

Revolutionizing Online Shopping: A Comprehensive Review of an Automated Size Recommendation and Immersive 3D Visualization System for Virtual Try-On Enhancement

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Abstract

In the last decade, the landscape of shopping has been significantly reshaped by the rapid growth of e-commerce and mobile commerce. The fashion industry's shift to e-commerce has resulted in customers being unable to try on clothes before buying, leading to high return rates and dissatisfaction. However, despite the substantial progress in online sales, the persistent challenge of clothing fitness has impeded the seamless purchasing of clothes online. This paper critically evaluates advanced virtual try-on techniques and systems, focusing on automatic size recommendation systems and 3D visualization techniques. It aims to identify key findings, identify knowledge gaps, and assess the advantages and limitations of these methods. The study contributes to the ongoing discourse on improving the global online clothing purchasing experience, making it more convenient, enjoyable, and efficient for consumers. Throughout the review process, an accurate and systematic search approach was employed, ensuring a thorough exploration of prominent academic databases. Additionally, the study considered the necessity of resolving research gaps and addressing potential limitations, emphasizing the importance of transparency in acknowledging any biases or constraints encountered during the review process. In conclusion, this paper contributes to the ongoing discussion on improving the efficiency and overall experience of online clothing purchasing for consumers worldwide. It underscores the potential transformative impact of innovative solutions in reshaping the fashion industry and enhancing customer satisfaction within the realm of online shopping.

Keywords: *Size recommendation, Virtual try-on, 3D model, Apparel industry, User measurement*