



Multivox

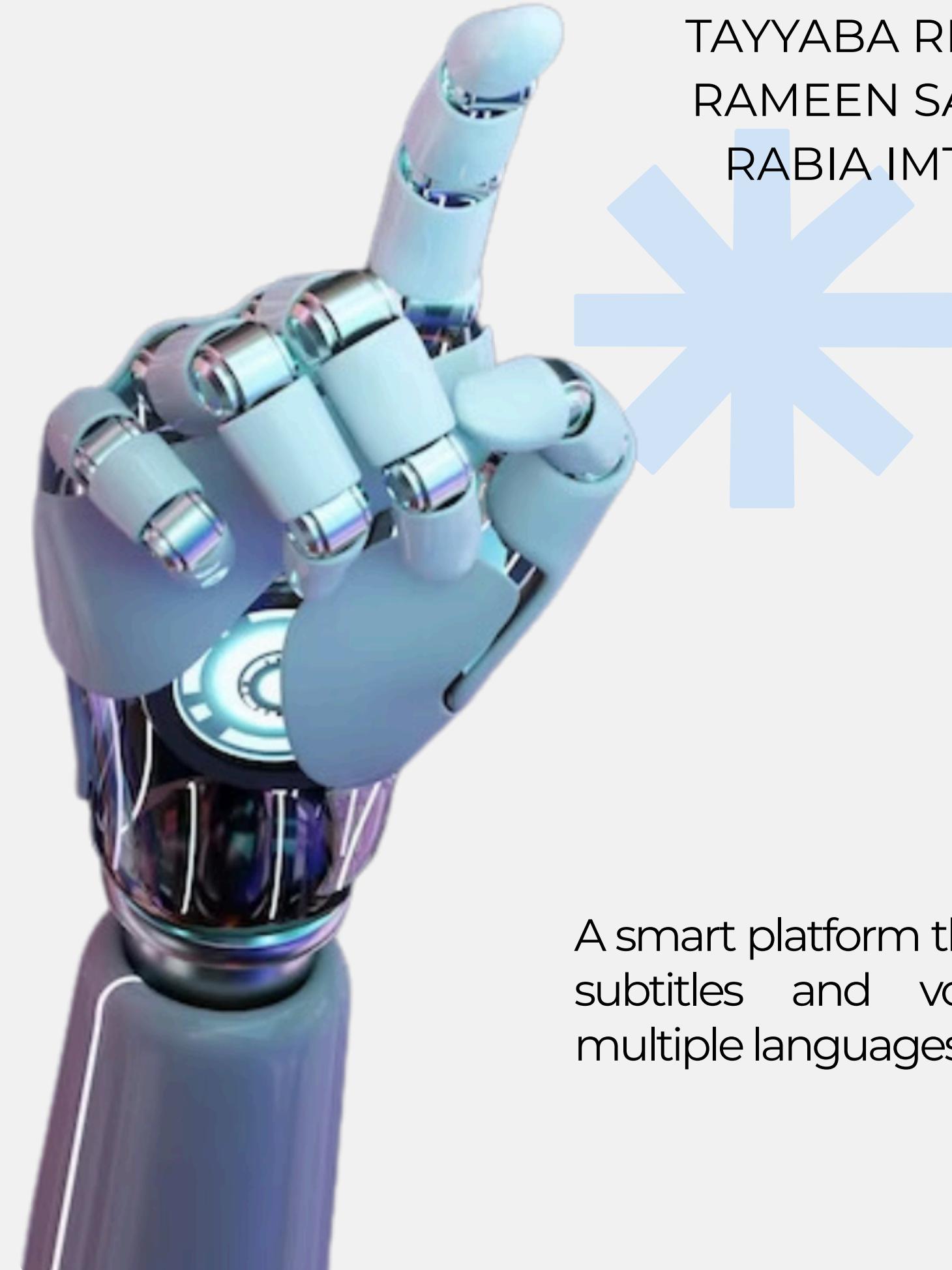
AI-POWERED DUBBING FOR THE MULTILINGUAL ERA

Multivox Bridging Language Barriers with AI

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WHERE INNOVATION
MEETS OPPORTUNITY.



GROUP MEMBERS

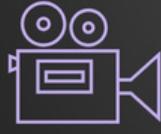
TAYYABA REHAN

RAMEEN SAHAR

RABIA IMTIAZ

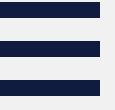


A smart platform that auto-generates subtitles and voice dubbing in multiple languages.



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AI-POWERED DUBBING FOR THE MULTILINGUAL ERA



What is mission of **Multivox**

MAKE VIDEO CONTENT
ACCESSIBLE,
UNDERSTANDABLE, AND
GLOBAL—FOR EVERYONE.

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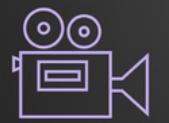
CHANGING THE WAY
THE WORLD WORKS.



PROBLEM STATEMENT

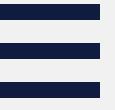
- MAJORITY OF VIDEO CONTENT IS LANGUAGE-LOCKED.
- SUBTITLING + VOICE-OVER ARE MANUAL, SLOW, AND EXPENSIVE.
- NO UNIFIED OPEN-SOURCE OR CUSTOMIZABLE SOLUTION THAT CAN HANDLE:
 - DIFFERENT LANGUAGES
 - FAST TRANSCRIPTION + TRANSLATION
 - REALISTIC VOICE DUBBING





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Multivox – AI-Powered Multilingual Subtitles & Voice Dubbing

What does it do?

"MULTIVOX IS AN AI-DRIVEN PLATFORM THAT AUTOMATES THE GENERATION OF MULTILINGUAL SUBTITLES AND VOICE DUBBING FROM ANY VIDEO OR AUDIO SOURCE."

- Built to break language barriers in digital content.
- Combines ASR (Automatic Speech Recognition), NMT (Neural Machine Translation), and TTS (Text-to-Speech) models into one pipeline.
- Ideal for YouTube creators, educators, accessibility tools, and media localization.



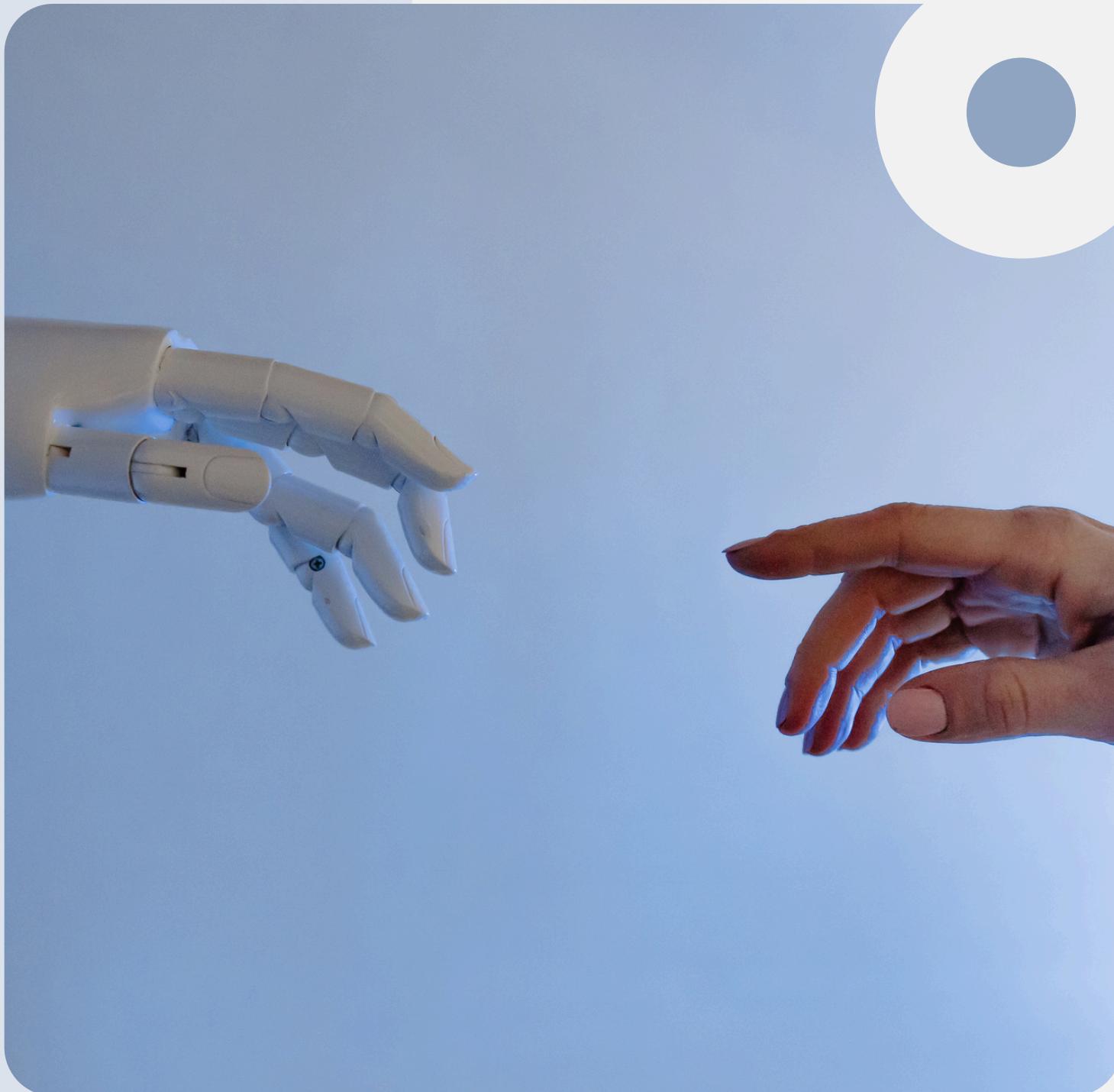
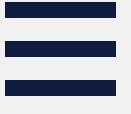
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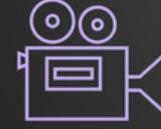


Key Features

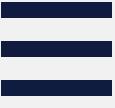
PERSONALIZATION POWERED BY INTELLIGENCE.

- Auto Language Detection
- Accurate Subtitle Generation (.srt, .vtt)
- Translate Subtitles into Multiple Languages
- Realistic AI Voice Dubbing (via ElevenLabs/PlayHT)
- Developer-friendly with REST APIs
- Simple UI for Upload, Preview, and Download





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Tech Stack (End-to-End)

Frontend (React + Vite)

- Language selection dropdown
- File upload component
- Subtitle + audio preview player
- Axios for API calls

Backend (Flask / Node.js)

- Handles API requests and job queue
- Orchestrates ASR → Translation → TTS pipelines
- Stores media, manages job states

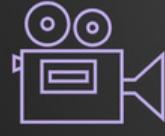
AI MODELS & APIs

Task	Tool / API
ASR (Speech-to-text)	OpenAI Whisper
Translation	Google Translate / DeepL
TTS (Voice Dubbing)	ElevenLabs / PlayHT
File Conversion	ffmpeg (audio/video ops)

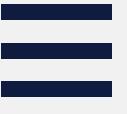
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DATA DECISIONS—AND DRIVES DESTINY.





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Work Done So Far

- UI (React + Vite) for user upload and language selection
- Trying to add sub titles in target language then we will proceed to multilingual support.

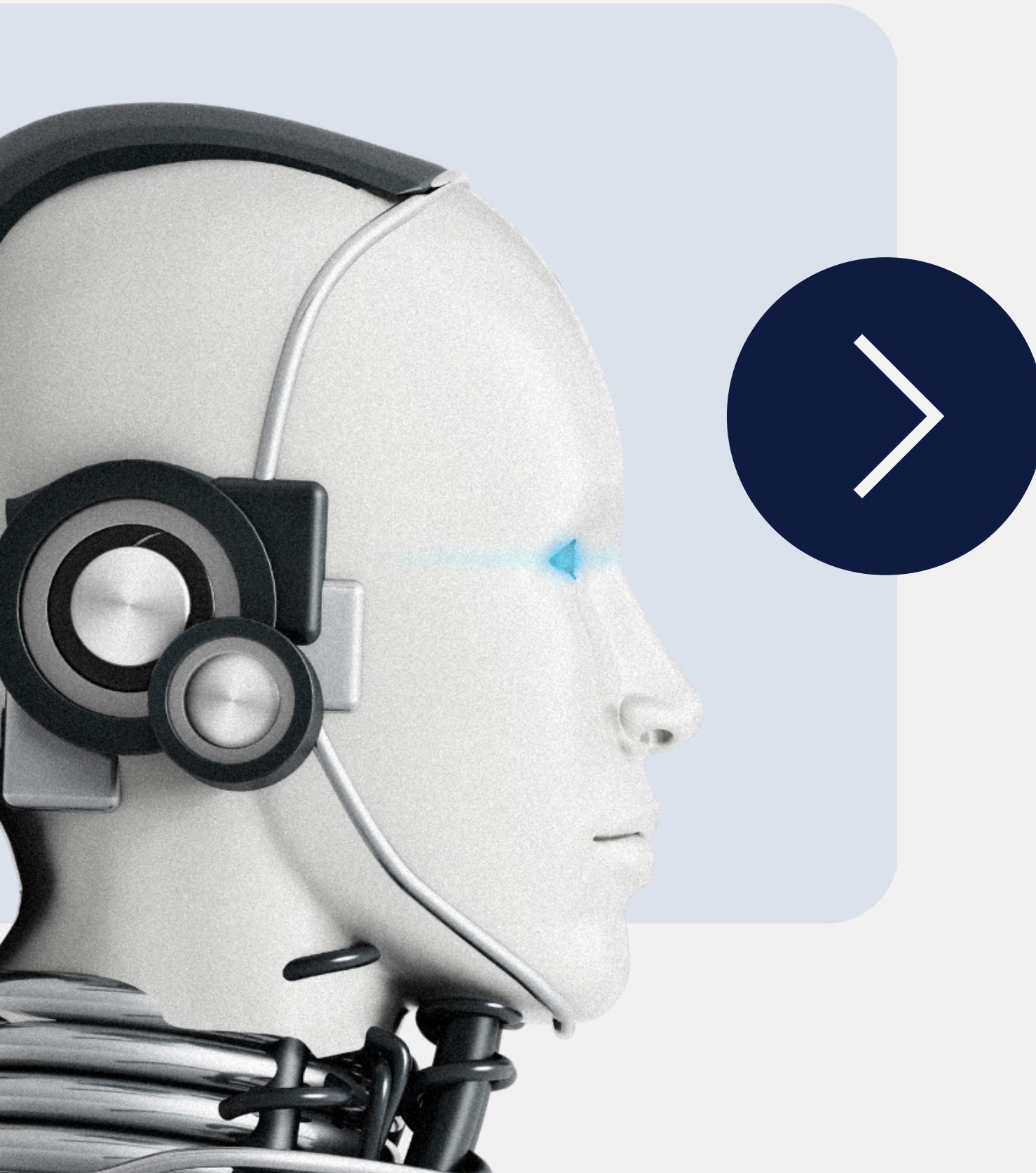
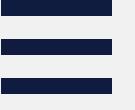
CHALLENGES WE'RE FACING

- Subtitle generation is difficult when user is providing the link.
- The system becomes too heavy.
- the multi lingual sub titles how to perform it we are having so many issues.





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Where We Need Help

- Advice on reducing app load / offloading processing
- Better translation models (maybe open-source NMT?)
- Syncing dubbed voice with original video timing
- Suggestions for improving subtitle alignment
- Real-time preview feature guidance

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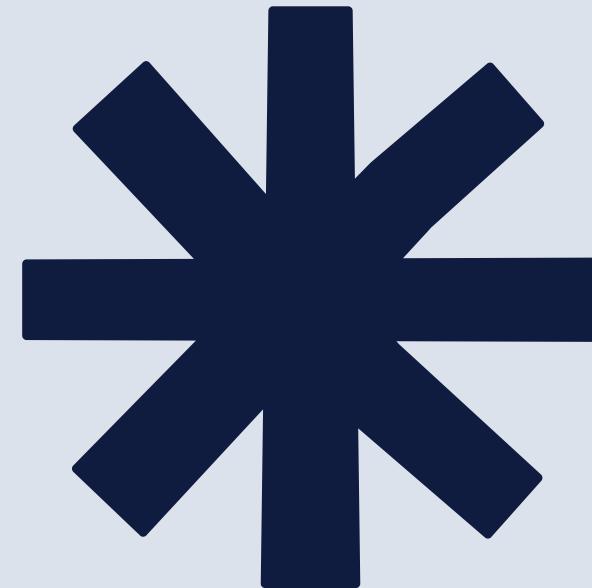


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Conclusion



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PLAN WISELY.
EXECUTE SMARTLY.

- Multivox is a step toward AI-powered accessibility.
- We've built the foundation, UI, and basic AI pipeline.
- Now focusing on improving performance + accuracy.
- Open to feedback, ideas, and mentorship to take this further.