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## Designing A Virtual Fashion Show Using Artificial Intelligence Applications to Convey the Saudi Clothing Heritage

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### Search Introduction

current era is witnessing rapid and noticeable change in various areas of life in general, especially in the field of knowledge and various sciences, as their applications have multiplied and grown to a large extent and have contributed to the broad cognitive and technological progress in various areas of life and led to the emergence of modern technologies in the field of virtual reality and the development of trilogy programs. Al-Baad ( Al-Sahara , Aisha Hamad Ali, 2018 , designing a virtual museum for traditional costumes in the Kingdom)

New horizons have emerged for people to interact with exhibits and create lively and attractive displays by allowing the use of virtual reality technology such as images.

2D and 3D animation, and rotation and moving tools

Models for presenting presentations in a digital form that simulates reality, which conveys their message in a more effective manner and has a tangible process that facilitates many tasks for us, the most important of which is the field of fashion design presentations (Ahmed , Kifaya Suleiman, 2017 , virtual reality and digital presentation as a means of documenting traditional costumes, 2017 ).

Fashion shows, in their modern sense, are considered an important factor in spreading fashion lines and presenting innovations in the field of fashion design. In this sense, they are one of the phenomena of societies that embrace the causes of civilization and progress. It is inconceivable that ancient societies did not know fashion shows, and it is also inconceivable that they began this. Societies have become the way they have become today. Rather, they have evolved until they have reached their current form, and this has been accompanied by a tangible development in their methods (Al-Rashidi, Halima Muhammad Mishari, 2019 , Designing a Virtual Fashion Show Using 3D Programs)

The progress of a people can be measured by the extent to which they preserve their heritage and traditional arts.

The Kingdom is characterized by an ancient history extending back a thousand years. Our civilization is expanding with it, and perhaps traditional costumes are one of its most important

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elements. Traditional costumes are considered a documentary source that reflects an aspect of traditional life and an important element of the material heritage. It is distinguished by the richness of its colors, the simplicity of its lines, and the splendor of artistic beauty that reaches a high degree of mastery and precision in the work. Despite the primitiveness of the tools, there are few

capabilities, and let us preserve it and derive from it what gives us our distinctive personality and our own character, which achieves authenticity and harmony with the ways of living in modern society ( Al-Bassam Laila Saleh, 2023 A glimpse into the traditional heritage of women's clothing in the Kingdom)

And to contribute to enriching the field of fashion design presentations in general and performances

Traditional fashion, in particular, with what is new in the world of modern technology, and to move away from implementing realistic fashion shows and move towards virtual fashion shows , through which the problem of the difficulty of implementing realistic fashion shows and the lack of acceptance of the work of models due to customs and traditions in the Kingdom of Saudi Arabia , which called for the idea A virtual fashion design show linking modern technology with ancient clothing heritage , using multiple artificial intelligence applications to transfer and display the Saudi clothing heritage widely. (Al-Rashidi , Halima Muhammad Mishari, 2019 , Designing a virtual fashion show using 3D programs, 2019 )

### **Research Problem**

The research problem is formulated in the following questions :

- 1 -What are the applications of artificial intelligence used in designing a virtual fashion show?
- 2- What is the possibility of designing a three-dimensional virtual fashion show using artificial intelligence applications to transmit clothing heritage? Saudi?
- 3- virtual fashion show using artificial intelligence applications in transmitting the Saudi clothing heritage ?

### **Research Aims**

Designing virtual fashion shows to convey clothing fashions Saudi Arabia to benefit from the capabilities of intelligence applications in designing a virtual fashion show. To use artificial intelligence applications to design a virtual fashion show to convey the Saudi clothing uniform .

Creating fashion designs inspired by Saudi heritage using artificial intelligence applications

Preserving the Saudi clothing heritage

### **Research Importance**

Contributing to enriching the field of fashion design and fashion design shows by taking advantage of modern technology techniques

Developing awareness of traditional Saudi fashion by using virtual fashion shows. Linking fashion design with artificial intelligence by using artificial intelligence applications to design virtual fashion shows.

Contributing to the transmission of the Saudi clothing heritage

### **Research Hypotheses**

- 1- There are artificial intelligence applications used to design a virtual fashion show.

- 2- A virtual fashion show can be designed using artificial intelligence using the clo3d program to convey the Saudi clothing heritage .
- 3- There are statistically significant differences in the virtual fashion show using artificial intelligence applications in transmitting the Saudi clothing heritage .

## **Previous Studies**

Study by Al-Bassam Laila Saleh ) 2023 AD ( titled: A glimpse into the traditional heritage of women's clothing in the Kingdom of Saudi Arabia

The study aimed to study the traditional clothing of women in the Kingdom of Saudi Arabia, its types, what distinguishes it, and its connection to the environment.

The study presented the names and types of traditional clothing from various regions of the Kingdom Arabic Saudi Arabia What distinguishes it from economic, social and natural aspects.

Study by Abdullah, Hind Amin ( 2021 ) (titled:

An analytical study of traditional clothing in the Hail Organization and for its use in creating fashion designs.

The study aimed to try to revive the traditional heritage represented by traditional clothing for women in the Hail region, analyze and design traditional clothing for women, achieve aesthetic and functional values , and the extent of the success of the designs produced from the point of view of specialists.

The study concluded that the new designs under research achieved the design constructs (elements - foundations), and the aesthetic aspects of the design were achieved, including the aspects of excellence and modernity that it contains, in accordance with modern fashion lines, and in a manner that is also consistent with the customs and traditions of Saudi society, which confirms the possibility of benefiting from the study Traditional clothing in the Hail region in creating new contemporary designs for women's clothing for the evening period.

Fida study , Laila Abdel Ghaffar Abdel Samad) 2021 (titled:

Standards governing imitation of traditional fashions in the Kingdom of Saudi Arabia Saudi Arabia .

The study aimed to find controlling standards for imitating traditional costumes in the Kingdom of Arabia Saudi Arabia And measuring the degree of originality of the executed fashion

The study identified the most important standards that preserve the authenticity of traditional costume, which are: the importance of completely preserving both the structural lines and the basic decoration in terms of shape and location. While it was noted that changing the color of the garment, or the width , or the shape and type of decoration, or simplifying it; It does not diminish the authenticity of the outfit

Al-Zahrani's study by Khayrah Awad ( 2020 AD ) titled N

Using modern technologies to develop the trend towards designing and embroidering fashion for Saudi women from the point of view of female students of the Fashion Design Department

The study aimed to examine the reality of using modern technologies and their obstacles in designing fashion for Saudi women

The study found that there were statistically significant differences between the average scores of female students in the pre- and post-application of using modern technologies in developing the trend towards fashion design and embroidery for Saudi women in favor of the post-application. There are statistically significant differences between the average scores of female students in the pre- and post-application of the reality of using modern technologies in designing and embroidering fashion for Saudi women in favor of the post-application. There are statistically significant differences between the average scores of the female students in the pre- and post-application regarding the attitude of the female students of the Fashion Design Department towards designing and embroidering fashion for Saudi women in favor of the post-application. There are statistically significant differences between the average scores of female students in the pre- and post-application of the obstacles to using modern technologies in designing and embroidering fashion for Saudi women in favor of

Post- application . And the differences in the opinions of female students regarding the use of modern technologies in developing the trend towards fashion design and embroidery for Saudi women.

study , Halima Muhammad Mishari ( 2019 ) entitled:

Designing a virtual fashion show using 3D software.

The study aimed to benefit from the possibility of 3D programs in designing a fashion show and measuring the students' attitude towards the proposed virtual fashion show .

The study found the effectiveness of using 3D programs in designing a virtual fashion show that simulates a real fashion show, based on applying the foundations and rules of fashion shows. The results also showed that there is a positive trend among female students to use 3D design programs in the educational process and the possibility of adapting 3D programs in implementing a show. virtual fashion ,

Study of Sahara , Aisha Hamad Ali(2018 ) entitled:

Designing a virtual museum for traditional costumes in the Kingdom Saudi Arab .

The study aimed to develop awareness of fashion Traditional Saudi women's clothing is a sample of Saudi society by collecting and displaying some of these costumes in a virtual electronic museum on the Internet .

The study found that there are no statistically significant differences between the average

Visitors' scores in awareness of traditional costumes in the Kingdom of Saudi Arabia before visiting the virtual museum . There are statistically significant differences between the visitors' average scores in acquiring the knowledge included in the virtual museum before and after visiting the museum in favor of the post-application. There are no statistically significant differences in the visitors' attitude towards development. Cultural awareness of the traditional heritage of fashion through the virtual museum after visiting the museum.

Study by Hassan, Sherine Sayed Muhammad (2017 ) entitled "Developing a fashion design system based on digital fashion design programs."

The study aimed to compare digital fashion design programs, in order to determine the advantages of these programs, and to prepare a comprehensive system for digital fashion design by comparing those programs identified with research.

The study concluded that there are statistically significant differences between the average scores of the female trainees (students) for the skills included in the system in favor of post-test skill performance. There are statistically significant differences between the average grades of the female trainees (graduates) in favor of the post-application, and there are statistically significant differences between the average grades of the female trainees for both “students and graduates,” and raising the trainee’s skill capabilities in the field of digital fashion design.

Study by Ahmed, Kifaya Suleiman ( 2017 ) entitled:

Virtual reality and digital display as a means of documenting traditional costumes

The study aimed to analyze the characteristics of virtual museums in an accurate way that would facilitate their use in creating a virtual museum that documents traditional costumes in an environment

A virtual model that simulates the known reality, as well as the use of 3D digital simulation to show the fine details of traditional costumes and the environment in which they are used.

The study demonstrated the validity of using digital technologies represented by digital modeling, simulation, and virtual reality in building a virtual museum that documents Egyptian heritage.

Study by Al-Shehri, Amal Muhammad Abdullah ( 2018 ) entitled:

Employing the aesthetics of traditional fashion Men's clothing in the Asir region in creating men's designs using the computer.

The study aimed to identify the most important aesthetic features Distinctive men 's fashion The traditional style in Asir and the use of some computer programs specialized in drawing and design to highlight the aesthetic aspects of the quoted designs .

The study found that there are statistically significant differences at the significance level (0 ) . 05 ) among the twelve designs proposed using the programs ( Adobe Illustrator - Adobe Photoshop ) and these differences were in favor of the “eighth design” according to the opinions of the two samples of the study (specialists and consumers) in achieving

Aesthetic and functional aspect together

Study by his father-in-law, Basma Muhammad al-Sayyid ( 2017 ) entitled:

Developing a fashion design system based on digital fashion design programs technology and its role in enriching leather goods

The study aimed to identify the development of a fashion design system based on digital fashion design programs.

The study concluded that it is possible to create different innovative models of office equipment

Designs to suit all tastes. The research concluded with a set of recommendations

Among them, strengthening the relationship between scientific research and the leather goods industry in general

The desk set in particular,

Study by Abdel Qader, Iman Abdel Salam ( 2022 )

The role of artificial intelligence applications in fashion design and fashion forecasting in the ready-made clothing industry

The study aimed to study artificial intelligence, its methods and applications, study the fashion design stage, and predict fashion trends.

The study reached several results, the most important of which were: Factories use the AutoCAD program and the design method based on the client's request ( 28 percent ) . 6 % (in the design stage, and for those with 2-5 years of experience) were the largest in relying on modern technological applications, while in the forecasting stage, the percentage reached (through analysis of sales and profit trends) 28% . ( 6 %), and the analysis of fashion trends reached ( 50 %), and the percentage was for the type of local production

And export for use Tokad is 26 . 7 % (

Study of Al-Saidi , Hana Kamel Hassan ) ( 2020 titled

Contemporary visions of Saudi folklore and its role in enriching the designs of women's abaya fabrics as an entry point for developing patriotic sentiment.

The study aimed to innovate the design of women's abaya fabrics from Saudi folklore to help develop patriotic sentiment. Providing a contemporary vision for creating designs for women's abaya fabrics derived from the aesthetics of Saudi heritage

As an introduction to developing the national sense by using the capabilities of the computer, enhancing the aesthetic sense, and developing artistic taste through our traditional arts.

The study concluded that it is possible to benefit from Saudi folklore to enrich the designs of abayas through the designs achieving the design and employment aspects.

13. Study by Abdel Karim, Ashgan Abdel Fattah ( 2020 ) entitled No

pro art in fashion design. The study aimed to use computer design programs to create a group of women's fashions to demonstrate the aesthetics of printed designs.

Providing new design visions using computer design programs in processing units, decorations, and textures with Pro technology to obtain unique designs using Pro art that can be produced quantitatively, with the aim of adapting technology and modern life.

The study found that there are statistically significant differences between the implemented designs in the extent of the effectiveness of computer programs in creating diverse and quantitative designs by taking advantage of the art of programming , according to the opinions of the arbitrators.

Study by Younis, Islam Muhammad Adel Ali (2023) , entitled "Added Values for Employing Newly Smart Materials in the Design of Metal Furnishing Systems for Exhibitions" The study aimed to study smart materials and how to benefit from them in designing metal furnishing systems for exhibitions and monitoring the added functional and use values.

Engineering and communication The economic , aesthetic and environmental aspects of employing smart materials developed for these systems.

The study concluded that each type of innovative smart material has its own distinctive qualities and characteristics that distinguish it from other innovative smart materials, which have a role

in designing the metal display system.

Innovative smart materials have the ability to adapt to the environment surrounding the metal display system and have a distinctive response to surrounding stimuli.

Innovative smart materials can predict their reaction, and their various reactions can be controlled depending on the change in the type of catalyst, and they can play an effective role in designing the metal display system.

Replacing the traditional material with the innovative smart material and employing it in the metal display system enables the designer to develop the functional performance and aesthetic appearance.

New smart materials can add functional and use values. The connectivity, aesthetics, economical and environmental benefits of the metal display system make the metal display system more modern and distinctive. It competes with similar traditional metal display systems.

The properties of the new smart materials increase the creative capabilities of the designer in order to achieve competitive values when designing and producing metal display systems in comparison with similar systems in the markets.

Study by Al-Sharif, Ahmed Reda Mohamed (2022) entitled *Embodying the disappearing rich interior architecture spaces using virtual reality technology*. The study aimed to

Taking advantage of virtual reality technology to embody and document the interior architecture of archaeological sites.

Finding innovative solutions in documenting the internal architectural elements of archaeological buildings, and their various values.

The study found a significant impact of technology in developing human performance through its entry into all fields of contemporary life, reflecting this influence on the development of architectural thought and design

As the interface of civilization and development in any country.

virtual reality Virtual Reality is used to describe a computer-generated environment that responds to user actions in real-time.

Modern display methods through advanced technologies, such as virtual reality, have helped in displaying Egyptian antiquities and the treasures they contain, and displaying them using modern technical means of display through various means of communication, such as the global information network, the Internet, which works to promote tourism and global communication. Building an integrated virtual environment for wealthy places requires completing its visual image, which is represented by the human activities inside the building, where its value is completed by the human activities associated with it, and the extent to which we perceive these activities in a visual way, and this results in a sense of the true proportions and sizes and the resulting meanings, impressions, and sense of heritage values.

study, Amr Mohamed Gamal El-Din Mohamed (2022), entitled *Applications of the art of origami using 3D digital printing technology in the field of fashion design*.

The study aimed to create new designs using 3D digital printing techniques to design features of origami art.

The study came up with designs that were processed with colors in which the esophagus texture

achieves the aesthetics of the design by 98 percent . 34 %, tactile texture achieves aesthetic values by 96 % . 51 %, the color texture achieves the aesthetic values of the surface by 94 % . 95 %, achieving the relationship between surface texture and structural texture by 93 % . 37 %, the use of color achieves the foundations of design by 92 % . 84 %, the use of color element achieves a three-dimensional appearance 96 . 25 %, texture expresses 91 % of the prevailing fashion . 91 %, color reflects prevailing fashion. Percentage 92 . 41 %, achieved in

Design is 95 % aspects of innovation . 33 %, and this indicates the success of the designs.

Study of Sheikh, Ahmed Mahmoud Abdo (2016 ) entitled Application of Artificial Intelligence in Designing Women's Fabrics

The study aimed to create designs suitable for women's clothing fabrics, giving them an aesthetic appearance, using artificial intelligence systems.

The study concluded that artificial intelligence systems are one of the most important modern design methods and sources that are used to enrich the designs of women's clothing fabrics, and that old designs can be used as an important source of inspiration that is used in producing modern designs, with new processors. The research presented 7 designs suitable for use as women's clothing inspired by Actual fabric designs but processed using information systems.

Study by Marhi, Hisham Ahmed ( 2022 ) entitled Applications of Artificial Intelligence in Photography

The study aimed to identify the enormous possibilities granted by artificial intelligence applications in photography , the extent of their rapid development, and how to maximize the use of them to obtain better photographs with less time and effort, whether in the photography stage or in the stage of processing and improving images and fixing their defects , as well as in generating and creating photographs of subjects that are not It exists.

The study found

1 - Artificial intelligence algorithms are used in light measurement systems in digital cameras, to analyze light data reflected from parts of the scene,

It is compared with a database containing tens of thousands of professional photos , to find out how similar this scene is to any of these photos. The camera then determines the settings that lead to obtaining the best exposure for this scene.

2 - Artificial intelligence is used in automatic clarity adjustment systems in digital cameras, where the camera senses the extent of acceleration or deceleration of the body's movement near or far from it, and accordingly it adjusts clarity to the position in which the moving target will be located at the moment of actual exposure, quickly and accurately to Older systems can provide automatic clarity adjustment

3 -The smart camera assistant that works with artificial intelligence

It analyzes the information of the scene being photographed and the surrounding environment , and compares it with thousands of high-quality professional images stored in its database, to determine and adjust the optimal camera settings, which leads to obtaining the best image of the scene being photographed.

4 - Smart cameras, such as Google Clips , can automatically capture important moments through algorithms that can recognize familiar faces and exciting activities that occur in front



of them, so the camera begins filming immediately . This camera is considered.

A big step towards the development of what is known as the automated photographer

Study by Qasim Al-Shaqran, Awad Al-Ruwaili (2021 ) entitled *The Reality of Digital Fine Art in the Kingdom of Saudi Arabia* .

The study aimed to Learn about the concept, methods and trends of digital art, and the digital media that are compatible with fine painting.

Study and analyze the digital artworks of Saudi visual artists by presenting examples of their works and revealing the role of...

The Saudi visual artist in dealing with digital technologies in fine art in a way that suits the twenty-first century.

Explaining the extent of the presence of digital fine art in the art scene in Saudi Arabia.

The study concluded that the Saudi digital visual artist was able to keep pace with global technical developments in digital art, and was able to produce artistic works.

Digital no less Its values and beauty represent international works, through the use of the latest digital media and the latest technological developments in the production of digital works of art.

The Saudi digital artist used artistic vocabulary and elements inspired by the Saudi heritage.

It was observed through the study samples that the Saudi digital artist tended to use the element of passers -by clearly, in order to emphasize the feminist issues experienced by Saudi society.

The absence of the names of a number of Saudi visual artists from digital visual art, either due to their lack of mastery of digital art techniques,

Or because they do not believe in it as art.

Lack of interest or recognition of the digital artist and his art by many institutions, under the pretext that the computer is the one doing the work, and that this artistic work is not original .

software techniques is no longer limited to the digital artist, but rather extends to the general public, which has provided an outlet for those who do not master traditional art to go towards producing digital fine art works, but with the absence of the artistic talent and creative sense of the artist, without which there is no A digital artwork with aesthetic and artistic values can be produced.

The number of artists practicing digital art in Saudi Arabia is increasing, and they are widely spread on the Internet and means of communication .

Modern art, most of whom are young people, which heralds a promising future for digital fine art in Saudi Arabia.

Study by Rabie, Iman Hamid Mahmoud ( 2021 ) , taking advantage of 3D printing techniques to enrich women's clothing.

The study aimed to use the capabilities of the 3D printer to implement women's clothing designs.

Learn about the 3D printer, its types, capabilities, and technologies that qualify it for use and

application in the field of clothing and textile industry.

Obtaining works that have innovative plastic artistic values by presenting designs implemented using the capabilities and techniques of the 3D printer. The study concluded:

A 3D printer is a modern technology that has superior capabilities that can be used in the clothing and textile industry.

The 3D printer can be used to create wearable clothing that allows freedom of movement in accordance with international fashion lines.

The use of a 3D printer in the field of clothing manufacturing enriches clothing and can produce designs that are difficult to produce using traditional methods.

4 Increasing the layers of production of executed pieces increases the aesthetic aspect of clothes produced with 3D printer technology

## **The Design**

It is a process of formation and innovation, that is, collecting elements and putting them in a specific configuration to create something with a purpose. Or it can be defined as developing a plan within the applied and engineering arts to create a component with a purpose. Composition is part of the design process because design involves human thought and personal experiences . (Tasneem , 2022 , What is the art of design and what are its elements and types)

## **Elements**

There are many elements that make up the design, including:

**The point** is the starting point for creating any shape. It is the smallest part of the shape and is characterized by the absence of geometric dimensions or space.

**Lines:** The line connects to the point, where it moves in different directions. There are many types of lines, such as straight, curved, closed , spiral, and refractive lines .

**The Shape** It is the space created by the union of more than one line.

**Volume and Mass** , these two concepts express the feeling of weight and distinguish the shape of an object.

**Texture** is an external appearance and can be recognized by sight or touch.

**Color** is the reflection of light rays after their breakdown in the eye, and the main colors are Blue, red, yellow, and there are some secondary colors, including orange, green, and purple.

**The Light Shadow:** Light is one of the positive elements in the art of design, and on the other hand, shadow is considered a positive element Essentially in it.

**Voidity** is the space a design would occupy if it had a solid shape . (Abd Al-Hamid, Randa , 2020 , definition of design and its types (

## **Fields**

The art of design includes many different and varied fields , and below we will mention its

most prominent fields:

**Fine Arts** These fine arts include the art of drawing, painting, and sculpture, in addition to making glassware, pottery, and textile manufacturing.

### **Fashion Design**

Fashion design includes the fields of clothing, accessories and footwear design, and the mission of fashion design focuses on keeping the audience up to date with current global fashion trends.

### **Design**

Floral design includes the art of arranging flowers to commemorate events and special occasions in people's cultures. This job includes arranging live and dried flowers in a specific way to create beautiful arrangements, and this is based on his knowledge of the types of flowers, their growing seasons, colors, sizes, and the conditions necessary to preserve them for the longest possible period.

### **Decoration Design**

Interior decoration design includes the design of homes, offices, airport terminals, shopping malls, restaurants, and other places. This path includes determining the type of furniture, lighting, wallpaper, paints, and flooring.

### **Multimedia Design and Animation**

This type includes designing visual effects for the production of animation and video games, as the designer draws the animation with pen and paper, then transfers it to computer programs to draw detailed maps of characters and places.

(Abu Salloum , Ibtihal, 2021 , Defining the Art of Design(

### **Design**

specialized applied arts of designing clothes and part of puppet behavior. A person usually tries to satisfy his needs, and in doing so he uses the imagination, knowledge and experience he possesses to invent what fulfills those needs.

It is considered a temporary or seasonal art, as it is affected by what is around it and is considered one of its consequences. Cultural life and social influences. This art is characterized by diversity, innovation and splendor (Sarah

, 2021 )About Fashion Design(

### **Design and Innovation**

It is a term that means creative development, that is, developing new values for the consumer to meet his needs.

It is the process of producing ideas that depart from the known and prevailing framework in the surrounding society, and any design must be innovative . Also , the designer must be characterized and rely on the process of inspiration, as the designer's job is to find and invent new ideas that are implementable so that the designer gets many innovative and beautiful ideas. These ideas do not always come as inspiration and quick thoughts. Rather, there must be a process of inspiration , which is an exhausting process

that the designer must undertake by researching, thinking, and working on many many sources of inspiration. Heritage and traditional clothing are considered one of the sources of inspiration ( Nasiba Saleh, Dad Ahmed, Tawfiq Muhammad, 2015 , Fashion Design)

### **Fashion Design and**

There are four types of fashion design, each type differs from the other as follows:

Mass production fashion : It is a group of designs that are produced and marketed in the markets in varying sizes and in large quantities, as this type of fashion is characterized by its reasonable price.

### **High Fashion**

It is a design specific to a specific class of society that cares about the quality of the material and the brand when buying its clothes, as this class is characterized by sophistication and elegance in clothing, so they are high-priced designs.

### **Ready - Made**

It is a group of fashion designs that combine in its characteristics two types of fashion: high fashion and mass production, as it is produced and marketed in the markets for all classes, so the fashion designer puts the quality of the material into its production.

### **Show Costumes**

It is a special costume design used by actors in cinematic films or theatrical performances . ( Naoum , Silvana , 2022 , costume design education websites)

## **Sources of Inspiration for Fashion Design**

Architectural Arts: There are elegant architectural landmarks that can inspire the designer about some pieces of clothing, or give him an idea about the range of colors that must be used.

Museums and art galleries are among the most wonderful sources that give the designer inspiration, as they contain a variety of decorations, handicrafts, treasures and historical antiquities, and many galleries are also a place to host fashion designers, artists or architects to inspire him.

### **Multicultural**

Cinema films have always been associated with clothing and fashion. They are the starting point for initial research into the world of fashion. The quality of silent films, the shadows and dazzling colors in some films, and the wonderful graphics of animation are a huge source of inspiration for designers.

nature The picturesque nature can revive the senses of the designer, and stimulate creativity when inspiration and innovation are lacking , as it provides a wide range of beautifully combined colors that have never been imagined before.

### **Heritage and Traditional Fashions**

In some regions and countries, such as India, they still use traditional clothing to a large extent. On the other hand, there are countries that stopped wearing traditional clothing a long time ago. In this case, the designer is not interested and inspired by the traditions of his country.

Also, people in some countries prefer to combine traditional clothing with modern designs at the same time, and this requires effort and creativity. he added Yes , except that he will create a deaf mother, a father, and a mother Az) Khashaansha, Iman , 2021 , learn about the sources of inspiration in fashion design)

### **Saudi Clothing Heritage**

Since ancient times, clothing has been considered a necessity of life, and a factor Preventive Oh

For humans, they are free from the natural variables of the atmosphere, and then art began to invade these clothes to express the elements of the people, their originality, traditions, and culture.

Old Arab clothes are generally characterized by beauty and simplicity in line, shape, color, and the quality of the fabrics used to sew them, and their shape varies from one region to another.

Traditional heritage represents an important dimension of history , as it reflects how parents and grandparents lived in past times and periods, and the values, customs and traditions that they transmit to us, and show us the social , cultural and economic levels of that situation in that period. . People's cultures and their differences. The differences are often due to several reasons, including the geographic and regional scale of the area. Given the size and diversity of the Kingdom of Saudi Arabia, each region is famous for its traditional clothing, and despite these differences , some clothing may be shared despite their differences (King Abdulaziz House, 2022 Traditional Fashions in the Era of the First Saudi State )

### **Traditional Clothing Decorations in the Asir Region**

The decorations embroidered on traditional clothing varied in the Asir region.

It includes geometric and floral shapes and symbolic units such as the crescent and star in harmonious formations inspired by the environment and Islamic decorative arts, and is completely devoid of human and animal decorations.

### **Types of Amebiasis**

**Firstly: Geometric Decoration :** It is a type of decoration that combines the simple shapes of geometric patterns to form a distinctive design. The symmetry of these geometric designs provides a lot of freedom and diversity and allows space for other types of decoration. The basic shapes that are used in this type are circles, overlapping circles, squares and polygons with four sides. And starry compositions are everywhere ( Mahmoud, Dina , 2022 , Saudi heritage decorations) **Second: Vegetal Decorations:**

One of the types of decoration, and it depends on botanical expressions, as it uses many types of roses, plants and flowers in designing its drawings. Botanical decoration consists of decorations made of various flowers, plant leaves and stems.

And the branches, and it has several styles and a large group of special elements in it, and usually the floral decoration drawings are repeated at a regular and uniform pace, and they are not random, and they are inspired by nature, and there is a great use of them (Kitab Lines, 2019 , Definition of Floral Decoration)

### **Third: Symbolic Decorations**

Symbolic motifs were used to decorate traditional clothing in the research area, which were

found connected or individually, and the most important shapes were the star and crescent.

**A- The Star:** The star was used in the decoration of the Hanaksha shilla and was found repeatedly in a continuous line in a horizontal line. It is noted that it was drawn in a geometric manner, consisting of adjacent triangles that formed the shape of the star.

**Crescent:** The crescent was used to decorate the recited handkerchief , as it was found individually at the end of the motif.

Both the star and the crescent are popular decorations inspired by Islamic decorative arts, and this indicates the connection between traditional clothing decorations in the research area and Islamic decorations. (Musfer Muhammad Ahmed, 2006 , Popular Heritage in the Kingdom of Saudi Arabia ).

### **Features of Clothing Decorations in Asir**

- . 1 Asir clothing was influenced by the teachings of the true religion, as it neglected the use of decorations for animate beings. It was also characterized by simplicity, which is a characteristic of the surrounding environment.
- . 2 The use of the crescent and star decoration as popular decorations inspired by Islamic decorative arts.

It was also characterized by transforming natural elements into abstract and geometric shapes

- .3 The diversity in the popular decorations of Asiri clothing , as most of them included geometric decorations

### **Floral and Symbolic Motifs**

- .4 Repetition in the decorative units and filling the spaces in the basic decorative design are characteristics that distinguish T

It has Islamic and traditional decorations . Abdullah Al-Qahtani, 1996 , Popular Heritage in the Asir Region)

### **Women's Outdoor Fashion in the Desert**

**Al-Muhathil:** This is the basic outer clothing for women in the northern desert A long dress, where women tie the dress at the waist and tie it with a belt woven from red or black cotton or woolen threads.

**Sharash or Madraka:** It is a loose-fitting garment that reaches a length up to the ankles and has a hem

Long, women used to wear it over the mahuthal when doing their work, then they began to dispense with the mahuthal , and were content with the pestle or the shish.

**Customer:** It is one of the fashions for weddings and occasions, and it has two types: decorated, which is specific to weddings, and undecorated, which is specific to work.

**Al-Jubba:** It resembles a zibun, except that it is shorter than it, as its length reaches the hips Or a little longer, the robe may be called “Dam Ara”.

### **Modern Women's Fashion**

**Al-Maqtā’:** It is the main dress for modern women. It is a wide and long dress, with a circular neckline and a longitudinal opening.

**Karta:** It is a garment developed for the section, and is characterized by the presence of stitching around the waist.

**Al-Mufarrej:** This outfit is worn over the “maqta” and consists of the same parts, except that it is very wide , and its sleeve is square in shape.

**Al-Marwadun:** It is a long garment of many colors and decorations. It is distinguished by its long, bi-shaped sleeves, and its ends hang down until they reach the ground. They are often knotted together and raised behind the neck. It may be called “aburdenin ,” and it resembles the section in its composition after replacing the takhrasa. “A piece of cloth under the duck” with the khashtaq, “linen or aprism ”, and a “custom” may be worn over it, which is sewn from the same cloth or from another fabric, so it is passed, like a cuff, through the two openings of the client’s sleeves, tied together and thrown to the back.

**Daraa:** A long, loose dress, with wide and long sleeves, and orange or crimson colors according to the woman’s desire. )congratulations Al-Ajaji , Al-Bassam, Laila Saleh, traditional women’s fashion in the northern region of the Kingdom of Saudi Arabia)

### **Women's Fashion in the Northern Region of the Kingdom of Saudi Arabia**

Women in the north of the Kingdom of Saudi Arabia were distinguished by their taste and innovation in artistic methods in coordinating their fashions, and this was helped by diversity

Fabrics, their sources and colors, as they varied between different types of silk

(Yemeni silk , or fine silk, or pure black silk), and between spun cotton

Handcrafted from sheep wool, goat hair or lint.

The methods of beautification and decoration also varied, as no piece of clothing is devoid of decoration, using multiple materials and colours, including silk, cotton, wool and metallic threads , often made of gold and silver, or using yarn.

Or ribbons, in addition to beads of different types and colors. Women in the north of the Kingdom of Saudi Arabia were creative in their adornment and clothing (Al-Bassam , Laila Saleh, 1985 , The Traditional Heritage of Women’s Clothing in Najd)

### **Women's Outdoor Fashion in the North for**

Women in the north of the Kingdom of Saudi Arabia wear several clothes over their uniforms if they want to go out, so that they are extremely modest , simple, and elegant. These clothes include:

**Abaya:** A woman wears it over her head, and it extends down to the bottom of her feet. It has two colors:

It is black or dark brown made of wool, has narrow sleeves, and covers the arms up to the wrists. This abaya is called “ the angled abaya”.

**Al-Murshida:** It is a special cloak for the bride. It is made of soft wool and embroidered with golden zari.

**The “Dagla” costume:** It is a uniform that is open in front from the neck to the foot, and the upper part of the neck is closed to the middle with buttons made of the same fabric, in addition to being open on the sides, and made of different fabrics.

The best ones are made of velvet. (Al-Bassam , Laila Saleh, 2012 , traditional fashion for women in the northern region of the Kingdom of Saudi Arabia )

**Jabbah:** A wealthy woman wears a short, light coat made of blue fabric , with narrow sleeves, and made of plain broadcloth . If the fabric is thin , then light broadcloth is used.

**Sheila:** A garment made of light polar fabric or black silk. Young girls wear the red-colored sheila.

**Al-Muqaruna:** A black large handkerchief, folded in the middle to form a triangle, and wrapped around the head.

**Shambar:** a cover about half a meter wide, and its length may exceed three meters.

It is dyed black, leaving about six centimeters to form red stripes on both ends, and the “fennel” is tied with a folded handkerchief to the forehead and head. The “fennel” may be raised from the front until it covers the chin, and it is a garment reserved for wealthy women.

**Headband:** A loosely woven cloth that is wrapped around the head.

)Al-Ajaji , Tahani Nasser Saleh, 1988 , Traditional Women’s Clothing in the Northern Region of the Kingdom of Saudi Arabia : A Field Study.(

### **Women's Fashion in the Southern Region of the Kingdom of Saudi Arabia**

The southern region is full of popular clothing used in various aspects

Life, and many of the region's elderly people still maintain this traditional dress that expresses the authenticity of the past.

Women wear black and sometimes red dresses Colors Different types of clothes are worn by women outside and inside the home. The most prominent of these types of clothing are:

**The Sadra (Sidra):** It is a black garment that covers the entire body, and is embroidered in different colors with long sleeves. Its names vary, including: knitted, embroidered, or expensive.

Sometimes a piece of white cloth is worn over some clothes, placed on the shoulder, and covering the chest and lower part, similar to an Indian sari, called a huka.

**Karta:** It is made of black or striped fabric. Jaljalan: These are light fabrics, with some patterns similar to sesame seeds.

**The sleeve:** It is a black garment made of fabric called “taqa ” that is very wide at the bottom, and narrows as it rises to the middle. It has very wide sleeves, the width of one of which sometimes reaches the width of an entire garment, and a woman usually wears it over another garment.

**Al-Majnab:** This name was given to the addition of a piece from the top of the thigh. To increase the width of the dress, it is embroidered with multi-colored silk threads on the chest, sleeves and sides. (Jaris , Ghaithan Ali, 2019 Social Life in Asir in the Modern Era)

The woman was wearing a cover of beautiful colored clothing, and a navel of shiny black cloth that covered the neck to the knees and to the joint of the hand, and was decorated with bright colored lines around the chest and sleeve area.



**Of Multiple Types, Including:** Damas , mabroum, qatif, and noman.

As for the Mazanda, it is characterized by the beauty of the design and the splendor of the engravings. Because it is made of colorful fabrics with narrow sleeves, and has a narrow waist that expands to the bottom.

### **Women's Fashion in the Southern Region of the Kingdom of Saudi Arabia**

#### **Headdress:**

Women in southern Saudi Arabia are covered with a number of garments, the most prominent of which are:

**Shila:** It is a piece of black cloth decorated on its edges with different threads

Colors, or with types of beads, and is fastened with a band of the same type or other yellow or red fabric.

**Egypt:** A type of cloth over which another black garment is placed, called the Qataa.

**The Pencil Case:** It is a black garment that is embroidered in different colors, and powder such as local perfume and some aromatic scents are placed around its edges, and it is sewn in a square shape at the edges.

Southern women are more fond of aromatic scents and delicious plants than men, and they place them on their heads in a way that attracts attention, like a wreath, which they call a makasa or grouse ). Al-Maliki , Muhammad bin Jaber, 2020 Social Life And economic development in Fifa, Bani Malik, and Jazan in the modern era ) ,

### **Women's Fashion in the Central Region of the Kingdom of Saudi Arabia:**

#### **Women Wore Two Types of Clothing**

**The First;** It is made of cotton and is called the “karbas dress.” They prefer green and black colors

**The Second;** These are clothes made of silk and decorated with multiple colors and decorated with gold jewelry studded with precious jewels.

As for the clothing of the women of the imams , including the women of Imam Saud bin Abdulaziz, they were adorned and beautified with the brightest , most beautiful, and most beautiful clothes. Most of their clothes were made of Indian silk, and Levantine silk of multiple colors , such as red, blue, green, yellow , and pink, and embroidered in golden colors.

Their clothes were decorated with gold studded with precious jewels such as rubies and turquoise.

There are clothes designated for women when they leave the house. Young girls wear the “makhang” (the suffocation), which is a transparent silk fabric made of chiffon or tulle that is completely sewn except for an opening around the neck to show the face. As for the woman , she covers her head with a shawl . Made of light tulle, or she wears a covering to block the view of her face from anyone who is not her mahram, and this includes clothing . External For women, the abaya.

(Misfer , Khadija Saeed, Samar Mahmoud, 2010 , traditional clothing in the Kingdom of Saudi Arabia)

## **Women's Fashion in the Eastern Region of the Kingdom of Saudi Arabia**

We find that it is more similar to the fashions of the central region than any other region

Others in the Kingdom of Saudi Arabia, due to the geographical and demographic connection between them.

A woman wears the “malafa” to cover her face and head: it is a rectangular piece, two to three meters long.

**Batalah** is a covering for the entire face, excluding the eye opening, and is used by the elderly.

Among the clothes that women wear is the abaya, which is cut into a rectangular shape and folded on both sides from the front side after leaving a space between the two ends so that

The two sides do not meet, and that distance is called the pocket, which is the place where the abaya is placed on the head.

### **Among the Clothes that Women Wear Inside the Home**

A /) The Daraa : It is a loose dress that reaches the ankles in length and has long sleeves that form the body. The name of the Daraa varies according to the type of fabric it is woven from, or it may be attributed to embroidery or to the place of manufacture, including:

- 1Daraa or Asaa
- 2A flawed shield
- 3Daraa Al-Zari
- 4Daraa Al- Muadh, Dr

B /) Al-Nafnoug (which is one of the garments that takes the place of armor for women. It consists of a detail of a cut that defines the waist from above and begins to expand. Towards the bottom, the lower part consists of large or small crumbs and is expelled with zari and silk threads. This process is called tampering.

C /) The thobe (is an upper piece worn over the armor. It is distinguished by its extreme length and width, and is composed of the same parts that the armor is composed of). Al-Bassam, Laila Saleh,

, 2005 Traditional women's clothing in the eastern region of the Kingdom of Saudi Arabia(

### **Hijazi Women's Clothing**

It is distinguished by its colors Distinctive and different designs while maintaining modesty. Hijazi women wore a number of clothes and fashions, the most prominent of which are:

The embroidered dress is a tight dress with embroidery on the chest, sleeves, and sides of the garment. It is made of satin or Indian silk fabric.

The ball gown /newer than the customer's neck opening comes in several shapes as desired. This garment is distinguished by two pennies in the chest and middle, and the lower hem of the garment is wide.

The Arab thobe/a long, wide cloth made of light fabric.

pleated dress / which is a loose dress to show the body's features.

The embroidered thobe is similar to the men's thobe , but it is wider, with narrow embroidered sleeves, and two types of black satin fabric and a navy blue sash.

The black dress is a wide dress with sleeves that reach the legs and is made of light fabric.

The dress is a loose dress that expands to the bottom. It is called the dress due to the fabric used in it, which is a fabric similar to satin.

The Al-Sun dress is worn on special occasions and weddings . It is a narrow, rectangular dress with a circular neck opening.

The chest dress is made of cotton fabric . The dress is decorated with dense embroidery on the shoulders and bottom, and sometimes it is without decoration. (Abdul Ghani, Khadija Saeed Misfer, 2010 , Traditional Clothes in the Kingdom of Saudi Arabia )

## **Artificial Intelligence**

### **The Concept of Artificial Intelligence and its History**

Artificial intelligence first appeared in 1956 , when a group of computer scientists announced the birth of artificial intelligence at the Dartmouth Conference . Since then, artificial intelligence has brought bright technological prospects to human civilization and artificial intelligence has expanded greatly over the past few years. In 1956 , the dream of the pioneers of artificial intelligence was to build a complex machine that had the same characteristics as human intelligence, a machine that had human senses and thoughts. In the twenty-first century, artificial intelligence moved from science fiction to reality . The journey of technological investment for artificial intelligence projects began, and opened new horizons for intelligence.

Artificial Intelligence: Most of us interact with artificial intelligence on a daily basis, every time we use our smartphones, social media, search engines, and e-commerce sites. (Abdullah Musa and Ahmed Habib Bilal, 2019 , Artificial Intelligence is a Revolution in Modern Technologies)

Accordingly, artificial intelligence is one of the branches of computer science, and one of the basic pillars on which the technology industry is based in our current era. The term artificial intelligence , which is referred to by the abbreviation AI , can be defined as the ability of digital machines and computers to perform certain tasks that imitate and resemble those performed by other beings. It requires certain mental processes, and artificial intelligence aims to achieve intelligent systems that behave in the same way as humans in terms of learning and understanding, so that these systems provide their users with various educational services. Guidance, interaction, etc. (Mahdi Hanna, 2020 , Artificial Intelligence and Imperial Conflict )

### **Definition of Artificial Intelligence**

#### **There are Many Definitions of Artificial Intelligence, Including**

1. It is the scientific and technical current that includes theories and techniques that aim to create machines capable of simulating human intelligence, relying on innovation, innovation and change. ( Qammoura , Samia Shahbi, 2018 , Artificial Intelligence between Reality and Aspirations, a technical and field study),
2. It is a branch of computer science that is concerned with studying and creating computer systems that have some characteristics of intelligence and that have the ability to deduce solutions to the problems at hand. It can also understand natural languages or living

perception and similar capabilities that require human intelligence.

- .3 It is a scientific system that includes manufacturing and engineering methods with regard to electronic devices and smart programs. Its goal is to produce independent machines and computer systems capable of performing complex tasks using reflexivity similar to that of humans.

(Perfection Daghfal , Salmi Nasr El-Din 2020 The role of artificial intelligence in the product planning process in the telecommunications company)

## **Types of Artificial Intelligence**

Artificial intelligence expresses the ability to represent accounting models for a diverse field of life, identify the main and basic relationships between its elements, and then create reactions that are appropriate to the events and situations of this field . Artificial intelligence is divided in terms of the capabilities it possesses into three main types:

- 1 - Weak artificial intelligence: It is one of the simplest forms of artificial intelligence. It is programmed to perform specific functions within a specific environment. Its behavior is considered a reaction to a specific situation, and it can only work in the conditions of its environment.
- 2 -Strong artificial intelligence : He is distinguished by the ability to collect and analyze information, and to accumulate experiences from the situations he acquires, which qualifies him to make independent and intelligent decisions.
- 3 Artificial superintelligence : These types of intelligence are still undergoing experiments and seek to emulate humans, and two basic types can be distinguished: the first attempts to understand human thoughts and emotions that affect human behavior, and has a limited ability to social interaction. The second is a model of the theory of mind, as these models can express their internal state, predict the feelings and attitudes of others, and interact with them. (Abdul Razzaq Mukhtar Mahmoud, 2020 , Applications of Artificial Intelligence as an Introduction to Developing Education in Light of the Challenges of the Coronavirus Pandemic )

## **Advantages of Artificial Intelligence Programs**

Symbol representation

I found it d

Knowledge representatin

Incomplete data

Conflicting data

)Sheikh , Ahmed Mahmoud Abdo, 2016 , Application of Artificial Intelligence in Design

Ladies clothing fabrics

## **How Artificial Intelligence Works**

Everything that works with artificial intelligence is designed to achieve specific goals, is trained on the available data and uses it to achieve the specific goal in the best possible way.

When artificial intelligence reaches a higher level of learning, it takes data independently, without human intervention, and uses this data to achieve the goal on its own.

It analyzes all the data, and artificial intelligence makes predictions based on what it discovers.

## **Artificial Intelligence**

**Reducing Line A Ratios:** Humans may be more accurate in analyzing data than machines that rely on software that has some errors in the analysis rules, but factors such as omissions do not exist in artificial intelligence, as machines are able to analyze billions of data without error and without fatigue or boredom.

**Speed:** As we mentioned, a machine that relies on artificial intelligence, such as a computer, may have the ability to...

Analyzing millions of data and producing information in a few seconds or minutes at most, while the same thing manually or humanly may take several days, weeks, or years with one person, or it may require dozens of people to accomplish it in the shortest possible time.

**Lack of Rest:** The human employee or worker needs time to rest from the pressures of work, sleep, etc., but devices and machines may continue to work throughout the day without getting tired or tired, which increases the final productivity.

**Assistance in Decision Making:** Artificial intelligence helps in what is called “data mining”, as it analyzes various data to extract useful information regarding decision-making. For example, some famous trade chains have begun using software to analyze consumer bills to obtain information from them by analyzing behavior. Statistically , this process helped consumers link different products to each other by observing the frequency of purchasing these products together in the same process, and therefore these products were placed close to each other to facilitate shopping for the customer.

**Logical Analysis:** Artificial intelligence relies on the logical analysis of data using a statistical method, and is completely devoid of emotions. It does not favor anyone or oppress anyone. Unlike the human factor in analyzing similar data, his emotions may affect him in a way that affects the final information resulting from the data analysis.

**Ease of Dealing With Data:** Artificial intelligence facilitates dealing with data and information, storing them and retrieving them. It may even help in getting rid of unnecessary data by extracting important information from it and getting rid of what is not important . (Ali Bilal, 2022 , Pros and Cons of Artificial Intelligence)

## **Disadvantages of Artificial Intelligence**

Job loss is one of the most important disadvantages of artificial intelligence, and its ability to automate jobs, which leads to job loss, for example; maybe

Self-driving cars could replace taxi and truck drivers, and this could lead to increased unemployment and economic inequality.

Privacy Concerns Privacy concerns raise intelligence

Artificial intelligence also raises significant privacy concerns, for example; AI-powered systems can collect and analyze large amounts of personal data, which can be used to target ads or even influence people's decisions.

Lack of human judgment. AI systems can also lack the human judgment and empathy required for many tasks. Dependence on AI. As we become more dependent on AI, we risk losing our ability to think critically and solve problems independently, for example. example; If we rely too heavily on AI-powered systems to make decisions, we may lose our ability to think critically and make good decisions.

High cost: Hardware and programming are basic requirements for artificial intelligence, but its equipment and applications are expensive because they require a large amount of support to meet the world's current needs.

## **Artificial Intelligence in Fashion Design**

Recently, artificial intelligence technology has spread to all fields , including:

Fashion design using artificial intelligence, which, despite the limitations of its current capabilities, promises unlimited possibilities in the future. Of course, every designer ( and non-designer ) must follow what is new in his field to keep up with what is new and benefit from it in his work. The term artificial intelligence ( AI ) refers to systems and devices that simulate human intelligence, and of course computers and currently the Internet also fall into this scope.

These applications are used to perform tasks that can develop themselves based on the information that the user enters into the system, and the forms of artificial intelligence and ways to use them are:

- 1 - Understand problems faster and provide more efficient answers in the shortest possible time.
- 2 Analyzing and summarizing information.

Artificial intelligence is about the ability to think superiorly in a way that mimics human thinking, as well as to analyze data quickly, with the aim of enhancing capabilities.

)Sheikh , Khalid, 2023 , How can artificial intelligence be used in fashion design(

### **Uses of Artificial Intelligence in the World of Fashio:**

Artificial intelligence is still a long way from creating fashion on its own. But this does not mean that it cannot be used in its current form to improve the industry and save a lot of time for designers and workers in the fashion field, as artificial intelligence can be relied upon in some jobs that do not require a lot of creativity and only require physical effort, as it works to improve designs and add some Final touches to it before it is finally published and approved.

Artificial intelligence may not have led people today to produce clothes from scratch

The future promises a lot of development. The rapid pace of what has been achieved so far means that it is logical to see faster and greater development in the field of clothing design with artificial intelligence (Ahmed Hassan , 2022 , Using Artificial Intelligence in Fashion Design)

### **Concerns about Artificial Intelligence in Fashion Design**

While artificial intelligence promises an advanced era in various fields , including in the field of effortless clothing design, this ease makes many of those interested in the field of fashion very concerned about matters, the most important of which are intellectual property rights and counterfeiting of clothing.

There is nothing preventing clothing wholesale platforms from using artificial intelligence applications on their servers to produce clothes and pieces that resemble the original.

Add to that the fears that companies will resort to this use away from employing real designers who work on manual designs, especially since artificial intelligence allows reducing the huge costs of this creative path.

But regardless of these many concerns, artificial intelligence remains deficient in some aspects, because it cannot create new designs from scratch. Rather, it needs to search for existing designs on the Internet and put them together in order to provide a new design.

Artificial intelligence cannot “invent” a new design from scratch, but it reuses everything it sees in front of it (Ahmed Hassan , 2022 , Using Artificial Intelligence in Fashion Design)

### **Advantages of using artificial intelligence in fashion design**

Facilitate this creative process.

Opening new doors for innovation in this field..

It uses supported tools such as 3D scanning technology and augmented reality applications.

It enables designers to delve into and analyze global industry data to understand fashion trends and see examples done by designers around the world.

Producers can benefit from this valuable information to analyze trends in the fashion industry and design new pieces in line with market trends.

Enhance brand visibility and overall sales.

-Help designers improve the process of selecting colors and fabrics and save time and costs.

It enables designers to reduce the error rate in production and increase process efficiency.

Helping designers customize the unique design for each customer based on their individual preferences and needs, and this makes the customers' shopping experience easier and more comfortable.

It enables designers to develop main lines , new designs, and trends desired by customers.

Reducing negative environmental impacts and achieving higher levels of sustainability in the field of fashion design.

It helps in solving designers' problems, such as designing clothes that suit the largest number of people and saving and saving time and effort.) Badr, Sami Hassan 2023 Fashion Design with Artificial Intelligence

### **Virtual Fashion Shows**

Virtual reality technology has been able to develop in the world of fashion and style, as it provides you with the ability to create a virtual show at any time, and be shown from anywhere, without the need to hold a real show and rent a theater and specialized fashion models, as through virtual reality and augmented reality technologies, you can design Show your fashion in 360 degrees and promote the product remotely at a lower financial cost, with the ability to

easily modify ( Marifa Ma'rifa , 2022 , virtual reality services for clothing companies and fashion shows )

### **Virtual Reality Concept**

virtual reality " first appeared in the Oxford Dictionary and has become used to describe applications that can interact with real-time, virtual reality environments.

Virtual reality is an interactive educational method, as it is a subsystem of learning resources that represent the tangible aspect of educational technology.

Virtual reality is an experience that is similar to the real reality that the learner goes through, and makes the participating learner two parts of it immersed within it. Some definitions confirm that virtual reality is one of the modern computer - based technological innovations that uses a set of special modern tools and techniques.

Virtual reality is one of the most important realistic applied models in the field of educational technology with its theories and practices, as it reflects the integrative view of the use of learning resources through self-activity and the individual capabilities of learners . ( Ahmed , Hala Ibrahim , 2017 , Digital Design of Virtual Reality Technology in Light of Quality Standards E - Learning)

### **Definition of Virtual Reality**

#### **There are a Number of Definitions of Virtual Reality, Including**

Oxford English Dictionary definition of the term virtual reality is “ something that is unreal or indefinite, but depicts something that is real or has actual existence.” - It can also be generally defined as: “a multi-path, self-directed interactive visualization produced by computer systems and presented to us.” Artificial shapes for a 3D environment.

A - It is a process of deception to give the feeling of participation in a composed (complex) environment Artificially (instead of just external viewing of such an environment

Virtual reality is an immersive reality that has the ability to engage with many human senses

It is a computer simulation process that uses three-dimensional graphics in addition to devices such as a data surveyor glove for the user to interact with the simulation . ) Al-Sharif, Ahmed Reda Muhammad, 2021 , embodying the spaces of vanished ancient interior architecture using virtual reality technology(

#### **The Emergence and Development of Virtual Realit:**

,computer graphics are now being used

In many areas of life , in recent years, the development of microprocessor technology has accelerated significantly, leading to the production of faster and more accurate computers, and faster graphics panels. It has become possible for even the average user to navigate this picturesque world. From computer graphics, this fascination with the new (unreal) reality often begins with computer games with striking graphics and colors, which allow them to see the surrounding world from another dimension, and experience things that were not possible to access in real life, or that It has not even been invented until this moment. In addition, the world of 3D graphics has no limits or obstacles and can be created and employed with our own hands at the time we want, and we can improve and support it constantly . Using the fourth dimension,. But people always aspire for the best, they want to go beyond this world and



interact with it instead of just seeing it as an image on a screen.

The computer, and this technology, which later became common and familiar, was called “virtual reality” (Al-Sharif, Ahmed Reda Muhammad, 2021 , Embodying the spaces of vanished archaeological interior architecture using virtual reality technology )

### **The most Important Advantages of Using Virtual Reality Technologies**

Identifying things and places that humans cannot enter or reach.

Visiting real places without changing their size, size, or being connected to a specific time.

The formation and formation of places or things with multiple changeable properties such as the Earth in an ice age.

Carrying out experiments that would be dangerous to actually carry out, such as diving or flying experiments.

Interacting with historical places , characters, and imaginary creatures, creating an atmosphere different from reality to achieve a specific atmosphere that suits different activities.

innovative and new museum display environments to serve the content and objectives of the display.

The ability to live inspect architectural spaces, benefit from them in the design process, and interact with several people remotely . ( Khaled Salah Saeed Abdel Majeed, 2016 , Documenting Urban Heritage Using Virtual Reality Technologies)

### **Design and Construction of Virtual Reality Systems**

#### **Basic Components of Virtual Reality**

Virtual reality requires a lot of resources compared to regular desktop systems, as there is a need for input and output tools and special drivers for it to achieve the best interaction with the user.

#### **Elements of Building a Virtual Reality System**

Designer and implementer of virtual environments : He is the architect who may design or build the virtual environment inside the computer.

**Virtual environment building tools:** This is the software used by an architect

Virtual environments in designing and building three-dimensional objects and models inside the computer.

**User:** A person who wishes to enter and use the virtual environment.

**Sensor Devices:** These are devices that eliminate the user's sense of the real environment and control the user's sensory centers.

**Feedback Devices:** These are devices that transmit the user's reactions to the virtual environment and produce effects that are similar to the effects that could occur in reality.

#### **Virtual Reality Systems**

They are systems that give their users certain subjective experiences through their senses within virtual worlds , using technology. That is, they are technological systems connected to the

sensory system of the user's body and include

### **The Following Components**

**A- - Virtual Environments:** These are computer-generated environments, represented by three-dimensional digital visual elements within virtual worlds.

**B-Virtual Image:** It is a digital analogue image, which is an image

More like operations of similarity and simulation of what is more imaginary than representing the reality of the image

**Virtual people:** These are unreal people that the user encounters in the virtual world .) Al-Sharif , Ahmed Reda Muhammad, 2021 , Embodying the spaces of vanished archaeological interior architecture using virtual reality technology(

### **Search Procedures**

- 1Preparing a research plan
- 2Preparing the theoretical framework, which includes:

A-Design

B-Saudi clothing heritage.

C-Artificial intelligence.

D-Virtual reality.

- 3Preparing previous studies related to the topic.
- 4Designing a virtual fashion show for traditional Saudi clothing.
- 5Preparing the research tools is a questionnaire to collect the opinions of the research sample.
- 6Application of the questionnaire.
- 7Drawing conclusions, discussing them, and making recommendations.

### **Search Tools**

The research topic was chosen so that it included all traditional costumes related to Saudi traditional dress.

innovative designs were made from some Saudi regions to design traditional Saudi fashions using artificial intelligence.

-A questionnaire directed to the community to learn more about innovative designs using artificial intelligence.

### **Objective of the Questionnaire**

The researchers designed the questionnaire to identify community opinions on designing a virtual fashion show using artificial intelligence.

### **Building the Questionnaire**

The questionnaire included basic information for the research and a set of statements related to society's opinions on the virtual fashion show of Saudi clothing using artificial intelligence.

### **A set of Personal Questions**

A group of questions related to artificial intelligence.

A group of questions related to the design of traditional Saudi fashion.

## **Research Results**

It became clear through research that there are artificial intelligence applications that can be used.

In a virtual display design.

Through research, it became clear that a three-dimensional fashion show can be designed using a program to convey the Saudi clothing heritage.

It became clear through the research that there is an effectiveness in designing a virtual fashion show using artificial intelligence applications to convey the Saudi clothing uniform.

## **Recommendations**

Emphasis on benefiting from the designs presented because of their significant impact on developing the value of belonging and citizenship.

The necessity of expanding and studying the field of using artificial intelligence in fashion design and display.

Researchers recommend adding three-dimensional designs using the Saudi clothing heritage.

## **Proposals**

Creating more innovative three-dimensional designs from the Saudi clothing heritage in a way that is consistent with time and place.

Conducting training courses on 3D design programs for those interested and specialized in the field of fashion design.

Creating innovative designs of Saudi traditional fashions to increase belonging to the homeland and preserve the traditional heritage of fashion.

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Proposed designs using artificial intelligence applications to transfer Saudi cultural heritage

### **First Design**



### **Second Design**



**Third Design**



**Fourth Design**

