



12. TDIL Vision

A B C Technology Development Phases

India was long aware of the technological changes and the local constraints and development of Language Technology in India may be categorized in three phases:

- 1976-1990 : **A-Technology Phase:** Focus was on Adaptation Technologies; abstraction of requisite technological designs and competence building in R&D institutions.
- 1991-2000 : **B-Technology Phase:** Focus was on developing Basic Technologies- generic information processing tools, interface technologies and cross-compatibility conversion utilities. TDIL (Technology Development for Indian Languages) programme was initiated.
- 2001-2010 : **C-Technology Phase:** Focus is on developing Creative Technologies in the context of convergence of computing, communication and content technologies. Collaborative technology development is being encouraged to realise.

TDIL Vision 2010

(TDIL : Technology Development for Indian Languages)

Vision statement

Digital unite and knowledge for all.

Mission statement

Communicating & moving up the knowledge chain overcoming language barrier.

Objectives

- To develop information processing tools to facilitate human machine interaction in Indian languages and to create and access multilingual knowledge resources/content.
- To promote the use of information processing tools for language studies and research.

- To consolidate technologies thus developed for Indian languages and integrate these to develop innovative user products and services.

Major Initiatives

- *Knowledge Resources*
(Parallel Corpora, Multilingual Libraries/ Dictionaries, Wordnets, Ontologies)
- *Knowledge Tools*
(Portals, Language Processing Tools, Web based Tools)
- *Translation Support Systems*
(Machine Translation, Multilingual Information Access, Cross Lingual Information Retrieval)
- *Human Machine Interface System*
(Optical Character Recognition Systems, Voice Recognition Systems, Text-to-Speech System)
- *Localization*
(Adapting IT Tools and solutions in Indian Languages)
- *Language Technology Human Resource Development*
(Manpower Development in Natural Language Processing)
- *Standardization*
(ISCII, Unicode, XML, INSFOC, etc.)

TDIL Programme Goals

Short Term Goals

- Standardization of code, font, keyboard etc.
- Fonts and basic software utilities in public domain.



- Corpora creation and analysis.
- Content creation tools.
- Language Technology be integrated into IT curricula.
- Collaborative development of Indian language lexical resources.
- Writing aids (Spell checks, grammar checks and text summarization utilities).
- Sharing of standardized lexware & development of lexware tools.
- Training programs on ILT awareness, lexware development, and computational linguistics.

Medium Term Goals

- Indian language speech database
- Multilingual, multimedia, content development with semantic indexing, classical and multi font and decorative fonts, off-line/on-line OCR.
- Cross lingual information retrieval (CLIR) tools.
- Human speech encoding
- Speech Engine : Speech recognition, specific speech I/O.
- Indian language support on Internet appliances.
- Understanding and Acquisition of languages, knowledge representation, gisting and interfacing.
- Distinguished achievement awards for M.Tech/MCA/Ph.D. level in Indian Language Technologies.
- Machine aided translation: English to Indian languages, among Indian languages, Indian languages to English and other foreign languages.

- On line rapid translation, gisting and summarization.

Long Term Goals

- Speech-to-speech translation.
- Human Inspiring Systems.