Unlocking Potential: The Personalized Learning Copilot

Track:- Smart Education

Welcome to a future where learning is tailored to every student's unique needs. We're here to discuss an innovative solution designed to empower neurodiverse learners and transform their educational journey.

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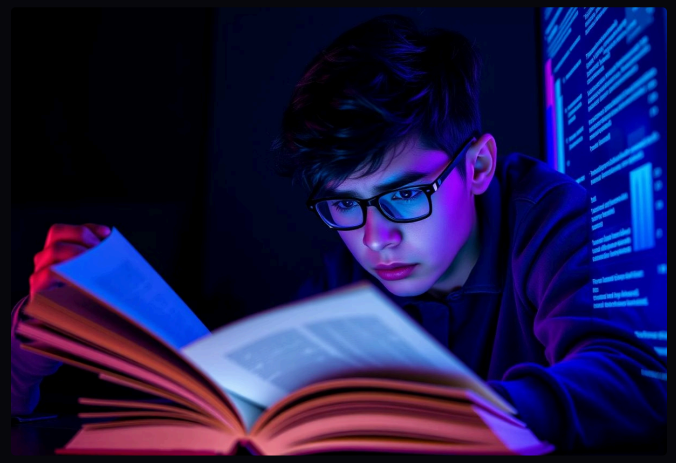
Problem Statement: E-learning isn't accessible for students with ADHD and Dyslexia. How can we make it more inclusive using AI?

Inaccessible Materials

Traditional e-learning platforms often present barriers. They lack flexibility for diverse learning styles.



Overwhelm & Disengagement

Dense text and static content can lead to frustration. This affects comprehension and motivation.

Neurodiverse students, particularly those with ADHD and dyslexia, often struggle with conventional educational content. This limits their ability to fully engage and succeed.

Proposed solution: Introducing the Personalized Learning Copilot

Powered by AI.

Advanced AI understands and processes complex information. Dynamically simplifies content for easier digestion.

Unique learning methods.

Allow the user to convert the learning material into a podcast. Thus, promoting attentive learning.

Voice Narration.

Reads text aloud, enhancing auditory learning.

Dyslexia-Friendly Fonts

Optimized typography improves readability.

Distraction-Reducing Tools (for ADHD)

Using various tried and trusted techniques in order to increase attention span and engagement.

AI-Based Attention Detection (for ADHD)

Use webcam-based facial monitoring (with consent) to detect signs of inattention.

Our solution leverages cutting-edge technology to create a truly inclusive learning experience. It's a copilot for every student.

How the Copilot Transforms Learning: Tech Stack

Core Platform

The **MERN stack** provides a robust foundation for the web application.

Attention AI

MediaPipe and Face Mesh(Google) powers real-time face detection for focus monitoring.

Dynamic Audio

Murf API generates natural voice narration and pronunciations.

Seamless Connectivity

WebRTC and **WebSockets** ensure real-time interaction and data flow.

Project Overview: Uniqueness, Feasibility, Impact

Unique Multi-modal Design

Our platform combines visual, auditory, and simplified text. This creates multi-sensory engagement for every learner.

Feasible Modular Architecture

Features are built and tested independently. This allows for rapid iteration and efficient development cycles.

Empowering Student Impact

Students engage material without constant human aid. This boosts their confidence and fosters independent learning.