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(57) Abstract :

The present invention discloses an AI-based model (100) for smart online shopping recommendations. The system integrates a User Behavior Analysis Module (101), Contextual Analysis Module (102), Multimodal Input Processor (103), Machine Learning Engine (104), Recommendation Generator (105), Explainability Module (106), and Feedback Loop (107). By leveraging collaborative filtering, deep learning, reinforcement learning, and explainable AI, the model dynamically adapts to user preferences and contexts. It delivers highly personalized, scalable, transparent, and accurate product suggestions, enhancing e-commerce engagement, customer trust, and overall shopping experience.

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