

If I.T. Merged with E.T.

By THOMAS L. FRIEDMAN

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Ethakota Village, East Godavari Dist., A. P., India

Well, here's something you don't see every day. I was visiting an Indian village 350 miles east of Hyderabad and got to watch a very elderly Indian man undergo an EKG in a remote clinic, while a heart specialist, hundreds of miles away in Bangalore, watched via satellite TV and dispensed a diagnosis. This kind of telemedicine is the I.T. revolution at its best. But what struck me most was that just underneath the TV screen, powering the whole endeavor, were 16 car batteries — the E.T., energy technology, revolution, at its worst.

Some 250 million Indians today have cellphones. Many of them are people who make just \$2 or \$3 a day. More and more are getting access to computers and the Internet, even in villages. But only 85 percent of Indian villages are electrified — and that is being generous, since many still don't have reliable 24/7 quality power.

If only ... If only we could make a breakthrough in clean, distributed power — an E.T. revolution — it could drive the I.T. revolution into every forgotten corner of the world to create jobs, light up schools and tap the innovative prowess of rural populations, like India's 700 million villagers. There is a green Edison growing up out here — if only we can give them the light to learn.

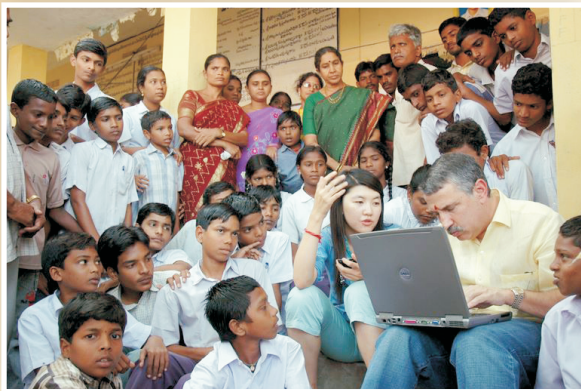
To appreciate that potential, look at how much is being done with just car batteries, backup diesel generators and India's creaky rural electricity grid. I traveled to a cluster of villages with a team from the Byrraju Foundation — a truly impressive nonprofit set up by B. Ramalinga Raju and his family. Raju and his brother Rama are co-founders of one of India's leading outsourcing companies, Satyam Computer Services. The Hyderabad-based brothers wanted to give back to their country, but they wanted it to be a hand up, not a hand out.

So besides funding health clinics and computer-filled primary schools in villages in their home state of Andhra Pradesh, they tried something new: outsourcing their outsourcing to villages.



The New York Times
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Winner of the 2002 Pulitzer Prize for commentary



Here in Ethakota, amid the banana and palm groves, 120 college-educated villagers, trained in computers and English by Satyam and connected to the world by wireless networks, are processing data for a British publisher and selling services for an Indian phone company. They run two eight-hour shifts, but could run three — if only the electricity didn't go off for six hours a day!

Talking to the workers at the Ethakota data center — one of three Byrraju has set up — you can see what a merger of I.T. and E.T. could do: enable so many more Indians to live local and act global.

Suresh Varma, 30, one of the data managers, was working for a U.S. oil company in Hyderabad and actually decided to move back to the village where his parents came from. “I have a much higher quality of life here than in an urban area anywhere in India,” he said. “The city is concrete. You spend most of your time in traffic, just getting from one place to another. Here you walk to work. Here I am in touch with what is happening in the cities, but at the same time I don't miss out on my professional aspirations. ... It is like moving from a Silicon Valley to a real valley.”

Unlike in the city, where outsourcing workers come and go, “in the village, nobody gives up these jobs,” said Verghese Jacob, who heads the Byrraju Foundation, which plans to gradually hand over ownership of the data centers to the villagers. “They are very innovative



and positive, and because some of them had never worked on a computer before, their respect for the opportunity is so much more than for a city child who takes it for granted.”

When the world starts getting wired and electrified, you never know who you'll bump into. In the village of Podagatlapalli, I met Sha Yu, a 22-year-old Chinese graduate of Beijing's Renmin University and a Byrraju volunteer, teaching rural Indian high school students how to produce their own newspaper on a computer.

“I felt in China people don't know so much about India, so I thought I want to come and see what is happening here,” she explained. “In rural India, communication is not that developed, so I started a newspaper for the high school. If I can learn something from here, and bring it back, I can give some ideas to the Chinese government. If this rural area can be empowered, it would be an amazing thing for the world.”

Amazing indeed. India's strained megacities, like Mumbai and Calcutta, can't keep growing. Mr. Jacob estimates that just one of his rural outsourcing centers creates the equivalent employment and salaries of 400 acres of farm land.

India, in other words, could actually mint more land in the countryside, but it can't do it off car batteries. It will take a real energy revolution. If only ...

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