

India to unveil the £7 laptop

Randeep Ramesh in New Delhi

The [credit crunch](#) computer is set to arrive tomorrow in [India](#) when officials unveil the 500 rupee (£7.25) laptop. In an attempt to bridge the "digital divide" in the country between rich and poor, the government will show off the prototype, low-cost laptop as the centrepiece of an ambitious e-learning programme to link 18,000 colleges and 400 universities across the country.

India has a reputation for creating ultra-cheap technologies, a trend sparked last year by the [Tata Nano](#), the world's cheapest car at Rs100,000 (£1,450).

The computer, known as Sakshat, which translates as "before your eyes", will be launched as part of a new Rs46bn "national mission for education". This envisages a network of laptops from which students can access lectures, coursework and specialist help from anywhere in India, triggering a revolution in education. A number of publishers have reportedly agreed to upload portions of their textbooks on to the system.

Prabhakar Rao, vice-chancellor of the university in Andhra Pradesh from where the Sakshat will be launched, said that India was "looking to get the hardware and software cheaper. In a developing country, costs have to be kept low so that the maximum number of students will benefit. That means cheap computers and cheap broadband access, so that students get access to ebooks and ejournals."

Although half of India's 1 billion people are aged below 25, the country has fallen behind in terms of university places, with only 11% of students enrolled, compared with double that in China. India's bigger northern neighbour already has 180 million internet users, five times India's total.

Designed by scientists at the Vellore Institute of Technology, the Indian Institute of Science in Bangalore, the Indian Institute of Technology in Madras and the state-controlled Semiconductor Complex, the laptop has 2Gb of Ram and wireless connectivity. In an attempt to keep costs low, experts say it is unlikely to use familiar Microsoft Windows software.

Officials are confident that the Rs500 price tag can be met. RP Agarwal, the top civil servant for Indian higher education, told newspapers last week that "at this stage, the price is working out to be \$20 [Rs1,000] but with mass production it is bound to come down."

The Indian machine would also be considerably cheaper than the "\$100 laptop", the lime-green computer known as the Children's Machine or XO that was designed by scientists at the Massachusetts Institute of Technology in the US.

Launched in 2005 in a flurry of praise by Nicholas Negroponte, the former director of MIT's Media Lab, the XO has failed to take off, partly because it costs \$200 (£141) to make. However it has given rise to low-cost computers that save money by getting rid of hard drives and using cheap screens. The Classmate PC made by Intel, the world's biggest microchip manufacturer, can be bought for \$400. Taiwan's Eee PC costs as little as \$200.

However, some experts doubt that a laptop at \$20 or \$10 is commercially sustainable. Rajesh Jain, managing director of Netcore Solutions and a pioneer of low-cost [computing](#) in India, said: "You cannot even [make] a computer screen for \$20. And India does not build much computer hardware. So where will the savings come from?"

Some bloggers today saw the new laptop as nothing more than a "souped up calculator". The scepticism was summed up by Atanu Dey, whose blog read: "If the government could pull-off a near-impossible technological miracle, does it not imply that the entire global computer industry is either totally incompetent or else it is a huge scam which produces stuff at very little cost and sells them at exorbitant prices."

Officials have been reluctant to talk about the project ahead of the launch, however, one did say that costs have been kept low by using students and researchers to do much of the designing. He said that in 2007 the cost was \$47, but further refinements meant it dropped dramatically.

Low-cost inventions

- India saw the launch of the \$2,000 (£1,410) "people's car" by the motor company Tata last year.
- Wind-up everything. Since Trevor Bayliss invented the wind-up radio in 1989 the technology has spread. Wind-up power is now common in camping equipment and is being installed in African villages to provide lighting.
- DIY-adjustable glasses. The brainchild of British inventor Josh Silver, whose aim is to offer the specs to a billion of the world's poorest by 2020.
- In Kenya Equity Bank recently launched mobile banking, which allows customers to deposit, transfer and withdraw cash using a mobile phone.