

---

## The digital war on poverty

---

**T**he digital divide is beginning to close. The flow of digital information – through mobile phones, text messaging, and the internet – is now reaching the world's masses, even in the poorest countries, bringing with it a revolution in economics, politics, and society.

Extreme poverty is almost synonymous with extreme isolation, especially rural isolation. But mobile phones and wireless internet end isolation, and will therefore prove to be the most transformative technology of economic development of our time.

The digital divide is ending not through a burst of civic responsibility, but mainly through market forces. Mobile phone technology is so powerful, and costs so little per unit of data transmission, that it has proved possible to sell mobile phone access to the poor. There are now more than [3.3 billion](#) subscribers in the world, roughly one for every two people on the planet.

Moreover, market penetration in poor countries is rising sharply. India has around [300 million subscribers](#), with [subscriptions rising](#) by a stunning eight million or more per month. Brazil now has more than [130 million](#) subscribers, and Indonesia was estimated to reach [120 million](#). In Africa, which contains the world's poorest countries, the market is soaring, with more than [280 million](#) subscribers.

Mobile phones are now ubiquitous in villages as well as cities. If an individual does not have a cell phone, they almost certainly know someone who does. Probably a significant majority of Africans have at least emergency access to a cell phone, either their own, a neighbour's, or one at a commercial kiosk.

Even more remarkable is the continuing «convergence» of digital information: wireless systems increasingly link mobile phones with the internet, personal computers, and information services of all kinds. The array of benefits is stunning. The rural poor in more and more of the world now have access to wireless banking and payment systems, such as Kenya's famous [M-Pesa system](#), which allows money transfers over the phone. The information carried on the new networks spans public health, medical care, education, banking, commerce, and entertainment, in addition to communications among family and friends.

India, home to world-leading software engineers, hi-tech companies, and a vast and densely populated rural economy of some 700 million poor people in need of connectivity of all kinds, has naturally been a pioneer of digital-led economic development. Government and business have increasingly teamed up in public-private partnerships to provide crucial services on the digital network.

In the Indian states of Andhra Pradesh and Gujarat, for example, emergency ambulance services are now within reach of tens of millions of people, supported by cell phones, sophisticated computer systems, and increased public investments in rural health. Several large-scale telemedicine systems are now providing primary health and even cardiac care to rural populations. Moreover, India's new rural employment guarantee scheme, just two years old, is not only employing millions of the poorest through public financing, but also is bringing tens of millions of them into the formal banking system, building on India's digital networks.

---

## The digital war on poverty

---

On the fully commercial side, the mobile revolution is creating a logistics revolution in farm-to-retail marketing. Farmers and food retailers can connect directly through mobile phones and distribution hubs, enabling farmers to sell their crops at higher «farm-gate» prices and without delay, while buyers can move those crops to markets with minimum spoilage and lower prices for final consumers.

The strengthening of the value chain not only raises farmers' incomes, but also empowers crop diversification and farm upgrading more generally. Similarly, world-leading software firms are bringing information technology jobs, including business process outsourcing, right into the villages through digital networks.

Education will be similarly transformed. Throughout the world, schools at all levels will go global, joining together in worldwide digital education networks. Children in the United States will learn about Africa, China, and India not only from books and videos, but also through direct links across classrooms in different parts of the world. Students will share ideas through live chats, shared curricula, joint projects, and videos, photos, and text sent over the digital network.

Universities, too, will have global classes, with students joining lectures, discussion groups, and research teams from a dozen or more universities at a time. This past year, my own university – Columbia University in New York City – teamed up with universities in Ecuador, Nigeria, the United Kingdom, France, Ethiopia, Malaysia, India, Canada, Singapore, and China in a «global classroom» that simultaneously connected hundreds of students on more than a dozen campuses in an exciting course on global sustainable development.

In my book [The End of Poverty](#), I wrote that extreme poverty can be ended by the year 2025. A rash predication, perhaps, given global violence,

climate change, and threats to food, energy, and water supplies. But digital information technologies, if deployed cooperatively and globally, will be our most important new tools, because they will enable us to join together globally in markets, social networks, and cooperative efforts to solve our common problems.

Copyright: [Project Syndicate](#), 2008.