# BHASHINI: Transforming Maha Kumbh through Multilingual Innovation

## *Unifying India's Linguistic Diversity*

**Ministry of Electronics and Information Technology**
**Ministry of Culture**

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## Introduction



The **Maha Kumbh**, a massive gathering of pilgrims held every 12 years, represents the pinnacle of India's cultural and spiritual traditions. The 2025 edition, hosted in **Prayagraj, Uttar Pradesh**, is attracting millions of people from diverse linguistic backgrounds. Amidst this diversity, the **Ministry of Electronics and Information Technology (MeitY)** is leveraging **BHASHINI**, a **revolutionary initiative** under the **Digital India program**, to ensure seamless communication and accessibility for all participants. By providing **multilingual access in 11 Indian languages**, BHASHINI is set to transform the way information is shared and consumed at this iconic event.

## How BHASHINI is Transforming Maha Kumbh 2025

The Maha Kumbh presents unique logistical and communication challenges due to the scale and linguistic diversity of attendees. BHASHINI addresses these challenges through its **advanced multilingual capabilities**:



1. **Real-Time Information Dissemination**: BHASHINI facilitates translation of announcements, event schedules, and safety guidelines into 11 Indian languages. This ensures that pilgrims, regardless of their native tongue, can access crucial information during the event.

2. **Simplified Navigation**: Language barriers often complicate navigation in large gatherings. BHASHINI's speech-to-text and text-to-speech tools and multi-lingual chatbot, integrated with mobile applications and kiosks, guide pilgrims in their preferred language, enhancing their

experience.

3. **Accessible Emergency Services**: Multilingual access to helplines and emergency services ensures that attendees can seek assistance effectively, fostering a safer environment. In collaboration with the **UP Police, Bhashini's CONVERSE** feature supports communication with the 112-emergency helpline, with officers trained to assist devotees in overcoming language challenges.

4. **Enabling E-Governance**: With BHASHINI's support, authorities can communicate regulations, guidelines, and public service announcements to a diverse audience, ensuring smooth coordination.

5. **Lost and Found**: Bhashini's 'Digital Lost & Found Solution' is a key feature, enabling visitors to register lost or found items using voice inputs in their native languages, with real-time text and voice translations simplifying interactions.

## Kumbh Sah'AI'yak CHATBOT



Launched by Hon'ble Prime Minister Shri Narendra Modi, the **Kumbh Sah'AI'yak** is an AI-powered, multilingual, voice-enabled chatbot designed to assist millions of visitors during Maha Kumbh 2025. The bot is powered by cutting-edge AI technologies (such as Llama LLM). Kumbh Sah'AI'yak aims to redefine pilgrim assistance by addressing their information and navigation needs while creating enduring memories of the Maha Kumbh 2025 experience. The Kumbh Sah'AI'yak chatbot is created to enhance the visitor experience by providing **seamless, real-time information** and **navigation assistance** to all. BHASHINI's language translation supports the chatbot in **11 languages**, including Hindi, English & 9 other Indian languages.

## What is BHASHINI?



BHASHINI, or the **BHASHa INterface for India**, is a pathbreaking initiative aimed at democratizing access to digital content and services across India's **linguistic spectrum**. It aligns with the objectives of the Digital India program by fostering **inclusivity** and **accessibility**. As a **National Language Translation Mission (NLTM)**, BHASHINI uses cutting-edge **artificial intelligence (AI)** and **natural language processing (NLP)** technologies to bridge the language divide, enabling users to access content and services in their preferred language. BHASHINI (Translation Mission) is implemented by **Digital India BHASHINI Division**, a division under **Digital India Corporation**, a Section 8 Company of Ministry of Electronics and Information Technology.

## Objectives of BHASHINI

- Long-term **strategy** for developing sustainable Indian language technology, solutions and ecosystem technology.
- **Adoption** of Indian language technology, solutions for easier access to the internet.
- **Growth** of Indian language content & Technology over Internet.
- Harness economies of scale in Indian language technologies, solutions, applications **data sets** and **(AI) models**.
- Enable **cutting-edge research** in IL technologies evolutionary and revolutionary technologies.
- Promote and facilitate **indigenous intellectual property (IP)** generation.
- Encourage, **enable and incentivize** the Transfer of Technologies (ToT).
- Enable collaborations and partnership programs with **national and international agencies.**
- Catalysing collaborative **research, commercialization awareness, and capacity building.**
- To adopt and implement the **data policy** for the Mission.

## Applications of BHASHINI



## BHASHINI's Arpan Applications

- **Anuvaad (Web Service Text Translation):** An innovative technology that seamlessly converts text from one language to another language.
- **Chitraanuvaad (Video Translation):** Chitraanuvaad is an AI-based open-source platform to perform video translation for various Bhartiya languages.
- **Lekhaanuvaad (Document Translation):** Document translation and digitization across various Bhartiya languages, ensuring clear and accurate communication.

- **Bhashini Translation Plugin (Web Translation Plugin):** Effortlessly translate webpage content across multiple Indic languages with our powerful plugin.
- **Bhashini WTMC (Web Translation Management Console):** Advanced AI-powered website translation plugin, translating content between English and 22 Bhartiya languages.
- **Vaanianuvaad (Speech-to-Speech translation):** Real-time speech-to-speech translation for Bhartiya languages, facilitating seamless communication across different languages.

## Recent Developments in BHASHINI

In **January 2025**, on the occasion of the **Army Day**, the newly BHASHINI-integrated website of the **Department of Defence Production** was made available in 22 Indian languages.
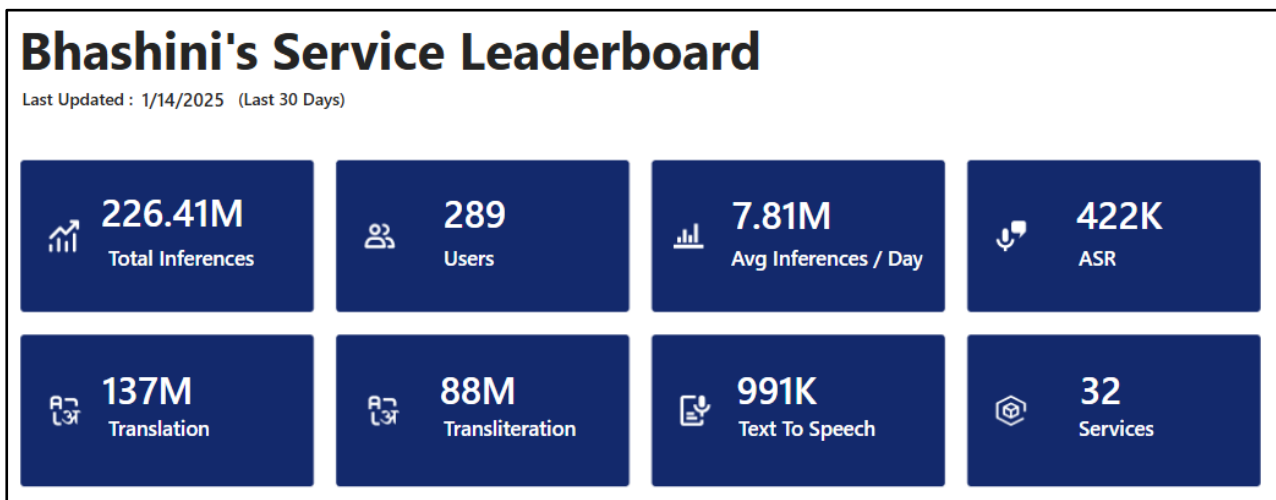
In **January 2025**, the multilingual functionality on **e-Shram portal** was launched. The BHASHINI project was leveraged to upgrade the e-Shram portal, which was earlier available only in English, Hindi, Kannada and Marathi, with 22 Indian languages.

In **August 2024**, the multilingual **e-Gram Swaraj platform**, developed in collaboration with BHASHINI, was launched, which aims to transcend language barriers, ensuring that every citizen can easily access digital services in their own language.

**All India Council for Technical Education (AICTE)** and **University Grants Commission (UGC)** have leveraged **Anuvaadini App** to translate books for Under Graduate and Post Graduate courses including technical books in multiple Indian languages. The translated books are available on **e-KUMBH portal**.

**The Department of Administrative Reforms and Public Grievances** has been using the **Anuvaadini App** of BHASHINI for translating a number of official files and reports, such as such as NESDA-Way Forward, reports of Ministries/Departments related to CPGRAMS, and States/UTs reports related to CPGRAMS, Annual Report of CPGRAMS, Report of Grievance Redressal Index, Secretariat reforms Report and the monthly summary report of the Department. CPGRAMS is the largest grievance redressal portal in the country under the Department on which complaints can be lodged in 22 languages. Any citizen can get redressal in his or her regional language with the help of Bhashini on CPGRAMS. **Every year 2.5 lakh complainants are using this facility.**

## Key Achievements of BHASHINI



**Bhashini's Service Leaderboard**
Last Updated : 1/14/2025 (Last 30 Days)

| 226.41M Total Inferences | 289 Users | 7.81M Avg Inferences / Day | 422K ASR |
| --- | --- | --- | --- |
| 137M Translation | 88M Transliteration | 991K Text To Speech | 32 Services |

- **100 million+ Inferences per Month:** Bhashini has successfully crossed the 100 million monthly inferences threshold, demonstrating its growing reach and impact in the AI language technology sector.

- **50+ Stakeholders Onboarded:** Over 50 stakeholders, including prominent government bodies (NPCI, RBIH, MoRD, Lok Sabha, Rajya Sabha, etc.) and private sector partners, are now collaborating with Bhashini.

- **700,000+ Mobile App Downloads:** The Bhashini-powered mobile apps have been downloaded more than 500,000 times, showing widespread adoption and accessibility.

- **100+ Use Cases:** Bhashini supports over 100 diverse use cases, showcasing the platform's adaptability across industries and sectors.

- **22+ Languages Supported:** Bhashini currently supports 22+ languages, enabling inclusivity for a broad range of linguistic communities.

- **300+ AI-Based Models:** The platform hosts over 300 AI-based language models, furthering the development of state-of-the-art solutions in the AI language technology space.

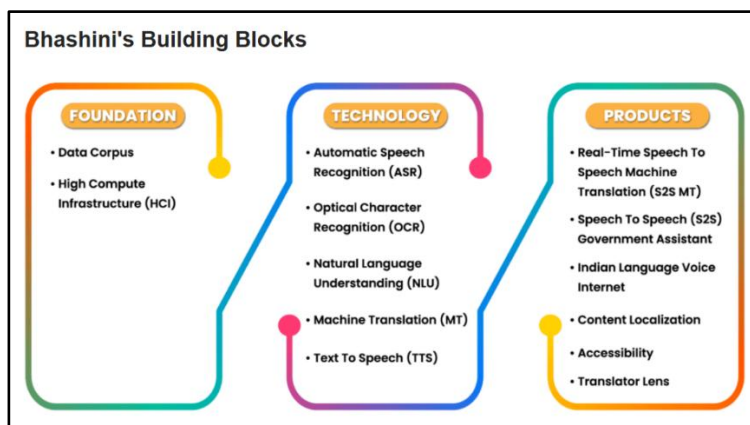| | | |
|---|---|---|
| **22+** Languages Supported | **15+** Languages Services | **100+** Total Customer |
| **300+** AI Models | **100+ Million** Inferencing Made So far | **500K+** Bhashini Mobile App Downloads |

## Awards and Accolades won by BHASHINI

Bhashini's contributions have been recognized across various forums, showcasing leadership in AI, digital transformation, and inclusivity. The awards and recognitions include:
- **Digital Trailblazer Award by Express Computer**: Outstanding contributions to the AI ecosystem in India.
- **ELETS Atma Nirbhar Award**: Awarded under the category of Digital Governance for AI, ML, and IoT initiatives by government departments.
- **Impact Leader of the Year**: Global Spin Innovation Summit 2024.
- **Leadership in AI, Change Maker & Innovation Award**: Recognizing excellence in AI-driven innovation and leadership.
- **ET Government Award for AI, Data Analytics & Predictive Technologies**: Recognized for bridging the literacy, language, and digital divides.
- **ELETS Education Innovation Award**: For providing accessible & inclusive education through AI.

## The Technology Behind BHASHINI



Bhashini's Building Blocks

**FOUNDATION**
- Data Corpus
- High Compute Infrastructure (HCI)

**TECHNOLOGY**
- Automatic Speech Recognition (ASR)
- Optical Character Recognition (OCR)
- Natural Language Understanding (NLU)
- Machine Translation (MT)
- Text To Speech (TTS)

**PRODUCTS**
- Real-Time Speech To Speech Machine Translation (S2S MT)
- Speech To Speech (S2S) Government Assistant
- Indian Language Voice Internet
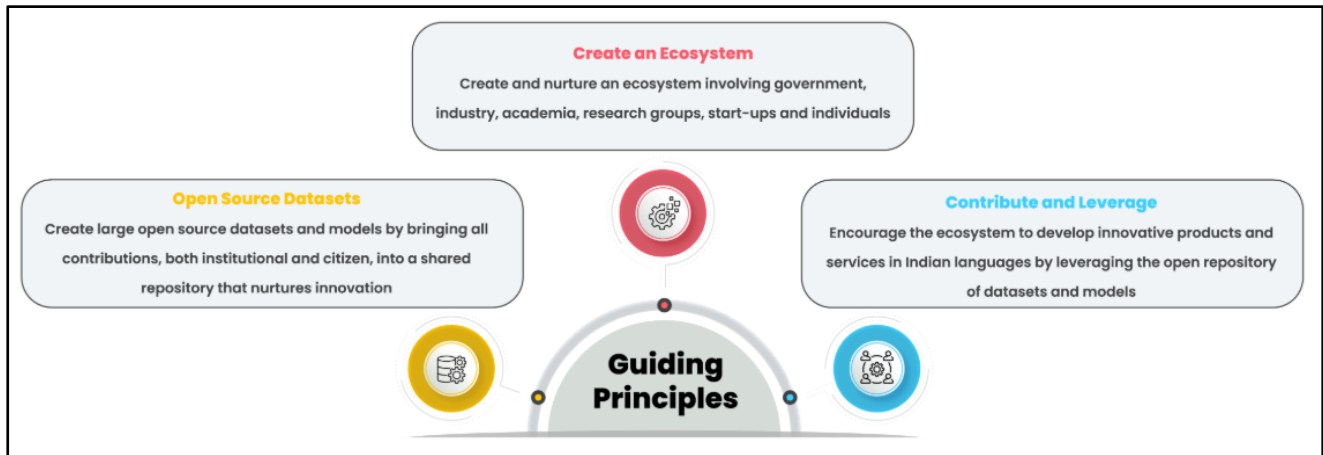- Content Localization
- Accessibility
- Translator Lens

BHASHINI leverages state-of-the-art technologies to deliver its services:
- **AI and NLP Algorithms**: Drive accurate translations and adaptive language models.

- **Cloud-Based Infrastructure**: Ensures scalability and reliability to handle large volumes of data.
- **Collaborative Data Pooling**: Utilizes open datasets contributed by various stakeholders to refine language models continuously.

## Digital India and the Vision of BHASHINI

BHASHINI embodies the Digital India vision of **transforming India into a digitally empowered society and knowledge economy**. By addressing **linguistic diversity**, it promotes **digital inclusion**, enabling citizens to access education, healthcare, governance, and other essential services in their preferred language.



BHASHINI's **vision** is to "Harness natural language technologies to enable a diverse ecosystem of contributors, partnering entities and citizens for the purpose of transcending language barriers, thereby ensuring digital inclusion and digital empowerment in an Aatma Nirbhar Bharat."

## Conclusion: Bridging Languages, Connecting People

BHASHINI's deployment at Maha Kumbh 2025 exemplifies its transformative potential in bridging linguistic divides. By enabling seamless communication, it not only enhances the event's inclusivity but also sets a **precedent for leveraging technology to address India's linguistic diversity**. As BHASHINI continues to evolve, it promises to play a pivotal role in realizing the vision of a truly connected and inclusive digital India.

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**Maha Kumbh Series: 17/Explainer**

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