3. TDIL Vision

TDIL Vision 2010
(TDIL: Technology Development for Indian Languages)

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:

1. 1976-1990 : A-Technology Phase: Focus was on Adaptation Technologies; abstraction of requisite technological designs and competence building in R&D institutions.

2. 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.

3. 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.

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, IN SFOC, 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.
Language Technology Map
Resource Centres & CoIL-Net Centres for Indian Language Technology Solutions

Resource Centres
MSU (B) = MS University, Baroda (Gujarati)
AU (C) = Anna University, Chennai (Tamil)
UU (B) = Utkal University, Bhubaneswar (Oriya)
ISI (K) = Indian Statistical Institute, Kolkata (Bangla)
JNU (D) = Jawaharlal Nehru University, New Delhi (Sanskrit, Japanese, Chinese)
UOH (H) = University of Hyderabad, Hyderabad (Telugu)
IISc (B) = Indian Institute of Science, Bangalore (Kannada)
IIT (K) = Indian Institute of Technology, Kanpur (Hindi & Nepali)
IIT (M) = Indian Institute of Technology, Mumbai (Marathi & Konkani)
IIT (G) = Indian Institute of Technology, Guwahati (Assamese, Manipuri)
CDAC (T) = Electronic Research & Development Centre of India, Thiruvananthapuram (Malayalam)
CDAC (P) = Centre for Development of Advanced Computing, Pune (Urdu, Sindhi, Kashmiri)
OCAC (B) = Orissa Computer Application Centre, Bhubaneswar (Oriya)
TIET (P) = Thapar Institute of Engineering & Technology, Patiala (Punjabi)

CoIL-Net Centres
CDAC (P) = Centre for Development of Advanced Computing, Pune
BIT (R) = Birla Institute of Technology, Ranchi
IIT (K) = Indian Institute of Technology, Kanpur
IIITM (G) = Indian Institute of Information Technology & Management, Gwalior
CDAC (T) = Electronic Research & Development Centre of India, Thiruvananthapuram (Malayalam)
CDAC (P) = Centre for Development of Advanced Computing, Pune (Urdu, Sindhi, Kashmiri)
OCAC (B) = Orissa Computer Application Centre, Bhubaneswar (Oriya)
TIET (P) = Thapar Institute of Engineering & Technology, Patiala (Punjabi)