

Meet dwani.ai

dwani.ai: Knowledge from Curiosity

Accessible, Private, Open Source, Free



dwani.ai

Anita's Story

- Anita cannot use Voice Tech
- English Only, Not Private



Why We Need dwani

- Ever tried asking Siri or Alexa something in Kannada ? They don't get it !
- Over 5 crore people speak kannada, but most voice tech ignores them
- dwani uses Open Source Tools to fix this - built for YOU !

What Makes dwani Special ?

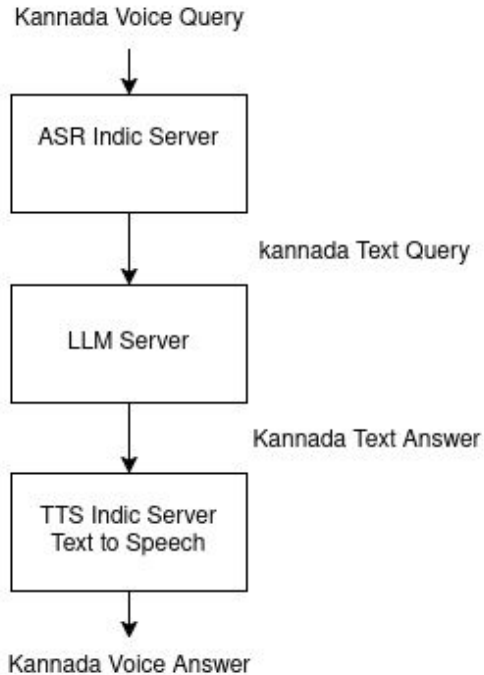
- Its **FREE** for anyone to use or tweak-like a community project !
- Runs on your premise, keeping your chats private.
- Uses Open-weight Models released by AI4Bharat, Google Deepmind, OpenAI

dwani.ai Team

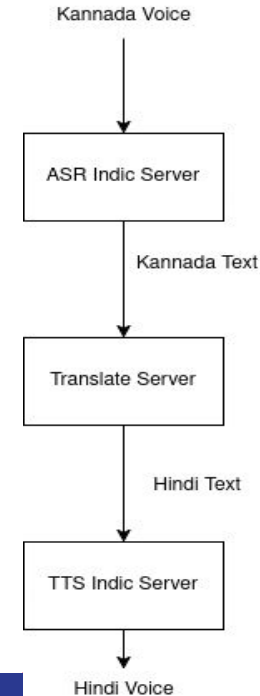
- Sachin Shetty - Software Engineer, 10+ year S/W , 2+ year GenAI
- Sahana Shetty - Robotics Engineer, “Human-Assisting Apparatus”, Indian Patent - 562119
- Nithish S - Embedded Engineer, Outreach and Community Management

What can Dwani Do?

Chat In Kannada



Translate on the Fly



Current Status - July 22, 2025

Answer -
Kannada,
German,
English

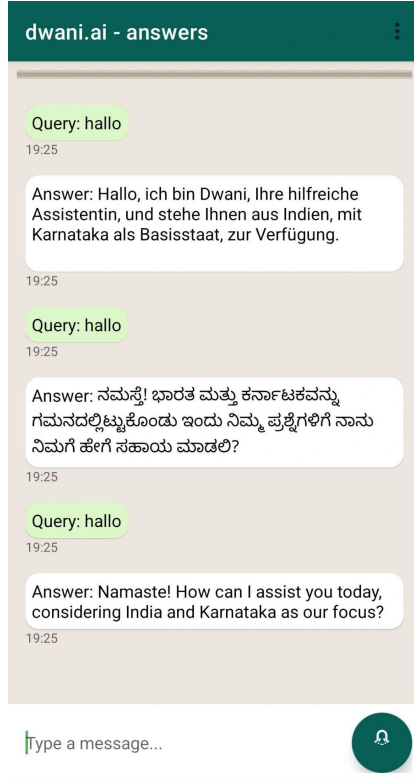
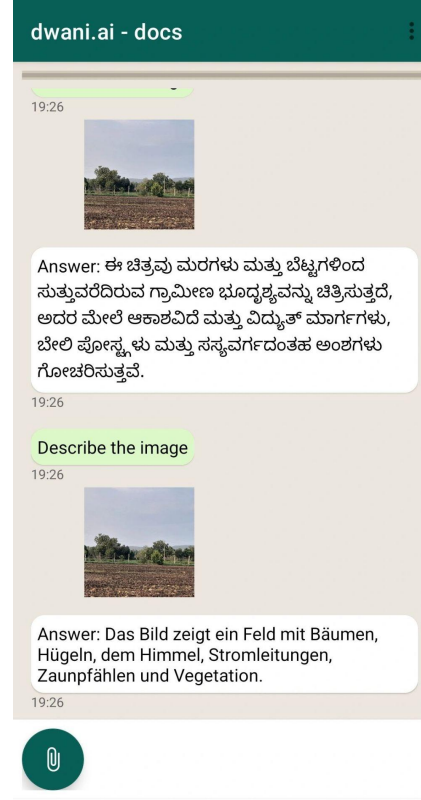
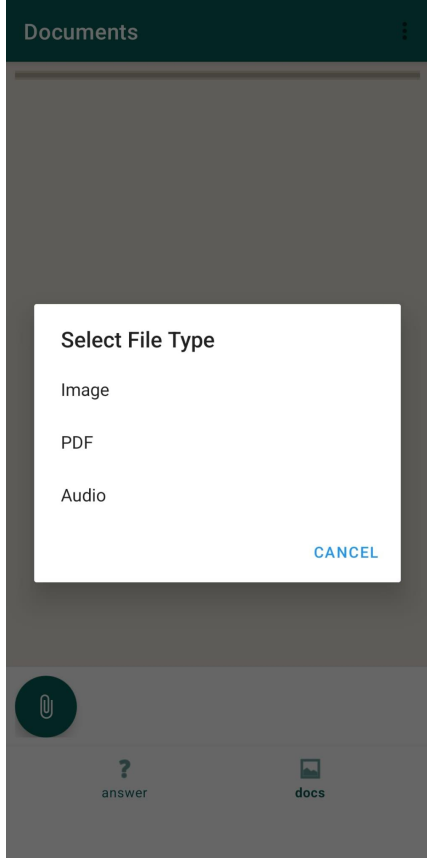


Image Query

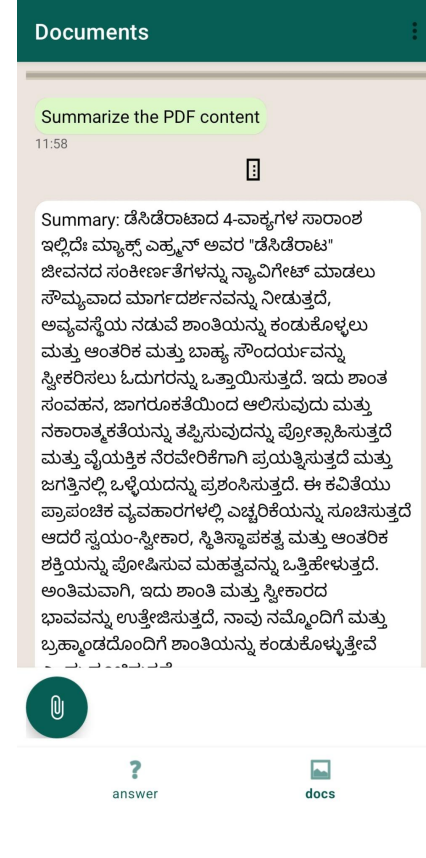


Current Status - July 22, 2025 (contd)

Select Type



PDF Summary



dwani.ai - python-sdk

- pip install --upgrade dwani
- Credentials to use dwani.ai API
 - DWANI_API_BASE_URL = `https://beta-api.dwani.ai`
 - DWANI_API_KEY = `email_id + _dwani`
 - Ex : `email_id` : `user-email@example.com`
 - DWANI_API_KEY = `user-email@example.com_dwani`
- Languages Supported
 - Hindi, Kannada, Malayalam, Marathi, Odia, Punjabi, Tamil, Telugu
 - English, German

dwani.ai - Android App



dwani's Goals

To integrate and enhance the following models and services for Kannada:

- **Automatic Speech Recognition (ASR):** To convert spoken Kannada into text.
 - a. Listen : Understands spoken Kannada-like a friend who gets you
- **Text-to-Speech (TTS):** To convert Kannada text into natural-sounding speech.
 - a. Speak - Talks back in kannada, naturally
- **Translation Services:** To enable translation between Kannada and other Indian languages.

Workshop - Prerequisites

- Python 3.10 (mandatory)
- Ubuntu 22.04 (Preferred)
- GitHub Account
- HuggingFace Account
- Fork and clone
- Live Demo

[GitHub](#)

[Hugging Face](#)

<https://github.com/dwani-ai/workshop>

<https://workshop.dwani.ai>

Workshop Plan

- Walk through of dwani.ai GitHub Projects for reference
- Build UX with Gradio/Python to explore Use-cases for Voice AI with Kannada + Indian Languages
- Explore Workshop Code
 - <https://workshop.dwani.ai>
 - https://github.com/dwani-ai/workshop/blob/main/workshop_demo.py

Document Query

dwani.ai API Suite

A comprehensive interface for dwani.ai APIs: Chat, Image Query, Transcription, Translation, PDF Processing, Resume Translation, and Text-to-Speech.

PDF Query

Chat

Image Query

Transcription

Translation

Resume Translation

...

Query PDF files with a custom prompt

Upload PDF

Desiderata_By_Max_Ehr....pdf

6.1 KB

Page Number

1

Custom Prompt

List the key points

Source Language

english

Target Language

kannada

Process

the universe.** Believe that things are unfolding as they should, even if you don't understand them. * **Find Peace with God:** Maintain a sense of connection with a higher power, however you define it. * **Recognize Beauty:** Despite its flaws, the world remains beautiful. Would you like me to elaborate on any of these points, or perhaps summarize them in a different way?"

"Translated Response":

"ಮೌನದೊಳಿಹಿ ಅನರ 'ದೇವರಾಟ' ದ ಪ್ರಮುಖ ಅಂಶಗಳ ತುಣುಕು ಇಲ್ಲಿದೆ * * * ಮೌನದಲ್ಲಿ ಶಾಂತಿಯನ್ನು ಕಂಡುಕೊಳ್ಳಿ * * ಜೀವನದ ಅಭಿವ್ಯಕ್ತಿಯ ನಡುವೆ, ಶಾಂತ ಕ್ಷಣಗಳನ್ನು ಹುಡುಕಿ ಮತ್ತು ನಿಶ್ಚಲತೆಯ ಸೌಂದರ್ಯವನ್ನು ಮೆಚ್ಚಿಕೊಳ್ಳಿ."

Indic LLM Chat

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PDF Query **Chat** Image Query Transcription Translation Resume Translation ...

Interact with the Chat API

Prompt

hi

Source Language

english

Target Language

kannada

Submit

{ } Chat Response

1 {

2 "response":

"ಹಾಯ್!

ಭಾರತ ಮತ್ತು ಕರ್ನಾಟಕವನ್ನು ಗಮನದಲ್ಲಿಟ್ಟು

ಮಾಡಬಲ್ಲೆ?

3 }


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Image Query

[PDF Query](#) [Chat](#) [Image Query](#) [Transcription](#) [Translation](#) [Resume Translation](#) [...](#)

Query images with a prompt

Upload Image



📤

🔍

📄

Prompt

describe the image

Source Language

english

Target Language

kannada

Query

Image Query Response

1

2

3

{

"answer":

"ಈ ಚಿತ್ರವು ಆಪ್ಟಿಮಸ್ ಎಂಬ ಪ್ರಬಲ ಮಾನವರೂಪದ ರೋಬೋಟ್ ಅನ್ನು ಪ್ರದರ್ಶಿಸುತ್ತದೆ, ಅದರ ಸಾಮರ್ಥ್ಯಗಳನ್ನು ಮತ್ತು ಭಗ್ನಾವಶೇಷಗಳೊಂದಿಗೆ "ಸ್ವಿಪ್-ಮೋಡ್" ಸ್ಥಿತಿಯನ್ನು ಎತ್ತಿ ತೋರಿಸುತ್ತದೆ, ಜೊತೆಗೆ ಅವುಗಳ ಎರಡು ಪಾಯಿಂಟ್ ಎಂಟು ಮತ್ತು "ಹೈ ಟರ್ನಿಂಗ್" ಎಚ್ಚರಿಕೆಯನ್ನು ನೀಡುತ್ತದೆ."

}

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Automatic Speech Recognition (ASR)


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PDF Query Chat Image Query Transcription Translation Resume Translation ...

Transcribe audio files

Audio File



0:00 0:05

1x

⏮ ⏪ ⏩ ⏭

Transcription Response

```
1 {  
2   "text":  
3     "ಕರ್ನಾಟಕದ ರಾಜಧಾನಿ ಯಾವುದು"  
4 }
```

Language

kannada

Transcribe

Text to Speech

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[PDF Query](#)[Chat](#)[Image Query](#)[Transcription](#)[Translation](#)[Resume Translation](#)

Convert text to speech

Text

ಕರ್ನಾಟಕದ ರಾಜಧಾನಿ ಬೆಂಗಳೂರು.

Language

kannada



Generate Speech

Generated Speech



0:00

0:02



1x



Translation

dwani.ai API Suite

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PDF Query Chat Image Query Transcription **Translation** Resume Translation ...

Translate sentences between languages

Sentences

Hi, my name is sachin

Source Language

English

Target Language

Kannada

Translate

Translation Response

```
1 {
2   "translations": [
3     "ಹಾಯ್. ",
4     "ನನ್ನ ಹೆಸರು ಸಚಿನ್"
5   ]
6 }
```

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Research Goals / Collaboration

- Measure and improve the Time to First Token Generation (TTFTG) for model architectures in ASR, Translation, and TTS systems.

Tool	Source
Document Processing	https://github.com/dwani-ai/docs-indic-server
Automatic Speech Recognition : ASR	https://github.com/dwani-ai/asr-indic-server
Text to Speech : TTS	https://github.com/dwani-ai/tts-indic-server
Translation	https://github.com/dwani-ai/indic-translate-server
API Server	https://github.com/dwani-ai/dwani-api-server
Dwani Android App	https://github.com/slabstech/dwani-android

Problem statements - Health

- Multilingual Symptom Checker
- Voice-Enabled Appointment Booking System
- Health Education Voice Platform
- Assistive Tool for Visually Impaired Patients
- Voice-Driven Telemedicine Connector
- Mental Health Support Voice Bot
- Voice-Based Rehabilitation Guide
- Multilingual Emergency Response Assistant
- Voice-Enabled Health Record Access
- Assistive Tool for Physically Challenged Patients

Problem statements - Public Service and Government

- Multilingual Grievance Filing System
- Voice-Enabled Public Scheme Navigator
- Transparent RTI Query Tool
- Citizen Feedback Collector
- Voice-Driven e-Governance Chatbot
- Accessible Voting Information System
- Smart Public Announcement System
- Multilingual Legal Aid Assistant
- Voice-Based Public Transport Query System
- Citizen Safety Reporting Tool

Q/A

- What are your feedback for Workshop ?
- What would you like to build?
- Slides Download -

<https://dwani.ai/dwani-ai-workshop.pdf>

