology and Information Technology is the Internet

Process Technology is hardware and/or software that facilitate the actual physical development of the product. This category can be further sub-divided into computer aided design, computer aided patternmaking, computer aided manufacturing and 3-D Body scanning/mass customization. Computer aided design encompasses programs that facilitate creative sketching, presentation boards, technical design, and textile design such as Adobe Photoshop and Illustrator, Point-Carree, In-Design, and U4IA. Computer Aided Patternmaking includes digitizing existing patterns for grading and pre-production preparation, creating patterns from existing slopers, digitizing draped muslins for completion on the computer, customizing patterns for made-to-measure clients, and the newest development, 3-D virtual assembly of the pattern. 3-D virtual environments enable evaluating the pattern on a virtual model complete with animation to see the virtual model walk, allowing changing of color, pattern, proportion and details of the design before realizing it in actual fabric. Computer aided manufacturing includes cutting a large quantity of garments in a paperless environment, using automated spreading and cutting, and for some segments of the industry going all the way to automated assembly. Computer-aided manufacturing also includes supply-chain technology such as software for Product Data Management and Product Lifecycle Management, both in a local network and Internet-based.

Information Technology refers to the many methods that one can communicate ideas, words, and images over the World Wide Web. For the purpose of this paper, it includes all of the previously-mentioned Internet-based

information dissemination methods: e-zines, podcasts, myspace.com, youtube.com, web-based trend forecasting agencies; both subscription-based such as wgsn.com, and those with free access, blogs; both by industry professionals and by consumers, competitor's websites and a myriad of options with public access such as style.com, elle.com, and infomat.com.

Process Technology and Creativity

Data analysis demonstrated extreme differences in attitudes toward *Process Technology*. TP, a New York designer who makes all of his luxury-level eveningwear patterns embraced *Process Technology* and explained that

Computers are a facilitator... the computer makes it possible to do it faster and keep it more organized and so on. ...that process...allows you to be more creative. I make [sample patterns for] completely original designer styles on the computer. The company that makes my patternmaking software says that I am completely unique in this country in that respect. (TP, 2007)

In a similar vein, French designer AL demonstrated enthusiasm for *Process Technology*.

The creators are the same, the designers are the same. Thanks to the Internet and technology, including the 3-D simulation, [they have] the possibility of creating things that were nearly impossible to create before. Technology itself, the technical side, can provide visualization much, much more quickly than before. For example, if we want a color palette, well, we push a button with one finger, and we only have to choose the finger,

and we have a choice And the painters from 100 years ago would put a whole month into discovering the color he needed and wanted for a particular painting. (AL, 2007)

While the above respondent demonstrated enthusiasm for 3-D virtual simulation, TP, a New York designer who has worked extensively with computer patternmaking and body scan technology, made the following comment:

You know, that is a lot of smoke and mirrors. I don't know if it actually means anything to anybody. When I see a flat pattern on the screen, I make the garment in my own head anyway. So that kind of cheap trickery doesn't really mean a whole lot to me. I know that people do them [3-D body imaging], and that is part of the promotional aspect of them and that is what gets the attention at the trade shows, but does it really mean something to a patternmaker? I don't think so. ...there is that whole thing about predicting the drapability and the softness of the fabric, and that's not there yet, either. (TP, 2007)

In relation to the improved quality of work, the following respondent emphasized that the computer is only a tool, and that producing high quality work depends on the person using the computer. She made the point that if one uses the technology correctly it can enable producing higher quantities of quality work.

Common sense would say that technology would make the quality of your work better. However, I really don't agree, because the quality of the work is only as good as the person who is putting it into the computer. As far as how much you can do, I guess that once you got it right, that

totally affects it. I mean, you can really do more if indeed you are doing it correctly. (WM, 2007)

Process Technology was noted to be particularly important in relation to textile development. “I think the way that it most affects designers is through textiles. Technology in textiles has created a major change. Making a fiber waterproof, new ways of breathing, I think that inspires designers a lot” (PF, 2007).

There is another way of technology impacting designer’s work as well with new types of cloth and yarn. When I was buying yarns for Kenzo it was always interesting to see the new types of yarns. The last time when I was buying yarns, I saw a new yarn that was a tube with another tube inside; a new technology that didn’t exist before. (SR, 2007)

During the period when we were really interested in prints, it [*Process Technology*] really helped, because prints are so much easier to make with technology. And of course as far as textile design goes it opens up all these amazing possibilities like the fibers they are developing in Japan, and the way they have also inspired a revival of synthetics; that all comes from technology. (PF, 2007)

In stark contrast to this receptive approach to *Process Technology*, AV, a Parisian designer, stated

We don’t touch the computer in any way. We are going to have some computers for grading [sizes], but that is all. We have mannequins and we do everything on the mannequin. Nobody works in flat pattern at

all. For me, I will lose the soul of the brand if I work on the flat pattern. So the technology, I don't really care about. It's very dry, ugh, and when you work on the dress form it is very rich. Research is not very good for flat pattern technology. (AVH, 2007)

A French trend forecaster commented on the limitations of *Process Technology* in relation to apparel product development.

But I think that fashion is still very old fashioned when it comes to technology. It's still – the basic thing of making a garment - You have to have a pattern you still have to have - It's still not there yet. It's not like you can rapid prototype a garment – it's not there yet. (PF, 2007)

Information Technology and the Fashion Industry

Invariably, the initial response to the question, "How does technology influence fashion designers today?" gravitated around *Process Technology*. Although their perception of *Process Technology* was fascinating, respondents were asked to direct their thoughts and comments to *Information Technology*, an area of inquiry that has received less attention in the literature.

Information Technology as an Administrative Tool

E-Mail: a necessary evil?

When asked how *Information Technology* has changed the quantity or quality of the designer's work, respondents agreed unanimously that the playing field has changed. "I am a complete technophile...Technology has allowed my company to grow at a faster and more efficient rate than [would have been] imaginable without the technology" (GF, 2007).

Responses indicated that the nature of the use of *Information Technology* was quite varied; however there was general agreement that email facilitates communication. “We use it for practical things, like travel and emails and things like that, like every other office. I think they [high-end designers] use it on a daily basis, to book trips and buy things” (PF, 2007). This American trend forecaster uses the Internet to prepare for her travels in a qualitative way, not just for booking trips.

I go to WGSN, and look around. They have great information on cities, and whenever I am about to travel I go on there and check out what is happening in that city. I have gone through other times and checked out street scenes in cities I haven’t visited in a couple of years. So I definitely use it. (CD, 2007)

The same American trend forecaster responded that she found that emails have made life more complicated. “The people I know are just stuck at their desks, buried in emails. You know, people complain about the problem with emails, and I don’t really think it is a good thing, overall” (CD, 2007). In a similar manner, an American designer expressed reticence in relation to widespread communication technology. “Info technology is good, because it gives you access, but you don’t want too much access; you know with email and cell phones and things like that. Sometimes you don’t want to be too easy to get a hold of. It can be bad” (MT, 2007).

TP, an American designer who embraced *Process Technology* enthusiastically, expressed disdain for the Internet. “The Internet is a great

source of totally useless information" (TP, 2007). The French designer who expressed resistance to *Process Technology* also avoided *Information Technology*.

I don't even read my email. I don't check it... I don't have enough time. I have an office, but I'm never in the office; I'm always out with everybody outside the office. I could be more on the computer but I would be cut off from the personal contact with everybody – from the pulse. (AVH, 2007)

Adding a communication channel.

Although she rejected the Internet and the use of personal email, French designer AVH did, however, recognize the importance of *Information Technology* to her business "the only place I really feel a difference is with the press. Everything is communicated so well, and everybody has the information. That is the real part" (AVH, 2007). Email, in the eyes of this designer, has added another level of complexity to the communication process. "So in fact, yes, we doubled the work. Because before we just sent a fax; now we send a fax and telephone and email" (AVH, 2007).

The idea that the Internet has added an extra layer of complexity to creative work was echoed by this trend forecaster, who gave the following response when asked to comment on the manner in which the Internet has affected the process of trend forecasting.

I think that the trends themselves definitely were affected. We talk about it in a very different way [now]. But the actual process of trend

forecasting has always remained the same. It's just that the information we gather also draws upon the Internet as an extra source. It didn't replace a source; it's just an added source. (PF, 2007)

The availability of information on the Internet has influenced a designer's work, as stated by this American designer.

I don't know how the work of a fashion designer in general has changed, but there is something to be said about the way that everyone has immediate access to things that previously were very hard to know, such as photos of designer collections. (GL, 2007)

Contribution to fast fashion.

Such open access to previously private information posed a problem in the eyes of French industry executive DG, in terms of copyright protection and piracy, which has become a real problem in the luxury industry (Kissi, 2007).

Mobilization of the new technology has changed the rules of the game... [information] technologies are really more aimed to the [popular] media rather than to the industry. Today the fact that we put innovation on the Internet has killed the innovation. If [information] technology allows anyone on the planet to take for free what has not been manufactured yet, of course you kill the image of the designer and you kill the brand. (DG, 2007)

This American designer's perspective confirms the French industry executives' statement, describing the process from a consumer standpoint.

I think that it all contributes to the world of fast fashion no matter

what it is. A girl can go on style.com and then go into Forever 21, and recognize that a dress is a knockoff from Marc Jacobs, when Marc Jacobs could be the farthest thing from her deal. It [the Internet] just moves the fast fashion. [The important component here] is not the girl that buys at Forever 21; it is Forever 21 that uses style.com. (WM, 2007)

Limitations of Information Technology in Relation to Fashion Design

Fashion, creativity and the human touch.

This idea of *Information Technology* “killing innovation” was echoed in the following comment by AL (2007): “The human element has got to stay. If not, the danger is to go toward unification, toward interchangeability and normalization of everything, and that is the antithesis of creativity” (AL, 2007). “We still, and I think the creative industry is the same. We still want the one-to-one physical thing. I think it’s the tactility aspect. People still want to be face-to-face” (PF, 2007). “I have the blackberry and use all kinds of technology, but not for design” (GL, 2007).

In a response related to the importance of palpable connections when discussing ways to source fabric over the Internet, WM commented,

Well you know, my problem is there is no touchy-feely. So you can take a picture, print the swatch off the Internet when you order it, but when you put it [the actual fabric] up against your skin and it feels gross, there is no translation at all. Not to say anything about flatness, and the color differences, and well, it is very different I think. (WM, 2007)

The Internet as a secondary resource.

PF (2007) described how his boss, a major European trend forecaster, uses the Internet as a secondary data source.

Yeah, I mean [my boss] Googles and stuff – it's pretty basic research; it's more like verifying the first intuition. It is just verifying. Everything is intuitive and emotional in its first phase, so maybe you're doing research online in the secondary phase, but not the primary phase

We talked about [my boss] and for example if she's interested in something like covering up, she typed in covering up and looked through hundreds of links just to see what covering up means online, or whatever the concept is. (PF, 2007)

This American trend forecaster also views the Internet as a secondary source, as a way to validate an idea.

I think they do for more to verify what they're already thinking; to be sure they are on the right path. It's not really where they are getting their information from... I go to some of the trend watching sites... It's like I think I know what is going on, but I just want to see pictures. (CD, 2007)

Information Technology, Creativity and Travel

In regard to the nature of their work, another common thread the data revealed was that despite all the information available on the Internet, designers maintained the need to travel. “I still need to travel, though. There is something to be said about the emotional attachment to an item when you see it and feel it and smell it” (GL, 2007). “Only visualizing [is possible] through technology; you

cannot experience through technology" (WM, 2007). "When I'm in Japan, I'm just shopping and going all the time, opening the garments and looking" (SK, 2007).

"It [travel] is important because you need to see. You need to be as open as the world is open. By the Internet I don't travel so much" (AVH, 2007). "Because you need to be there to experience it yourself, and to notice that little jeweled container on the side that may just inspire an entire collection" (CD, 2007).

I don't think they are getting inspiration for researching from [the Internet]. Creators are too pure for that. They are more interested in the actual culture. They want to travel there because of course they understand the best way to know it is to go there themselves. (PF, 2007)

For example I love to travel. I recently went to Argentina and the atmosphere is so wonderful – Paris meets South America. There is resurgence in that country that gives a different perspective. You want to see things that are touched by the hand. (GL, 2007)

When you go to Kyoto in the fall, there is that gray leaden sky and then there are scarlet momiji leaves; those tiny little Japanese maple- I saw this very elegant, very simple coat in my mind in the gray felt with just a tiny smattering of the red leaves coming around here and maybe one on a cuff, and maybe just a black cuff with a little accent of crimson here and there to signify all of that but in a very subtle way. (SK, 2007)

Two comments related the need to physically travel to diverse destinations to the idea that travel helps clear the mind.

But they also want to go there for their own nourishment, I think. A lot of my high-end fashion designer friends are still inspired by South American Andes wool coats and they are still going to Argentina for amazing culture, and they are inspired by the Himalayan mountains. (PF, 2007)

It is good to cut [away from your environment] as well. For example, I was in London yesterday, and it was good to cut from my world here. I did all the big department stores, which I can do in Paris, but “*ce n'est pas le meme regard*” “you don't see it with the same eyes” (AVH, 2007).

The Internet as an Essential Component to the Brand Image

A French trend forecaster confirmed that as a company, they don't travel and exhibit at trade shows as much as they used to, making their presence on the Internet more important for that reason.

Yeah, and if they want to find you, they will just use the Internet. Especially now that we don't go to so many [trade] fairs. Everyone would go to the fair and would see you at the fair with a big installation, and everyone would know you. But now we're not present at all of the trade fairs, so...business-wise we just couldn't handle the idea of missing out on the extra business. What is the business you're losing – the people who are on the Internet – how do they contact you, and how do they find you? They were always saying that they couldn't find us. [so we developed a website]. (PF, 2007)

Having a presence on the Internet was also cited as essential to brand development. “Designers use the Internet to disseminate information, for example look at Marc Jacobs. The Internet provides validation for the brand” (GL, 2007). Customer demand is driving these designers to developing an online presence.

So Actually I think technology the Internet technology is really affecting marketing for a whole lot of artists. And I’m just now getting to market stuff on my own site. I have had people ask me, “Where is the link for the scarves you have for sale?” (SK, 2007)

The following American respondent expressed an ideological reluctance to developing her brand website; however she developed one because she understands how important it is to her brand image.

I have more people calling because they see stuff online than ever. It is an informational website; it does not sell. We’re working on [developing] online sales because of that [consumer interest]. I really don’t like to buy stuff online. I’m really old fashioned, and I don’t trust things online. You know, people can lie [online], and you [get] things that are not the same as what you saw on the Internet. But I have to follow [the Internet wave]; if I want to survive and grow I have to accept the online part” (MT, 2007).

Internet Technology and Creativity

Aiding the Creative Process

Relating the concept of Internet technology to creativity, some designers found it helped their creative process. “It allows the company more sources of

inspiration... Research, to inform me about things. If I want to do a collection about Ikat textiles, or tribes in Peru, etc. I can look that up easily" (GL, 2007).

The Internet is a good resource for us; if I happen to want a picture of a Russian czar's crown, I can get that on the Internet in an instant. That is a great resource. I don't have to go to the library and flip through files and books. In a sense that is a real timesaver. (TP, 2007)

Both French and American designers who lived in remote areas were receptive to Internet technology.

Well I'm a real Internet junkie. I love using my computer, being able to see what other people are creating, being able to go visit places without going there. That really helps me when I'm here in Missouri. Then there are just the materials themselves. There are all kinds of new things always going on with dye works. Of course, I'm using chemical dyes, and there are all sorts of new mediums and new things to use with that. I keep up with that on the Internet, through the companies developing new things. (SK, 2007)

[The Internet] helps as the role of a library with images. It helps now as I live out in the middle of nowhere in the mountains [in France], and I look at it to get visual documents, and I can scan my books instead of using color photocopies. So I guess it has helped to sort of delocalize and work from home. (SR, 2007)

Guarded Use of Internet Technology

Given the undeniable presence of the Internet, responses clarified its role in the development of creative ideas.

If today we have the Internet, the creator must know how to use the Internet. He cannot, of course, become a slave to the Internet, but [using the Internet is necessary] in order to express his passion and go toward the largest opening of his spirit possible in order for him to get the most information and to express his art as best possible. (AL, 2007)

I think it is good and bad for designers. It makes it really easy when you are in a pinch and you can just go online and look at all the shows and at some pictures of some hot spots and places you were not able to get to. But I also think it is taking away from exactly the things that we need, which is to get out there and immerse yourself in what it is, whether it is a hot night club, or a spa, or whatever it is... I think that, hmm, it is overall a good thing; we just have to make sure it doesn't become our world. (CD, 2007)

A French trend forecaster described the importance of being aware of how the consumer uses the Internet, and how it influences society in general, while at the same time staying removed from the phenomenon enough to think independently from its influences.

So of course we research online, and we are interested in the way that the Internet creates new personalities for people, that there are virtual cities where you can buy property, that people are voyeuristically filming themselves and sharing information. So, on a social front we think about it

and we talk about it. But we're not professionals in it. We don't do it ourselves, and we don't talk about it that much. We are kind of skimming the surface; this is happening now, - everybody's blogging, or whatever – this is happening in society, but it's not like we're really online looking at what people are doing and looking at these things. We just know these things are going on. (PF, 2007)

The data revealed that some people put forth a conscious effort to qualify the information, keeping its value in perspective. "It [technology] has positives and negatives. I know what to take and not to take from it (GL, 2007). A French trend forecaster commented that his company was not interested in the validity of the information, however. The value in the information came from the link the trend forecaster could make with another event, reinforcing the evolution of a phenomenon.

I think if we find it conceptually interesting, that [then] we give it value. So we are more interested in the idea behind it, whether or not it is seen by 20 million people. Maybe there is somebody in Japan who all of a sudden is wearing tartan socks, who is doing a blog about his tartan socks, and maybe somewhere else we saw that tartan socks were interesting, then we like the connection that this is happening and we'll talk about that. But it's just one little guy doing tartan socks. It's not really the most influential thing. It's more that we find it interesting. Our opinion of it is the link. (PF, 2007)

Information Technology and Change in the Fashion Industry Culture

The Internet as a Prevalent Force

The respondents as a whole agreed that the Internet is a prevalent force in the world today, one of many components of our technologically-influenced environment.

But it [the Internet] has just been so influential to touch everybody's lives. It's just a given now. It's such a stabilizer, it's everywhere, so you don't question – you know that people are communicating, and by texting, and their values are changing and their manners are changing and their image of themselves is changing. But it's just part of the big picture. I don't think it's a sole Internet thing. (PF, 2007)

I think that in the near future the Internet will change our appreciation and we will allow certain brands to have an international clientele [that is] very interested in some brands that do not yet have the notoriety. In a way today fashion goes quicker and brands have a cycle which is shorter. At the same time [the Internet] is a way to communicate in a network and to create a network [of customers] in a way that is less expensive, costly and long than what we have now and in the past. (DG, 2007)

Ideological Change

Change in Relation to General Behavior

People's thought process has changed in pace with technology; "Technology has changed a lot because the mentality has changed with the technology" (AVH, 2007). There was a general consensus that technology has

been the impetus for change in many ways, in relation to working methods and the type and nature of social interaction. "I think it's [technology] making things better because we're becoming more organized" (CD, 2007).

Well, I think when there was no computer, people had to learn the whole job and it was a physical job. I mean you didn't really sit at your desk the whole day, I mean you had to learn different aspects but you physically had to be one person doing several things. But with the technology everything is sitting in one chair, give or take. (WM, 2007)

I think this reflects the way that people think and live now. They're not attached just to one direct hit. They need to have variety and interaction in some way, and they need to have a twist. Not for novelty, really, just because they've seen and done everything. Overload. (PF, 2007)

Information Technology has opened people's minds to new ways of thinking and behaving. The information gained through the Internet contributes to multicultural awareness. "Technology is the real revolution of our day. It has changed the morals and the relationships among people. Thanks to technology we have access very quickly than before to the cultures of the world, to different civilizations. So we have a much more open spirit thanks to technology" (AL, 2007).

Change in Consumer Behavior

Due to *Information Technology* consumers have evolved in relation to their fashion product expectations. Some have developed higher expectations and

are more conscious of the nature of the fashion product, demonstrating a firm position regarding the nature of the desired product, even to the point of becoming personally involved in the product's development.

Consumer expectations are raised because they are exposed to more, but they are lowered because they are not demanding so much. [The] Internet gives them a chance to experience fashion in a new way allowing the consumer to get exposure with less of a commitment. (GL, 2007)

Technology has given a lot of people a lot more money so they can buy a lot more things so we can make a lot more things.... And also H & M or Gap or... it makes people dress like everyone else. I mean it's fantastic. (AVH, 2007)

What is happening now is that because of the Internet; we now have world-wide communication, people can find me easily. So I get emails from consumers all the time, constantly. Some are good, some are bad, some positive, some negative, some want this and they want that. They have suggestions, sometimes I like them sometimes I don't like them, whatever. It is just that I'm much more in communication...people want to communicate with me. I have had so many people ask me if they can come up to my studio and for me to make clothes for them. Custom-made clothes for them. They want to be involved in the process; they want to choose the fabrics. Not only do they want to have it custom fit for their body, but they want to be involved in the color selection and the fabric

selection and the proportions of it and make changes here. And it is a thing that we have started doing. It is a whole new facet of my career. And so I feel like the impersonalized nature of the Internet has created personalization of people's relationship to their own clothing. (TP, 2007)

Leadership Creativity and Resistance to Information Technology

The following quotes from a French trend forecaster and *Haute Couture* fashion designer indicate, however, that it is quite possible that *Information Technology* may not have permeated the process of applying *Leadership Creativity* to designing luxury-level apparel.

It is an interesting question [How does technology influence creativity?] because I never even thought about it before. And I didn't realize how anti-technology I thought creative people were until I said it. But it's true - when I see all my friends working, I mean they're all between 30 and 45, and they just don't – it's only in the textiles where they embrace it. Maybe in the technical side of making the garment, they embrace it, but in the way that inspiration and creativity goes, they don't use technology (PF, 2007).

I feel like I'm completely 'dépassé" [out of style; old-fashioned]. This is what I feel. I can't enter into that system. I think Oh, I should look on a website and see what is happening, but I don't have enough time. (AVH, 2007)

Summary

Through an inductive process that began with questions related to creativity in general, led to creativity in fashion design and then directed the topic to Internet technology in relation to the fashion design development process at the luxury level, this grounded theory study has resulted in the development of a typology for creativity in fashion design. The typology defines two categories of creative activity: *Leadership Creativity* and *Adaptive Creativity*. This typology of creativity provides a foundation for theory development in relation to the social-cultural and ideological shifts that are occurring in the *Fashion Industry* as well as the influence of Internet technology on creativity.

CHAPTER 5: RESEARCH SUMMARY, CONCLUSIONS, AND IMPLICATIONS

Research Summary

The socio-cultural and economic environment is by nature changing due to various influences. White (1959) described a process for cultural change that involved a vector that initially triggers the process. Technology is recognized as a driver for cultural change (Hamilton 1987, Harris 1980, White, 1959) and this study focused on technology as a vector to examine change in the fashion industry in relation to creativity. Because change is an integral component of the fashion industry by definition, the study of this phenomenon in relation to fashion design creativity is particularly relevant. The *a priori* objective of this research project was to examine the influence of the Internet as a cultural system (White 1959) on creativity in apparel design and product development.

In order to establish feasible research parameters, the topic narrowed to concentrating on luxury-level fashion designers and industry executives with an initial focus on creativity in relation to Internet technology. The areas of inquiry identified at the beginning of the research process were explored through long interviews (McCracken, 1988). The study's intent was to explore the participant's perception of creativity in fashion design, to identify ways in which the Internet enhances or hinders creativity in the fashion design process, to analyze barriers to the Internet's use, to evaluate advantages to the use of the Internet, and to describe projected implications of Internet use on the future of the apparel

industry. Through application of the inductive grounded theory (Denzin & Lincoln 2000) research process, in addition to addressing the above-named areas, the data led to the development of a *Typology for Technology* and a *Typology for Creativity* in fashion design.

Conclusions

The Creative Process

The creative process begins internally, where intellect and emotions blend, developing imagination that is stimulated by knowledge. That knowledge is fueled by an ever-present capacity to learn and transfer stimuli into creative work. “In the designer-driven context, the search for inspiration is very personal” (Cillo & Verona, 2008). Simply possessing the technical and intellectual skill to create does not guarantee the demonstration of creativity, however. The emotional/psychological state of the designer greatly influences creativity as well. “Something has to break inside to take out the creativity” (AVH, 2007). Creativity is part of every aspect of life, and can be described as “the ability and the desire to solve problems without a preconceived concept of the outcome of the process; creativity is having the enthusiasm and the opportunity to solve the problem” (TP, 2007). Richard Florida (2002) described a creative class of people who apply creative thinking to a wide variety of jobs, stating that the ability to think creatively will be key to social distinction in the future.

Creativity in Fashion Design

Contrary to the practice of creating fine art where the end product’s function is primarily aesthetic, creating for the *Fashion Industry* is more complex

and involves developing a product that (a) has specific aesthetic and functional properties, (b) triggers psychological reactions related to desire and need and (c) is adopted by a group of people for a limited amount of time. Given this context, creativity in fashion design is linked to marketability, however these two concepts can be considered inherently conflicting paradigms; "It is by virtue of the laws of imitation that we obey fashion. It is nearly by a protestation against these laws of imitation that fashion tries to be creative" (AL, 2007). Adopting a consumer focus, often seen as providing commercial success, can stifle the creative process or at the very least predetermine the outcome to some degree. Because the purpose of fashion design is to create a product with a practical function, the creative fashion designer's task is to attend to the consumer's needs in a subtle manner, creating a harmony which the consumer recognizes and connects to, while at the same time defining product characteristics that are unique.

Fashion design creativity functions within the larger cultural context and is dependent on the "*cultural arbiters of fashion* referring to the extant general cultural system in which both the fashion system and individual fashion consumers operate" (Hamilton 1997). Cultural arbiters of fashion relevant to fashion design creativity include the fashion gatekeepers who decide which products to feature in magazines, online, on famous people, and in the retail stores. Although other factors most certainly come in to play, gaining the attention of the fashion gatekeepers is often dependent on the creativity of a designer's work and the brand image (DG, 2007).

Typology of Creativity in Fashion Design

Creativity takes many forms (Florida, 2002). The *Typology for Creativity in Fashion Design* reflects the creative process in relation to developing a product whose “integral components are novelty and change” (Kawamura, 2005), within the context of the *Fashion Industry*, defined as all companies or individuals involved in the creation, production, promotion, and sale of items that have specific aesthetic and functional properties, that trigger psychological reactions related to desire and need which are adopted by a group of people for a limited amount of time. The data revealed that the creative process in relation to Fashion Design in the context of the *Fashion Industry* is inextricably linked to problem solving. The type of creative technique employed depends on the problem to be solved, which in most cases directly relates to the customer who will purchase the garment designed. When examining creativity in fashion design, two distinct categories of creativity emerged: *Leadership Creativity* and *Adaptive Creativity*.

Leadership Creativity involves focusing on highly refined technique, materials and craft to develop a product that is fashion-forward, innovative and directional. *Adaptive Creativity* involves developing a product with well-established parameters or limitations, especially those related to price and production, exacting a heightened awareness of operations, management, methods and technology. Figure 5.1 provides a visual depiction of the typology of *Leadership Creativity* and *Adaptive Creativity*. Each type of creativity leads to fresh product for the appropriate market. *Leadership Creativity* and *Adaptive*

Creativity have eight comparable components related to the work of a fashion designer, however the nature of the components are distinct. These components relate to the product and are: (1) research and development, (2) selling price, (3) nature of product, (4) consumer taste level, (5) technique, (6) number of designs created and reproduced in a season, (7) consumer perception of lifecycle of product, and (8) source of design inspiration.



Figure 5. 1 Typology of Creativity in Fashion Design

Careful examination of the eight components of this typology shows that each component has distinct characteristics according to creativity type.

Leadership Creativity requires an important investment in research and development and designers for this category look to primary, abstract sources for inspiration, while *Adaptive Creativity* puts less emphasis on research and development and designers for this category find inspiration from secondary sources, most often by examining garments that have already been made. A *Product with Leadership Creativity* (PLC) is expected to be sold at a high price, the designer is not expected to generate a high number of designs per season, and the product is produced in low numbers to maintain exclusivity. The nature of the PLC is innovative and directional, reflecting highly developed technique, appealing to a customer with a refined taste who considers the purchase an investment. A *Product with Adaptive Creativity* (PAC) is expected to be sold at a midrange to low price with considerable emphasis given to establishing efficient management of operations, materials, and production methods while maximizing the potential of *Process Technology* to bring costs down. The designer of the PAC is expected to generate a high number of designs per season that meet strict requirements related to price and consumer demand. The PAC is produced in large numbers, appealing to customers with a wide range of taste levels, from refined to popular, who consider the lifespan of the garment to be relatively short.

Understanding and pleasing the target market's taste level is an important factor to consider when defining the type of creativity employed. A consumer's taste level can be defined in terms of refined or popular. Refined taste is

considered to be characterized possessing receptivity for and understanding of the unusual; understanding and appreciating the beauty of subtle, unique design characteristics. Popular taste draws on influences in popular Western culture, especially those related to sexuality and beauty. Taste level can be influenced by the customer's socio-cultural and geographic environment as well. Generally, urban dwellers are more receptive to a refined taste level and suburban/rural dwellers are more likely to embrace the popular taste level, however in the United States, urban costal dwellers are even more likely to cultivate refined taste than urban Midwestern residents (SK, 2007).

Being attentive to the taste level can enhance a designer's success when it enables him or her to better define a niche market, however creating a product that is creative yet satisfies a wide range of taste levels offers a particular challenge. The creative challenge when addressing the popular taste level relates to satisfying established parameters related to price, consumer desires, and market constraints while the creative challenge at the refined level relates more to exploring and experimenting in a context with few boundaries.

Multiple commonalities exist between the two types of creativity. Both types of creativity require "thinking differently" (GL, 2007) and both involve "problem solving" (TP, 2007). Regardless of the market segment, it can be said that "In order for something to be fresh and new, it doesn't have to be weird" (WM, 2007); it "can be unusual, but not always unusual and not necessarily very different" (TP, 2007). Finding design inspiration is another common component regardless of the creativity type, however *Leadership Creativity* draws from

primary, often abstract inspirational sources, while *Adaptive Creativity* chiefly draws from literal representations of apparel or accessories.

Creative types in relation to price-point

Creative thinking in the problem solving process is required in fashion design regardless of the price-point; the nature of the creative activity that follows the initial inspiration differs, however, according to the intended final purchase price. The type of creativity chosen for the fashion design problem to be solved also relates to the level of sophistication applied when translating design ideas into products that can be manufactured in appropriate quantities, meeting both the aesthetic and economic expectations of the target market. One subject, a designer, described a psychological link for the consumer between a higher price-point and receptivity to *Leadership Creativity*. “I think the main difference between upper-price and lower-price clothing is that consumers can usually spend more money for clothing that is more original and more unique” (TP).

Figure 5.2 gives a visual representation of the relationship among factors relative to the creative process involved when producing a product for a specific market.

Fashion designers who practice pure *Leadership Creativity* are in the minority; the majority of fashion design work involves adapting to trends that are introduced by creative leaders. In France, where the concept of fashion leadership was first established by King Louis XIV in the 17th Century (DeJean, 2006), the language contains two distinct terms for people who practice these two types of creativity. True *Leadership Creativity* is practiced by the *créateurs*, or creators, and *Adaptive Creativity* is practiced by the *stylists* or designers. A

French designer who was interviewed for this study explained the distinction:

A stylist, designer, is not really a creator. It is a man of synthesis; meaning that it is someone who studies the images that the true creators, who are very rare by definition in the entire world, have created, and he will work on these images to use them to serve the market he is addressing. (AL, 2007)

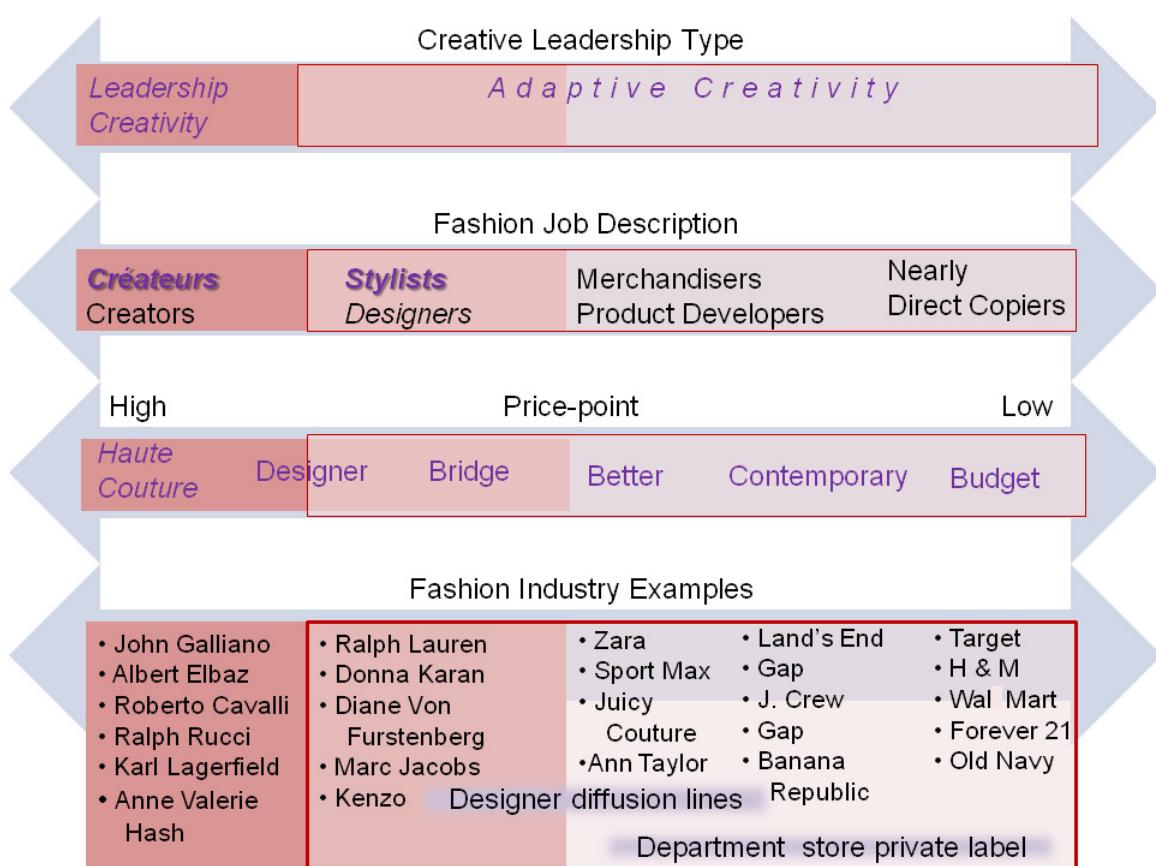


Figure 5. 2 Leadership Creativity and Adaptive Creativity in relation to job type and price-point, with early 21st century fashion industry examples.

Examining this phenomenon on a continuum, Figure 5.2 situates *Leadership Creativity* and *Adaptive Creativity* within the current fashion industry paradigm in terms of types of jobs related to producing a product, the price-point relative to those job types, and illustrates the concept with examples of designers and companies in the early 21st century who fall within the specified range from *Leadership Creativity* to *Adaptive Creativity*. As the overlapping, light pink, section of Figure 5.2 indicates, price-point restrictions are not always a deterrent to the application of *Leadership Creativity*. When a company has a brand name that is recognized for *Leadership Creativity*, such as Kenzo, Marc Jacobs, or Donna Karan, for example, *Leadership Creativity* can still be demonstrated within a reasonable price range.

At Kenzo, the design team “creat[ed] trends, [we didn’t] follow them” (SR, 2007), the products designed can be visualized in a pyramid (personal conversation with Susan Rooke, 2006) with a few very expensive, very creative pieces at the top and the cost levels of rest of the collection decreasing yet still reflecting the directional, *Leadership Creativity*. Figure 5.3 provides a visual representation of this concept, in the context of fashion collection/line development. Accomplishing the task of maintaining the product characteristics defined by *Leadership Creativity* at a lower price-point requires application of the skills identified as key to *Adaptive Creativity*; the designer drew on her extensive knowledge of methods, techniques and technology to balance the collection with pieces that maintained the allure of directional design and were executed in a way that enabled producing higher quantities at lower prices. Globalization has

given many more cost-effective production options to designers, providing more options of details available to the consumer at the lower price-points.

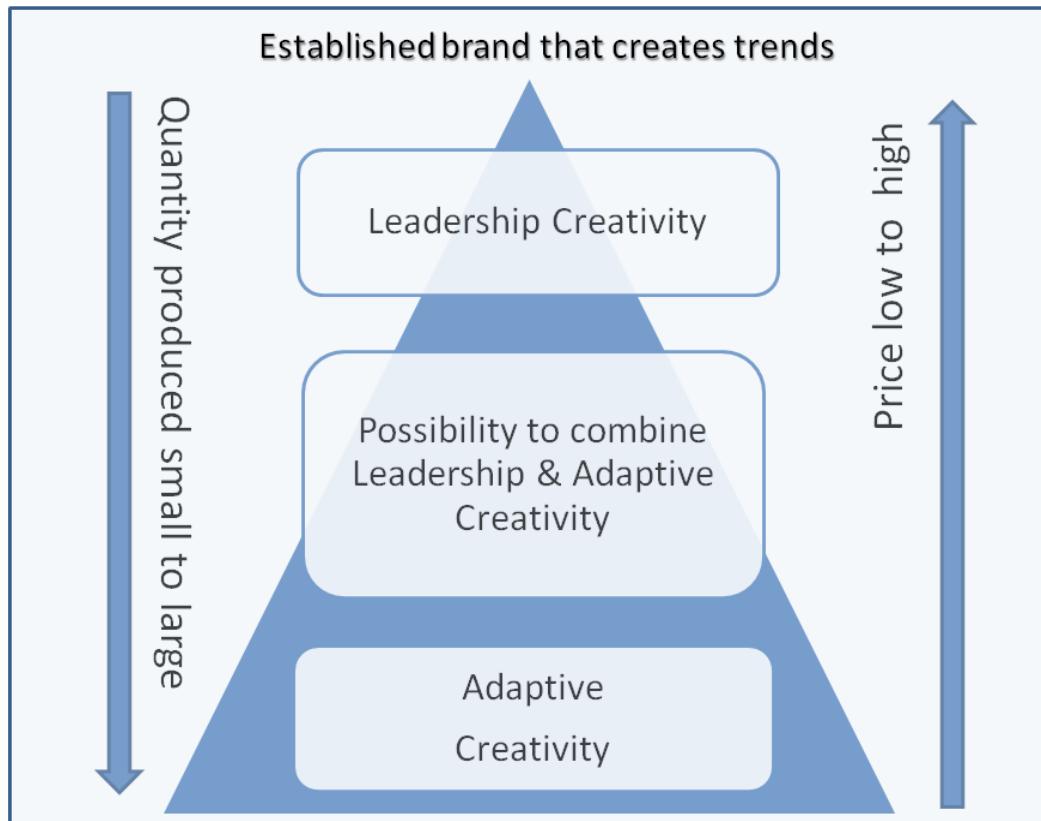


Figure 5.3 Combining Leadership Creativity with Adaptive Creativity

Another combination of *Leadership Creativity* and *Adaptive Creativity* can be accomplished through adopting a creativity type to a category of product, such as applying *Leadership Creativity* to textile design, then practicing *Adaptive Creativity* to the development of apparel using the textile design (SK, 2007). Designer SK, when discussing her textile design development, spoke of “[starting] with a color and a mood and a vision of a place or a season... Kyoto in the fall, there is that gray leaden sky and then there are scarlet momiji leaves...”

(SK, 2007). However when she advanced to the stage of defining apparel shapes to cut the textiles into, she liked to “see what is selling at [Henri] Bendel or Barneys … you go to the designers and see what is out there” (SK, 2007).

This *Typology of Creativity in Fashion Design* is in no way hierachal; there is no implication that one type of designer or creative activity is *better* or *worse* than another. As the above examples demonstrate, given the structure of the fashion industry in the 21st century, a company’s strategic plan may draw on both types of creativity. The point of this discussion is to determine distinctive characteristics of the two types of creativity in fashion design in order to better understand and support the creative process, regardless of its type.

Technology and Creativity in Fashion Design

Technology is an essential component of today’s business world. “Each period has had its revolution. Technology is the real revolution of our day” (AL, 2007). Whether or not one embraces technology in personal activities, fashion designers are inherently influenced by technology because designers synthesize the world around them and technology is part of today’s environment.

A review of the literature related to technology and the fashion industry led to the definition of two types of technology in relation to fashion design: *Process Technology* and *Information Technology*. *Process Technology* relates to the hardware and software that enable the product to be produced. *Information Technology* relates to hardware and software that facilitates communication of ideas, images and information. As Figure 4.1 indicates, the Internet is the area where these two types of technology intersect.

Research data analysis demonstrated a few common attitudes toward technology among participant responses, however most responses reflected extreme differences. Common characteristics among respondents regarding *Information Technology* related to geographic location, use of email, use of the Internet to book travel and to research an intuition that had been derived from a primary source. In both France and the United States, designers who lived within a major metropolitan area primarily rejected the idea of employing the Internet in the inspirational phase of their design work. In contrast, the designers who resided outside of a major metropolitan area embraced the use of the Internet for fashion design inspirational research.

All participants agreed that email use was important, however three participants did not read their own email; they delegated the task. A well-known Los Angeles-based fashion designer stated: "I am a complete technophile. I have the blackberry and use all kinds of technology, but not for design" (GL, 2007). Five participants expressed concern about the intrusion of email into other aspects of their jobs. Another common thread was that email has increased the workload. "Before we just sent a fax; now we send a fax and telephone and email" (AVH, 2007). All respondents confirmed that they did use the Internet to book travel arrangements and to purchase personal items, citing the Internet's accessibility and flexibility to be major advantages.

The trend forecasters in both France and the United States found the Internet to be useful in their work as a secondary resource by *googling* a concept they had established through primary research. Designers also went to the

Internet to research a cultural or historic concept: "If I want to do a collection about Icat textiles, or tribes in Peru, etc. I can look that up easily" (GL, 2007). If I happen to want a picture of a Russian tsar's crown, I can get that on the Internet in an instant" (TP, 2007). The Internet provides "a library with images" (SR, 2007).

Process Technology and Fashion Design

Although exploring the respondent's perception of *Process Technology* was not the initial intent of this study, when prompted to comment on technology in fashion design, respondents invariably gravitated to *Process Technology*. Common responses related to *Process Technology* centered on three themes: speed and accuracy, skepticism about the effectiveness of virtual simulation, and enthusiastically embracing *Process Technology* for the purpose of pattern grading and textile design.

Three respondents described advantages of *Process Technology* related to completing work faster and keeping work organized, however "the quality of the work is only as good as the person who is putting it into the computer" (WM, 2007). Those respondents who gave an opinion about virtual prototyping and 3-D simulation were thrilled at the potential of these technologies, but concurred that there must be additional research and development before widespread adoption will be remarked.

Process Technology was noted to be particularly important in relation to textile development. Developments in *Process Technology* have provided designers with new fiber characteristics leading to new fabrics, which designers

found quite inspirational. Designing textile prints has benefitted greatly from *Process Technology*, from conceptualization using simulation software to digital printing.

In stark contrast to some respondent's receptive approach to *Process Technology*, AVH, a prominent Parisian designer, stated that she "...will lose the soul of the brand" (AVH, 2007) if the prototype development process even strays from the current 3-D draping focus to flat-pattern. Completing patterns on the computer, therefore, would further distance the design development process from its creative foundation.

Responses refuted the possible assumption that if one had an affinity for *Process Technology* adoption of *Information Technology* would be automatic, or vice-versa. When a respondent embraced *Process Technology*, he or she sometimes, but not always, embraced *Information Technology*. This American designer, who embraced *Process Technology* enthusiastically, developing all of the prototypes for his designer-level evening gowns on the computer, expressed disdain for the Internet. "The Internet is a great source of totally useless information (TP, 2007)." Inversely, the French designer who expressed resistance to *Process Technology* also avoided *Information Technology* to the point of not using email, however, she did recognize the importance of *Information Technology* to her business, especially in marketing and public relations "the only place I really feel a difference [related to *Information Technology*] is with the press. Everything is communicated so well, and everybody has the information" (AVH, 2007).

The idea that the Internet has added an extra layer of complexity to creative work was expressed by a French trend forecaster, who confirmed that the trend forecasting process has not changed with the advent of the Internet, however the Internet is another addition to all the other cultural influences trend forecasters must address.

Advantages and Disadvantages to Internet Use for Fashion Design Creativity

The availability of information on the Internet has influenced a designer's work, due to the manner in which "everyone has immediate access to things that previously were very hard to know, such as photos of designer collections" (GL, 2007). Open access via the Internet to previously secret information can be seen from two perspectives; problematic for companies that focus on *Leadership Creativity*, and a force that drives sales for companies that focus on *Adaptive Creativity*. French industry executive DG (2007) views the availability of designs on the Internet as a problem in terms of copyright protection and piracy. Because much of the driving force behind the fashion industry revolves around mystery and surprise, the availability of fashion designs on the Internet before the merchandise enters the sales floor creates a potential economic disaster for companies that have invested in the production of PLC's (Products with *Leadership Creativity*). The financial blow takes place because the companies that produce PAC's (Products with *Adaptive Creativity*) will have already produced adaptations of those fashion designs and saturated the market with them, rendering the original creation undesirable by the time it reaches the sales floor.

In stark contrast to that point of view, an American industry executive described a situation where the availability of fashion information on the internet to be a driver for sales for the company that practices *Adaptive Creativity*, especially those that focus on *fast fashion*, or low-priced apparel that requires 30 days or less to go from concept through production and arrive on the sales floor. “A girl can go on style.com and then go into Forever 21, and recognize that a dress is a knockoff from Marc Jacobs” (WM, 2007). In this case, the Internet was a resource for both the company, Forever 21, and the customer. The *Adaptive* designers at Forever 21 were inspired by the Marc Jacobs dress from the runway, presented online about 6 months before arriving on the Marc Jacobs sales floor. The customer was prompted to buy because the Forever 21 dress sold at a price she could afford and she related the style to the one by Marc Jacobs, making her feel fashionable.

Barriers to the Internet’s use for fashion design

The idea that *Information Technology* could “kill innovation” was echoed by more than one respondent. An aversion to the influence of the Internet on the creative process was expressed by several respondents who noted a need for the human element to provide variety and uniqueness, and a need for a face-to-face, tactile experience. The Internet is a 2-dimensional resource at this time (3-D virtual worlds are still in the experimental stages); “only visualizing [is possible] through technology; you cannot experience through technology” (WM, 2007). Designers and trend forecasters unanimously expressed the need to travel in order to gain the inspiration needed to fuel the creative process. “There is

something to be said about the emotional attachment to an item when you see it and feel it and smell it" (GL, 2007). "Because you need to be there to experience it yourself, and to notice that little jeweled container on the side that may just inspire an entire collection" (CD, 2007). Two designers also expressed the need to travel to clear their minds and see the world around them in a different way. The Internet is often used, however, to prepare for travel in a qualitative way, not just for booking trips, but by providing a platform for researching the destination.

Projected Implications of Internet Use on the Future of Creativity in the Fashion Industry

Internet use is an inevitable component of a fashion designer's environment as we advance into the 21st century. The respondents as a whole agreed that the Internet is a prevalent force in the world today, one of many components of our technologically-influenced environment. This research has shown that successful companies in the fashion industry gravitate to establishing a presence on the Internet, that the Internet is a phenomenon to watch but to use guardedly, and that designers who practice *Leadership Creativity* find inspiration from non-Internet related sources but use the Internet to research a concept and/or to confirm or refute an intuition.

In many instances customer demand has driven designers to developing an online presence. A French trend forecaster confirmed that as a company they do not travel and exhibit at trade shows as much as they used to, making their presence on the Internet important for brand identity and customer access (PF, 2007). Having a presence on the Internet was unanimously cited as essential to

brand development. “Designers use the Internet to disseminate information; the Internet provides validation for the brand (GL, 2007).”

Given the undeniable presence of the Internet, its role must be kept in perspective while developing creative ideas. It is important to keep a balance between traditional work and the use of the Internet: “The creator must know how to use the Internet. He cannot, of course, become a slave to the internet” (AL, 2007). Over-dependence on the Internet can result in homogenization of ideas, “taking away from exactly the things that we need, which is to get out there and immerse yourself in [the culture] … [the Internet] is overall a good thing; we just have to make sure it doesn’t become our world” (CD, 2007).

This study has demonstrated that a fashion design professional should be aware of how the consumer uses the Internet and how Internet use influences society in general, while at the same time staying removed from the phenomenon enough to think independently from its influences. “[technology] has positives and negatives. I know what to take and not to take from it (GL, 2007).” The nature of the influence drawn from the Internet varies widely. For example, French trend forecaster PF (2007) commented that his company was not interested in the validity of information found on the Internet; the value came from the link the trend forecaster could make with another event, reinforcing the evolution of a phenomenon.

Information Technology and Change in Social Structure and Ideology

The phenomenon of the Internet has influenced people’s ideology, or world view, “Technology has changed a lot because the mentality has changed

with the technology (AVH, 2007)." This research revealed a general consensus that technology has been the impetus for change in many ways, from making the work we do more efficient (CD, 2007), to changing working methods by requiring less active physical contact with our environment and increasing sedentary virtual contact (WM, 2007).

Information Technology has opened people's minds to new ways of thinking and behaving, by changing the type and nature of the social interaction we seek. Because technology provides such a wide variety of stimuli, in order to satisfy and be attractive the nature of expression needs to be varied. People are "not attached just to one direct hit. They need to have variety and interaction in some way, and they need to have a twist. Not for novelty, really, just because they've seen and done everything. Overload" (PF, 2007). Regardless of one's physical location, with technology, a vast amount of information is readily available and people are more knowledgeable about diverse subjects than ever before. "Thanks to technology we have access [more] quickly than before to the cultures of the world, to different civilizations. So we have a much more open spirit thanks to technology" (AL, 2007).

Due to *Information Technology* consumers have evolved in relation to their fashion product expectations. Some have developed higher expectations and are more conscious of the nature of the fashion product, demonstrating a firm position regarding the nature of the desired product, even to the point of becoming personally involved in the product's development. A couture-level dress designer in New York explained that "Because of the Internet ... people

can find me easily. I get emails from consumers all the time...I have had so many people ask me if they can come up to my studio and for me to make clothes for them" (TP, 2007). TP (2007) went on to explain that not only did these customers want custom-made clothes, they wanted to participate in the design process, pushing his business to develop a new division.

Technology still has not permeated the process of applying *Leadership Creativity* to designing luxury-level apparel, as this quote from a French trend forecaster demonstrates:

[How technology influences creativity] is an interesting question because I never even thought about it before. And I didn't realize how anti-technology I thought creative people were until I said it. But it's true - when I see all my friends working, I mean they're all between 30 and 45, and they just don't – it's only in the textiles where they embrace it. Maybe in the technical side of making the garment, they embrace it, but in the way that inspiration and creativity goes, they don't use technology (PF, 2007).

Suggestions for Future Research and Limitations of the Study

This study developed a better understanding of the creative process in relation to fashion design and the influence of the Internet on creativity in the design and product development of luxury-level fashion. As an exploratory study one consequence of the data analysis is to initiate dialogue and further research. Questions that have been discussed through this study, but merit further investigation include: Does the use of *Process Technology* enhance the creative

process or does it limit the boundaries of creativity and impose parameters of uniformity relative to the capacity of the technology? Does the proliferation of information through the use of technology result in a customer who is more interested in a creative product, or does this information saturation remove the elements of mystery and surprise, therefore rendering the consumer indifferent to the creative value of the product? Is the creative designer's work facilitated by the availability of *Information Technology*, or does the simple nature of the availability of the information render it useless to the creative fashion design process?

This study has provided an initial analysis of the interaction between creativity and technology, resulting in a typology for creativity and a typology for technology in relation to fashion design. As a qualitative, inductive project, the resulting overarching framework provides a foundation from which researchers can examine these phenomena. Because of the industry segment selected, luxury, the subjects interviewed practiced primarily *Leadership Creativity*. Additional research exploring the relationship between the creative process and technology at different levels of creativity in fashion design, including designers who mix *Leadership Creativity* and *Adaptive Creativity* as well as those who focus uniquely on *Adaptive Creativity* will provide a well-rounded view of the phenomenon. The subjects in this study were selected following the purposeful sampling method; further exploration of the interaction between technology and creativity using discriminative sampling would enrich perception of the phenomenon.

Implications

Relevance of this study to the Fashion Industry

Drawing on the *Typology for Creativity in Fashion Design*, designers, managers, directors, business owners educators, and students will be able to refine their efforts to better meet the needs and wants of their target market while maintaining a profitable bottom line, while lawmakers will be able to draw on the *Typology for Creativity in Fashion Design* to develop a way to copyright fashion designs in the United States.

Adapting working methods to accommodate the parameters of *Leadership Creativity and Adaptive Creativity*, companies will create a more efficient, fulfilling and profitable workplace. Managers and business owners will be able to draw on the *Typology for Technology in Fashion Design* to make more educated decisions regarding the acquisition of software and investments in information technologies. Being able to delineate components of the creative process in fashion design will enable managers to better understand and support creative efforts, thus resulting in higher productivity and profit margins. Working fashion designers will gain insight from the analysis of the use of the Internet in relation to the creativity type. Understanding the analysis of the influence of the Internet on the creative process will aid fashion designers to define best practices for their specific market type. Overall, understanding the concepts presented by this research will enhance the development and retention of creative talent. Building creative communities and keeping them vibrant is an important element in the quest for viable economic development (Florida, 2005).

Educators will find this study useful as they develop curricula that prepare designers, product developers and managers to work in this new paradigm where the use of technology is prominent. Courses relating to fashion design creativity can clearly refine student's skills related to both *Leadership Creativity* and *Adaptive Creativity*. The *Fashion Industry* is by nature competitive, and companies today are exploring a wide range of options to help them gain a competitive edge. A visit to the design offices of prominent fashion companies in major metropolitan areas revealed that a high percentage of employees in creative positions come from around the world. It is important that educators create learning systems that foster fashion design creativity in order for graduates to compete in this highly competitive employment market, and the *Typology for Creativity in Fashion Design* provides a foundation for development of courses to meet the demands of the professional world. Making the distinction between *Leadership Creativity* and *Adaptive Creativity* will assist students when making career choices, enabling them to define their strengths and focus on the type of creativity where they perform the best.

Lawmakers involved in the copyright debate would find the *Typology for Creativity in Fashion Design* to be a useful tool when defining the intellectual rights to a fashion design. One of the most controversial points regarding copyrighting fashion is that there is no standard by which one can measure the level of originality of a design. This is due, in part, because all clothing shares certain common characteristics, however this barrier can be overcome by evaluating the design using the guidelines established in the *Typology for*

Leadership Creativity. Copyright law could be adjusted to assume that products with the characteristics of *Leadership Creativity* indeed can be defined as “original works of authorship” (www.copyright.gov/circs/circ1.pdf). Just as one can copyright novels, which are essentially words grouped together in a specific way, so could one copyright original fashion designs using the guidelines for *Leadership Creativity*, because the emphasis is not on the components, in this case sleeves and collars instead of words, but on the way that the components are developed and grouped together. Another powerful argument against copyright protection in the United States is the litigation that widespread copyrights would most likely instigate (Palank, 2006). By clearly delineating the parameters of designs eligible for copyright protection, the number of copyrights would be limited. The number of designs eligible for copyright would be restricted to those that demonstrate *Leadership Creativity*. Adopting the *Typology for Creativity in Fashion Design* as a framework for establishing fashion design copyright authorization would finally allow the work of creative fashion designers in the United States to gain respect and protection comparable to the aesthetic and technical value of their work.

All persons involved in design-related areas of the *Fashion Industry* will benefit from this analysis because it helps to consciously understand the changes that are taking place at social structural and ideological levels of the immediate micro-culture and the larger macro-culture in which the *Fashion Industry* functions. Marvin White’s (1959) idea that cultural evolution does not always lead to improvement is relevant to the result of this study when one

considers that the influence of Internet technology may lead to homogenization of design ideas if creative design inspiration shifts from primary sources in the natural environment to the Internet where the information is filtered and two-dimensional. As we advance into the 21st century, continuous monitoring of the interaction between technology and creativity is necessary in order to preserve the beauty of the past while embracing the possibilities of the future.

APPENDIX

Interview Protocol

Interview Protocol

Project: Technology and Creativity: Fashion Design in the 21st Century

Time of interview:

Date:

Place:

Interviewee:

Position of interviewee:

Brief description of the project:

Thank you for agreeing to participate in my doctoral dissertation research about the impact of technology on creativity. I am interviewing luxury-level designers regarding their perception of how creativity develops in today's working environment. I have prepared a set of questions to guide this interview, and will be taking notes as you speak. I will analyze the results and work with my professor to develop a framework for understanding this phenomenon. Your identity will at all times be anonymous, and there will be absolutely no way to trace your responses back to you.

Do you agree to participate willingly in this study?

Creativity

How do you perceive creativity?

How important is creativity in fashion design?

How does the product's price point/target market impact the level of creativity you strive for?

Inspiration.

What sources do you refer to for inspiration?

How do you use these sources?

What is the relationship between the inspiration and the product category?

The inspiration and the consumer?

Technology

How does today's technology impact your creativity?

How does technology impact you in areas such as travel, quantity and quality of work?

How does technology impact your perception of customer expectations

How does technology impact your perception of his or her employer's expectations?

Do you use the Internet for design inspiration? How?

Does your customer use the Internet? How? Does that impact the way you design and research?

How have you seen the work of a fashion designer change with the advent of the Internet?

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Thank you so much for your participation. I just want to confirm to you that your responses will be kept anonymous. Would you mind if I contacted you within the month with other questions or to confirm my understanding of your responses?

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