

# India as a Software Superpower

A lot needs to be done before this dream can become a reality. It will come not by canalizing our talents but by creating an environment where our young minds can bloom

**T**he analytical skills of Indians are finally being recognized from the phenomenal contributions they are making in the area of IT. It is not only the cost but Indian analytical thinking that is attracting some of the world's largest IT corporations to open research and development centers in India.

But is this enough for India to emerge as a Software Superpower? With chances of other countries replicating our software services model and beating us in terms of costs and skills, we need to work hard to achieve an unassailable position in the world of IT. It will come through innovation and by creation of intellectual wealth measured by the number of registered patents filed in this country. Although, the number of patents filed from India went up to 1,216 in FY 2004 from 848 the year before, the figure is extremely small, even compared to the number of patents filed in much smaller countries. India, therefore, needs to increase its efforts in proposing new computing paradigms and breakthrough ideas in software engineering and technology which the world will follow.

Today, two types of IT organizations are operating in India. One, the multinationals who are making heavy investments in building up their India Development Centers—IBM, Microsoft, Bell Labs, Oracle, SAP, Computer Associates, HP etc. (A *Dataquest* survey reveals that 91% of total patents filed out of India are from MNC development centers.) The other group of IT companies (incorporated in India and managed by Indians)—TCS, Wipro, Infosys, HCL, Satyam etc.—are operating as profit centers by offering software services to global clients.



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The present examination system, up to the college level, encourages conventional thinking and even in the engineering college level, most of the institutes do not place great emphasis on practical application of the theoretical concepts. The system needs to be revamped.

The professional societies can catalyze the generation of intellectual capital by encouraging formation of student chapters. Travel grants can be given to students to travel abroad, which can be sponsored by IT corporate houses. Professional interactions with experienced professionals will enable the students to get an idea

about the advanced R&D work being done in different parts of the world and help in shaping their thoughts.

The IT industry has a big role to play and needs sufficient funds for R&D. Indian IT companies have to take on their rolls scientists and academicians of brilliance and nurture their intellectual growth as is being done in India by GE, IBM etc.

Even if innovative work is done in this country, it will go waste if the ideas are not transformed to marketable products. Presence in the technical committees of the international standardization bodies (like ISO, IEEE, SEI etc) is extremely important. This undoubtedly requires lot of international networking and lobbying but attempts have to be made. This has to be led by captains of Indian software companies.

In conclusion, it can be stated that there is no doubt that in the area of IT Indians have already proved their capability and can make a world of difference as it matches well with our analytical thinking. We only need to facilitate our young minds to think differently and build an environment conducive to innovation. While our political leaders are talking about India emerging as a Software Superpower and our corporate leaders are dreaming about it, lots of work needs to be done for converting this dream into a reality.

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