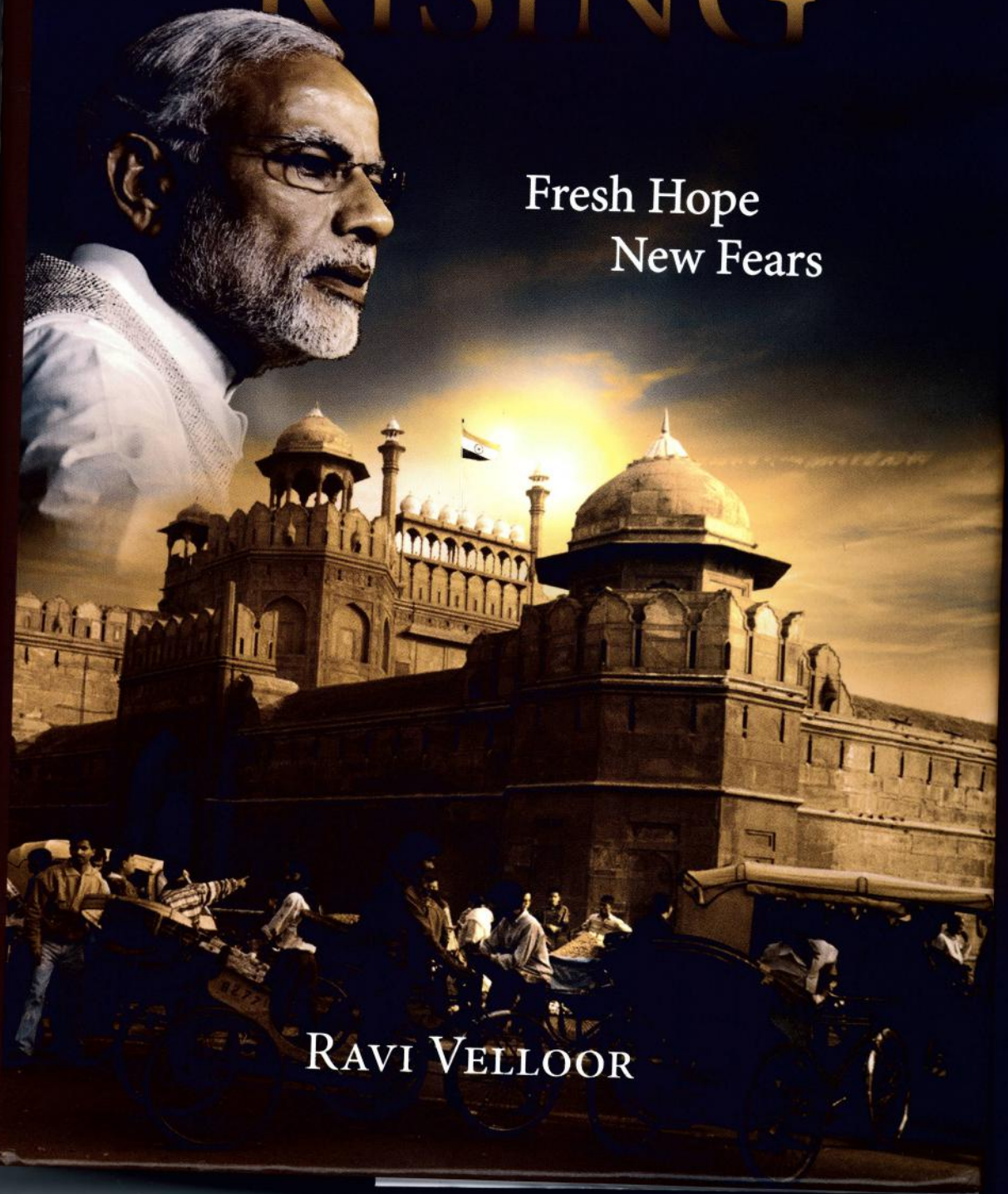
INDIA RISING

Fresh Hope
New Fears



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Services Before Manufacturing: Bangor, Maine? No. Bangalore, India

> "After the reforms in 1991, however, one thing changed dramatically – India's software industry turned superstar. Our growth through the decade made us the poster child for the success of reforms. It was an entirely new experience for us, an industry that had so far been either reviled or ignored, and it marked the beginning of a huge change in how India viewed electronification."
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> — Infosys CEO Nandan M Nilekani in *Imagining India*

WHITEFIELDS, BANGALORE, JUNE 2005. In the darkened upstairs hall of his villa, Arjun Kalyanpur, MD, was riveted by the scan results of the 51-year-old woman wheeled into the emergency room just before midnight at a Chicago hospital, complaining of severe abdominal pain. Rotating his computer mouse for a 360-degree view, the Yale-trained radiologist noted the large growth occupying most of the pelvis, protruding through the intestinal walls and obstructing it. A clear tumour, and detected very late.

Minutes later, the phone rang. The duty doctor in Chicago wanted a quick chat about the case. As they wound up the discussion, the Chicago man asked casually where the radiologist was located.

"Bangalore," said Dr Kalyanpur.

The man in Chicago was tired, and yawned audibly. "Bangor, Maine?" he inquired.

"No. Bangalore, India."

There was a moment's silence down the line.

Then, a yelp of disbelief: "Git out of here!"

It was daylight in the southern Indian metropolis, the country's most globalised city, and Kalyanpur, clad in casuals and flip-flops, was as fresh as any 40-year-old who had had a full night's sleep. But the scan he had examined so expertly was taken 16,000 km away at a busy American hospital on the other side of the world. Based on the Bangalore specialist's report, surgeons in Chicago would do immediate initial surgery to check whether to extract the tumour right away or wait until morning. Welcome to the frontier of knowledge process outsourcing.

India's reputation in IT rests on two pillars: code writing and computer services, and outsourced services, from simple ticketing work for airlines to high-end activity, including computer-aided design, and even healthcare. In the past two decades, no nation has figured on the outsourcing map quite as prominently as India.

Indian programmers first rose to prominence globally by helping fix the bugs for companies scared by the so-called Millennium Bug or Y2K threat – that havoc may be wreaked in computerised systems that were coded to abbreviate four-digit years as two digits, and would reset to 00 when the new millennium dawned. The threat passed without major mishaps but Indian code writers had gained global fame by then and many saw merit in outsourcing work to India, where rates were as much as a fourth that of the West. Soon, back office companies began taking on work for airline reservations, customer calls – almost any human service that could be performed remotely – hiring young, English-speaking Indians and housing them in buildings that were silent by day but came alive at night as they served customers in Britain, the US, Canada and elsewhere.

In time, more sophisticated work began to flow India's way, including, inevitably, in medicine, as information technology got matched with highly skilled medical brains. The smart lads at McKinsey, including a consultant named Manish Kejriwal who would later head the India operations of Singapore's Temasek Holdings, coined the term IT-Enabled Services or ITES to help outsourcing companies get the tax benefits India gives pure

IT companies. From Detroit to Wall Street, cost-conscious chief financial officers pushed their funds to pick the best Indian brains across the ether.

Kalyanpur, the son of a police officer, pioneered the telemedicine move in India in 2002. For American clients, his company, Teleradiology Solutions, offers round-the-clock service at a fraction of the usual specialist rates in the US. Work flows in now from more than 20 countries, with the US at the top; more than 50 hospitals across 20 American states use the service. Singapore's National Healthcare Group uses it; shaving what used to be a three-day wait for a scan report to just an hour, thus significantly improving patient care and service delivery at day clinics and hospitals.

The images arrive as electronic faxes, queuing up in a computer in the Bangalore office of the company. Whoever is free in Kalyanpur's expanding team of radiologists picks up the scan. Some scans, as that of the woman with the stomach tumour, can have as many as 460 images. Huge bandwidth is required for the purpose. Acquired at enormous expense, this allows the digitally compressed scan to download in less than two minutes.

When I visited him one morning in 2005, Kalyanpur was in his office studying the electronic films while speaking softly to an assistant who wrote down everything he was saying. The assistant, Munawar Pasha, was one of 25 who performed such tasks at the firm, and had already entered the patient's details on his computer: name, age, medical record number, the hospital she was in, the symptoms presented and whether she was an in-patient or an emergency case.

Now, saving the doctor time and the effort of typing, Pasha transcribed Kalyanpur's words. A few minutes later, the radiologist checked what Pasha had entered on the screen for accuracy. He corrected some spellings, made a few changes, then pushed a button. Within seconds, a central server in the US had received the full report and routed it to the hospital emergency ward where the patient was waiting. The time taken from start to finish: 28 minutes. That's unusual; most times, it requires less than 10 minutes.

"Increasingly, no doctor in the US is willing to wait until morning for radiology reports," Sunita Maheswari, Kalyanpur's wife and business

partner, told me. "So, everyone is scrambling to find radiologists to cover the night." She said Teleradiology Solutions' accuracy rate was 99.8% versus the acceptable US rate of 96%. And the rates charged? About half to two-thirds that at a US hospital.

Teleradiology Solutions is among the companies at the front edge of the Indian outsourcing story that is now so well-known around the world, thanks to IT companies such as Tata Consultancy Services (TCS), Infosys Technologies and Wipro.

The success of Indian outsourcing owes much to Faqir Chand Kohli, an engineer now in his 90s and the founding chief executive of TCS. He sent the first Indian programmers overseas in the 1970s. But it was not until fear of the Y2K issue hit companies in the 1990s that the Indian software engineer became a global icon. Suddenly, Indian IT skills were in demand by chief information officers in all the big companies of the world, trying to protect their computer systems.

"It took us 23 years to reach one billion dollars in revenue," Nandan Nilekani, then CEO of Bangalore-based Infosys, would say in 2006. "It took us 23 months to reach the second billion." Today, even as the pace of growth has slowed, Infosys revenue exceeds $2.5 billion every quarter while TCS rules as undisputed No. 1, with annual revenue of more than $14 billion. That is less than a tenth of the overall pie owned by Indian companies.

Global companies such as Accenture and IBM are in the game as well. Sam Palmisano, when he was chairman and CEO of IBM, was one of the biggest India enthusiasts, repeatedly visiting the country. He once brought the entire IBM board to Bangalore for a staff meeting. It worked well for IBM – by 2007, the India push had improved its bottom line significantly, and the company was grabbing huge Indian contracts, beating TCS and Infosys on their own turf. IBM's global numbers too were affected positively as the Indian connection strengthened. Its research centres in Bangalore and Gurgaon, near New Delhi, have become a source for innovation in diverse fields, from telecommunications to semiconductors and software. Indeed, when Singapore's Land Transport Authority gave IBM the contract