



## HP Labs India

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*A company specializing in language and communications technologies, affordable access devices and innovations for the media and mobile industries.*

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**The product:** The Gesture Keypad is a pen-based input device for phonetic scripts with a larger character set that revolutionizes the way data is inputted.

### Product highlights:

- The product was presented at the United Nations World Summit for the Information Society (WSIS) 2004, before 5,000 representatives from 60 nations, including Heads of State from around the world, directors of United Nations agencies, industry leaders, private organizations and media representatives.
- The GKB is expected to increase the computer literacy among the rural areas.

**The market addressed:** HP Labs is addressing a vast market for the Gesture Keypad. The Department of IT, for instance, is planning to establish one lakh (0.1 million) common service centers (CSCs) this year. The Department of official languages is targeting to recruit one Hindi typist per 25 employees. That means, for 20 million government employees, around 0.8 million typists will be required. Around 16,000 Hindi medium

schools also provide a potential market for the GKB. Assuming five bilingual computers per school, the company estimates a market of around 80,000 GKB installations. The largest market potential is expected to be in the rural high income (>500,000 INR) Hindi speaking households, which is around 4.8 millions. The potential market therefore, is close to 5.5 to 6 million units.

**The innovation:** The language character set is arranged on a pad, and the area around each character is referred to as the key. Each key in a keypad is associated with more than one interpretation. Interpretations are resolved by using gestures on the key. An Online handwriting recognition engine recognizes the gestures. In 2004, HP Labs developed a prototype and ruggedized it for the Devanagari script. The process of developing other scripts was standardized as well.

### Customer Speak

“The product is a bridge between the keyboard technology and the ideal, stylus-based writing, which will take a long time to evolve.”

--**Rajeev Sangal**, Director, Language Technologies Research Center,  
International Institute of Technology, Hyderabad