

A Study on the Adaptation and Prospects of the 3-dimensional Computer graphics in the field of Fashion

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I . Introduction

1. The meaning and the purpose of the study

Now we live in a world where the image and the reality are predominating. The digital word tied the world through the wide-ranging distribution of the computers and web and with the advancement of the virtual reality new concept of the Webspace appeared. Now this is the tree-dimensional age of Internet. The tasks for the survival in the 21st century are the 'softwared product', 'softwared consumer' and the 'softwared economy'.

Fashions are also being affected by the digitalization. With the reinforced security system safeguarding against the information leakage, the improved speed of the Internet and the improved processing of 3D image, the concept that 'we buy clothes only after touching them.' is changing. But there are still difficulties of operating the 3D software when designing the clothes and it has not yet reached the level of the full application because of the shortcomings that the work can only be performed in the settings with computers recommended for the animation works due to the speed of the rendering.

But recently with the continuous development of the computers and the appearance of various software with the added function of designing the clothes, the development of the clothes' design using the 3D computer graphics (CG) will gather momentum. So, the establishment and the management of wide ranging data will be easier that uses the 3D human body scanning and the pattern designing, and expectedly, it will reduce the unnecessary waste of time and cost entailing the designing process. Moreover, more upgraded marketing will be become possible such as the direct designing of the clothes by the customers who can take advantage of the 3D CG software and the compatibility of the web. And furthermore, effective presentations can be realized such as planning and presenting easier level of the fashion shows.

In response to this, this study intends to examine extensively on the current situation where the full capacity of 3D CG is not being highlighted because of the lack of the information and the awareness and to look at how the virtual reality technology is being applied ranging from the design of the clothes to the selling. And then we will try to build the groundwork for establishing a rational and scientific development of the design of the clothes.

2. The scope and the method

This study analyzed the current use and the prospect of 3D CG regarding the design development of the clothes and the marketing as a result from the preceding studied cases that simulate the clothes via 3D CG programs. It also analyzed the prospect in the future by focusing on the material related to the development of the 3D CG program and the module, after looking at the examples of the clothes designed by 3D CG such as photos and movie clips. In addition, we surveyed the websites selling clothes to observe the current use of 3D CG and used various publications about the domestic and overseas industrial trend for the forecast and the analysis.

II. Conclusion and recommendation

This study analyzes the current use of the 3D CG in the area of the clothes and predicts the prospect of the technology of the virtual reality, which is being used for the development of the design and the sales.

A set of processes ranging from the development of the clothes' designing to the sales will be performed on the web. Designers will design with 3D CG and produce the patterns and will hand this over to the producer together with the virtual swatch. In other word, the designer who is in Milan will work together with the wholesaler in New York at the same time and this will allow the creative response to the trend of the fashion and the speedy and dynamic performance of the works at various stages of producing clothes. Consumers can have the virtual experience of trying on the clothes they want on the web and purchasing. But there are still important problems to work out.

First, it is the problem of the virtual fitting room. The body measuring point has to be divided in detail for the 'land marking' as correct data for measuring the body is required for the custom clothes.

Second, it is the absence of the 3D CG, which is easy and convenient for the clothes' designing. Programs that are easy to operate, cheap and very much compatible with CAD is required. Another problem is to improve the speed of the rendering.

Third, it is to perfect the visual reconstruction. What is required is the correct application of the color on the computer screen in order to choose the clothes that suits his or her own ton of the skin and the color of the eye. And the technical research has to provide the support to produce the effect that the silhouette of the clothes looks actually put on the body, not just being wrapped around.

Fourth it is the security of the distribution system. In a word it calls for the reinforced security system that can provide the safeguard against the leakage of the personal information that can happen during the management and tracking of the human body measuring data.

Fifth, it also calls for the strengthened Internet network that can smooth the flow of the

tremendous data and provide rapid control as the designer, producer and consumer are closed linked on the web.

If the aforesaid problems are fixed, the use of 3D CG for the clothes' design will be simulated and will result in more improved marketing through the compatibility with the web that will allow consumers to directly design and purchase and so forth.

Furthermore, planning and presenting easier fashion show will be possible.

Consumer will be able to produce according to their needs and will become designers and produces at the same time, resulting in the achievement of the consumer-oriented marketing in real sense.

III. References

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