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IT'S FINALLY focus India for IT behemoths. Infotech companies have now started researching on technologies and products specific to the Indian market. At research labs across the country, Indians are creating technologies specifically designed for the nation's multilingual masses. In the process, the country is also fast emerging as a research hub for technologies geared for the Third World.

Multiplicity of languages, cultural diversity, low literacy rates, price sensitivity and low usage of PCs are all challenges for the information technology industry, factors that make digital divide a reality. Although India has successfully managed to carve out a niche in the global software services market, domestic consumption of IT products and services remains abysmally low - still. Microsoft, Hewlett-Packard and IBM are some of the global giants carrying out pioneering work in creating India-specific tech.

"Our basic premise is that we are developing technologies for emerging markets like India, China and Russia, where people have not had access to technologies. There are basically three barriers stopping IT from becoming accessible to the common man: economy (it is not affordable), language (there are more than 16 languages spoken in India) and infrastructure, where India is ill-equipped," says HP Labs Director Ajay Gupta.

HP recently launched Scriptmail, a device



that makes electronic communication easier for people who speak languages that can't be typed on a keyboard. This device totally eliminates the keyboard, an impediment in India where there are so many official languages and many other dialects. The company is carrying out field trials for this device and is in advanced discussion with OEMs for manufacturing.

How to cross the language barrier is Mi-

The company is working on Textless User Interface where mobile technology will be used. "There is a large illiterate population in India and visual language would be just right for them. We plan to use the ubiquity of cellphone and wireless infrastructure to address their needs," managing director of Microsoft Research India, P Anandan, said.

IBM's India Research Laboratory (IRL) - lo-

Technology now is for Indians. More And More IT Biggies Are Creating Software Aimed At The Masses, Breaking The Price, Accessibility And Language Barriers. Gagandeep Kaur explores

Driving IT, The India Way

crosoft's concern too, whose research lab is also based out of Bangalore. "There is a large illiterate population in India and visual language would be just right for them. We plan to use the ubiquity of cellphone and wireless infrastructure to address their needs," managing director of Microsoft Research India, P Anandan, said.

cated at the Indian Institute of Technology, New Delhi - is also working on speech recognition software that aims to 'provide an easy interface with computers for those unfamiliar with computers and/or English', the company's website says. IRL is extending the IBM ViaVoice recognition technology to build a speech recognition system for the Hindi language. Like HP's Script-Mail, this will also eliminate the keyboard.

While language is one barrier stopping the adoption of technology by the masses, the other major issue is the low PC penetration. But com-

panies are working on technologies where knowledge dissemination might be possible even without the availability of required infrastructure.

HP has a project called Educenter that will use the existing communication broadcast infrastructure to disseminate content. "We are working on how to distribute content using the existing communication broadcast network to libraries. We are targeting colleges and state institutions. For instance, farmers might go to some institute where they can receive a body of knowledge. This is also at field trial stage," Gupta said.

The company is also working on a technology where bills can be paid through the cellphone infrastructure. "This technology can also be used for the delivery of micro-finance. In this respect, we are in a position to leapfrog technology since penetration of mobiles is quite high," Gupta said.

Microsoft too is looking at developing tech (for example, sensor networks) for people who have not had any contact with technology. "We are working on sensor networks in collaboration with IIT, Mumbai and will be used for landslide detection. This technology would be especially relevant considering the landslides during the Mumbai floods," Anandan said. He, however, refused to tell us by when these technologies are likely to see the light of the day.