

# Tellie AI

## Problem Statement

Children today are increasingly immersed in screens, but many learning tools fail to engage them in a meaningful way. Educational content often feels generic, static, or emotionally disconnected from a child's imagination, especially for kids aged 4 to 12, who rely heavily on emotional cues and storytelling to learn effectively.

The issue isn't the lack of content—it's the lack of **personalised emotional delivery**. Parents and teachers often struggle to maintain a child's interest when lessons lack tone, interactivity, or cultural relevance. In an age of AI and hyper-personalization, education still feels one-size-fits-all.

## Target Audience

- Children aged 4–12
- Parents seeking smarter screen-time alternatives
- Teachers and early edtech platforms focused on engagement

It also benefits children with learning differences or attention challenges who respond better to audio-visual storytelling. In most homes, storytelling is limited to flat audiobooks or cartoons, leaving a gap for **interactive, emotionally resonant, and character-led learning experiences**. Tellie aims to fill that space.

## Use of Generative AI

Generative AI enables Tellie to convert any lesson or story into a rich, character-driven narrative. The process involves:

- **LLM-based content rewriting** – Adapts tone, humour, and vocabulary to match the child's selected character
- **Age-level simplification** – Ensures content is cognitively appropriate
- **Voice cloning + emotion control** – Narration is generated in the character's expressive voice using TTS models like ElevenLabs or OpenVoice

GenAI makes this experience **scalable, context-aware, and emotionally personalised**—something traditional education media cannot achieve.

## Solution Framework

Tellie is a mobile-first platform where users can upload content, choose a character, and receive a personalised audio-visual storytelling experience.

## Core Workflow:

### 1. Preprocessing & Simplification:

Text is parsed and adjusted for age level and clarity

## **2. LLM Stylisation:**

Rewritten in the selected character's tone using prompt engineering

## **3. Voice Rendering:**

Character's voice generated using fine-tuned or zero-shot TTS

## **4. Playback Experience:**

Delivered in a chat, comic, or paragraph format with optional visuals

## **Tech Stack:**

1. Flutter (Frontend)
2. Supabase (Realtime backend)
3. LangChain + Groq/OpenAI (LLM pipeline)
4. Modular TTS engines (Bark, Coqui, ElevenLabs)
5. Plug-and-play character modules for voice + style expansion

## **Feasibility & Execution**

Tellie's MVP demonstrates a functional pipeline—from content upload to expressive, character-based narration. Built with Flutter and Supabase for cross-platform performance and real-time data handling, the system integrates modular LLM and TTS components using LangChain and ElevenLabs/OpenVoice. Inference tools like Groq and vLLM ensure low-latency processing, while content filtering is handled during preprocessing for safety. The architecture is cloud-deployable and supports API-based integration, making practical rollout across home or classroom environments straightforward and cost-manageable.

## **Scalability & Impact**

Tellie's modular design allows easy scaling—new characters, languages, or narration styles can be added with minimal overhead. Its API-ready architecture supports integration into classrooms, edtech platforms, and therapy tools. By delivering emotionally engaging, voice-personalised content, Tellie enhances attention, comprehension, and joy in learning. As adoption grows, it can redefine how young learners engage with stories and educational material, bridging the emotional gap in digital learning with a format children genuinely connect with.

## **Minimum Lovable Product (MLP)**

Tellie transforms any lesson into a personalized audio story, narrated in the voice and tone of a character the child already loves. By seamlessly blending large language models, voice cloning, and emotional nuance within a playful, kid-friendly interface, it creates an experience that is both engaging and educational. Even in its simplest form, Tellie boosts attention, enhances retention, and delivers clear value in both home and classroom settings. More than just a product, it represents a new format for how young learners connect with content—emotionally, interactively, and meaningfully.