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(57) Abstract :
Disclosed herein is an AI-enabled system for automated generation of customized flashcards and exam questions from heterogeneous educational materials (100) comprises a digitization input module (102), configured to receive one or more heterogeneous educational materials. The system also includes an optical character recognition (OCR) and preprocessing module (104), configured to convert the received digital formats into machine-readable text. The system also includes a natural language processing and generative artificial intelligence (NLP-AI) module (106), configured to process the cleaned text to identify key concepts, topics, summaries, and relationships between terms within the educational content. The system also includes a content generation engine (108), configured to algorithmically generate customized flashcards and exam-style questions. The system also includes a customization and user interface module (110), configured to allow users to upload educational material, specify topic preferences, difficulty levels, or learning objectives.

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