

## Computers are a step closer to talking the local lingo

The work of several enthusiastic individuals to make computing in regional Indian languages feasible and practical is beginning to bear fruit. FREDERICK NORONHA reports on some of the initiatives in this important segment



Computing won't get ahead in India without freely available Indian language fonts in which to write its message. That's the problem a set of idealistic young men are working on right now.

"Participants (in our attempts) have come in even from Nepal and Bangladesh for sharing their experiences linking up with this south Asian initiative," one of the team-leaders of the initiative, Vijay Pratap Singh Aditya, told this correspondent.

Singh was an organiser of the first national Indic fonts workshop, held recently at Bangalore's PES Institute of Technology. Singh's EkGaon Technologies (literally, 'One Village', ) aims to make technology relevant to the ordinary citizen in a country known for immense software talent coexisting with un-vanquished poverty. EkGaon was set up along with Tapan Parikh, who grew up in the US but is volunteering time here to work on such issues.

This workshop was the second in a series, and attended by 36 participants from various languages and technology groups across India, Nepal and Bangladesh.

Says Singh: "The Indic-Computing Consortium (of which this venture was an activity) is meant to be a national-level participatory organisation, and a common forum for discussion, information exchange and advocacy on behalf of all parties interested in the development of Indic language computing."

Earlier, in September 2002, Bangalore hosted the first Indic-Computing workshop, that saw different language groups talk to each other on how to jointly solve the complex problems Indian languages face before popping up on your computer screen or getting printed neatly.

This campaign's goal: To develop 'good-looking' fonts that make computer-generated Indian language text a pleasure to read. This network also wants to use free software or open-source tools for 'rendering' and 'hinting'—or, perfecting—the fonts, rather than the proprietary software tools currently used.

"We need to find font developers for all Indian languages, and make available fonts to be converted to Open Type Fonts," said Singh.

During the meet, the copyright/patent issue on Open Type Fonts was also discussed by Lawrence Liang, an expert in cyber law and intellectual property. He cautioned

that the topic is debatable and much would be clear after the pending Adobe case in US courts is decided.

### Language diversity

India has a dozen-and-half officially recognised national languages, but this country is believed to have some 1652 dialects. Of these, over 33 are spoken by over 100,000 people each. Indian languages come from six main groups—Negroid, Austric, Sino-Tibetan, Dravidian, Indo-Aryan and Other Speeches.

In recent times, some amazing attempts at Indianising computer solutions—particularly from the free software world of GNU/Linux—have been reported across the country. Knoppix, a distribution of GNU/Linux, runs in Malayalam, while Milan, a Hindi version of free software, was released earlier this year in Pune.

At the meet, Nepali Font Standardisation project director Amar Gurung of Kathmandu shared the problems in standardising Nepali fonts and the development done so far. Mustafa Jabbar of Bangladesh's Ananda Computers explained his work of 15 years with the Bangla (Bengali) fonts. He claimed that a low-cost software application—Bijoy—which his company has developed, has covered 95 percent of the market in Bangladesh and is also used across the border, in West Bengal. Jabbar has also designed the Bangla keyboard that is now a default keyboard standard for Bangla.

IndLinux.org project leader Karunakar G elaborated on why OTF holds the answer to some of the problems of developers as of now. Dr U B Pavanaja of Vishva Kannada Softech—a site meant to promote local language solutions in the Kannada language that is spoken by an estimated 32 million—discussed the OTF issues and described the standards.

Arun M of the Free Software Foundation India demonstrated a localised Knoppix in the South Indian Malayalam language and also discussed the issues in Malayalam fonts and display of some special characters. Aditya Gokhale of C-DAC, the Government-run Centre for the Development of Advanced Computing, took a session on hinting of fonts.

### Challenges

Computing in Indian languages poses special challenges, because of the relatively complex structure of Indian written scripts. Computing was geared largely for the English language's relatively simple Roman script, which has just 26 alphabets compared to 50+ for the main Indian languages.

To inch their way closer to a solution, the network has built links with computer gurus or designers working in various languages. Regional working groups have been



proposed for Hindi, Kannada, Punjabi, Bengali/Bangla, Assamese and Manipuri, Marathi and Konkani, Tamil, Telugu, Gujarati, Malayalam, Oriya and even Sanskrit.

In the case of Urdu, Sindhi, Kashmiri and Persian, the group hopes to work with free- and open-source software groups across India and Pakistan.