

5.3 CoIL-Net Centre : Banasthali Vidyapith, Banasthali Rajasthan

Introduction

Rajasthan is heading fast towards becoming an IT state. However, the fruits of IT can not be digested by the five crore population of the state people, who at large are Hindi speaking. Almost 100% of literate population (61% of total) is Hindi speaking. It is believed that acceptance levels of masses will shoot if IT solutions are provided Bilingual, but such a development is of low priority with local developers. In fact the barrier for development of IT solutions in Hindi are following :

- Platform dependence of Hindi fonts and character encoding schemes.
- Incorporation of bilingualism at every stage as a consequence of language policy.
- Non availability of development tools for developing user interfaces and databases.

Bansthali Vidyapith has been selected amongst a handful of Institutions to be a Resource Centre for IT localisation in Rajasthan by the Ministry of Communication & Information Technology, Govt of India. In its initiative on "IT localisation for socio-economic development for the Hindi speaking states" the project "Content Creation and IT Localisation Network (CoIL-Net)" under TDIL programme has been initiated at Banasthali Vidyapeeth, Banasthali.

The CoIL-Net project is aimed to address above issues, wherein Banasthali Vidyapith's development of localised content and applications in the following areas is acting as a Resource Centre for

- **e-health**
- **e-business**
- **e-tourism**
- **e-learning & distance education, and**

by holding **IT localisation clinics and training programs**, it is planed to disseminate the technology to developers and solution providers.

The strategy adapted for the development is:

I. To develop prototype applications to

demonstrate the development in above areas. The prototype follows the same approach all over which is

- PC based
 - Platform independent
 - Web based interactive systems
 - Bilingual at every stage on the click of mouse
 - Databases and interactivity both in Hindi and English
 - Database conversions should be through in-house developed Transliteration Tool,
- II. To develop various tools or acquire which are needed for the application development such as
- Transliteration Tool
 - Font Converters
 - Testing and evaluation tool.
- III To disseminate the Knowledge by holding trainer's training programme for educators in the field of IT in the state.
- IV To hold IT localisation clinics to provide solutions and to discuss on the issues in localisation with the local vendors and entrepreneurs.

The first year progress of the project can be broadly categorised into the following :

- Development of prototype applications
- IT localisation tool development
- IT localisation clinic and trainers training

(A) APPLICATIONS DEVELOPMENT

- **e-health** → (i) Ayurvedica (ii) Medical Facilities of Rajasthan
- **e-business** → Banking information system
- **e-tourism** → A system for RTDC
- **e-learning & distance education** → (i) Learning system on Vedic Literature (ii) A distributed on line ITS for Hindi learning

e-health

Ayurvedica – is an online learning system in Hindi to facilitate the users in obtaining information about Ayurveda and treatment of different diseases through Ayurveda.

The system design includes

1. A brief introduction to Ayurveda
2. Origin of Ayurveda
3. Various aspects of Ayurveda including features like *tridosh*, *vatt*, *kapha*, *pitta*. Information on *panch mahabhoota*, *rasayan shastra*, *chikista* etc.
4. Dictionary of all Ayurvedic herbs with further links on various herbs pictures, usages etc.



5. Treatment of various diseases through Ayurveda and comparison of other therapies with Ayurveda showing the superiority of Ayurveda is also provided.
6. Links to various Ayurvedic centres in India and Abroad
7. Information on important Ayurvedic products and links to sites providing these.

Medical Facilities of Rajasthan- A bilingual information system to provide information on the Hospitals, Doctors and Health services of Rajasthan. The directory provides searches related to Hospitals, Doctors, Departments and Facilities in Rajasthan. It also contains information relating to the Medical Colleges of Rajasthan.

The Directory also provides addresses of Ambulance services, Maternity home, Mobile Vans, Emergency Units, Eye Banks, Blood Banks, Jaipur Foot etc.

In addition it contains the information about the Health Programs launched by the Government of Rajasthan and important contact numbers of Health Ministry of Rajasthan. It incorporates such data and materials as Population and Prominent diseases so that it could serve as a helping hand to the government to frame its further programs.

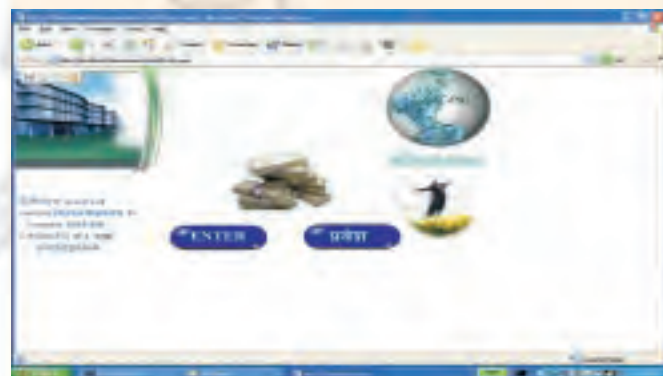
e-business

Banking information system – on loan schemes provided by various banks in Rajasthan to be used by entrepreneurs wishing to start small scale industry/business.

1. The system aim at providing information to the people of Rajasthan seeking loans for setting up small scale business etc.

The information includes precisely :

Where from a person can get loans?



What are the different types of loans that the concerned institutions provide?

What are the terms and conditions involved?

How to contact the concerned institutions?

Current rate of interests etc.

2. Providing downloadable forms for registration.

e-tourism

A Project for RTDC to introduce “Dharti Dhorari” of RAJASTHAN. It is to promote tourism in Rajasthan by showing rich culture and traditions of Rajasthan into picture and to make information easily accessible both in Hindi and English to the whole world through Internet.



The system has three different modules as follow:

1. Administrator (authenticated user)

The user can –

- 1) login using login name/password as administrator.
- 2) insert/update/delete information of new hotel
- 3) view the feedback forms filled in by the different visitors and also can reply them
- 4) insert/update/delete all the tour/hotel booking information and can therefore make decisions on the availability of resources (rooms, taxis etc)
- 5) change/update the currency rates depending on the daily changes in the market value of the currency. This facility helps in maintaining the accuracy of the Currency converter facility of our site.

2. Visitor (general user) Facilities

The user can -

- get the information through internet.
- submit feedbacks.
- get packaged hotels.
- go for predecided tours information.

User has to follow the paths enlisted below to reach the desired destinations.

General information

Profile, Climate, Culture, Language, Religion, Travelling Around Rajasthan, Maps, Where To Stay, Food, Regions Containing cities, Folk Dance

and Music, Fairs and Festivals, Arts and Craft, Bazaar Bargains, Feedback

Specific information

Palace on Wheels, Wildlife and Sanctuaries, Photo gallery, Currency Converter, FAQ's

Query Processing Module

Handles Query related to Hotels & banks etc

Feedback Submission Module

Different skin facilities are being introduced so that the web pages will be displayed according to users liking.

- The web pages are being XMLised.
- A Virtual tour is being added.

e-learning & distance education

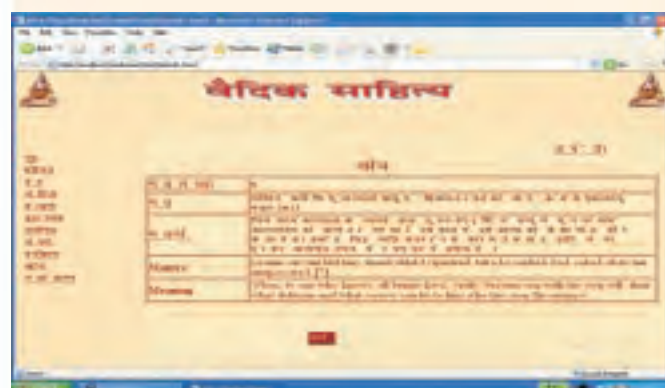
Learning system on Vedic Literature - It is a portal on Vedic literature along with an online learning system for Vedic Literature.

The design features are:

A bilingual system which gives information about Vedas and Upanishads. The system gives a detailed description of Vedas which are mainly hymns, chanted by priests, in praise of God.

The whole system is divided into four parts:

- 1) *Samhita*
- 2) *Aranyaka*
- 3) *Brahmana*
- 4) *Upnishad*



It provides a repository for 'Mantras' where every page gives 'Mantra', its meaning in Hindi, its

transliteration in Roman and its meaning in English.

The design is final. The development shall follow:

Each of these describes the four Vedas

- (i) Rigveda
- (ii) Yajurveda
- (iii) Sanveda
- (iv) Atharvaveda

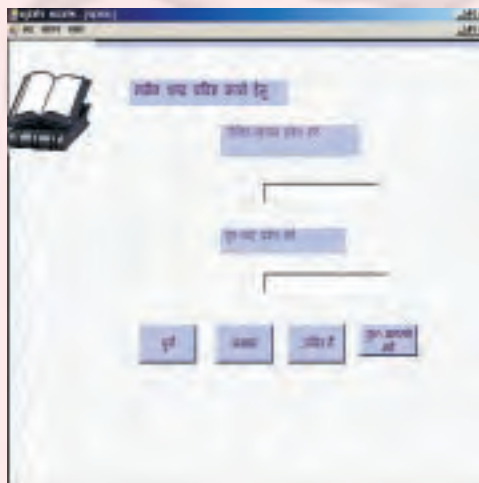
A distributed on line ITS for Hindi learning : It is planned to develop an on-line distributed system for distributed Hindi learning. It is also being developed for various target groups addressing learners from the Hindi speaking states; learners from non-Hindi speaking states, particularly the North-eastern states; *and students of Indian origin especially from countries such as Mauritius, Fiji and Trinidad.*

(B) IT LOCALISATION TOOLS

Transliteration Tool - A module that can transliterate any English Text into Hindi text.

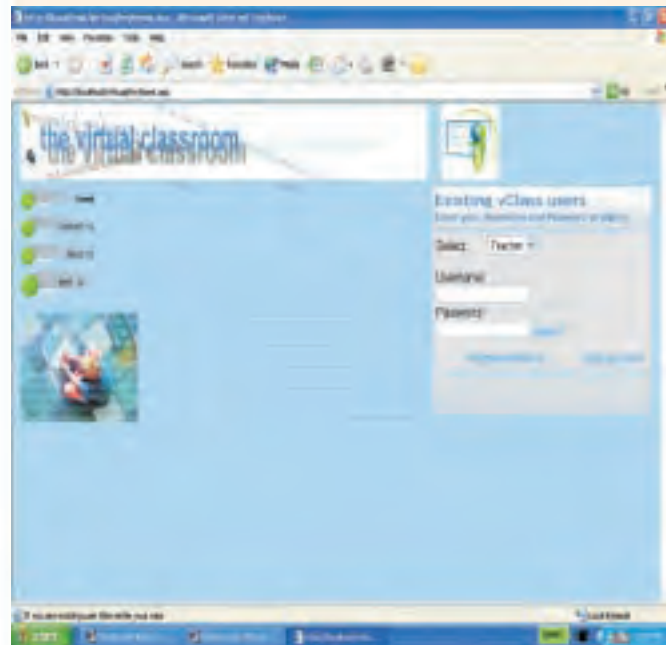
- One prototype is help based transliteration tool that facilitate entry in database in roman
- The other support field based transliteration from Roman to Hindi from any database.

Unicode Based Hindi Glossary - The Dictionary contains words stored with attributes such as word category, Prefix, Suffix, Antonyms, Synonyms with a user interface for authoring and search



Unicode Based Hindi Dictionary

Virtual Classroom: A tool for providing distant learning platform in Hindi for interaction between students and teachers.



Virtual Classroom

Evaluation Tool: A tool to evaluate and provide Quality grading to Localisation tools and applications (especially Word Processors)

(C) IT LOCALISATION CLINIC AND TRAINERS TRAINING

Banasthali Vidyapith organised IT localisation clinic at MLSU, Udaipur on November 11-13,2002, in which solution providers from all over country were invited and vendors from the state and Government organisation like NIC Rajasthan, DOIT, RajCOMP participated and interacted with each other. DOIT, Govt. of Rajasthan has agreed that application



Workshop on IT Localisation

developed shall be put to use by various govt. departments to reach the benefit to masses.

(D) FUTURE TARGETS

The first IT Localisation clinic was only to awaken the state on the issue. It was more of an introductory event than a clinic. The process of application development is truly an exploration to find out the best strategy for localisation. Many unsolved issues are now in front of us and further work needs finalisation of these. The list of such issues is

- XMLisation
- Font related (rendering, completeness)
- Web based solutions (Java compatibility)
- Transliteration (Table standardisation, completeness, user friendliness, rule based)
- Font converters
- Unicode java portability
- A certification body for Localized products (Software, content, Tools)

We undertook a study of various products and above issues forced us to develop an evaluation strategy which is much needed for quality assurance of the products launched in the market.

This study now is in the form of a software package which the QA cell could utilize for the purpose.

(E) CONCLUSIONS

- The project has an intangible multidimensional impact as it is acting as a vehicle to carry the localisation fragrance amongst
 - Students
 - Developers
 - Staff
 - Buyers
 - Employers
- It is definitely helping in chalking out definite strategy for application development in localized reference. However, certain issues like platform, encoding & fonts are perpetual and need

addressing in a deeper context. Banasthali Vidyapith has always been raising these issues and is struggling with them.

- Quality Assurance is another major issue needed to be handled for certification products/application.
- We need to finalise the strategy for IT Localisation clinics.

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