Designing a Digital Library of Two-Dimensional Clothing Pattern and their Three-Dimensional Simulation in View of Egypt's Vision 2030

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Abstract:

In light of the international trend towards a digital society in all fields, there has been rapid development in information and communications technology, as the sources of obtaining information have multiplied. Therefore, the digital library is one of the most important of these sources, as the digital library is characterized by providing a quick and comprehensive service for all the current and expected needs of beneficiaries, enabling them to access the content of the digital library with all the features and features it has, as the digital library is characterized by the ease of finding information by searching for it in the special search engine. It also does not take up space and is easy to update information. In response to achieving the goals of Egypt's Vision 2030 to employ digital transformation in all fields and achieve sustainability, the need to design a digital library of clothing patterns has become necessary, as it can benefit specialists and manufacturers in the field of building clothing patterns in terms of providing digital clothing patterns ready to work or export them to specialized programs for building. And designing patterns to complete production processes and increase their efficiency to keep pace with labor market requirements and follow contemporary global and national trends. There are many systems used to build digital patterns, including two-dimensional systems and three-dimensional systems, and under each system is a group of programs. The Gerber Accumark system is one of the most powerful systems for building, grading, and interfacing two-dimensional digital patterns and is most widely used in factories, educational institutions, and the labor market. As it is the most accurate and most widespread system for building two-dimensional patterns. The "GERPER" system is distinguished by the ability to build and scale the digital pattern without any waste of materials, which achieves sustainability in light of Egypt's 2030 vision. The CLO 3D program is also one of the most powerful programs for three-dimensional (3D) systems, through which it is possible to draw and design patterns in the required sizes and complete the stages. Producing the sample and viewing it on the virtual body, while making the necessary adjustments to reach the appropriate setting. Its features include the ease of modifying virtual body measurements based on the measurement table. It also contains many types of knitting stitches and multiple accessories, through which the design can be simulated and ensure its compatibility with the real measurements and the desired shape of the clothing.

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