

# 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 / Mother Tongue ? 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, Qwen

# 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

# Experiments <> Hackathons with dwani

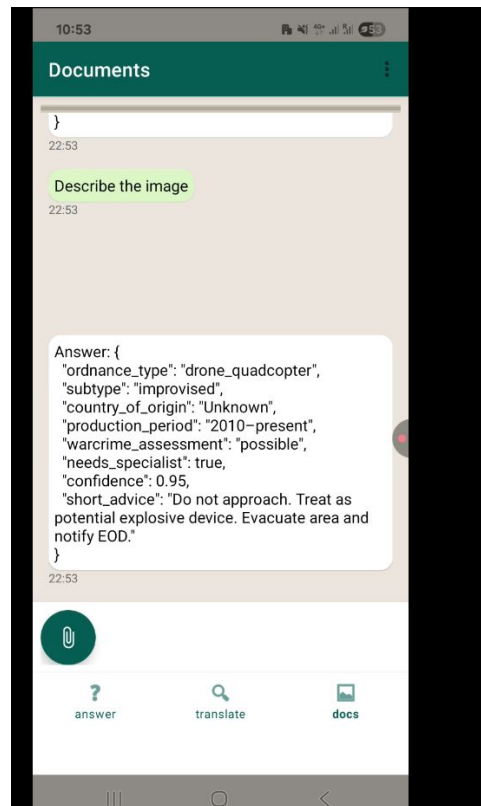
- Juris-diction-AI-ry - Tax Tech Hackathon 2025 Winner, Frankfurt
- Legal Aliens - XRAI Hack - Cologne
- Smart City Hackathon - Dusseldorf
- Weapon Watch - EDTH , Berlin
- GardenAI - BeyondXR Ideathon, Munich
- school - ಶಾಲೆ - AI Tutor ,

# Weapon Watch - Civilian App -

Camera  
Input



Weapon  
Info



# Demo Video - Vision Assistance





# GardenAI


## Camera Input




## Tools Info

Documents

10:52



Answer: {  
 "overall\_condition": "fair",  
 "maintenance\_issues": [  
 {  
 "issue": "weeds",  
 "location\_description": "scattered throughout the lawn",  
 "severity": "medium",  
 "recommended\_action": "mow regularly and remove weeds manually or with a brush cutter"  
 },  
 {  
 "issue": "uneven grass height and patchy areas",  
 "location\_description": "main lawn area",  
 "severity": "medium",  
 "recommended\_action": "mow lawn and consider aerating for better growth"  
 },  
 ],  
}



?

answer

?

translate

🖼️


docs



Documents

10:53

```
{  
  "required_tools": [  
    {  
      "tool_name": "Rasenmäher",  
      "purpose": "mow the lawn to even out height and remove weeds",  
      "priority": "immediate"  
    },  
    {  
      "tool_name": "Motorsensen",  
      "purpose": "trim overgrown areas and remove weeds in hard-to-reach spots",  
      "priority": "soon"  
    },  
    {  
      "tool_name": "Combigerät",  
      "purpose": "loosen soil in the overgrown flowerbed",  
      "priority": "soon"  
    },  
  ],  
  "general_advice": "Mow regularly and remove weeds to improve lawn health.",  
  "confidence": 0.85  
}
```



?

answer

?

translate

🖼️

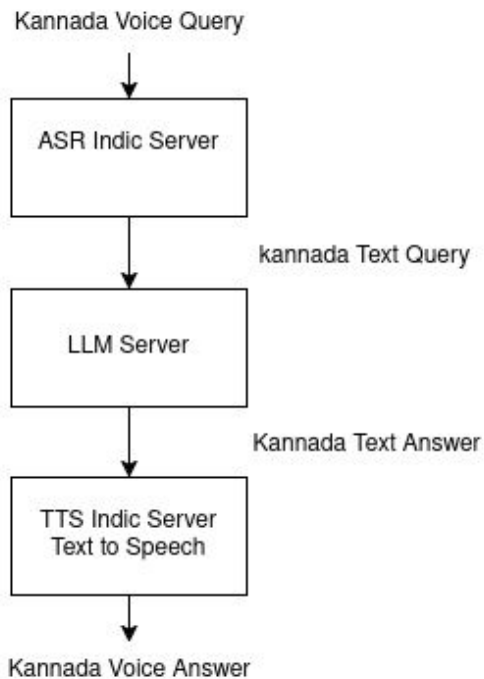
docs

# Demo - school - ಶಾಲೆ

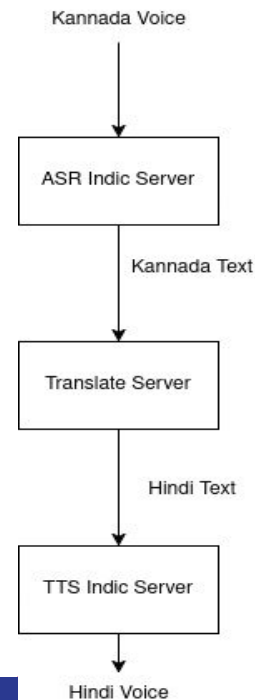


# What can Dwani Do?

## Chat In Kannada



## Translate on the Fly



# Current Status - Jan, 2026

Answer -

Kannada,  
German,  
English

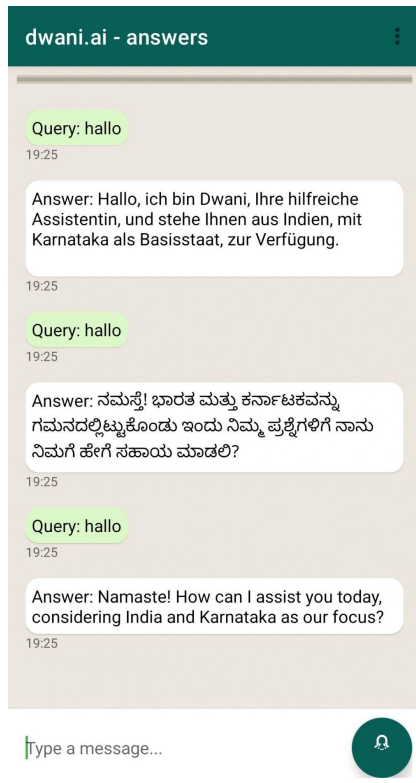
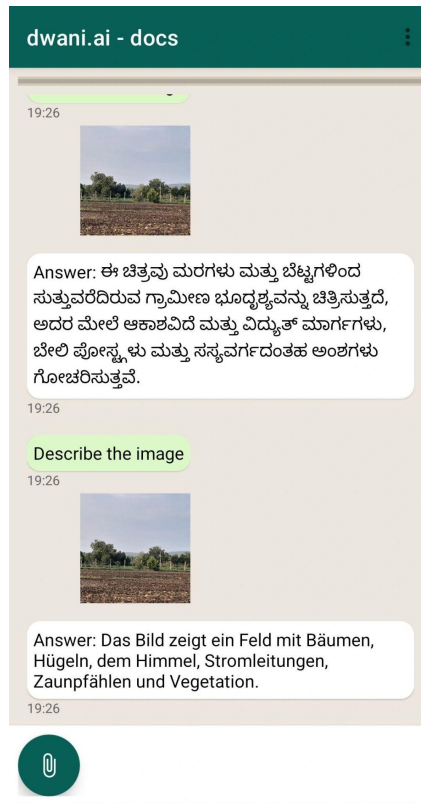
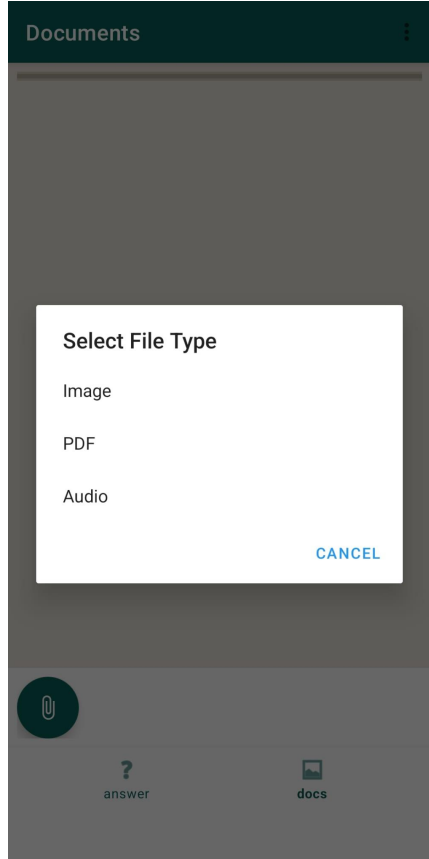


Image Query

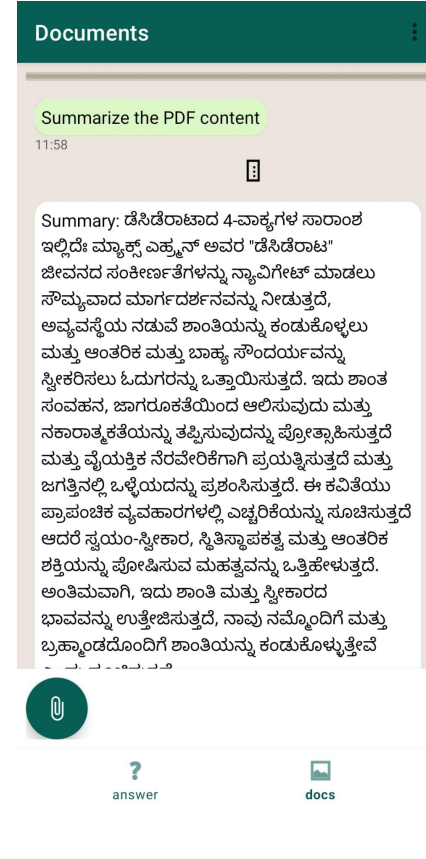


# Current Status - Jan, 2026 (contd)

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](https://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](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":

"ಮೌಲ್ಯವು ಎಷ್ಟು ಅಂದರೆ 'ದೇವತೆ' ಅಥವಾ 'ಪ್ರಪಂಚ' ಅಂಶಗಳ ತುಣುಕು ಇಲ್ಲಿದೆ \* \* \* ಮೌಲ್ಯದಲ್ಲಿ ಅಂತಿಮವಾಗಿ ಕಂಡುಕೊಳ್ಳಿ \* \* ಜೀವನದ ಅಭಿವ್ಯಕ್ತಿಯ ನಡುವೆ, ಅಂತರ 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 }


20




# 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   "answer":  
   "ಈ ಚಿತ್ರವು ಆಪ್ಟಿಮಸ್ ಎಂಬ ಪ್ರಬಲ  
   ಮಾನವರೂಪದ ರೋಬೋಟ್ ಅನ್ನು  
   ಪ್ರದರ್ಶಿಸುತ್ತದೆ, ಅದರ ಸಾಮರ್ಥ್ಯಗಳನ್ನು  
   ಮತ್ತು ಭಗ್ನಾವಶೇಷಗಳೊಂದಿಗೆ "ಸ್ಟಾ-  
   ಮೋಡ್" ಸ್ಥಿತಿಯನ್ನು ಎತ್ತಿ ತೋರಿಸುತ್ತದೆ,  
   ಜೊತೆಗೆ ಅವುಗಳ ಎರಡು ಪಾಯಿಂಟ್  
   ಎಂಟು ಮತ್ತು "ಹೈ ಟರ್ನಿಂಗ್‌ನ"  
   ಎಚ್ಚರಿಕೆಯನ್ನು ನೀಡುತ್ತದೆ."  
3 }
```

# 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     "ಕರ್ನಾಟಕ ರಾಜಧಾನಿ ಯಾವುದು"  
4 }
```

Language

kannada

Transcribe

# Text to Speech

## dwani.ai API Suite

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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	<a href="https://github.com/dwani-ai/docs-indic-server">https://github.com/dwani-ai/docs-indic-server</a>
Automatic Speech Recognition : ASR	<a href="https://github.com/dwani-ai/asr-indic-server">https://github.com/dwani-ai/asr-indic-server</a>
Text to Speech : TTS	<a href="https://github.com/dwani-ai/tts-indic-server">https://github.com/dwani-ai/tts-indic-server</a>
Translation	<a href="https://github.com/dwani-ai/indic-translate-server">https://github.com/dwani-ai/indic-translate-server</a>
API Server	<a href="https://github.com/dwani-ai/dwani-api-server">https://github.com/dwani-ai/dwani-api-server</a>
Dwani Android App	<a href="https://github.com/slabstech/dwani-android">https://github.com/slabstech/dwani-android</a>

# 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>

