

National mission on natural language translation

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Manifest pedagogy

Science and Technology as a subject in UPSC is not meant for expertise but as an administrator one need to know the application part of it. Linkages between S and T and culture is a highly important dimension as technology can play a key role in cultural preservation. This article throws light on this dimension

In news

- The Ministry of Electronics and IT (MeitY) will soon place before the Union Cabinet a 450- crore proposal for Natural Language Translation

Placing it in syllabus

- Science and technology applications

Static dimensions

- Inclusive knowledge society
- Schedule VIII languages
- Unitary tendency to federalism

Current dimensions

- Translation industry
- National mission on Natural language translation

Content

The proposal for national mission on Natural Language Translation is one of the key missions identified by the

Prime Minister's Science, Technology and Innovation Advisory Council (PM-STIAC). The proposal is part of the 100-day action plan charted out by MeitY, following honourable Prime Minister Narendra Modi's instructions

Inclusive knowledge society

The sharing of knowledge and information, particularly through Information and Communication Technologies (ICTs) has the power to transform economies and societies. One of the major objectives of UNESCO is to build inclusive knowledge societies and empower local communities by increasing access to and preservation and sharing of information and knowledge in all its domains. Knowledge societies must build on **four pillars**

- freedom of expression;
- universal access to information and knowledge;
- respect for cultural and linguistic diversity;
- quality education for all

Universal access to information is the key to build peace, sustainable economic development, and intercultural dialogue. In order to succeed in this constantly changing environment, and to resolve problems effectively in every facet of life, individuals, communities and nations should obtain a critical set of competencies to be able to seek information, critically evaluate it and create new information and knowledge. Information Literacy creates new opportunities to improve the quality of our lives

Knowledge can add value to human experience and progress by enhancing livelihoods and contributing to the social, cultural, political and economic development of societies. The new communication and information tools including social networking, have created new opportunities for the creation, preservation, dissemination and use of information and knowledge. As such, the effective use of the ICTs offers real prospects for human and sustainable development and the

building of more democratic knowledge-based societies.

UNESCO supports the preservation of documentary heritage by strengthening existing preservation frameworks, and emphasises long-term preservation of digitised information. UNESCO equally encourages multilingualism and respect for cultural diversity in cyberspace. It promotes local content production in different languages and contributes to international debates on internet governance.

Access to education is a basic right enshrined in the Universal Declaration of Human Rights. Access to quality education for all is essential for building and developing the necessary skills, capabilities and capacities essential for effectively analysing, using, creating and disseminating knowledge. Knowledge in turn is central to processes of development, progress and social cohesions in all societies. One of the shortcomings of the MDG agenda was the absence of a concern for socio-cultural contexts and linguistic diversity, which resulted in development programmes not being sufficiently adapted to the local environment.

Hence, post 2015, **Sustainable Development Goal (SDG) 16** aims at “Promoting peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels”.

Schedule 8 languages

The Constitutional provisions relating to the Eighth Schedule occur in article 344(1) and 351 of the Constitution.

- **Article 344(1)** provides for the constitution of a Commission by the President, which shall consist of a Chairman and such other members representing the different languages specified in the Eighth Schedule to make recommendations to the President for the progressive use of Hindi for official purposes of the

Union.

- **Article 351** of the Constitution provides that it shall be the duty of the Union to promote the spread of the Hindi language to develop it so that it may serve as a medium of expression for all the elements of the composite culture of India and to secure its enrichment by assimilating without interfering with its genius, the forms, style and expressions used in Hindustani and in the other languages of India specified in the Eighth Schedule.
- The Eighth Schedule to the Constitution consists of the following 22 languages

(1) Assamese, (2) Bengali, (3) Gujarati, (4) Hindi, (5) Kannada, (6) Kashmiri, (7) Konkani, (8) Malayalam, (9) Manipuri, (10) Marathi, (11) Nepali, (12) Oriya, (13) Punjabi, (14) Sanskrit, (15) Sindhi, (16) Tamil, (17) Telugu, (18) Urdu (19) Bodo, (20) Santhali, (21) Maithili (22) Dogri.

Unitary tendency to federalism

Diversity in languages in India sometimes causes a blow to the federal spirit of the Constitution. There are 22 languages constitutionally approved in India. The tussle for official language in India is still a burning issue. The southern states' opposition to Hindi as the official language of India has led to deep-seated language crisis in India.

Under the federal framework, inter-state boundaries among Indian states since 1950 have continuously been reorganised. Among the linguistic states, Andhra Pradesh was the first state to be formed based on the Telugu speaking population in south India. In subsequent years, the rest of the Indian states started demanding for separation based on the linguistic identities. The Indian Constituent Assembly in 1948 appointed the Dhar Commission followed by the Jawaharlal Nehru, Vallabhbhai Patel, Pattabhi Sitaramayya Committee (JVPC) to reorganise the states. Both the committees expressed

concern regarding the new forms of inequalities and hierarchies based on the disproportionate spread of linguistic majority and minority groups in the reorganised provinces.

In 1953, the **States Reorganisation Committee (SRC)** established recommended some basic principles of reorganising of the states as **preservation and strengthening of unity and security of India, linguistic and cultural homogeneity, financial and administrative efficiency and the successful working of the 5-Year Plans**. Later, as per the State Reorganisation Committee 1956, the states were reorganised in terms of linguistic, cultural homogeneity and geographical contiguity.

National mission on natural language translation

The newly proposed national mission on natural language translation aims to make science and technology accessible to all by facilitating access to teaching and researching material bilingually – in English and in one's native Indian language. To achieve this, the government plans to leverage a combination of machine translation and human translation



Translation activities can also help generate employment for educated unemployed and the mission would help not just students but also teachers, authors, publishers, translation software developers and general readers. The **IT ministry** is the lead agency for implementation of the mission along with the **Ministry of Human Resource Development** and **Department of Science and Technology**

((Besides natural language translation, other missions identified by PM-STIAC includes Quantum Frontier, Artificial Intelligence, National Bio-diversity mission, electric vehicles, BioScience for Human Health and deep ocean exploration))

Translation industry in India

India is ranked 134 in the ICT Development Index (IDI), 2017, published by the United Nations International Telecommunication Union (ITU) based on internationally agreed ICT indicators. Though, in recent times, technology is rapidly entering into the life of common masses, computer and internet access is still a far cry to a large number of Indians. Moreover, more than 80% of contents available in internet are in English and only 10% of the total Indian population possess English knowledge. Therefore, it is very important to translate content, localise products into Indian Languages to ensure a wider reach and to arrest the sprawling '**Digital Divide**'.

Government Initiatives

- Setting-up Technology Development for Indian Languages (TDIL) in 1991. TDIL has been mandated to bridge the digital divide by developing IT tools in local languages in India. Since then, TDIL has been collaborating with various organisations like C-DACs, IITs and IIITs for developing Indian language computing resources, processing systems, tools and translation support systems and localisation of software for Indian languages.
- In 2008, as per the recommendation of National Knowledge Commission (NKC), Government of India launched **National Translation Mission (NTM)** with an objective to establish translation as an industry in India. NTM has been collaborating with various institutes, private publishers, universities etc by providing financial and academic assistance for bringing out translations of pedagogic materials (used in undergraduate and post graduate level of studies) in Indian languages in order to reach out to the section of students with limited English knowledge.

Translation industry – present scenario

The translation industry that exists in India is one of the most sought after destination, for translation, IT and management professionals in India. Texts or contents from a wide range of subjects are being translated from one language to another. At present, hundreds of companies and agencies are providing diverse translation services in India like Content development and management, Copywriting, Desktop publishing (DTP), Document translation, Editing, Interpreting, Language training, Linguistic testing, Localisation,, QA Testing and so on.

Problems of translation industry in India

- fragmented nature of the industry;
- low penetration of computers & internet;
- lack of universal standards for scripts and fonts,
- input methods and transliteration;
- limited availability of software and fonts;
- low availability of local language content;
- lack of updation of recent technologies;
- lack of formal language-based IT training;
- lack of accreditation for translators and companies;
- non-payment to translator or language professionals etc.

Indian translation industry is still in its nascent stage, and if appropriate steps are taken, in the coming years, it will be able to provide livelihood to many budding translators. Government has already started taking development of huge IT infrastructure in terms of setting up of networks, financing rural cyber cafés, setting up Common service centres (CSC), investing in e-governance initiatives like Gyandoot, Community Information Centers (CICs), e-Seva, BangaloreOne, e-Chaupal etc..Digital India initiative has been launched with three core components the development of secure and stable digital infrastructure, delivering government services digitally and universal digital literacy