



THOMAS FRIEDMAN IN CONVERSATION WITH NANDAN NILEKANI

Imagining India

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Celeste Bartos Forum

LIVE from the New York Public Library

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PAUL HOLDENGRÄBER: Good evening. My name is Paul Holdengräber and I'm the Director of Public Programs at the New York Public Library. I would like to warmly welcome everyone to an evening with Nandan Nilekani and Thomas Friedman, the fourth in our Spring 2009 LIVE from the New York Public Library season.

A quick but timely word about supporting this extraordinary institution, the New York Public Library. I would like to ask everyone present to consider becoming a Friend of the Library.

Starting for as little as forty dollars a year, you are in. A cheap date, if you ask me. Please become a Friend of the New York Public Library. Your support will get you a fifteen-dollar ticket each and every time for all LIVE events instead of twenty-five dollars. That is a ten dollar off each and every time. There's a membership table there at the end of the room. Please visit it after the event and join tonight. It will help our cause tremendously. Of course you can also do so online.

I would like to take this opportunity to thank our supporter tonight—Sutherland, Asbill & Brennan. Sutherland, Asbill & Brennan are a proud supporter of the New York Public Library and they are a member of the Lawyers for the Library group. Sutherland is a law firm with global reach founded in 1924. The firm handles legal matters throughout the United States and worldwide. So, please, a warm round of applause for Sutherland for their generous support.

(applause)

Earlier I stated that you could help our cause by supporting us. And what is our cause, you might ask. I sometimes wonder myself. Well, quite simply and joyously to bring to you live conversations, discussions, debates, to present you with the best thinking around town, what I like to refer to as “cognitive theater.” From now on you will also have the pleasure of viewing the events on iTunes U, on our Web site, reading transcripts of the past evenings and the conversations that have already occurred, such as John Hope Franklin with President Clinton, Al Sharpton with Christopher Hitchens, Günter Grass and the late Norman Mailer—actually this was the last appearance of Norman Mailer in public—Zadie Smith, Krista Tippett and Stuart

Brown, Toni Morrison, Alfred Brendel, Jan Morris, Robert Badinter, Jhumpa Lahiri and Mira Nair, Werner Herzog, Amartya Sen with Salman Rushdie, or our very recent tribute last week to John Updike, and the list goes on, so do check it out, and also do check out our blog.

And what events are coming up, you might ask? Well, Andrei Codrescu will interview Henry Alford and Mark Twain—this will actually be my first impersonification as Mark Twain. The evening is entitled How to Live Dada. Follows a two-part series this spring copresented with *Bookforum* entitled Cultural Obituaries on the death of Black Nationalist culture and the death of Boom culture. A two-part evening will follow with Alex Ross, Barbara Isenberg, and Frank Gehry, followed that same evening by Alex Ross interviewing the composer and conductor Esa-Pekka Salonen, and much more. So do join our e-mail list and our blog. Simply go to www.nypl.org/blog. After the conversation, please join Nandan Nilekani and Thomas Friedman for a book signing.

It is a great pleasure, of course, to welcome both of them tonight. Nandan Nilekani is cochairman of Infosys Technologies Ltd., the recipient of several awards, including the Joseph Schumpeter Prize for innovative services in economy, economic sciences, and politics. Thomas Friedman, as you all know, is a three-time Pulitzer Prize winner. His foreign affairs column appears in the *New York Times*. He is the author of *The World Is Flat* and most recently *Hot, Flat, and Crowded*. Please welcome to this stage Tom Friedman and Nandan Nilekani. **(applause)** Together, together they are here to discuss the future of India, the subject of Nilekani's first book, entitled *Imagining India: The Idea of a Renewed Nation*. Thank you very much.

(applause)

THOMAS FRIEDMAN: Paul, thank you. Thank you very much. Someone's left us some money, Nandan.

NANDAN NILEKANI: Great, even before we start.

THOMAS FRIEDMAN: In these times it can be useful. It's a treat to be with you this evening. It's great for me to be with my friend Nandan. We just did a similar event in Bangalore a month ago, and it's great to be in this spectacular room in this spectacular library, so thank you all very much for coming out. Some of you may wonder, you know, how we actually got to know each other. We met—I don't know, about ten years ago. When I first came to India, I met Nandan, and in 2004 I was doing a documentary for the Discovery Channel and at the time, we were trying to think of what to do our next documentary on and during the campaign between John Kerry and President Bush, the issue of outsourcing suddenly exploded onto the world stage and I was kind of tired of roaming around the Middle East and I said, "Maybe we can go to Bangalore, the capital of outsourcing," where Nandan's company Infosys is headquartered, "and let's do a documentary about that," and spent ten days with the Discovery Channel filming and going all around.

And Nandan was out of the country and my last stop, my last interview was with him and I was so excited because I knew he was going to explain it all because I had spent ten days hearing from people about how they were now getting their x-rays done in America and read in

Bangalore and how they were tracing their lost luggage on Delta Airlines in Bangalore. And I realized something big had happened in the world, but I just, I couldn't put it together. And I went out to Infosys' campus in Electronic City in Bangalore, and the film crew was setting up in Nandan's office. We were sitting on the couch out in the hall. I had my laptop on my lap, but, as is my habit, I flipped it open and I said, "Nandan, I've been seeing all this, you know, what have I been seeing?" and at one point in the conversation he said, "You know, Tom, the global economic playing field is being leveled. The global economic playing field is being leveled, and you Americans are not ready." **(laughter)** Oh, I wrote that down in my little laptop. **(laughter)** "The global economic playing field is being leveled, and you Americans are not ready."

Well, after the interview I got back in my Jeep and I was heading back to my hotel, about an hour ride, bumping along the road. And all the time I kept rolling over what Nandan had said: "The global economic playing field is being leveled," then it occurred to me what he was really saying is the global economic playing field is being flattened. And then, what just popped into my head is that Nandan Nilekani, India's really premier engineer/entrepreneur, was telling me that the world is flat. I wrote that down in my notebook. I went back to my hotel, ran up to my bedroom, called my wife, and said, "Honey, I'm going to write a book called *The World Is Flat*." She now says she thought that was a wonderful idea. **(laughter)** Not how I remember the conversation, but I'm forever grateful and always acknowledge, then and now, the true inspiration that Nandan has been for me, for that book and for many other things.

Those of you who don't know Nandan, let me put it to you like this: Seattle has Bill. Silicon Valley has Steve. Omaha has Warren. And Bangalore has Nandan. Okay? **(applause)** And he

has written a truly imaginative, creative, and original book, *Imagining India*, and for those of you who haven't read about it yet, there's been some wonderful reviews everywhere from the *Economist* to the *New York Times* to *Time* magazine, and he's going to be signing copies outside afterwards.

Nandan, let me just jump in. Let's start with the news. Stock market was up almost five hundred points today, so the economic crisis is over. **(laughter)** And I just thought I'd ask you what it looked like. You know, what—you know I think we talked when we were in Bangalore, how odd it was that here India, you know, was going through this long struggle of denationalization of its industries and financial system and we're now nationalizing, you know, our auto industry and banking system. And it's like, are we ships passing in the night somewhere? What does *our* crisis look like from India?

NANDAN NILEKANI: Yes, it is a very eerie experience, because when we grew up in India, we grew up in a situation where the state was overpowering and ruled all our lives and we felt constricted in that situation. It was only in 1991 when we had the economic reforms that we had space for business and entrepreneurs, which led to India's economic world growing much faster and therefore I think the notion that the U.S. in some sense is going the other way *is* a disconcerting experience, because—

THOMAS FRIEDMAN: Talk about that a little bit. Disconcerting. Is it—It's unnerving, watching this?

NANDAN NILEKANI: It's definitely disconcerting. **(laughter)** Maybe unnerving, too, because I've been here for the last three, four days and watching television here has been a very different experience in all the years that I've been coming here. And I think, you know, it goes back to the question of what is the exact balance between the markets and state, between entrepreneurship and the state. And I think we in India had veered to one extreme and that cost us forty years of development. It made our country grow slower and while the rest of the world was galloping ahead, we were falling behind. And then we, you know, saw the folly of too much of state intervention, and we tried to create this balance. So I think here it went to the other side, it went to completely unregulated markets and then we're trying to bring it back. But in either case I think we must make sure that we get to the middle ground and not swing either way, and I think we in India are watching this with a lot of trepidation, because in the last four to five years, India had 8, 9 percent growth and that also made us sloppy in terms of not fixing our own problems, and now it's very clear that we have to go and fix our own problems because we can't have the global bubble driving our growth, so I think it's a big lesson for us, too.

THOMAS FRIEDMAN: I want to get to the book in a second, but I want to do just a bit of biography first. You mentioned 1991, which was India's 1989, it's when the Berlin Wall fell in India, you know, basically. Tell us—take us back to the founding of Infosys, you know, which for India was as important as the founding of Intel or Microsoft or Apple has been for—how did you guys come together? How did you get this idea?

NANDAN NILEKANI: Yeah, I think it was a very different time. 1981 was socialist state, it had all this state stuff, and all that. And most businesses in India in those days were either large

state-owned companies, you know, public-owned, government-owned companies, or they were large families like the Tatas and the Birlas and so forth, or they were multinationals, they were the IBMs of the world. And the notion that a bunch of guys who had no money, who were not connected by—they were not related to each other, I mean professionally in the same business, but—could come together and start a first-generation enterprise like what you have in the U.S. was a very, very unique concept. And a lot of people dissuaded us from even trying such a harebrained scheme. And when we began, it was a very difficult time. It would take us months to get a license to import even a disk drive for a computer, and when you had to travel abroad, you had to go to the Reserve Bank, which is like the Federal Reserve, and ask for dollars to go abroad. And I remember once I went abroad for some work and I went back—I had to go back again within a few weeks. And the clerk asked me, “Why are you going so often?” you know, “What is happening here?” So you were actually answerable to the bureaucracy for the most trivial things. It’s only in ’91 that we got this breath of fresh air.

THOMAS FRIEDMAN: What happened?

NANDAN NILEKANI: Well, I think it was a solution that came out of a crisis because India had borrowed too much, its foreign-exchange reserves were down to two weeks, it had no money, it had to actually ship its gold to the Bank of England to get some exchange and it was really, you know, in an economically—

THOMAS FRIEDMAN: You had to sell your gold to the Bank of England or send it there as collateral?

NANDAN NILEKANI: Yeah, and they had to seek an IMF loan to tide it over and that was a time when people felt that we should really, you know, break it open and they scrapped licensing, they made it easier to do business abroad, they reduced taxes. They did a lot of things to right the economy and for the first time recognized that entrepreneurship is something we should encourage, and that was really like a breath of fresh air for all of us.

THOMAS FRIEDMAN: And that then really launched Infosys to a new stage? Or when the takeoff, then?

NANDAN NILEKANI: You see, from 1981 to 1991, we grew from zero to something like five million dollars and then we went from '91 to now from five million to close to five billion, so clearly you can see that the trajectory of our growth changed dramatically. But it was not just the economic reforms, I think technology and what you talk about in *The World Is Flat* made it possible, because by 1987, we had earth stations so you could communicate with the world or the earth stations and by the mid-nineties you had fiber-optic cables, so all the technological innovation also made it much easier.

THOMAS FRIEDMAN: So then let's talk about the book. What made you want to write this now? I mean, you're a successful businessman, you're a legend in India. Authoring a book—that must have been a pretty daunting idea to you.

NANDAN NILEKANI: Yeah, it was a crazy idea, **(laughter)** but it's no crazier than starting a company, you know. Well, I think a couple of things—I mean the last few years one of the roles I've played is being a global ambassador for Infosys and then ultimately for India, to sort of be a spokesman for India at Davos or many places like that. And I assume that many people who used to ask me to explain India's contradictions. "You know, why is it that you seem to have this high-tech talent and these IITs and why do you have this huge number of young people, children who don't have education?" "Why is it that you have such a beautiful campus in your office and you have the world's largest slums?" "Why is it that there is a part of India which seems to be still in the seventeenth century and there is a part which is doing space rockets and twenty-first century?" "Why is it that you have so many billionaires and so many poor people?" And, you know, I couldn't really explain these contradictions, and finally I said I must once and for all figure out why it is the way it is. So in some sense it was a journey of self-discovery for me to really figure out why India is the way it is. And the other thing was that I started sensing that India had a small window of opportunity where it was enjoying this demographic dividend, it was going to have a huge number of young people in the working age for the next thirty, forty years.

THOMAS FRIEDMAN: What's a democratic dividend?

NANDAN NILEKANI: A demographic dividend.

THOMAS FRIEDMAN: A demographic dividend, excuse me.

NANDAN NILEKANI: It's a term actually coined by people here, David Bloom and Williamson which is that in a country there is a time when birthrates slow down, and therefore the bulk of your population for those thirty, forty years is between the age of fifteen to sixty-five, and you have less young people because less babies are being born, and you have less old people because at that time there were less people and when you have a large number of people in the working age and when you have very few people to support, it causes a low-dependency ratio. It happened in the U.S., for example, after World War II, when there was a baby boom.

THOMAS FRIEDMAN: Fewer old people that—older people need to be supported.

NANDAN NILEKANI: Yeah, so you know, so more people to work. It's also the time when a society is most creative. There are a lot of young people, they are innovative, they don't have a lot of worries, so they can be innovative. So India's entering that era. Now, a demographic dividend is only as good as you harness it. To uncash the demographic dividend, you must make sure your people have the right education, they are healthy, there are roads to go to work, there are jobs to get, there are lights to study at night. So unless you do those things, a demographic dividend can well become a demographic disaster. Because when you have a large number of young people and you don't have enough opportunity, and there are no jobs and they've been exposed to higher aspirations through television and they can't fulfill them then they can be as much frustrated, disgruntled, and could get violent, and you see that problem in many parts of the world, so in some sense you know we are to choose the high road or the low road, and do we take the road of the demographic dividend and uncashing that, or do we take the road of a demographic disaster and my feeling was India was at the cusp of these two choices and I just

wanted to make sure that sense of urgency was captured, and that was the other reason I did this book.

THOMAS FRIEDMAN: I often felt, you know, when I'm India, that energy you're talking about from that demographic dividend. I'd like to always say to people, "If you want to know what India feels like, buy a bottle of champagne, shake it for about thirty minutes, and then take off the cork." You wouldn't want to get in the way of that cork, you know. Where, though, it isn't just young people I find when I go there, Nandan. It's young people with a basically optimistic outlook and I'm not just talking about the lucky few at the IITs. You go into villages and small towns, you see—you see farmers who want their kids to study English now for more years. You see in towns, you know, parents who want their kids to go to a tech college or a computer school. It's really at all levels. Where does that optimism come from?

NANDAN NILEKANI: I think it comes from a realization, a collective realization, which I guess happens in societies, that if you do the right things, if you work hard enough, if you learn the right things, we can bequeath to our children a better life than what we have. And I think that that—that's a huge source of energy, because, for example, today in India, in urban India, in poor urban India, in slums of India, 50 percent of the children go to private schools. Now, for these parents to send their children—these are not private schools, not Williams Academy or something—they are small one-room tenements and the poor spend a significant part of their incomes sending their children there because they believe that the government schools are not functioning, and they are willing to spend that income to give their kids a slightly better education

so that they can do better in life. So that sense that, you know, that if that you invest in children they'll have a better life, that collectively, I think, creates a huge momentum.

THOMAS FRIEDMAN: Last year before the global slowdown really hit, how many young engineers, college graduates, applied for jobs at Infosys? How many were you able to take?

NANDAN NILEKANI: I would say we would get about one and a half million applications.

THOMAS FRIEDMAN: One and a half million applications.

NANDAN NILEKANI: And we would recruit about twenty-five thousand.

THOMAS FRIEDMAN: Twenty-five thousand.

NANDAN NILEKANI: You know in a city called Mysore, not far from Bangalore, we have what we believe is the world's largest corporate university, where we can train thirteen thousand five hundred people at a time and it's a residential campus, they all stay there, we have all rooms and hostels. And if you take a typical training as four months, we can train forty thousand people a year, so really built a huge—you know, half a billion dollar investment.

THOMAS FRIEDMAN: So you're running a university.

NANDAN NILEKANI: Oh, yeah, the world's largest corporate university, I think. So that's the kind of thing. And that goes back to the thing that I think India does not have—and you have made this point on that. It doesn't have natural resources. We do have some, but you know we can't live off, you know, oil or copper or whatever it is. And the only natural resource we have is our people, and therefore I think the realization has set in that if we think of our people as our capital, and if we invest in them, then that pays us huge dividends in the future.

THOMAS FRIEDMAN: But that salmon that swims upstream, to be one of those twenty-five thousand out of one and a half million. What are you looking for? We've got a lot of parents here whose kids are in college or high school. So what is a big, successful Indian multinational looking for from its new recruits?

NANDAN NILEKANI: Well, I think, you know, I think the nature of business—not just in Infosys, but anywhere, I think it's becoming much more complicated. I think the pace of change has gone up. I think the ability to embrace change has to go up. I'll just give you an example in India. Forty years back, India was growing at 3.5 percent a year. And it was called the Hindu Rate of Growth. It was like it was destined that the country like India can only grow at 3.5, it's like it's in their destiny. **(laughter)** And the population was growing at 2 percent. When the GDP is growing at 3.5 percent and the population is growing at 2 percent, it takes forty-five years to double per-capita incomes. When the economy is growing at 8 percent and the population rate has now dropped to 1.5 percent, it doubles every nine years. So suddenly you've fast-forwarded this thing. Something which took forty-five years now takes nine years. And that is true in all societies. The pace of change has gone up. So I think our ability to be nimble and deal with

change and adapt with change I think is going to be the defining thing whether it's for Americans, for Indians, for anybody else.

THOMAS FRIEDMAN: Let me indulge myself just for one question and it's one of the things that whenever I see a Nandan, I always say, "what's the new new thing?" You know, where is the cutting edge of the story? And you know first time, Infosys' first job was doing Y2K remediation, I mean, fixing people's computers, you know, and then went to answering phones and then doing business-process outsourcing in the back room. What's the new new thing now? If I call up Infosys and I'm IBM or General Electric and I say, "Nandan, what are you selling these days?" What would you tell people?

NANDAN NILEKANI: I think the requirements of businesses and technologies to transform themselves and to become smarter in the way they're doing has never been higher.

THOMAS FRIEDMAN: What?

NANDAN NILEKANI: One is on the business side I think we are really being buffeted by extraordinary forces, right? You have the economic crisis here. The markets are changing. Tomorrow's markets may not be in one part of the world, they'll be in another part of the world. The consumers are changing. The way you sell is changing. What you sell is changing. How you sell is changing. So that everything is being turned upside down and that—that ability for companies to sort of transform themselves is becoming more and more critical, and therefore we can provide that value to change.

The second thing is the smartness of everything we do is changing. In the old days, for example, if you wanted to ship something out, you knew that this box contained something, but you didn't know what was in the box, but as we become more and more granular in our measurements because of technological improvements, we can actually what's not only in the box, what's in each carton. In each carton, what's in each tube? And therefore the level of granularity has been going up. Or similarly, for technology of smart grids. In earlier days we just piped some power into our house but now we want to know how much power is being consumed by the washing machine, by the microwave, by the fridge. So everywhere the information intensity is going up dramatically. And that's where I think we can play a role in the transformation as well as improving the information intensity of businesses around the world.

THOMAS FRIEDMAN: So if someone here, though, Nandan wanted to know what, what exactly does Infosys do for a company like GE or a large multinational, what does it do?

NANDAN NILEKANI: I think, we work with large corporations and they use technology heavily. U.S. spends 8 percent of GDP on information, communication technologies. And we therefore help them in implementing those things in a smarter, better way so that they derive the benefits of increasing their revenues, increasing their profits, reducing the cycle time, collecting their money faster, you know, the very basic things that businesses do. We provide the technology support for doing that.

THOMAS FRIEDMAN: But you're also innovating with them as well, though, aren't you?

NANDAN NILEKANI: Yes, because what's happening is that one, we have an intimate knowledge of how the business is doing and perhaps what could be improved and because we are a global organization and we work with hundreds of companies we are right there in the flow of ideas—

THOMAS FRIEDMAN: You've seen the back rooms of all these companies.

NANDAN NILEKANI: We are like on the highway and everybody is stopping at our, you know, McDonald's or whatever. So we can actually see, see this thing, and that gives us a unique perspective which we can sort of leverage to give new solutions.

THOMAS FRIEDMAN: Nandan you mentioned the issue of climate, and when I was just in India I was at a climate conference there. One thing that always strike me when I speak to young Chinese and one Indians on the climate issue, you know, is their basic sense of unfairness right now when we raise the climate issue to them. You know, their basic view is that, "you guys in the West, you ate the hors' d'oeuvre, you ate the entrée, you ate the dessert, you invited us for tea and coffee, and then said, 'Let's split the bill. **(laughter)** Let's split the bill.'" And somehow they think that's not fair.

NANDAN NILEKANI: Absolutely, I think, yeah.

THOMAS FRIEDMAN: So, talk about both—how do you overcome, as someone who I know cares about this issue, on the one hand a sense of this is really unfair but in the other sense this is really a problem, and on the third sense, this is really an opportunity.

NANDAN NILEKANI: Sure, well I think the key is to separate out the global conversation from what we need to do for ourselves. Because the global conversation is very clear. In 1850 we had 280 parts per million of greenhouse gas equivalent in the atmosphere. Today we are at 430 parts per million, a hundred and fifty parts per million more. This is almost entirely due to developments in the rich countries and if you go by the IPCC recommendations, we need to stabilize between 500 to 550. In other words, half the space in the atmosphere has already been consumed, and the developing countries had nothing to do with it, so it's clearly a fairness issue of restitution for that. Similarly, on a per-capita basis, the U.S. they are at 20 tons per head, the Europeans are at 12 to 14, the Chinese are at 4, the Indians are at 2, which again is unequal. So there's no doubt that from a global conversation point of view, there has to be an equitable deal which reflects the sum cost of the stock as well as on the flow.

Having said that, and that should be negotiated at Copenhagen, or at Kyoto wherever it is.

Having said that, I think it does not flow from that that we should not do anything about it. I think that's an equally wrong attitude. I think we should say, and I talk about that in one of my chapters that we actually have the luxury of seeing the rearview mirror and seeing the consequences of what has happened in the rich countries. And we don't need to go down that path, and therefore, because we don't have the legacy, because we don't have trillions of dollars in coal plants or whatever it is, we can actually reinvent our architecture of our energy

consumption, go into a postcarbon economy, and convert the fact that we are behind into a strategic advantage, by actually leapfrogging, like what happened in our telephoning. You know, India has had sixty million lines of fixed lines for many, many years and suddenly the mobiles came and mobiles went from zero to three hundred million.

THOMAS FRIEDMAN: You have more phones than we have people.

(laughter)

NANDAN NILEKANI: And today India ships eight million mobile phones a month. So you know, you leapfrog, you don't have this huge legacy infrastructure of wired line, so leapfrog to wireless. Similarly, we don't have this huge infrastructure of carbon, we can leapfrog to postcarbon.

THOMAS FRIEDMAN: Nandan, I've been having this sense, and we just started talking about in the green room before, that this economic crisis that we're in right now, this is more than just, God willing, a deep recession. That something actually big happened in 2008, 2009. My friend Paul Gilman, the Australian environmentalist, calls it the great disruption, and the way I like to put it is it seems to me that both the market and mother nature hit a wall this year, together, and I don't know if it was a head-on collision or if they hit the wall separately, but something really big here happened. We had created a way of raising standards of living, which is so important for India, for China, for America, that we really couldn't pass on to our kids. The model was simple. We built more and more stores to sell more and more stuff that would trigger more and more

factories in China to make the more and more stuff with more and more coal that would earn more and more dollars that would buy more and more T-bills that would be recycled back to America to build more and more stores to sell more and more stuff. And we were kind of in that loop, and I think that loop hit a wall climatically and financially in the same year. Financially, we couldn't recycle these imbalances without doing really crazy stuff, and at the same time, climatically, for all the reasons you said, it was spinning off obviously too many greenhouse gases. What was going on there, Nandan?

NANDAN NILEKANI: Well, I think the two crises, the global economic crisis that we're all going through and the ecological crisis are actually both very, very similar. Because in both cases, if you look at the economic crisis, we had a model where the costs and risks of certain business activities were not internalized to the companies, they were externalized through different instruments, and therefore you ended up with this model where we would privatize the profits and socialize the losses. Exactly the same thing is happening in the environment, because if—

THOMAS FRIEDMAN: Derivatives are the moral equivalent of CO₂, I mean in a way.

(laughter)

NANDAN NILEKANI: Yeah, it's a type of greenhouse gas.

THOMAS FRIEDMAN: We socialized the cost of them.

NANDAN NILEKANI: And then we hit this wall. Now, exactly the same thing is happening on the ecological side, because if you—if companies don't capture the true ecological costs of what they do, if we don't put a price to those things, then their profits are artificial, because they don't reflect the price on the environment, which is outside. And there again, if we don't do that well, we'll externalize those losses and that will lead to an ecological crisis. You really have to think of the economic crisis as phase one, and the next one is the ecological crisis. And it goes back to saying unless we capture costs and risks of everything before we compute profits, we will always have these things.

THOMAS FRIEDMAN: What do you think could be the foundation—I don't really care about you, I'm working on my next book here. **(laughter)** What could be a foundation of a new way of growing standards of living that wouldn't have these toxic financial and climatic by-products? How do we raise standards of living without making more and more Nike shoes?

NANDAN NILEKANI: Well, Philip Knight may not like that, making more and more shoes, but I think—I think part of it is on the business side, that if businesses capture the true costs and risks of that, that itself will do a part.

THOMAS FRIEDMAN: That will drive it.

NANDAN NILEKANI: Because businesses are a huge force. That if they don't capture that, then they can create this whole cycle which leads to all these issues, but on the other side, I think,

you know, there's obviously—you know, we cannot deny people their aspirations. Let's take India. You know, you have a billion people, they're just discovering the way out of poverty, they want a better life. You can't say, "No guys, you can't have a better life because there's global warming," I think you will get booted out of office if you say that. So you have to come out with something which meets their aspirations, whether it's you know, fixing up, creating the postcarbon economy, you know, whether it's creating lifestyles which don't consume so much, whether it's about recycling, reducing, whatever. But I think we don't think that. In some sense I think cheap hydrocarbons made us lazy. You know, if you go back and look at, say, a palace built in Rajasthan, which is a very hot and dry state, it's very cool, not because they're using air-conditioning, they're designing a way that it keeps its coolness. That's what they had, because they had no choice, they couldn't use. But the moment you got air-conditioning then you didn't bother about design because you just put in the air conditioner and used it. So I think we need to get back to that—the fundamentals of how we do things.

THOMAS FRIEDMAN: I was up at MIT a couple of months ago Nandan, I was talking to—I was interviewing the dean of engineering. And he told me—I don't know if this was the exact number, it was roughly this number—that in recent years, roughly a third, roughly a third of the engineering graduates at MIT were going to Wall Street, and you can—when I heard that, and it was before, really, the crisis hit, I think, but it really all started to become clear to me, because basically, to think that we had taken all this IQ, really some of our best IQ from the Cal Techs and from the MITs and we put them into Wall Street. And these were guys who—and gals who—should have been designing rockets, *literally rocket scientists*, then were designing financial instruments, and regulating them, you know, were basically staid bureaucrats from the

you know, fifties and sixties. It was a complete IQ mismatch. You know, you had these basically, people educated in a very different discipline at a very different time trying to regulate rocket scientists inventing financial instruments. Do you have that problem in India?

NANDAN NILEKANI: Well, I think Indian regulators are very conservative. And they have generally been very careful about allowing new instruments and all these products. And in general, actually, I think India has the benefit again of hindsight in building a better regulatory environment. For example, take the banking system. We have a single national regulator for banks, that is all banks, so you know it doesn't matter where the bank is. Or insurance. We have a single national regulator of insurance. The U.S. has fifty regulators in each and every state, because of historical reasons, so in some sense because we are starting in a green field, you can actually create a much cleaner regulatory environment.

THOMAS FRIEDMAN: I think someone told me that if you want to get a mortgage in India, you need to put 40 percent of the price down, something like that.

NANDAN NILEKANI: Yeah, I think the banks, generally wanting the price down [Inaudible]

THOMAS FRIEDMAN: Forty percent down in this country would be a lot of people not living in houses. Why should these people care about India? We have a lot of countries to care about. Right now obviously most of all our own, but we read about China, read about North Korea, read about Pakistan. Why is it important for us to, with you, imagine India?

NANDAN NILEKANI: I think it's very important and I can understand you know with what's happening here you may say now, "why worry about something down there?" I think first of all you are talking about a sixth of humanity. You're talking about a billion people What happens to those billion people, whether they prosper, whether they don't prosper. I think these are very important issues for the world and for the future and safety of the world, so clearly there's that part of it.

The second thing is that I think, you know, there's this huge argument that—especially a lot of Asian countries had the argument that economic growth and democracy don't go together. You know, in India I was going with the Hindu rate of growth, 3.5 percent. "You know, the problem with you guys, you have all this democracy stuff, look at us, we are a few autocrats and we just make sure things happen," and the point is that unless a country meets a certain level of economic success, it shouldn't have all these things called political freedoms. And I think India has shown you can have those freedoms and you can grow and, therefore, if you really want to spread the notion that we want democracies, India becomes a good role model to show that you can have a democracy and have economic growth. So that's second thing.

The third thing I think is that it is huge in its diversity. You know, it has Hindus, Muslims, Sikhs, Jains, Jews, you name it, every religion—that has the world's second largest Muslim population and even though we have, you know, occasional disturbances, by and large you have a billion people who speak hundreds of languages, have many religions, different ethnic groups, all living in reasonably peaceful conditions. And, therefore, how is this diversity coexisting? That's an important lesson for the world, because we keep talking about this clash of civilizations. So India

actually becomes a role model on how possibly the clash of civilizations can be addressed. And then, of course, I think, you know, India's economic growth will decide the population and [Inaudible] and finally I think the question of global warming will have to be settled in India and China. So I think whatever way you look at it, what happens there is very, very important to all of us.

THOMAS FRIEDMAN: One last question before we are going to go to the audience and give people a chance to ask Nandan, but you were trained as an engineer. You've grown as a business leader and an innovator. What was it like being an author?

NANDAN NILEKANI: It's great fun. It was a very different experience and obviously I was taking a big risk, because it can easily—all of your reviewers and all that. And but I think it was a different experience writing a book, but I learned that if you can think through the book, if you can think—and actually I learned this from you, Tom. I think I learned many things from you, including the fact that you thought I had something useful to say, and therefore I could write a book since I seemed to have something useful to say. But, more importantly, getting the structure right. You know, you get the structure of the book right, you get the chapters right, you get the framework right, then it becomes far easier, because then it goes down to just doing each chapter, so I think I learned a lot of that, so it was a very, very different experience. And frankly, it's, it's—doing a book tour is not as punishing as doing an investor tour, because **(laughter)** you do an investor tour you do fourteen meetings a day and they all ask you the same questions, so a book tour is much more fun.

THOMAS FRIEDMAN: So Jon Stewart isn't as frightening as Fidelity, basically.

(laughter)

NANDAN NILEKANI: Each media thing is different in the book world.

THOMAS FRIEDMAN: Your wife Rohini is here. Did you test ideas out on her—was she like my wife? She'd say, you know, "start over."

NANDAN NILEKANI: The problem is that we have ideological differences, so we argue about this, so that after some time we don't discuss it because it adds to the arguments.

THOMAS FRIEDMAN: I'm sure there are people who both have differences and affirmations here, so please, go right ahead?

Q: Hi, thanks both of you. Could you address the collar situation in India—pink collar, blue collar, white collar, and how about unions? Are there teachers' unions?

NANDAN NILEKANI: Yeah. Well, India has a very unique job situation. We have a lot of blue-collar workers in the industrial sector, who are quite unionized. You have a lot of government employees, white-collar, who are also fairly unionized. In the newer private industries like ours, there's not that much of unions, because they have come up in the last fifteen, twenty years. But what is really the disturbing part in India is that 93 percent of the

employment is in the unorganized sector. In other words, these people are not part of a formal job, they have, you know, no safety measures, they don't have unemployment insurance, they don't have all those things, so that's the part that really needs to be fixed. We have to figure out how to reduce the number of people in this disorganized sector, unorganized sector, and bring them into the formal sector.

Q: From what I read, there is a tremendous amount of corruption in India. The *New York Times* just ran a story a few days ago that 25 percent of the elected congress or whatever are either convicted criminals or indicted murderers, or whatever. And from what I read, this corruption is really killing any effort of progress or social effort. You think this can ever be corrected in India?

NANDAN NILEKANI: Certainly I think corruption in India is a big challenge, and it is pervasive and corrosive. But I think, at the same time, there are huge attempts being made to bring transparency, whether it's in business, whether it's in government, and, you know, you see many examples of improvements and I feel that, you know, it's something which will not get solved in a day or in a year. Because all progress takes a long time. If you look at the Western democracies, it took them two hundred, three hundred years from their starting point to where they've reached. So here we have a much more complex situation, because the number of people is much more, it's a billion people. The rate of growth is much faster, it's 8 percent, 7 percent and it's in a full democracy it's so much more difficult to manage. So I think there will be corruption, but there's a huge attempt to make the society more transparent, it will take many years but I'm positive about the outcomes.

Q: Hi, my name is Arun Agare and I used to be in the TS. Tom Friedman asked you a question about the new new thing you've done recently and I wanted to ask you a follow-up question on the crazy that you've done recently and that question arises from a clue planted in a column of his a couple of months ago when he was in India and interviewed a couple of young women, one of them an ex-Fulbright scholar, and there was a quote which resonated very deeply, and I organized something called the Really, Really Free Market where everything you bring is free and everything you take is free, and it was so hard to explain that concept to people that I kind of developed a flyer—and I took a quote from your column—“The world needs crazy ideas to change things, because the conventional way of thinking is not working anymore.” Have you done anything crazy recently?

NANDAN NILEKANI: I think writing this book was the craziest thing I've done so far.

Q: There was an article recently where they spoke about how the GDP in India is rising, but they looked at the Human Development Index and in fact actually India has fallen. And a Human Development Index looks at things like education and health care and environment and things like that, so I guess my question is is trickle down really working, and, you know, are these economic benefits really trickling down to, you know, the 70 percent who live in the villages and things?

NANDAN NILEKANI: No, I think you're right in fact. Most of my book is actually about that. How do we improve access of opportunity to every Indian so that they can participate in this whole thing? Otherwise they're going to get left out, and inequality is going to go up even

further, and there are many reason for that. For example, the poor were denied English, they had to learn in the local language and unfortunately the incomes that people get when they learn English is substantially more than when they don't, so automatically you're creating an English divide and so on and so forth. So we have had policies which led to inequality and when globalization happened, those of us who had the skills to operate in the global world did very well, but those who did not fell back even further, and therefore the only way you can fix that is by making sure everybody has access to the same opportunities. In fact, the whole theme of my book is that.

Q: Good evening. My name is Randall Romel. I'm an engineer myself and now working in a financial firm, still employed, luckily, you know, I have a question for you, Nandan, as Indians I'm born and brought up in Bombay, basically. As Indians are, you know, Indian parents always say I want my son to be an engineer or a doctor, these are two clichés we have. But I think personally that henceforth, in the coming years, we will have to make a bigger push in the arts, so we have like, you know, both sides of the brain develop and we are more how do you say, out there, willing to take new risks. First of all, do you agree with that? Because, you know, I know your turf, you are a technological firm and you are an engineer yourself, so it's hardly your life. And how would you put forth that to the Indian parents and the Indian government in the education.

NANDAN NILEKANI: Well, I think, you know, it comes down to having more opportunity and choices, because when you have very few opportunities, for example, if you take the IITs, you know, you have 400,000 who appear for the exam for 4,000 seats—it's one in a hundred and

therefore parents become very risk-averse, they don't want their kids to try something crazy.

Well, I think if there's enough opportunity, then definitely a lot of young people will do different things, creative things, so it's really going back to opening the spigot of opportunities.

Q: Since we're in this beautiful setting in the library I wanted to ask you a question about education and the way that Infosys gets a million resumes a year, many would argue the history in India is this almost a forty-year history of building the university system and the IITs, so much so that many kids in India today consider MIT and Harvard sort of their second-choice schools behind IIT. A few weeks ago, about two weeks ago, the president of the United States came out with and shared the statistics about education in the U.S. So about one-third of kids in the United States don't graduate high school and of those that go to college, about 50 percent don't graduate college. So when you think about the U.S. and the issues that we have here, one, would you send your kids to school in the U.S., and two, is, you know, are our problems, you know, much longer-term issues, you know, for us to kind of have a turnaround success story in India had economically?

NANDAN NILEKANI: No, clearly, and I think Tom has written about this, and I think there's no question that in this much more competitive global environment, I think really focusing on education and making sure more kids graduate from school and more kids go to college here is really of the absolute essence. In India, actually, the bulk of the growth happened in the last ten years, because the demand for people led to more colleges being started, then the fact that we had high standards forced them to improve their standards, so we created a virtuous cycle and I think we need to do something very similar here, because it is going to be a globally competitive

world, and while we can erect barriers and protectionism and all that, but fundamentally it's human capital that's going to make the difference and the more countries invest in their people, I think, the better off they'll be.

THOMAS FRIEDMAN: After I interviewed Nandan for the book, I came back to the States, I was working on it, and I got to interview Bill Gates and one of the most—I thought really insightful things he said was that—and he just said this off the cuff, he said, You know, thirty years ago if you had a choice of being born a B student in Peoria or a genius in Beijing or Bangalore, you wanted to be born a B student in Peoria, because your life chances were so much greater than a genius born in the middle of a crazy Cultural Revolution in China—that's more than thirty years ago— or a stultified Nehruvian socialist economy in India. When the world is flat, you don't want to be a B student in Peoria, not when every genius in Beijing or Bangalore can now compete, connect, and collaborate more easily, cheaply, and directly with your kids or mine than ever before.

Q: Yeah, but we're still operating in the U.S. if you look at a high school student today, they take their SATs, right, that's a national standard, right? And when you look at countries like India or you know other places or even faraway countries, they are operating on an international standard, which we are not, and that's a big issue.

NANDAN NILEKANI: Just a full disclosure, you know, you have great universities, and both my children study here in those universities.

(laughter)

Q: To continue on the discussion on education—my name is Christian Johnston Palmo—I'm a program officer at Marc Ecko's foundation. A branch of it is Sweat Equity Enterprises. We teach twenty-first century skills via design and technology and one of the things that we do is sit middle-school and high-school students down with companies like Best Buy, Nokia, Nissan, and they skip market research and product development. What industry should be hiring middle-school and high-school students here in order to design the future? And I can take you out to dinner or have a drink afterwards if either one of you would like to talk about it.

NANDAN NILEKANI: Send me an e-mail and let me think about this.

Q: Good evening. Since 2000, there's been more companies from India that have captured the—Japan's Deming Prize. Can you comment on—of quality—can you comment on Dr. Deming's influence in India?

NANDAN NILEKANI: yeah, I think it's very interesting because there have been two big influences and both are American on Indian quality. One is is—Edward Deming was an American who went to Japan. And that has been done by manufacturing companies, because they want to have a greater part of the world market and one way they could do that was through better quality and that's the reason why many of our manufacturing companies have gone in for the Deming Award. But equally true in the software area. There are more CMM Level-5 companies in India than anywhere else and again CMM Level 5 is from the software engineering

school at Carnegie Mellon, and we are getting chosen to take that model and improve upon it, and now many companies have that. In some sense, the interesting thing is both these ideas, whether Deming's ideas or CMM models are American-fostered ideas but adopted by companies outside to create better quality.

PAUL HOLDENGRÄBER: I'd like to try something if I could. Ask everybody who's standing there to come up, ask their question, and for you to remember five of the questions. Very short questions.

TOM FRIEDMAN: I'll help.

Q: Nandan, in your book *Imagining India*, you talk a lot about entrepreneurship in India and how the scope for entrepreneurs in India and how along with the businesses growing, other sectors of the society should grow, so in particular, what do you think is the scope of growth for social entrepreneurship in India?

Q: I wonder how fast the awareness in India is growing that there are two severe problems, the caste system and the still very large inequality of women and how much awareness there is that these two problems keep India back?

Q: Is there a place where you can go—will there be a Web site or an organization or something to retrace some of your steps and go over and visit, physically look at it, watch people, interact

possibly with the people who are working for these companies, go in there and see the Microsoft sign, see the IBM sign and experience it?

Q: You mentioned India's diversity, and my family is from the north of India, but I visited the south for the first time in December, specifically Kerala, and I was struck by both the diversity and the harmony—I mean, you have a huge Christian population, you have Muslims, and, of course, you have Hindus, but you never really hear about communal violence in that part of the country, so I was wondering if you have thoughts on what they're doing right down there and how it could be translated to other parts of the country, because obviously there is horrific communal violence in some parts.

PAUL HOLDENGRÄBER: Okay, two more, the line keeps growing, so two more questions.

NANDAN NILEKANI: Paul, now, we're forgetting the questions here.

THOMAS FRIEDMAN: I've got it, I am writing them down.

Q: Hi, I'm Asha. Your leadership emerged from IT sector and IT was torchbearer of new Indian economy in '90s. Do you see IT playing any role in politics—I mean, can it be a torchbearer of political change now as it was for economic change. And one view we have in India about the IT sector is that they came to power with the globalization—I mean, they're not going to struggle. Do you find any value in that kind of social struggle and what value do you find in that?

PAUL HOLDENGRÄBER: And the last question.

THOMAS FRIEDMAN: Okay, I think I've got it. Is there anywhere you can take a tour in India to see social entrepreneurs talking about caste issues and diversity that will also address IT people and politics?

(laughter)

NANDAN NILEKANI: Sure, we can do that! Well, I think—let me. First of all, I think there is a huge role for social entrepreneurship. I think India actually has over a million NGOs of different stripes and persuasions. My wife Rohini herself is involved with two or three of them like Akshara, and Arghyam foundation, and so forth. So I think there is a huge role for social entrepreneurs which is coming through.

I think on the caste system I think it's definitely been a huge load on India. I think the caste system ended up becoming a very sophisticated form of social exclusion which held India back. But I believe that as India modernizes, as people get more educated, they come to cities, they get the same jobs, you know, you don't care about the caste of the person sitting next to you in the subway. So I think that you will see caste system dissolving, but it is certainly a big challenge for India.

THOMAS FRIEDMAN: Is there anywhere you can go to see—

NANDAN NILEKANI: Tom Friedman's world tour on the Web site.

THOMAS FRIEDMAN: There really isn't, but, you know, one thing that Nandan will tell you that Infosys has summer internships. How many applications did you get for summer interns last year?

NANDAN NILEKANI: Over a thousand for less than a hundred.

THOMAS FRIEDMAN: A thousand applications?

NANDAN NILEKANI: Over a thousand applications.

THOMAS FRIEDMAN: But they, for anyone who does want to see—

NANDAN NILEKANI: But there is a guy called Arun Pai in Bangalore who takes you to golf course and says this is where Tom Friedman stood and watched the—so there is a guy who does this, **(laughter)** he does it as a business, and you go to him.

THOMAS FRIEDMAN: You can go to him, find his Web site.

NANDAN NILEKANI: I think it's called Bangalorewalks.com.

THOMAS FRIEDMAN: I'll summarize the last two. It really is what is the—and I've always felt this when I've looked at India. India's a miracle, it's what you said, a billion fifty million people speaking, you know, over a hundred languages, different ethnicities, different religions, praying to so many gods, but yet every, you know, four years or so they come together for free and fair elections that, while occasionally violent in many different places, nevertheless produce governments that rule in a democratic and consensual way. What's the secret? Because that's so important, you know. Just think about if the world—if India, you know, had been like Iraq at its worst moment, you know, in 2004, 2005, what a different world we'd live in if one sixth of humanity had not worked out this internal balance and social structure. What's the secret?

NANDAN NILEKANI: I think the secret is really actually very similar to the U.S. I think both countries were born out of idealism. You know, the U.S., you know, it is about liberty, pursuit of happiness, the whole founding fathers, and whenever we have a challenge in the U.S., we want to go back and relate to what the founding fathers wanted of us, so there is always that ideal that we want to reach out to. India has the same thing because India was set up by idealists who wanted to create a fair, just society, which is open, which is democratic, which did not have any castes. And it's a difficult ideal to live up to, but it brings everybody back to this ideal, and part of this ideal was that it should be very secular in its diversity. I mean, they knew they had no choice when they—You see, what happened I think is that when the British ruled, they divided India, you know, and they chose to divide and rule and therefore the Indians said “we will not allow them to divide us,” or “when we become free, we will not be divided,” and therefore the whole idealism was about making all the pieces work together. It's a huge part of the independence moment.

THOMAS FRIEDMAN: Before you go out to sign books, just a last quick question—it's one you were asked in Bangalore and really were asked here also, by a young Indian also, Indian American, why don't India's cream of the crop of its entrepreneurs go into politics?

NANDAN NILEKANI: Because politics, the barriers of entry are such that it's very difficult for outsiders. It's not like the U.S., where President Obama can come out of somewhere, nowhere, and become the president. India doesn't have that openness of political competition. It's because it has been captured by forces, as you said, the many criminals and many people like that. But I think it's changing, and I will give you two examples. Sashi Tharoor, who was the UN under-secretary in New York, is now standing for election from Kerala. He's got a seat from the Congress Party in **Trivandrum** and that's to me—to me that's a great sign that because someone like him is standing for election. Similarly, **Mallika Sarabhai**, who is again a very famous artist whose father was a very famous scientist, she's standing for election in Gandhinagar. So I think we're seeing this now where people from—people like us—who have led a separate life from politics and done something useful are now getting into politics. now these are just two strands, you know, maybe they don't make the summer, but certainly I think in the next ten years you will see more of that and I think that will change Indian politics in a very big way.

THOMAS FRIEDMAN: Nandan, thank you very much. It's a treat to be with you today.

(applause)