## **IJARSCT**



## International Journal of Advanced Research in Science, Communication and Technology

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal



Impact Factor: 7.67

Volume 5, Issue 1, August 2025

## The Study of Artificial Intelligence in Game Design

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Abstract: In the digital gaming industry, artificial intelligence (AI) has become a disruptive force that is changing how games are made, played, and developed. AI is essential to the creation of intelligent, immersive, and interactive gaming settings, from managing the actions of NPCs to creating dynamic worlds and customizing game play for each player. This study examines the ways in which artificial intelligence (AI) supports behavior modeling, player customization, adaptive difficulty, procedural content creation, and testing, among other areas of game design. It also discusses the difficulties and moral dilemmas associated with integrating AI into games and makes predictions about the direction of AI-powered interactive entertainment.[1].

Keywords: artificial intelligence







DOI: 10.48175/568