Chapter 7
AI Driven Games and Applications: A Way Forward in Fashion Design Education

Zainab Shafaat
https://orcid.org/0000-0003-2971-1167
Punjab Tianjin University of Technology, Lahore, Pakistan

Muhammad Farooq
https://orcid.org/0000-0003-0879-1727
Superior University, Lahore, Pakistan

Abdul Khaliq Alvi
https://orcid.org/0000-0001-8197-6563
Lahore Garrison University, Lahore, Pakistan

Muhammad Waseem Iqbal
https://orcid.org/0000-0001-6284-5904
Superior University, Lahore, Pakistan

ABSTRACT

This chapter investigates the role of AI-powered games and applications in transforming education in the field of fashion design, focusing on ideation, design process, and promotion. Unlike conventional approaches, AI-based games and applications offer adaptive, real-time feedback and customized content tailored to individual user's needs, making learning more effective. In addition to games, there are numerous artificial intelligence-based applications that help users understand fashion and design trends. This research seeks to assess the effectiveness of fashion-designing mobile applications in developing new research ideas for students, teachers, and

DOI: 10.4018/979-8-3373-0035-1.ch007

fashion designer experts. The research will consider assessing leading mobile applications in the field of fashion design, determining their shortcomings in aiding student research, and proposing a new artificial intelligence application layout based on human-centric design principles.

INTRODUCTION

Artificial intelligence (AI) is doing miracles in every field of life. Now it is also facilitating the arena of fashion design education and it has the potential to do even more for students. A fashion designer has to suggest clothes according to the needs of customers. Individual needs vary from person to person and also include weather, profession of that person, age and personality. It also includes the occasion on which it has to be worn (Lee & Suh, 2024). In the past students used to take advantage of sketching in order to create what was the intended product. But sketching is not everybody's forte. So sometimes fashion designers cannot produce the desired results they fail to convince their clients regarding their product (Tuinhof et al., 2019). But AI these days is providing them with great benefits. It not only makes the assignments of professional fashion designers easier but also helps in training fashion design students. Previously a variety of digital software was available for fashion designing but AI has the potential to revolutionize every step in the fashion design process. While these partnerships demonstrate the industry's growing interest in providing digital fashion-related experiences, higher education fashion design programs are mainly focused on using three-dimensional computer-aided design (CAD) tools for digitally designing and building new products (Bertola & Colombi, 2021). Modern fashion design curricula frequently include three-dimensional CAD software products like CLO3D and Browzwear, which are suited to fashion design practice and improve garment production processes through rapid prototyping (Siersema, 2015) zero-waste construction techniques (McQuillan, 2020), as well as to enhance the way design concepts are conveyed to students (Lee et al., 2021; Santos, Montagna, & Neto, 2020). However, it might also be beneficial to use digital tools in higher education to create alternative fashion-related experiences for digital and hybrid environments, exposing students to opportunities beyond using digital tools to create physical things (Bain, 2022). By doing this, upcoming generations of digital-only fashion designers may be able to develop practices and values unique to digital environments, breaking traditional norms and ideals relating to the fashion field that is still frequently used by contemporary digital fashion brands (Sarmakari, 2021). The Fashion Innovation Agency at the London College of Fashion, which investigates alternatives to using digital tools to create fashion