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Changing lives through technology

Two leading Indian executives—Unique Identification Authority of India chairman Nandan Nilekani and Biocon chairman Kiran Mazumdar-Shaw—explain how technology is transforming the country.

Much is made of India's potential to “leapfrog” other nations by adopting technologies prevalent in the developed world. Yet there is no shortage of fields where India itself is leading the charge. In these video interviews, the chairman of the Unique Identification Authority of India, Nandan Nilekani, explains how digital personal identification is transforming the lives of hundreds of millions of Indians. And the chairman and managing director of Biocon, Kiran Mazumdar-Shaw, discusses biotechnology's potential to revolutionize almost every element of the Indian economy.

Reimagining India: A conversation with Nandan Nilekani


In this interview, the chairman of the Unique Identification Authority of India, Nandan Nilekani, explains how a personal identification number, known as “Aadhaar,” provides citizens with access to a host of previously unavailable services. An edited transcript of his remarks follows.

In India, what has happened is there's a large number of people who don't have, say, a birth certificate or a school certificate. Identity is really a very basic thing; it's a gateway to public services. Let's say you go to open a bank account—they ask you to give your identity. You go to get a passport—they ask for identity. They stop you at the airport—they ask for identity.

This is the world's first digital ID infrastructure. So it's an online ID which you can authenticate anywhere. And therefore, all kinds of online services will be available across the length and breadth of the country, where people can walk into a grocery store in a village and withdraw money from their Aadhaar-linked bank account, or walk into a PDS¹ outlet anywhere and get their subsidized rice or wheat from their Aadhaar-linked food account. All those kinds of applications can start emerging. So suddenly, everybody in the country will be a few hundred meters away from an outlet where they get instant access to these services. It has a huge impact on access, on convenience, on empowerment.

¹ Public distribution system.

The US Social Security number was designed in the 1930s, when the US passed the Social Security Act. That was before the era of computers. We designed the system in 2009, in an era of cloud computing, analytics, big data, broadband connectivity, and devices. And, therefore, we could think of this as an online ID which is on the cloud. We use all these big-data and analytics tools. We are leapfrogging and providing a digital ID infrastructure, which no one really has.


Five years from now, Aadhaar would have covered practically the entire population. We're already at about 400 million people who have been issued Aadhaars now in 2013; by 2014, we'll be at 600 million. We can issue at the rate of about 200 million Aadhaars a year. Some people feel that this could be a potential threat to civil liberties. So we have gone out of our way to demonstrate that this is not a surveillance system, but really a system to empower people to get benefits better. And it's designed only to provide identity and nothing else. As these things roll out, people will start seeing the value. And, I think, in general now, people have accepted this as something very useful. 

Reimagining India: A conversation with Kiran Mazumdar-Shaw

In this interview, the chairman and managing director of Biocon, Kiran Mazumdar-Shaw, discusses biotechnology's potential to advance the Indian economy by revolutionizing the agricultural sector and providing greater health security. An edited transcript of her remarks follows.

India has all the ingredients that are required to take our economy to the next level of global competitiveness. What India needs today are transformative solutions, not incremental solutions—and biotech can actually deliver on that. Biotechnology is one technology that basically ramifies into almost every aspect of our economy.

Start with agriculture, which is really the very heart of our economy. Agri-biotech ushered in a second green revolution in a way. In all aspects of our economic challenges, biotech has a transformative role to play. Health security—vaccines—have actually helped the whole world to deal with a large number of infectious diseases, many of which are now almost obliterated. Then let's look at noncommunicable diseases, like diabetes, cancer, and autoimmune diseases. If you just look at the improvement in mortality rates in every one of these diseases, it's biotechnology that has helped to do that. Bio-toilets are today becoming a very important, fast solution for India. Fifty percent of our population unfortunately defecates in the open—we've got to address that very urgently and very seriously.

Biofuels can play a very, very important role. There are very exciting biotechnologies being developed based on seaweeds, based on algae. And all of these are very, very important renewable sources of fuel, which can actually make us energy independent. 

Nandan Nilekani is chairman of the Unique Identification Authority of India.

Kiran Mazumdar-Shaw is chairman and managing director of Biocon.

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