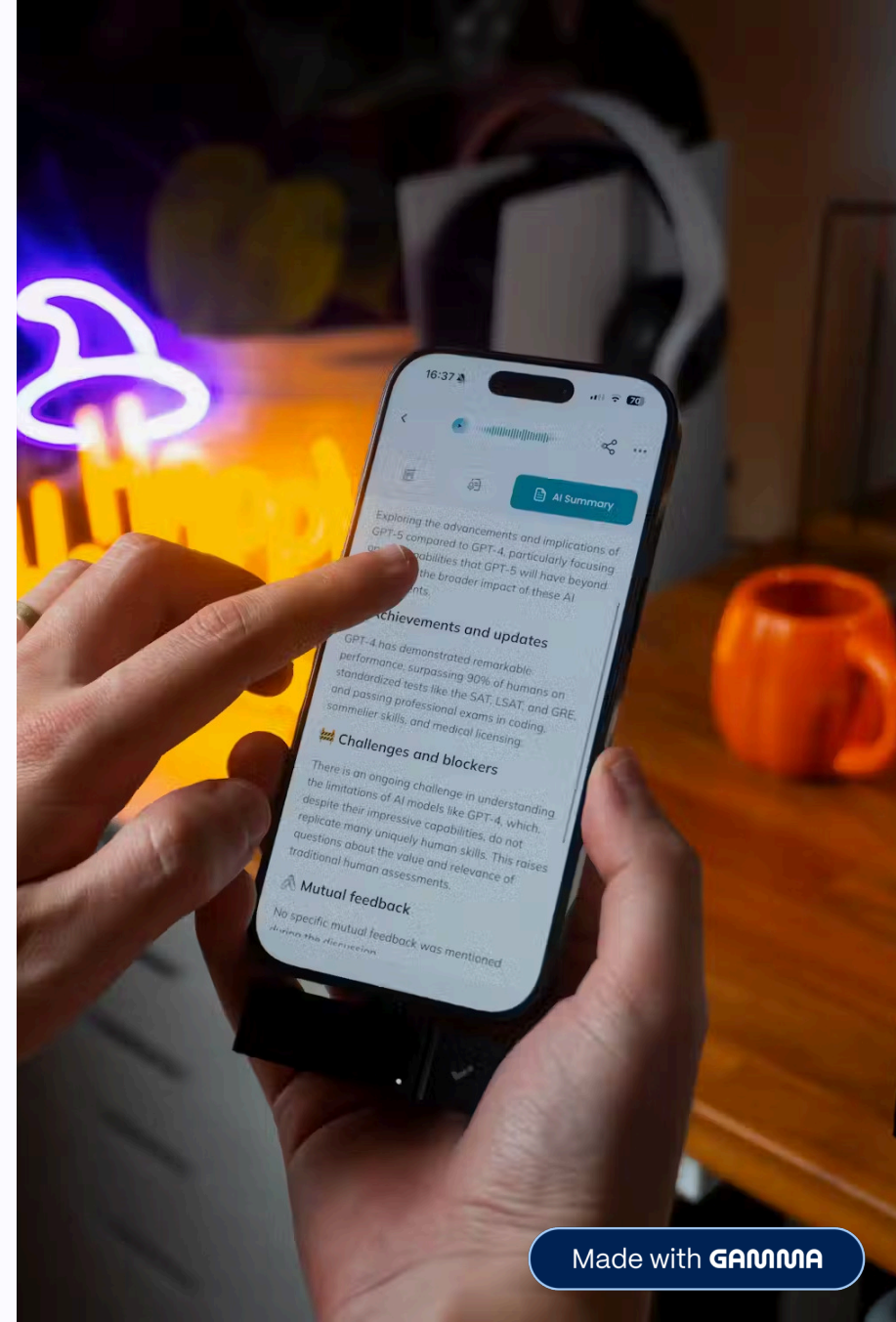


# AI-Powered Learning & Audiobook System

A unified platform that revolutionizes how people consume and interact with knowledge through intelligent automation and personalized learning experiences.



# Automated Audiobook Generation

Transform any document into a natural, podcast-quality audio experience through intelligent processing and synthesis.

01

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## File Upload

Support for PDF, DOCX, text files, and scanned images with intelligent format detection.

02

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## Text Extraction

Automated extraction using pdfplumber, python-docx, and EasyOCR for maximum accuracy.

03

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## LLM Rewriting

Local LMStudio model transforms raw text into engaging podcast-style narratives.

04

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## Speech Synthesis

Coqui TTS delivers smooth, human-like audio with natural intonation and pacing.





# Document-Grounded RAG Q&A Engine

Enable intelligent conversations with your documents through retrieval-augmented generation, providing accurate answers grounded in source material.

## Architecture Components

- **Semantic Chunking:** High-fidelity segmentation for optimal retrieval
- **Vector Embeddings:** OpenAI/BGE models via LlamaIndex
- **Fast Retrieval:** FAISS, Pinecone, or Chroma DB
- **LLM Generation:** Contextual answers from local models

## User Experience

- Intuitive "Ask Questions" interface
- Highlighted reference passages
- Source citations with page numbers
- Transparent answer provenance



# Dual-LLM Practice Mode

A personalized learning assistant powered by two specialized AI agents working in harmony to strengthen understanding and retention.

## Question Agent

Analyzes weak areas and generates adaptive questions by topic or difficulty, mimicking real exam scenarios.

## Answer Assistant

Acts as a supportive mentor, providing hints and encouraging step-by-step logical reasoning without direct answers.



## Practice Dashboard

progress across topics with visual performance metrics.



## Accuracy Tracking

Monitor improvement over time with detailed analytics.



## Attempt History

Review past sessions to identify patterns and growth areas.



# 3D AI Therapy & Teaching Companion

A breakthrough in human-AI interaction: an emotionally intelligent 3D companion that makes learning feel personal and engaging.

## Core Technology

Built on Ollama 7B local LLM with advanced animation and expression systems.

## Interactive Roles

- Supportive study companion
- Soft teaching assistant
- Motivational coach
- Empathetic conversation partner

### 1 Facial Expressions

Dynamic emotions that respond to conversation context

### 2 Natural Gestures

Body language that enhances communication

### 3 Responsive Animation

Real-time reactions creating authentic interactions



# System Architecture Overview

An integrated pipeline that seamlessly connects document processing, AI generation, intelligent retrieval, and interactive learning.



## User Upload

Multi-format document ingestion



## Text Extraction & OCR

Intelligent content parsing



## Markdown Structuring

Clean, organized content storage



## LLM Rewrite & TTS

Podcast-style audio generation



## Vector Embeddings

Semantic search infrastructure



## RAG Engine & Practice Mode

Intelligent Q&A and adaptive learning



## 3D AI Companion

Human-like interaction layer



# Impact & Value Proposition

## For Students & Learners



- Convert any document into podcast-quality audio
- Ask questions with teacher-level responses
- Practice with adaptive AI training
- Engage with emotionally intelligent AI companion

## For Enterprise Teams



- Internal document training and onboarding
- Convert SOPs, manuals, and policies to audio
- Instant Q&A for distributed teams
- Local LLMs ensure complete data privacy

❏ **Privacy-First Architecture:** Local LLM deployment ensures sensitive enterprise data never leaves your infrastructure while maintaining cutting-edge AI capabilities.

# A New Paradigm for Knowledge Interaction



## Hybrid AI-First

Flexible deployment across local and cloud infrastructure



## Infinitely Scalable

Architecture designed to grow with organizational needs



## Enterprise Secure

Local LLMs and private vector storage



## Human-Centered

Intuitive interfaces and natural interactions



## Educationally Powerful

Research-backed learning methodologies

An end-to-end solution that fundamentally transforms how people **read, learn, practice, and interact** with knowledge in the AI era.



# Ready to Transform Learning

This comprehensive AI learning platform represents the convergence of cutting-edge technology and human-centered design, delivering measurable improvements in knowledge retention, engagement, and accessibility.

[Schedule Demo](#)[View Technical Documentation](#)

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