Sense Vision Al

Accessible Learning Tool





WHERE INNOVATION
MEETS OPPORTUNITY

Artificial Intelligence (AI) is no longer just assistive technology—it's a transformative force empowering visually impaired learners with accessibility, independence, and equal opportunities in education.





Problem Statement

- Challenges faced by visually impaired learners.
- Lack of accessible, affordable, intelligent tools.



Challenges:

Lack of accessible, affordable, intelligent learning tools for visually impaired..

Solution

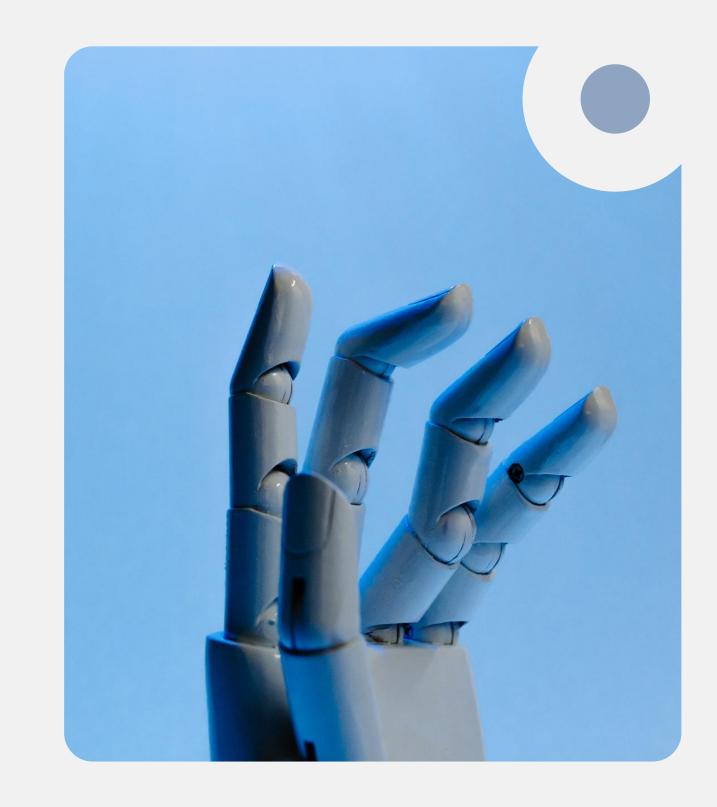
- VOICE-FIRST, MULTILINGUAL AI ASSISTANT.
- OCR + TTS FOR DOCUMENTS.
- IMAGECAPTIONINGFOR DIAGRAMS/GRAPHS/MAPS.
- EMOTION-AWARE SPEECH + VOICE COMMANDS.



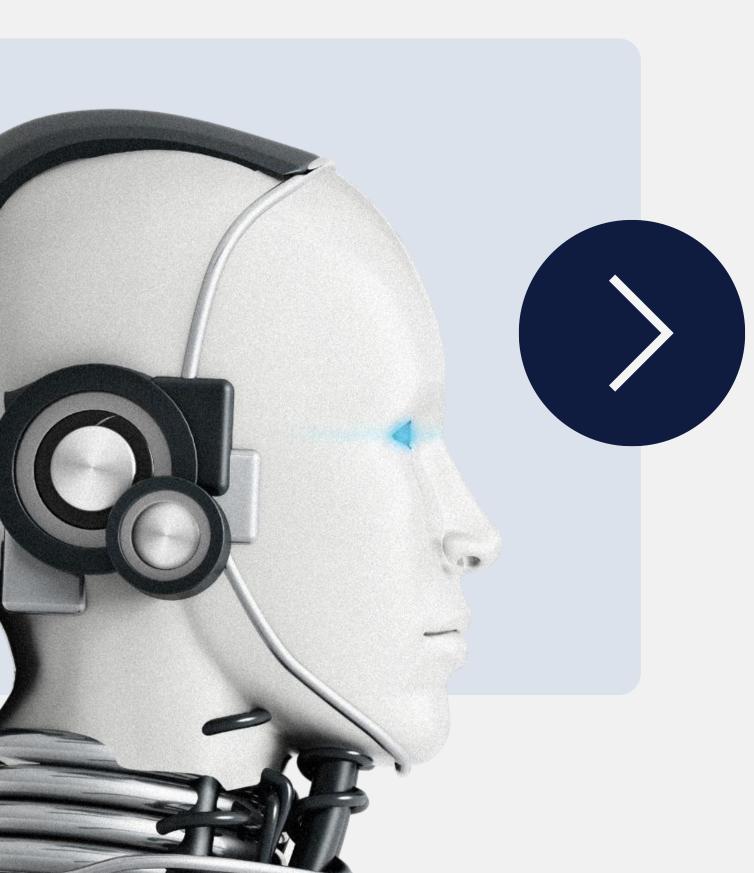
Unique Value Proposition (UVP)

- Multilingual support (English, Hindi, Telugu).
- Automatic camera detection + hands-free use.
- Accessibility-first design (WCAG standards).
- Affordable, scalable for schools, NGOs, libraries.
- Empowers independent learning for visually impaired students.









Technical Approach

- Frontend: React/Next.js.
- Backend: Node.js + Express.
- OCR: Google Vision OCR.
- TTS: Google Cloud TTS.
- Al Reasoning: Google Gemini
- Image Captioning: BLIP.









Feasibility and Viability

Technical

PROVEN AI MODELS (OCR, TTS, CAPTIONING) INTEGRATED. **Financial**



LOW-COST DEPLOYMENT WITH CLOUD APIS.

Market



CAN SCALE TO INSTITUTIONS, NGOS.

Risks & Mitigation

OFFLINE SUPPORT IN ROADMAP, TRAINING FOR ADOPTION.

39M VISUALLY
IMPAIRED IN INDIA,
NEED FOR
AFFORDABLE TOOLS.



Impact & Benefits

- Social: Independent learning, inclusivity, empowerment.
- Economic: Affordable solution, scalable across communities.
- Educational: Equal access to digital resources.
- Future Scope:
- More Indian languages.
- Offline mode.
- Integration with Braille devices.





Accessibility is not just inclusion—it's innovation. By empowering every learner, we don't just build tools, we build a future where education has no barriers