FASHIONISTA

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Contents

SMART TEXTILES AND ITS APPLICATIONS

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Abstract:

E-textiles are fabrics that feature electronics and interconnections woven into them, presenting physical flexibility and typical size that cannot be achieved with other existing electronic manufacturing techniques. Smart textiles are materials and structures of textiles, which can sense and react via an active control mechanism for the environmental conditions called stimuli. They can show significant change in their mechanical properties (such as shape, colour and stiffness), or their thermal, optical, or electromagnetic properties, in a handy manner in response to the stimuli. They are systems composed of different apparatuses and materials such as sensors, actuators, and electronic devices together.

Good examples are fabric and dyes that will change their colour with changes in PH, Clothes made of conductive polymers, which give light when they get electromagnetic signals, fabrics, which regulate the surface temperature of garments to achieve physiological comfort.

Wearable electronics applications can help people to survive in their everyday life or workplaces by aiding or the tools for coping with a range of tasks. Numerous commercial products are available as technologies and dedicated devices. However, there are only a few examples of integrated smart clothing applications.

Key words: e-textiles, smart textiles, wearable electronics, applications

Introduction:

Wearable electronics is still a fairly new field of research and as a result much of the terminology has still to gain widespread acceptance. The history of wearable electronics goes back to 1960s when Edward Thorp and Claude Shannon designed, implemented, and tested the first known

wearable computer intended for roulette number prediction. The system, the size of a cigarette pack, consisted of a 12-transistor CPU, two micro switches as an input device for the toes, a loudspeaker as an output device, and a radio link. This application represents a special purpose system capable of doing only advanced specified tasks and also demonstrates the important feature of smart clothing applications, i.e., the usage of special UI devices. Its use, however, was forbidden in casinos at the time. One of the first public uses and, therefore, a starting point in the development of wearable electronics was Sutherland's implementation of the Head-Mounted Display (HMD), which was utilised in virtual reality applications.

To realise this computing approach in practice, further development is needed such as in the miniaturisation of electronics as well as in new types of specialised UIs for ubiquitous applications. Hardware technologies having the strongest influence are the numerous emergent wireless communication technologies, improving processing and storage capacity of embedded platforms, new electronics packaging technologies, as well as high-quality display technologies.

The wearable electronics business powers from over $14 billion in 2014, to over $70 billion in 2024. The overall size of the smart textile market is estimated to be $289.5 million and expected to exceed $1,500 million by 2020.

Definition
Smart textiles are materials and structures of textiles, which can sense and react via an active control mechanism for the environmental conditions called stimuli. They are capable of showing significant change in their mechanical properties (such as shape, colour and stiffness), or their thermal, optical, or electromagnetic properties, in a handy manner in response to the stimuli. They are systems composed of different apparatuses and materials such as sensors, actuators, and electronic devices together.

Good examples are fabric and dyes that will change their colour with changes in PH, Clothes made of conductive polymers, which give light when they get electromagnetic signals, fabrics, which regulate the surface temperature of garments in order to achieve physiological comfort.

Smart textiles can be divided in to four types based on their functions:

- Passive smart materials are materials or systems, which only sense the environmental conditions or stimuli. They are just sensors. They show up what happened on them, such as changing colour, shape, thermal and electrical resistivity. These kinds of textile materials are more or less comparable with high functional and performance textiles. Micro fibres are very passive, waterproof; but at the same time permeable to water vapour.

- Active smart materials are materials and system that can both sense and respond to the external conditions or stimuli. Their prior functions are sensing and giving reaction to the stimuli. This shows they are both sensors as well as actuators to the environmental conditions.

- Very smart materials are materials and systems which can execute triple functions; First, they are sensors which can receive stimuli from the environment; Secondly they are able to give reaction based on the stimuli; Thirdly they can adapt and reshape themselves accordingly to the environmental condition. We can compare this system with the animal chameleon; Chameleon has a nature of taking the colour of the surrounding then react by changing the skin colour of itself to the colour of the surrounding and adapts to protect itself from the predators.

- Materials with even higher level of intelligence develop artificial intelligence to the computers.

These kinds of materials and systems are not fully achieved in the current investigation of human beings. This may be achieved from the coordination of those very smart (intelligent) materials and structures with advanced computer interface.

Wearable and electronics textiles: Electronic textiles are textile materials, fabrics, yarns and threads that incorporate with conductive fibres. Literatures call them smart fabrics, which are not only – wearable but also have local monitoring, computation as well as wireless communication capabilities.

Electronic textiles are an emerging interdisciplinary field of research that brings together specialists in information technology, micro systems, materials and textiles. They use kinds of conductive textiles, sensors, computational elements, and data and pwer distribution.

Sensing circuitry can be incorporated directly to washable and wearable clothing's as well as built as yarns to collect information, monitor vital statistics and report them over a wireless

channel for further processing. Every electronic-textile needs a power supply, electronic components and connection method to the textiles. Products such as the Nu Metrex Athletic garments that monitor heart rate, fabric keypads for controlling iPod, and textile heating products are examples. They can be used to create sensors, thermo-chromic displays, data transfer systems, antenna and heating elements.

As a consequence of the integration of wearable electronics or computing into clothing platforms, potentially with intelligent textile materials and non-electronic equipment, the outcome is smart clothes.

To highlight wearability and the clothing usage of wearable computing systems, they adopted the term smart clothing to refer to special-purpose wearable computers or electronics integrated in clothing. Smart clothing is composed of ordinary clothing with added intelligent structures. These structures can be formed with electronics, non-electronic equipment, intelligent textile materials, or their combinations. The purpose of smart clothing is to improve or augment the functionality of ordinary clothing in various ways such as providing better protection for their users or providing new ways to utilise their clothing. In order to complete the definition of smart clothing, we also require the systems to include facilities to sense their user or the environment and the capability to react to these measurements. Such reactions can be autonomous actions as with the control of electrical heating by human temperature measurements or provision of information to users.

Since the user is in close contact with wearable electronics, it is obvious that users' acceptance is of fundamental importance. Some of the attributes affecting this are usefulness, easy and safe usage of the systems, social acceptance, and wear ability.

A crucial issue is how the electronics are sited and attached to soft clothing material. This integration of electronics has a direct bearing on the usage comfort of clothing.

Conductive fabrics: Current technologies used for conductive textiles include:
- Weaving of separate metal threads into the textile
- Printing/deposition of conductive polymers

- Printing metallic inks onto the surface

- Plasma deposition on the threads

- Electro less plating

Smart clothing design: The overall design of wearable electronics systems utilising a clothing platform or accessories is a demanding process since it requires multi-disciplinary group work. In addition to electronics and software engineers, representatives from human sciences, clothing and textile sciences, material science, and industrial design are needed to ensure functional designs.

Requirements for electronics design: The usage environment for smart clothing is mobile, which means that users move indoors, outdoors, and from one to the other. Regardless of the specific wearable electronics application environment, in comparison with office computing environments, the mobile environment poses greater challenges for electronics design. This is due to a variety of environmental factors, such as changing temperatures and humidity and means that the usage environment is more diversified than for desktop or laptop computers. Therefore, electronics need to be protected against adverse environmental conditions with suitable encasings that withstand a wide range of weather conditions such as cold and rain if needed.

Electrical power in smart clothes is utilised near the human body. Therefore, special attention needs to be paid to safety issues so that faults pose no danger to the user. Smart clothing applications are intended to be fully integrated systems, in which clothing and electronics are indistinguishable. At the moment, however, not all electronics withstand washing and so a good solution is to construct modular systems that can be utilised in different platforms and use components that can be easily replaced.

Modularity of the wearable electronics system is a key requirement when targeting the same concepts for several user groups. This requirement applies to the hardware part, which allows users to connect different functional modules to form an assembly and also to the software part, which needs to adjust to changing environments and hardware configurations. Even in the same

user group, those users who have been able to adjust the functionality and UI according to their own preferences will adapt to new techniques more easily than others.

Requirements for clothing design: The reasons for wearing clothes are defined as protection, modesty and privacy, status, identification, self-adornment, and self-expression. Smart clothing applications are integrated into clothing. As a result, smart clothes also need to maintain the properties of clothing. Thus, clothing-like elements are utilised as often as possible in smart clothing application implementations. These include soft and flexible wiring, thin and flexible Printed Wiring Boards (PWBs), and clothing-like connector elements.

At present, smart clothing applications containing electronics need to be taken off for washing.

Suitable materials are available for electronics protection, but this will add to the cost of systems. In addition, these materials do not protect clothing or additional components from the mechanical strains they undergo in a washing machine.

Materials used: Depending upon the application, fabrics like cotton, acrylic, nylon, carbon fibers etc. are blended with various compounds to render them with both sensing and signal transmission functions. These are primarily used to measure strain, temperature, displacement, pressure, electric currents, magnetic fields, etc.

Wearable electronics applications: Wearable electronics applications can help people to survive in their every day life or workplaces by providing assistance or the tools for coping with a range of tasks. Numerous commercial products are available as technologies and dedicated devices. However, there are only a few examples of integrated smart clothing applications.

By contrast, there is a multitude of wearable electronics applications including much mobile computing equipment, portable music players, heart rate monitors, wrist-worn computers, and pedometers, all of which can be utilised while on the move.

These applications are typically used for hobbies and entertainment purposes.

The first reported commercial smart clothing applications were jackets that contained a MP3 player and a mobile phone. Later came clothes for snowboarding. The snowboard jacket contains an integrated fabric UI and mini disc (MD) player or a MP3 player. A wearable electrical heating

jacket designed for mountaineers and a rescue vest containing an integrated communication system have also been introduced.

Examples of accessory-based applications are running shoes with intelligent cushioning and running shoes connected to a music player to support and guide the running performance with the aid of music.

In addition, a jacket containing pockets for a variety of electronics equipment has been launched. This jacket also provides the option of utilising a solar cell panel for battery charging and a patented Personal Area Network (PAN) solution for device connections.

Symbol Technologies has developed a commercial data collection system for applications in industry such as warehouse inventory and transportation control. This is designed to be worn on the wrist and equipped with a finger-worn bar code reader for ease of data collection.

Assisting applications for disabled: Several wearable applications for individuals suffering from physical, cognitive, or sensory impairment have been reported, from handheld applications (e.g. eye glasses) to prosthesis. Typical examples are guidance applications for the visually impaired such as VibraVest, which provides tactile user feedback about nearby objects. Another example is a haptic navigation guidance vest, which contains four by four arrays of tactile micro motors in the back of the vest to provide haptic directional information. Tactile feedback can also be utilised to assist the deaf.

Assisting applications for guiding, navigation and information access: Examples of wearable applications are the range of guiding, navigation, and information applications, which can help people in unfamiliar surroundings reach their desired destinations or provide information about shops, tourist attractions etc. For implementation of these applications, various positioning techniques are needed. For outdoor positioning, GPS is typically utilised.

The touring machine is a bulky backpack-wearable computer system combining mobile computing and augmented reality (AR) in a guiding application at a university campus area. Similar AR systems are also utilised for larger geographical areas. There is also a wearable guide

designed for use on a campus area and capable of representing location-based multimedia information.

All the application examples of integrating GPS-based guidance systems in wearable computers utilise backpacks and also usually bulky HMDs to enable visibility of real world- and computer generated-assistance in the same visual field. Because of the inconvenience of these large and bulky GPS applications, we have also studied integrating GPS in clothing in inconspicuous ways. This application was designed for fishing and thus, required small and lightweight electronics.

Assisting collaborative and context-aware applications: Wearable electronics have been proposed as help in remote communication and establishing a collaborative community to enable conversation while performing other tasks. These collaboration tasks are particularly well suited for maintenance, repair, inspection, and construction tasks, in which expert advice can be needed. An example of such an application is the maintenance and repair of trains needed by railroad technicians. In this application, expertise at a distant location can provide help in fault diagnosis and repair, utilising digital data, audio, and images.

A step forward is the collaborative wearable systems that can also sense the environment remotely. This makes communication between the parties more natural because context-related information can be sensed in both places with no unintentional filtering. Wearable applications can also assist people with no network connections and help, for example, in the acquisition of new skills for carrying out complex tasks. These, however, are not collaborative applications.

A well-known application to improve overall quality of life is Steve Mann's WearComp system. His system was inspired by still-life imaging and contains a camera-equipped wearable computer to allow users to observe their surroundings. This can also enhance their security, for example, by alerting the user of potential danger.

Assisting applications in workplace: Wearable electronics can also provide important benefits for people in a wide range of jobs. These include assistance in mobile office environments as well as in dangerous environments such as the military, the rescue services, or in space. However, most applications reported relate to manufacturing, maintenance, and inspection tasks

such as aircraft maintenance, repair, and inspection. A wearable computer can provide additional information in diagnosis, troubleshooting, and repair as well as aid to memory for inspection lists, in which certain steps must be taken to ensure safety.

In addition, significant savings in time can be achieved when information is available through wearable systems. Wearable computers are also utilised to assure quality in food processing plants and to help in the documentation used by bridge inspectors by means of speech input assistance and the addition of automated notices to collected data. A wearable computer utilised with HMDs can provide vital information without interrupting the progress of the job by also enabling access to the relevant expertise.

Wearable computers have also been proposed for weapons maintenance as well as for training tasks for military personnel. Wearable applications in the field are challenging to design because of the unpredictable nature of the military context. Additional equipment should not encumber the user and hands free operation is clearly desirable. Fortunately, military clothing and other equipment offer considerable space for incorporating components. An HMD, a speech input, a navigation system, and a weapon system offer significant advantages such as hands free operation, information retrieval in the field, location information, and help in the preparation of field reports.

A clothing-like approach has been taken in the development of Sensate Liner, which detects bullet wounds in the torso using optical fibers. The system is constructed in a shirt. In addition to penetration occurrence, classification and localisation, it can measure heart and respiration rates and also movement. This system demonstrates techniques, which are also generally needed in wearable medical monitoring.

Firefighters can also experience similar life-threatening environments involving threats from radiation, high temperatures, and air shortages in air bottles. For stricter supervision in such working conditions and better communication between individual firefighters and the leader of the team, smart clothing systems should be able to withstand high temperatures. Wearable computers are also recommended for helping rescuers in disaster zones to provide assistance in such areas as data collection tasks and locating rescue team members.

Though manned space travel has a history of several decades, a microgravity environment leads to changes in physiological conditions with long-term missions being particularly risky. Important health issues in space concern radiation, loss of bone mineral density, behavioral changes caused by isolation, and changes in cardiovascular and pulmonary systems. In order to counter these risks to health, spacecraft and space stations are equipped with appropriate data measurement and collection devices. Space travel provides an ideal opportunity to utilise wearable systems to ensure long-term health monitoring before, during, and after journeys. An example of this is a sensor jacket, which can record Electrocardiogram (ECG), pulse, and tremor and also as well as produce muscular and cardiovascular loads with a hand dynamometer. Wearable computers also provide help in dangerous extra-vehicular or difficult tasks.

Assisting wellness technology applications: Physiological measurements in different forms are considered to be the key applications of wearable systems. Clothing is in close contact with the skin, providing the chance to perform measurements, which require skin contact. Clothes also offer privacy in personal health monitoring. Perhaps the most popularly known wearable electronics health monitoring systems are the heart rate monitors that are widely utilised in sports. These systems are usually based on a plastic-based sensor belt worn around the chest and a UI on the wrist. More clothing-like properties for wearable electronics systems are achieved by utilising ECF-based sensing elements. These are being studied in several research institutes and ECF electrodes are typically utilised to measure ECG, heart rate, and skin conductivity.

The earliest reported systems for physiological signal monitoring were usually simple and single- or two parameter-devices measuring, e.g., ECG, temperature, or accelerations of individuals. Later, prototypes for measuring typically skin temperature, heart rate, ECG, and accelerations were implemented. Nowadays the area of wellness technology has received considerable publicity for a number of reasons such as population aging and an increasing number of different life- style related diseases. Present physiological monitoring systems are typically based on wrist-worn devices or clothing-based systems. Various shirt, vest, suit, and accessory solutions contain textile electrodes to measure several physiological quantities and accelerations of individuals. In addition to data collection, wearable systems can be utilised for real-time

feedback to enable continuous monitoring in every day life, thereby improving non-institutional care.

Entertainment and leisure-time applications: Various popular wearable electronics systems have been designed and implemented for musical entertainment. In addition to these, systems to help in creating networked music have also been designed and implemented. Items of clothing such as jackets, pants, or gloves become musical instruments when equipped with the necessary electronics and tactile sensors to create music and a network connection for shared listening and musical performance. A wearable system for creating every-day music based on different sensors in the user's jacket produces music based on the user's movements and environment Computer augmented art is also created utilising apparel such as footwear. With this system, a dancer wears special shoes equipped with sensors to measure different kinds of steps. According to the steps, the system generates music and computer graphics.

AR-based wearable electronics have been utilised for different games. Typical examples are games that have been changed from desktops to mobile environments in order to form a combination of computer-generated and real worlds. HMDs or PDAs are typically utilised as feedback devices. However, games for carrying fewer devices such as smart phones have also been designed. Another type of AR applications is a training help for billiards, which assists the player in executing strategic shots.

Conclusion:

Previously smart textiles were presented as imaginary products and used in very limited areas. After scientific development smart textiles are presented as the future of the textile industry.

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Relationship between Interior Architecture and Fashion Design

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This survey is the Nature of Relationship that Fashion Industry and Interior Architecture might have. It somehow highlights on the dimension of interior architecture and Fashion. How it is effect on the society, with the time, Technology, Art, Science and Culture. For centuries, Both Interior Architecture and Fashion have been used by people. This is the most important and visible relationship that these fields share. On the other side, there are so many technologies, techniques, concepts, designs that these profession share. These names are pleating, folding, twisting, computer design software, texture, drafting, Design, emboss and many more. So many Fashion Designers inspired by a mosque, church, temple, vintage house to design their season collection, and it is the same on the other side also. So this survey explores if these two fields are related to each other, if they do, how those effects will come on the final product.

Keywords: - Fashion, Interior, Architecture, Art, culture, Aesthetics, design.

Relationship between Interior Architecture and Fashion Design

As interior designers, one of the most important aspects of staying ahead of developing trends is to stay current with what's going on in the world of fashion. Most people know, or at least won't find it hard to believe, that the leap from fashion trends to interior trends isn't very far. Perhaps before the good old days of digital media, the leap was a bit further from what we can fathom today; but with the inside scoop so readily available, it's no wonder why fashionable forms of expression are seeping into the world of interior design.

Back before haute couture was only revealed to the rich and famous at New York and Paris Fashion Weeks, "regular" people had to wait for the trickle down of high fashion to easily accessible mediums like magazines and TV. Now, however, we only have to Google a designer's name to see his or her latest and greatest trend-setting runway collection.

So what does this have to do with interior design? The answer is that the relationship between the two industries has never been more intertwined than it is today. With access to style trends so readily available, it is not taking years for consumers to correlate how they express themselves through their dress to how they express themselves through home decorating.

Let's take a closer look at the relationship between fashion and interior design…

The Differences between Interior Design and Fashion

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While the subjects of interior and fashion design are similar, it's important to understand that they are not one and the same. Perhaps the most prevalent and obvious difference between interior design and fashion design is that fashion trends are usually more fleeting than the trends of interiors. Although there are several reasons why this may be the case, the obvious one remains that changing an outfit is much easier and less expensive than a kitchen, living room, bedroom… and so on.

Another difference between fashion and interior design is what influences each. Whereas social and economic lifestyle patterns can be credited to a lot of what drives the world of fashion design, it is arguably the world of fashion design itself, which drives the world of interior design and décor. So what does that mean exactly? Simply put, fashion designers are wise to take into account cultural themes and events while creating new lines. For example, when there are social movements, such as green living, savvy fashion designers incorporate them into every detail of their creations. From organically sourced fabrics, to light and clean looking designs, a designer who is targeting this movement would be sure to include elements of the lasting trend in every stich. Traditionally, as the movement begins to take hold of mass consumers, it then transfers to interior décor and styles. Therefor, one could argue that in many applications, what influences fashion design is only what influences interior design if the trend takes off and becomes widely popular.

The Similarities Between Interior Design and Fashion

Because there are so many different mediums, which enables the masses to access new and emerging fashion trends instantaneously, the difference of what influences what has begun to diminish amongst consumers – basically clothing designers and furniture designers are seeing the same thing at the same time and capitalizing on it. Meaning that if you are interested in the floral collection of clothing your favorite designer just released, chances are a furniture manufacturer has already produced collections with similar patterns.

Perhaps the greatest and most notable similarity between interior and fashion design is that they are both the means by which an individual can express him or herself freely. Both allow for the consumer to stand apart from others and portray how he or she feels about whom he or she is. Whether it is the perfect dress or sofa, the right necklace or end table, finding a style and trend that speaks to an individual is a significant aspect of existing in today's society.

Designers Are Becoming Designers

Due to the inevitable shift in how fashion impacts interior design, more and more famous fashion designers are adding interior collections to their arsenals – or at least partnering with architects and designers to create interior lines that speak to their aesthetics. What this means for consumers is that iconic couture that influences style choices are now more readily available than ever before. Basically, if you have a preference for style, the chances that you can find furniture lines that speaks to your tastes are very high.

Looking To The Future

In today's day and age, the chance of you not being able to find home décor that expresses who you are is unlikely. As the world of fashion continues to evolve, interior designers are becoming more and more acclimated to the notion that they must share their space with the fashion gurus who were once only a source of inspiration. In conclusion, if you're looking to understand where interior design trends come from, we recommend looking to the runways of your favorite fashion designers.

https://www.youtube.com/watch?v=fpMRde1Hbzc

CROSS POLLINATION, A SMART STEP IN FASHION INDUSTRY

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Abstract:

World is becoming a global village and so is the creative mind getting wider with the advancement in technology and experimentation which has been greatly witnessed in fashion world also, as a lot of mix and match is encouraging the budding fashion designers to bridge the gap between the loopholes which creates a distinguish platform in the world of business. We have thesaurus of art and cultures across the world and the cross pollination of these have made fashion interesting. Like other fields are trying out fusion, so is the fashion industry that is getting linked up with new technologies and techniques that is bringing a drastic change in taste and preferences of people.

The paper will discuss about the various new trends being adopted and experimented by fashion curators for taking a step ahead than the already existing once.

Keywords: Cross pollination, fashion, trends, technology,fusion.

Introduction :

Fashion as a misconception is only refered to garments, but actually it is everywhere and we are always surrounded by it. Fashion is distinctive and is a trend wherein a person dresses in a particular style. It refers to the style that is prevailing in market and the trendy creations of the designers, technologists, engineers and design managers. In the technological advanced dynamic atmosphere, it's difficult for the designers to survive if they confine themselves to one specific field of art and style in garments. The world is of experiments and the plaftform that we have in current scenario is the innovative products and conglomeration and fusion of cultures in the form of various selling articles. Cross pollination is a term that came into existence long back. We are very well aware with the term Cross pollination which actually helps in formation of something new when two different genes come in contact , giving rise to something new and refreshing.

Same concept has been taken by the fashion world which has led to invention of various innovative ideas in constructing trendy garments and increasing the market share by reaching out to the consumers by mergers and acquisition and establishing their existence in the forign market.. For example, in june 2018, Reliance Brands, a subsidiary of Reliance Retail, has entered into a joint venture with Italian fashion house, Sixty Group, to retail its brands in India , this is a good opportunity for the Indian brands to get a good market share and association with such brands will boost the sales and step falls in the stores. On the other hand , India's largest make-up brand Lakme joined hands with fashion designer Manish Malhotra for launch of a high performance long wear make-up line - Lakme Absolute. Recently , watchmaker Timex is collaborating with Tarun Tahiliani for bridal line of jeweled watche and branded 'TT for Timex', to the US and Canada next year Titan is watchmaker brand that has been roping up with various designers for luxury watches for example, Rohit Bal, Masaba Gupta and so on. Even Bombay Dyeing is getting Sabyasachi Mukherjee to create exclusive signature line of bed linens and bathroom linens boosting the branding exercise.

Recently , William McComb , a drug industry veteran from Johnson & Johnson being chosen as CEO to lead one of America's largest fashion companies, Liz Claiborne Inc. The only reason to appoint him is to get his intelligence for expansion of multiple brands through new products and new advertising strategies.Cross pollination of western and Indian styles , cultures , arts and design gave a new platform for the fashion ramps with a creative and artistic collections which no one can think off. In Chanle's pre fall 2012 collection – Bombay Paris was inspired by and dedicated to the Indian textiles. Museum at FIT took an initiative to generate a cross- continental dialogue , they gathered 10 students from the Fashion Institute of technology in New York City and Centro De Diseno , Cine y Television in Mexico city to look the sustainability in fashion, and what it signifies to each of them and the results turned out reall well as a multifunctional outfit, a recycled-tire sandal and a toxic dress.

Even Tiffany Vasilchik, Chief growth officer of Landor , global leader in brand consulting and design says, cross pollination : a new approach to creating product stories through color and

materials. Also, celebrities are lso entering the field of designing like Hrithick Roshan has his own apparel brand, Gauri kHan is an interior designer , Twinkle Khana is also an interior designer and top 20 celebrities have turned designers.

A trend started by Sabyasachi when he launched his décor collection with Pottery Barn last mont, soon couturier Rohit Bal came up with a new line of apparel and décor for Good Earth.

The fashion designers have entered the fields of designing interiors for restaurants and hotels and working over various fields where fashion was not a part . Innovation is the seed of a fruit that we will bore once we are able to connect and combine nonobvious ideas and objects .Along with your ability to reframe problems, it engages your imagination and thereby unlocks your innovation engine. Essentially, you need to be able to reorganize and rearrange the things you know and the resources you have in order to come up with brand-new ideas.

So , if we want the creativity and innovation to keep on banging the market , we have to take initiative to think out of the box and recreate and redefine the fashion world and cross pollination can be a great move and concept that almost all the big giants are adopting in the competitive world.

EVOLUTION AND METAMORPHOSIS OF RETAILING

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ABSTRACT

The paper "Evolution and metamorphosis of Retailing" speaks about Retailing, from where it has evolved and putting light on to the current retailing scenario and the path is showing towards the betterment.Retailing is a process of selling consumer goods through various distribution channels.Ages ago it was practiced as barter system. Barter system is a direct exchange of goods or services with less involvement of money, Bartering was an idea more of meeting the basic requirement than looking into money or a business.Later, the concept of stores has developed for the convenience of customers to purchase goods. This brought-in the concept of sales and purchases. The term sales and purchase have spread lot of scope for retailing. Brick and mortaror the concept of storesinvolve direct customer interaction. Advancement in technology, Lifestyle and lack of time on the other side had shown the path for online shopping.Online shoppingconsents customers a more convenient shopping even though it does not give a direct shopping experience for the customers. Online portal has reduced the physical presence of stores. The products purchased online are delivered at the customer's door.We are now in the world of digitalization and this makes the retailing process easy and gave more space for the retailers to think, plan and deliver better products and services to the "King" – Customer is the King!

Key words: Retailing, Brick and mortar, Barter system and online business

EVOLUTION AND METAMORPHOSIS OF RETAILING

INTRODUCTION

The paper "Evolution and metamorphosis of Retailing" speaks about Retailing, from where it has evolved and putting light on to the current retailing scenario and the path is showing towards the

betterment. Ages ago barter system was the method to fulfill one's need. It is an exchange of goods or services which was necessary for the survival. The concept of store has developed as the needs and wants were increasing. Brick and mortar or store is a place which supplies products based on the requirement. This also brought in the concept of buying and selling which demand money to acquire things. The buyer is the one who purchases products or services and the seller is the one who sells the products. As the needs kept on increasing, the stores are modified into different types. The development was enormous and thus the term retailing came in to existence. Retailing is a process of selling products through various distribution channels. Currently the retailing has developed to a status where the physical presence of store is not required. Retailers consider the customer as king and providing the easiest method to purchase products through e portal. E portals are electronic medias which makes the transaction process easy and convenient.

BARTER SYSTEM

In olden days, the products were exchanged to fulfill the basic needs. This system of exchanging goods and services are called as barter system. It was also a sign of unity.Barter is a system with less involvement of money, it creates a strong bonding between people and develops a helping nature.This was also helpful for those who cannot store many things.This system had some disadvantages like the requirements were not matching, lack of proper information about the product source and products were not evaluated or measured equally. Hence, barter system was unsuccessful in fulfilling the requirement of people and started with a brick and mortar concepts.

RETAIL STORES

Retailing is a process where the involvement of money is more. Retailers brought in the concepts of buyer and seller. Buyer and sellers are the two strong pillars of retailing. In olden days,owning a store was something great and unimaginable. Now owning a store is very simple but not getting customers. Stores came into existence because of the unfulfilled needs through barter system. Store is a place, from where some one can purchase goods. Presence of stores created many business ideas. Different types of stores are developed for selling various products.

- Department store: It is a store from where a person can get various products.

- Discount stores: This is a store which sells goods at a discounted price.

- Super market: This is a type of store which sells the food products and house hold items.

- Warehouse stores: This type of store sells bulk quantity products at discounted price.

- Mom and pop stores: A store own by an individual, sells all the products and unorganized.

- Specialty store: A store sells only a range of special product.

- Dollar stores: A store which sells products at lower price.

- Malls: A place where many stores are set up under one roof.

Each type of store work in different way. Brick and mortar has its limitations such as fixed costs, inconvenient for customers to shop with busy lifestyle and cannot follow up with the customers. Development of e commerce has reduced the limitations of stores.

E PORTAL

Advancement in technology, Lifestyle and lack of time on the other side had shown the path for online shopping. Electronic portal is to gather the information, analyze and process the data. In e-portal or e stores, the customers are connected to supplies through electronic media. The benefits of online store are less investment in terms of employees, less set up cost and easy to grab the customers from all over the world.Brick and mortar stores would face a space constraint wherein e-portals can have unlimited storage of goods as it is spread across. Online store can be controlled from anywhere and it provides easy access for sellers as well as buyers. E-portal describes about the product with image and get a clear idea about the product. It also gathers the feedback from individual customer which is necessary for any business for the betterment. E portals can easily prompt the customers to purchase through sending notifications. Goods are delivered at customer's doors in the online shopping system.

CONCLUSION

Change is only permanent in life. The Life style has an impact on retailing. Life became easy and opportunities to explore and experience things are more. The customers are considered as King and provided with lot of shopping options. The influence of information technology also shown its foot prints on retailing through the concept of e-commerce. Electronic media is playing

an inevitable role in the growth of retail sector. Brick and mortar would not be completely vanished as few customers prefer to experience the feel of virtual shopping.

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