



1.1 TDIL Programme

scripts that are planned to be supported include Devanagari, Assamese, Bengali, Gujarati, Punjabi, Malayalam, Oriya, Kannada, Telugu and Tamil in addition to Roman.

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■ Prototype **Oriya OCR** for single font was demonstrated. Word Net for Oriya language is also being developed inline with the wordnet effort.

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Prototype **Punjabi OCR** was also exhibited and efforts are underway to enhance this technology for more fonts and improving the efficiency.

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■ **Bi-lingual E-H Dictionaries and Hindi Teaching Packages** were demonstrated.

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COIL_Tech, Indian Language Industry Consortium also participated in the ELITEX under the TDIL banner and following participants also demonstrated their Indian Language Products and Technologies (by IBM Research Centre, IBM India Ltd., Wipro Peripherals, Lipi Data Systems, Summit Technologies, Cyberscape Multimedia, Modular Systems, WebDuniya). **SIMPUTER**, a multilingual low cost hand held computer was also demonstrated by Encore Technologies which uses free-to-use Linux Operating System. The Simputer can be hooked up to the Internet and accommodates individual smart cards. It can also handle text-to-speech conversion for English, Hindi, Kannada and Tamil languages. Other applications include E-mail client, Browser, file transfer, MP3 player, Notepad, address book, calculator etc.

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, Translation Memory 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, TMX, ISFOC etc.)



2. Reader's Feedback from Abroad

TDIL Programme Goals

Short Term Goals

- ▶ Standardization of code, font, keyboard etc.
- ▶ Fonts and basic software utilities in public domain.
- ▶ Corpora creation and analysis
- ▶ Smart content creation.
- ▶ 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, offline/online 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.

- “..... It is very informative and may be useful for developing our programme Initiative B@bel. This programme is foreseen to start in 2002 and we hope it will contribute to the implementation of the Recommendation on the promotion and use of multilingualism in cyberspace, which will be submitted for approval to the forthcoming session of our General Conference.”

-Victor Montviloff, UNESCO, Paris
E-mail : V.MontViloff@unesco.org

- “.....We read with interest about your initiatives in India, especially the TDIL (Technology Development for Indian Language) and 'Digital Unite and knowledge for All' projects and the possibility of setting up a Technological Interchange mechanism. We in ILCA (Instituto de Lengua Cultura Aymara) are very interested in the advances in language technology that you are making, and wish to know more about them, to see how we can apply similar measures here.”

- Juan de Dios Yapita,
Instituto de Lengua y Cultura Aymara,
Bolivia, Sudamerica
E-mail : ilca@mail.megalink.com

- “.....You brought so much useful and important information it was a great pleasure to me to find out that so much had been achieved over the two years since my previous visit to India. I would particularly appreciate something that described and catalogued the technologies now available, as described in the excellent booklet that was distributed.”

-Prof. Pat Hall, Open University,
Milton Keynes
E-mail : p.a.v.hall@open.ac.uk

- “.....Thanks for the fourth issue of the TDIL Newsletter. Nowadays there is so much work under way on various aspects of the computerisation of Indian languages that no one person can hope to keep up to date with it all. Your Newsletter acts as a very valuable clearing house for this information — it lets users know what software is under production, and it gives producers a chance to give advance publicity to the projects they are working on. This is a very valuable service : no more duplicated effort, no more multiple “standards”, no more working in the dark. Keep up the good work!”

-Dr. J.D. Smith, Faculty of Oriental Studies,
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