

## **Visual Merchandising for Fashion by Using Augmented Reality (As an Application to The Fitting Room**

**Prof. Mustafa Hussein Kamal**

**Professor, Department of Advertising - Faculty of Applied Arts - Helwan University**

[Mhkamal@Excite.Com](mailto:Mhkamal@Excite.Com)

**Prof. Amr Gamal Hassouna**

**Apparel Design and Management Department, Faculty of Applied Arts, Helwan  
University**

[Hassouna.amr.1031972@gmail.com](mailto:Hassouna.amr.1031972@gmail.com)

**Assist. Lect. Shymaa Alaa El-Deen Ahmed Ahmed**

**Assistant Lecturer at the Higher Institute of Applied Arts. 6th Of October, Fashion  
Department**

[drshymaa4877@gmail.com](mailto:drshymaa4877@gmail.com)

### **Abstract**

With the rapid and successive developments in the world, technology in the world has become very advanced and prosperous. Therefore, the goal of fashion makers at the present time is to promote fashion in an innovative way to produce smart fashion to keep pace with the amazing development in the world of fashion design and fashion. . We find that the use of advanced technology in the field of clothing gives the product the opportunity to be at the forefront of competitors, and one of the most important basic requirements required by the fashion industry is to choose advanced technological methods that reduce promotion costs, reduce time spent and reduce defective and damaged by using virtual reality technology to adjust clothing measurement(Fitting). It is called the interactive smart screen, and it is called virtual or interactive mannequins, and one of its roles in future stores is to inform the user of the good size, the appropriate colors for his skin, and the appropriate accessories for him. the interactive virtual 3D Fitting room or interactive woman is an electronic screen with a special design so that the shopper's in the commercial store can wear and try on different clothes as soon as he stands in front of the electronic screen

### **Key words:**

Visual Merchandising, augmented reality, Fitting Room

### **Research introduction:**

With the rapid and successive developments in the field of technology, especially in the field of computers, man discovered things that unleashed human thought, and made him able to create an unlimited series of realistic analogues that can be combined with each other to create another world and objects that have tangible scientific value. The virtual environments provided this by presenting a vivid picture of the shapes mixed with sound and movement, forming a system for the required environment. It enabled the designer to participate in a variety of sensory interactions, visual and audible, in addition to the kinetic interactions by displaying objects in

their three dimensions to help the user to learn more about the relationship between these Objects and also between their parts with each other, in addition to the process of their interaction through the augmented reality system.

The study believes that augmented reality may enrich the design and promotional process in various aspects. Through augmented reality, it has become easy to create art exhibitions for world designers to participate in and touch the exhibits. It has also become easy for a fashion designer to visualize a ready-made garment factory and build a virtual environment for you to look at. From the outside and enter from the angle that you want to get to know it and modify and add in proportion to what you aspire to, and you may run it to see how the design and production process takes place, and that is before the establishment of the factory completely and the responses in it are immediate and in real time according to the behavior of the user, and thus a means is provided To get to know the extent to which the product conforms to the design and environmental standards and the assortment, and one of the most important advantages of augmented reality is that it saves the efforts and expenses that are spent on manufacturing the environment in the real world, so it creates it for us in the imagination.

All of this is done by taking advantage of augmented reality techniques as much as possible through the total physical response in the field of interaction, which depends primarily on the principle of listening and observation before practice through the accompanying effects to create an interactive promotional atmosphere that attracts customers and immerses them in this atmosphere to deal with the things in it in a natural way. Thus, the user gets a great interactive and promotional opportunity that enhances and refines his purchasing capabilities, so he adopts concepts and procedures that help him learn and know everything that is new in fashion or the required brand without being taught information in a boring and traditional way, instead of the fitting room, we think that this is worth studying the operation.

Augmented reality systems have surpassed these areas and have now become a tangible, living reality in the fields of training, engineering, architecture, security, medicine, entertainment, games and other fields.

The interactive 3D virtual fitting room or the interactive woman is an electronic screen that has a special design so that the shopper in the shop can wear and try on different clothes as soon as he stands in front of this electronic screen, and he can also change clothes through a simple signal (by means of the remote control). ) from his hand towards the screen without touching it, and the "fitting room" is equipped with a camera system, so it can superimpose a 3D image of the shopper and virtual clothes, and the clothes are placed in the virtual shopping basket.

Analysts believe that this technology can not only improve the technical user experience of traditional supermarket sales and specialty clothing stores, but is also expected to bring a new change to clothing shopping even online shopping.

Therefore, the study is in a field that may enrich the visual promotion of fashion from the scientific, practical and educational perspectives in general.

### **Research problem:**

There has been a rapid global development in the applications of augmented reality technology, including the visual promotion of fashion, which requires communication and keeping pace with this development in Egypt and benefiting from it in creating ideas to visually promote these fashions in a modern way that suits the nature created in light of the information

revolution. Therefore, a new and innovative vision for marketing is required. visualization and converting or developing it into a three-dimensional reality technology with which the audience interacts.

The research problem can be identified in the following points:

- What is the possibility of benefiting from augmented reality in promoting fashion visually in stores?
- Is it possible to design a proposed electronic application for the fitting room by default to promote fashion visually?

#### **research importance:-**

Over the past few decades, many practical books and periodicals have been published that explain the role of augmented reality in many and varied fields with the aim of exploring the modern side by which it interacts with the user's experience. This resulted in the development of systems and methods of visual promotion of fashion, which led to increased interaction between users and modern applications of reality Enhanced, achieving ease and audience interaction with the displayed costumes, thus increasing the promotion of fashion visually Which necessitated the importance of applications of augmented reality technology and conducting analytical studies and application at the regional and international levels for a number of applications of the elements of visual promotion of fashion.

#### **research aims:**

The research aims to:

- Presenting the applications of augmented reality in fields as one of the types of modern technology that began to invade many areas in light of the modern scientific revolution, whose use has spread in many countries of the world, which requires identification and knowledge of its capabilities, the method of its use, and the factors that must be available to use such technology.
- Clarifying the role of augmented reality technology to visually promote fashion inside stores through a virtual fitting room and the audience's interaction with it for easy selection and enjoyment.
- Take advantage of augmented reality in the field of visual promotion of fashion.
- Benefit from studying augmented reality techniques to promote fashion visually (applied to the fitting room).
- Suggest an electronic application to promote fashion visually (applied to the fitting room).

#### **Research Methodology:**

The research follows the applied approach by conducting an applied study and investing the results of the analytical study in proposing the design of some interactive models for the local community of the Arab Republic of Egypt:

- In design and implementation experiments
- In a measure of the extent to which the final works of the research hypotheses are achieved.
- The deductive approach: by presenting a deductive study of interactive models and evaluating them through the local Egyptian community

**Research hypotheses:**

At the present time, it is necessary to invest in the technology of augmented reality and interaction in the field of visual promotion of fashion, which helps in building creativity in line with the intellectual and technological changes around the world.

The research assumes that:

- Take advantage of augmented reality technology to promote fashion visually.
- An electronic application can be designed to promote fashion visually using augmented reality (applied to the fitting room).
- What is the extent to which consumers accept the proposed electronic application for the fitting room in terms of design and interaction.
- To what extent do shop managers accept the proposed electronic application of the fitting room?

**References:**

( ) sama' aihmad wahid mustafiun , tiqniaat alwaqie aliaiftirad ka'adaat fi eard watasmim wataqyim almuntajat almaediniati, risalat majistir, kuliyyat funun tatbiqiat , jamieat hulwan, 2009.

( ) muhamad fandi 'ahmad aljirwan: al'asalib aliaiftiradaa litawlid surat thulathiat al'abead nazam alhasimati: risalat dukturah (ghayar manshur) kuliyyat alhandasat jamieat alqahirat , 2000

( ) mustafi 'amin sufaa: tahsin adaat alwasit alaeilani almatbue waisdarat alalkitrunii ean tariq aistikhdam alwaqie aliaiftiradii altafaeulii mae altatbiq ealaa majalaat alaitfali: risalat majistir (ghayar manshur) kuliyyat funun tatbiqiat , jamieat hulwan , 2014.