Why the World Is Flat

The playing field is being leveled, says globalization guru Thomas Friedman - from Shanghai to Silicon Valley, from al Qaeda to Wal-Mart.
By Daniel H. Pink

Thirty-five years ago this summer, the golfer Chi Chi Rodriguez was competing in his seventh US Open, played that year at Hazeltine Country Club outside Minneapolis. Tied for second place after the opening round, Rodriguez eventually finished 27th, a few strokes ahead of such golf legends as Jack Nicklaus, Arnold Palmer, and Gary Player. His caddy for the tournament was a 17-year-old local named Tommy Friedman.

Rodriguez retired from golf several years later. But his caddy - now known as Thomas L. Friedman, foreign affairs columnist for The New York Times and author of the new book The World Is Flat: A Brief History of the Twenty-First Century - has spent his career deploying the skills he used on the golf course: describing the terrain, shouting warnings and encouragement, and whispering in the ears of big players. After 10 years of writing his twice-weekly foreign affairs column, Friedman has become the most influential American newspaper columnist since Walter Lippmann.

One reason for Friedman's influence is that, in the mid-'90s, he staked out the territory at the intersection of technology, financial markets, and world trade, which the foreign policy establishment, still focused on cruise missiles and throw weights, had largely ignored. "This thing called globalization," he says, "can explain more things in more ways than anything else."


After 9/11, Friedman says, he paid less attention to globalization. He spent the next three years traveling to the Arab and Muslim world trying to get at the roots of the attack on the US. His columns on the subject earned him his third Pulitzer Prize. But Friedman realized that while he was writing about terrorism, he missed
an even bigger story: Globalization had gone into overdrive. So in a three-month burst last year, he wrote *The World Is Flat* to explain his updated thinking on the subject.

Friedman enlisted some impressive editorial assistance. Bill Gates spent a day with him to critique the theory. Friedman presented sections of the book to the strategic planning unit at IBM and to Michael Dell. But his most important tutors were two Indians: Nandan Nilekani, CEO of Infosys, and Vivek Paul, a top executive at Wipro. "They were the guys who really cracked the code for me."

*Wired* sat down with Friedman in his office at the Times' Washington bureau to discuss the flattening of the world.

**WIRED:** What do you mean the world is flat?

**FRIEDMAN:** I was in India interviewing Nandan Nilekani at Infosys. And he said to me, "Tom, the playing field is being leveled." Indians and Chinese were going to compete for work like never before, and Americans weren't ready. I kept chewing over that phrase - the playing field is being leveled - and then it hit me: Holy mackerel, the world is becoming flat. Several technological and political forces have converged, and that has produced a global, Web-enabled playing field that allows for multiple forms of collaboration without regard to geography or distance - or soon, even language.

So, we're talking about globalization enhanced by things like the rise of open source?

This is Globalization 3.0. In Globalization 1.0, which began around 1492, the world went from size large to size medium. In Globalization 2.0, the era that introduced us to multinational companies, it went from size medium to size small. And then around 2000 came Globalization 3.0, in which the world went from being small to tiny. There's a difference between being able to make long distance phone calls cheaper on the Internet and walking around Riyadh with a PDA where you can have all of Google in your pocket. It's a difference in degree that's so enormous it becomes a difference in kind.

**Is that why the Netscape IPO is one of your "10 flatteners"? Explain.**

**Three reasons.** Netscape brought the Internet alive with the browser. They made the Internet so that Grandma could use it and her grandchildren could use it. The second thing that Netscape did was commercialize a set of open transmission protocols so that no company could own the Net. And the third is that Netscape triggered the dotcom boom, which triggered the dotcom bubble, which triggered the overinvestment of a trillion dollars in fiber-optic cables.

**Are you saying telecommunications trumps terrorism? What about September 11? Isn't that as important?**

There's no question flattening is more important. I don't think you can understand 9/11 without understanding flattening.
This is probably the first book by a major foreign affairs thinker that talks about the world-changing effects of ... supply chains.

[Laughs.]

**Why are supply chains so important?**
They're incredible flatteners. For **UPS to work**, they've got to create systems with **customs offices around the world**. They've got to design **supply chain algorithms** so when you take that box to the UPS Store, it gets from that store to its hub and then out. Everything they are doing is taking fat out of the system at every joint. I was in India after the nuclear alert of 2002. I was interviewing Vivek Paul at Wipro shortly after he'd gotten an email from one of their big American clients saying, "We're now looking for an alternative to you. We don't want to be looking for an alternative to you. You don't want us to be looking for an alternative to you. Do something about this!" So I saw the effect that India's being part of this global supply chain had on the behavior of the Indian business community, which eventually filtered up to New Delhi.

And that's how you went from your **McDonald's Theory of Conflict Prevention - two countries that have a McDonald's will never go to war with each other - to the Dell Theory of Conflict Prevention.**
Yes. No two countries that are both part of a major global supply chain like Dell's will fight against each other as long as they are both part of that supply chain. When I'm managing your back room, when I'm managing your HR, when I'm doing your accounting - that's way beyond selling you burgers. We are intimately in bed with each other. And that has got to affect my behavior.

In some sense, then, **the world is a gigantic supply chain.** And you don't want to be the one who brings the whole thing down.
Absolutely.

**Unless your goal is to bring the whole thing down. Supply chains work for al Qaeda, too, don't they?**
Al Qaeda is nothing more than a mutant supply chain. They're playing off the same platform as Wal-Mart and Dell. They're just not restrained by it. What is al Qaeda? It's an open source religious political movement that works off the global supply chain. That's what we're up against in Iraq. We're up against a suicide supply chain. You take one bomber and deploy him in Baghdad, and another is manufactured in Riyadh the next day. It's exactly like when you take the toy off the shelf at Wal-Mart and another is made in Shen Zhen the next day.

**The book is almost dizzily optimistic about India and China, about what flattening will bring to these parts of the world.**
I firmly believe that the next great breakthrough in bioscience could come from a 15-year-old who downloads the human genome in Egypt. Bill Gates has a nice line: He says, 20 years ago, would you rather have been a B-student in
Poughkeepsie or a genius in Shanghai? Twenty years ago you'd rather be a B-student in Poughkeepsie. Today?

Not even close.
Not even close. You'd much prefer to be the genius in Shanghai because you can now export your talents anywhere in the world.

As optimistic as you are about that kid in Shanghai, you're not particularly optimistic about the US.
I'm worried about my country. I love America. I think it's the best country in the world. But I also think we're not tending to our sauce. I believe that we are in what Shirley Ann Jackson [president of Rensselaer Polytechnic Institute] calls a "quiet crisis." If we don't change course now and buckle down in a flat world, the kind of competition our kids will face will be intense and the social implications of not repairing things will be enormous.

You quote a CEO who says that Americans have grown addicted to their high salaries, and now they're going to have to earn them. Are Americans suffering from an undue sense of entitlement?
Somebody said to me the other day that - I wish I had this for the book, but it's going to be in the paperback - the entitlement we need to get rid of is our sense of entitlement.

Let's talk about the critics of globalization. You say that you don't want the antiglobalization movement to go away. Why?
I've been a critic of the antiglobalization movement, and they've been a critic of me, but the one thing I respect about the movement is their authentic energy. These are not people who don't care about the world. But if you want to direct your energy toward helping the poor, I believe the best way is not throwing a stone through a McDonald's window or protesting World Bank meetings. It's through local governance. When you start to improve local governance, you improve education, women's rights, transportation.

It's possible to go through your book and conclude it was written by a US senator who wants to run for president. There's a political agenda in this book.
Yes, absolutely.

You call for portable benefits, lifelong learning, free trade, greater investment in science, government funding for tertiary education, a system of wage insurance. Uh, Mr. Friedman, are you running for president?
[Laughs loudly.] No, I am not running for president!

Would you accept the vice presidential nomination?
I just want to get my Thursday column done!
But you are outlining an explicit agenda. You can't be a citizen of this country and not be in a hair-pulling rage at the fact that we're at this inflection moment and nobody seems to be talking about the kind of policies we need to get through this flattening of the world, to get the most out of it and cushion the worst. We need to have as focused, as serious, as energetic, as sacrificing a strategy for dealing with flatism as we did for communism. This is the challenge of our day.

Short of Washington fully embracing the Friedman doctrine, what should we be doing? For instance, what advice should we give to our kids? When I was growing up, my parents told me, "Finish your dinner. People in China and India are starving." I tell my daughters, "Finish your homework. People in India and China are starving for your job."

Think about your own childhood for a moment. If a teenage Tommy Friedman could somehow have been transported to 2005, what do you think he would have found most surprising? That you could go to PGA.com and get the scores of your favorite golfer in real time. That would have been amazing.
The 10 Great Levelers

1. Fall of the Berlin Wall
The events of November 9, 1989, tilted the worldwide balance of power toward democracies and free markets.

2. Netscape IPO
The August 9, 1995, offering sparked massive investment in fiber-optic cables.

3. Work flow software
The rise of apps from PayPal to VPNs enabled faster, closer coordination among far-flung employees.

4. Open-sourcing
Self-organizing communities, à la Linux, launched a collaborative revolution.

5. Outsourcing
Migrating business functions to India saved money and a third world economy.

6. Offshoring
Contract manufacturing elevated China to economic prominence.

7. Supply-chaining
Robust networks of suppliers, retailers, and customers increased business efficiency. See Wal-Mart.

8. Insourcing
Logistics giants took control of customer supply chains, helping mom-and-pop shops go global. See UPS and FedEx.

9. In-forming
Power searching allowed everyone to use the Internet as a "personal supply chain of knowledge." See Google.

10. Wireless
Like "steroids," wireless technologies pumped up collaboration, making it mobile and personal.
March 9, 2004

Terence Smith talks with New York Times columnist Tom Friedman about his latest trip to Bangalore, India, where he examined the politics of outsourcing American jobs overs

TERENCE SMITH: Tom Friedman's latest trip took him to Bangalore, India, where he looked into the issue of outsourced jobs. Tom, welcome home.

THOMAS FRIEDMAN: Good to be back.

TERENCE SMITH: Those are outsourced U.S. jobs.

THOMAS FRIEDMAN: Yes. Fortunately, mine can't be outsourced, Terry, but a lot of others can be, and that's really what I discovered on this trip. We visited, you know, everything from radiological labs that are reading the X-rays done by big American hospitals to accounting firms that are now using Indian CPAs to do your taxes, to cartoons and game companies that now have Indian artists drawing for American games and cartoons.

You know, you know you're in Bangalore, you know you're in the Silicon Valley of India, Terry, when you go to play golf and the caddy on the first tee says you can either aim at the Microsoft building or the IBM building. You know you're at Bangalore when you see the Pizza Hut advertisement says "gigabytes of taste." And you know you're at Bangalore when you see street signs sponsored by Texas Instruments. This is one hot town, and it's going to ... it's producing a lot of energy, and it's going to be a real challenge to American workers.

TERENCE SMITH: Why are these jobs going to India, and why to Bangalore?

THOMAS FRIEDMAN: Why to India? Why is India so well positioned for this? It's a lot of reasons that have come together. One is very simple. You have a huge number of educated people who speak English. You have a culture, also, where being a doctor or an engineer is absolutely the top of the pyramid. It's amazing. You go down any side street in Bangalore, and there seems to be an engineering school, you know, or some kind of software programming classroom.
Another oddity: Their day is exactly the opposite of ours. You can work all day in America, then **outsource all the stuff you need done overnight to India**. They work all day in India, and send it back the next day. And so a lot of these things have converged. And then there's a couple of just accidents, Terry.

One is the **dot-com bubble and huge overinvestment in dot-com stocks in America**. You know what it did? It laid all these pipes, these **fiber optic cables around the world**, and created all this **excess capacity**, which made it easy -- not only easy, **almost cost-free** -- to transmit data from America to India. And then there was something called Y2K.

**Y2K comes along**, and you need all these software programmers basically to go through code, to see if the date is going to be a problem in whatever software program you're running. Well, **what country in the world had that many programmers easily available, cheaply available?** And once the Indians did that, they said, by the way, could we do this for you? Maybe you'd like your taxes done also.

TERENCE SMITH: You mentioned that they speak English, and yet they have a wonderful little phenomenon there that you wrote about called the "accent neutralization class." What's going on there?

THOMAS FRIEDMAN: Accent neutralization class is very popular in Bangalore today, you know, because you have all ... a whole less sort of sophisticated side of this phenomenon are the call centers. Young men and women basically selling credit cards, tracing your lost luggage on Delta Airlines, and also providing tech support for big American computer companies from IBM to Microsoft and whatnot.

Well, these are all put together in these call centers and when you pick up the phone and dial that tech number, a young Indian answers. But they want to make sure that you're going to understand their accent so they teach them or put them through accent neutralization courses where they learn to roll their R's and to soften their T's.

… These are young college grads, most of these kids, who aren't engineers. They could never get jobs, not for $200 to $300 a month, which is the starting pay in a call center without this opportunity. And what this has given them is really a chance to grab the first rung of the ladder. A lot of them on the side are studying for MBAs or other college degrees. Some of them are now supporting their family. Many of them, their starting salary is more than their parents' retiring salary.

TERENCE SMITH: But what do you say, Tom, having made this trip, to the American whose job, the equivalent job, has been lost to the airline ticket counter agent who is out of work?
THOMAS FRIEDMAN: I mean, it's a very serious question. And I think one can only say two things. One is that there is simply no question that outsourcing our, you know, commodity jobs through places like India or grunt work functions that tend to be low-prestige, low-paying here and become high-prestige, high-paying there is, at the macro sense, good for our economy, because what it allows us to do is focus on what we do best, which is innovation. That's the macro answer.

But my micro answer is, I feel your pain. I think we as a society have an obligation to public policy and tax programs and subsidies and wage insurance and health care to find a way to cushion people who are in white collar jobs, just as we did -- or tried to, to some extent -- with blue collar, so they are not going to get steamrolled by this phenomena. We're talking about 4 million jobs that will be outsourced to India probably over the next ten years. And that's not an insignificant number.

Now, many more will be lost to technological change, whatever, but I think we have to take it seriously with a real public policy response, but what we must not do, Terry, is put up walls that will slow us down and deprive us of what we do best, which is to come up with new ideas, bring them to market, and sell them to the rest of the world.

TERENCE SMITH: You were there at a time, just recently, at a time when there is a real rapprochement between India and Pakistan settling some very long-standing differences, or working on it anyway. Is it related to the economic uplift of all these jobs?

THOMAS FRIEDMAN: Directly related, because India now is part of a global supply chain. These American companies -- GE, Microsoft, American Express -- have moved parts of their back rooms to India, to Bangalore. Now, comes along the India-Pakistan crisis -- I'll tell you exactly what happened. These American companies got on the phone and told their Indian back rooms, "Friends, we're going to have to look for an alternative for you. You don't want us to be looking for an alternative, and we don't want to be looking for an alternative."

When you're part of a global supply chain like that, you can't say, "Oh, we're going to take a week off to fight a war. We'll see you." You will shut down whole major corporations. Well, that has percolated up. And what's most interesting to the Indian leadership -- and this is definitely driving the rapprochement -- it's also got the Pakistanis looking, saying, "Jeez, the Indians, they're doing well at this. And what are we? We're just like them, too."

But even more, Terry, you know, you talk to these young kids like in that accent neutralization class, I would ask them all, "So what do you think of the Pakistan crisis?" "Oh, forget about it. We've got better things to do." And that's where, you know, this cease-fire brought to you not by General Powell, but by General
Electric. We bring good things to life. So there is a geopolitical spin-off to this that we also have to keep in mind.

TERENCE SMITH: Tom Friedman, terrific as always. Thank you.

THOMAS FRIEDMAN: Pleasure.

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Nayan Chanda: We are pleased to welcome Thomas Friedman, the NYT columnist and author of "The Lexus and the Olive Tree," back to Yale. Tom, you were here about a year ago - exactly February of last year - and we asked you what changes have you seen in globalization since the publication of "The Lexus and the Olive Tree" in 1999. And you said two things. One was that terrorism had thrown some sand in the gears but that globalization was continuing. And, secondly, you asked those people who said that globalization has stopped - you invited them to look at two countries, China and India. And you said these two countries have bet their future on a globalization strategy, on educating and empowering their people and designing infrastructure, trade, and governance policies to succeed in globalization. And recently you were back from India, one of those countries that you mentioned as being one of the leaders in globalization.

So what can you tell us about the changes that have come in globalization since our last interview?

Thomas Friedman: Well I guess the biggest change, Nayan, and I really learnt this in India - having spent the last two years on 9/11, post-9/11, pre-Iraq, Iraq, and post-Iraq - I really had lost the thread of the globalization story, and I found it in Bangalore, on my last trip to India. And here's what I discovered. I think we've seen in the world three great eras of globalization. The first I would call Globalization 1.0. And that was primarily, Nayan, the globalization of countries that began with Vasco da Gama and Christopher Columbus globalizing their countries and exploring the world on behalf of their countries. And that era, one could say, started in the 1400s and continued all the way - in its own way - right up to the invention of the steamship, the railroad and the telegraph, but ended
with World War One. I call that Globalization 1.0. And it gradually shrank the world from a “Size Large” to a “Size Medium.” Then came Globalization 2.0. And that was really from World War Two right up until the year 2000, until Y2K. And it really intensified from 1980 until 2000.

Chanda: So what happened in 2000?

Friedman: Well basically it intensified in the fact that we had the internet, we had fiber optics. And that period - which is really what I catalogued in “The Lexus and the Olive Tree” - shrank the world, as I said in the book, from a “Size Medium” to a “Size Small.” Well, that's when I left it. That's when I went off and covered the world of 9/11. Well, while I was sleeping, Nayan, something really important happened. We witnessed Globalization 3.0. And Globalization 3.0 is the intensification of everything that was invented in Globalization 2.0 - the bandwidths, the fiber-optics, the PCs, and the software capabilities that connected them - but intensified all of them to such a degree that it became a difference in kind. And so if Globalization 2.0 shrank the world from a “Size Medium” to a “Size Small,” and really was about - I would say - the globalization of companies, Globalization 3.0 shrank the world from a “Size Small” to a “Size Tiny.” Now we're talking about the globalization of individuals.

Chanda: Can you explain that?

Friedman: I think we've gone from the globalization of countries to the globalization of companies to the globalization of individuals. What do I mean by that? We're now at a point where you as an individual both must and can think about how you fit into the global supply chain.

… And you'd better think about that! What skills do I have that aren't fungible? What are the unique skills that make me what I like to call an “untouchable”? In the age of globalization, in Globalization 3.0 when the world shrinks to “Size Tiny,” the untouchables are not the lowest class. They become the highest class! They're the people who can't be outsourced.

Chanda: If you can go back to India, the manifestation of this Globalization 3.0, where did you see this? Where in India?

Friedman: Where did I see this? Well I'll give you an example of a company - you've never heard of it, Nayan - Dhruva. Dhruva is a little game company in Bangalore. Their offices are in a quiet suburban street in Bangalore, founded by a guy named Rajesh Rao, a young man who is really into games. You know the gaming business today is bigger than Hollywood … More of those games are sold and downloaded off the internet than movies! So this is big business. Well, Rajesh, he wanted to get into this business. And he thought India had a lot of unique skills because there are a lot of sons and daughters of Indian Hindu temple artists, where drawing and painting have been elevated to a high art, who
are very adept at transferring those skills to computer-assisted design to draw up characters. And he thought, “Woah! If I could use all this technology to connect these Indian artists - the sons and daughters of Hindu temple artists - to the game industry, I could be part of this game! So what did he do? It's very interesting. He started a company! They bought some PCs, got a fiber-optic Internet connection - the pipes and the PCs. And then they used the software that is now available - everything from Microsoft Netmeeting to email to Google - to offer their services to draw characters for American or European game companies.

So they used, basically, they downloaded from Google all this Wild West imagery. They used email, and all these new software for computer-aided design, and they developed a whole game which they marketed over the internet, which so attracted American companies that some of the biggest game companies in American now are outsourcing characters to little Dhruva on a backstreet in Bangalore. Oh, that's a world gone tiny.

Chanda: And in terms of supply-chain management, where does the individual fit in? They have to work through a company, I suppose.

Friedman: Well, you have to work through a company, sort of. There's another company in India we came across and it's run by a guy named Jerry Rau. It's called Emphasis, I believe. And I would like to say that Jerry Rau, he lives in Bangalore, I like to tell people that Jerry Rau, he want to do your taxes. Ah, you say, I already have someone to do my taxes. But Rau, has a vaguely Indian sound, how could he possibly do my taxes? Well, Jerry set up a company in the United States, it's really just an Internet portal. He works with American accounting firms. Back home in Bangalore, actually all across India, he has different accountants, CPAs, who are specialists in different states of the United States. Oh, some just do Delaware, some just do Florida, some just do Connecticut, basically, and they sit at home. And Jerry serves as a middleman between the American accounting company and his own network of Indian CPAs back in India, and he just farms out tax returns to these Indian CPAs. Most of them just sit home and do them. And this year, I believe I saw a figure, one-hundred thousand American tax returns are going to be done in India.

Nayan: Now, this is obviously helping American CPA companies, or even taxpayers who are perhaps paying less to get their taxes done. But there is this outcry over outsourcing of jobs to India, and people are seeing globalization as a threat to the United States now. What do you say to those people?

Friedman: Well, I say two things. One is that, first of all, I feel your pain. If I were an accountant, if I were a radiologist, if I were a call-center worker, or my kids were, I would be frustrated, I would be angry, I would be worried, because this world without walls has shrunk to a “Size Tiny,” and it seems to be taking my job with it. I think that we have to listen to those people and we have to think about
what strategies, what public policy, we can design to cushion them. Whether it’s wage insurance, whether it’s health benefits, whether it’s re-education and training, we have to have public policy that addresses their pain. You know, there’s an old law in trade theory that says that people who are harmed by free trade know exactly who they are. People who are benefited by free trade have no idea. And, so people who are harmed, know who they are, and now these are increasingly white-collar workers who vote and write op-ed pieces for the New York Times. And so they will be mobilized, they will have a political impact, and we can see that today.

So, to me, first of all, we have to listen to what these people are telling us. At the same time, we should not be putting up walls, because what has kept our economy going forward all these years? It’s our ability to innovate. It’s our ability to come up with, in the middle of 9/11, companies like Google, companies like Yahoo, and EBay, and Amazon. Those are all the products of American innovation. They weren’t invented in India, they weren’t invented in Germany, they weren’t invented in Beijing. They were invented in a culture, in a society that is incredibly flexible, that doesn’t believe in walls, is hypercompetitive, but has a decent regulatory system, great capital markets, a venture capital system that rewards innovation, and a culture of try, fail, try, fail, try, fail, try, succeed, start EBay, become a billionaire. And I am confident, as long as we maintain those things, we’ll then have the resources to cushion the people who are hurt by that innovative cycle.

But my friend David Rothkopf, acting congress secretary, has a nice saying that says that most jobs are not being outsourced to India or China, they are being outsourced to the past. Because, basically, well, think about what I told you about coming up on Southwest Airlines. There’s someone who was working as a counter employee for Southwest Airlines who probably doesn’t have their job now, because I can go to the internet, forget to an E-ticket machine, I can go on my own computer now and download my own boarding pass on to Southwest. So many more jobs are destroyed by Schumpeter [referring to economist Joseph Schumpeter’s theory of creative destruction of companies brought by the march of capitalism] than are destroyed by India. They’re destroyed by creative destruction and technological change. Thirty percent of Americans worked in agriculture in 1900. Where is that now? Somehow the economy has absorbed that, as long as you have an economy full of innovation. The other strategy has been tried; it’s been tried in places like Germany. And look at all the problems they have, the chronic unemployment that they have, and the place is full of cushions, full of social welfare programs. But meanwhile, they have this chronic unemployment.

Chanda: There are two problems I see. One is the speed at which these changes taking place are overwhelming populations and the governments are much slower to act to do something about them. And the second question is that in order to be innovative, you have to have education, and the education budgets at
least in the United States, in the states, are all shrinking. This is some kind of a long term problem.

Friedman: One of my great fears as we move from a “Size Small” to a “Size Tiny,” have we moved so fast that we have really reached the limit of human capacity to adjust, and government capacity to adjust. It's a question, I don't know. But the point you said about education, Nayan, is so right on. What I do know is that the smaller the world gets, the more untouchable you need to make yourself. And that means the more educated you need to be, the more you need to perfect skills that are not fungible, that are not easily replaceable by man or machine. Now, not all of us can be brain surgeons, and some of us are going to be radiologists, and there are going to be professional white collar jobs that are going to see a real cut in their standard of living - there's no question about it. I hope columnist isn't one of them. I'll have to take my medicine when it comes! But that is a fact, and we all have to think about where we fit in a global supply chain. We have gone from countries having to think globally, to companies having to think globally, to individuals having to think globally. And that's what happened while I was sleeping.

Chanda: I think that individuals don't think globally when they go to Wal-Mart and pick up a DVD made in China for $100. They don't think it has anything to do with globalization.

Friedman: They think it has to do with the mall.

Chanda: But, when it is a question of getting their paycheck, then they have to think globally.

Friedman: The real question, I think, the unknown question, look, jobs are outsourced, it's like they are an export. At the end of the day, supply will equal demand. If we outsource these opportunities to India or China, it will, in the long run, or not even in the long run, come back as demand for American products. That is certainly the history of trade. But here is the question that I have, and I don't know the answer to this. Will it come back in demand for a range of good jobs like we've had before? Or will it come back in the form of demand for the royalties of Barbara Streisand and Bill Gates? And the rest of us? Larry Summers said this to me, “The rest of us will end up cleaning their pools.” Will we see some kind of reconfiguration of what kind of work is created by this demand as the world flattens out in this way? I don't know - that's one of the unknowables.

Chanda: The other thing is the question of creating demand. The world, still, you have part of the world population living in misery, so those people are outside the market. So unless those people come to the market to create demand for goods, you are going to be flooding the current market with more supply, prices being depressed and people losing jobs.
Friedman: Which is why we have to be doing things in response to the outsourcing challenge. One of the things we have to do is to open India's markets more for the things we still do well, whether it's financial services, insurance, entertainment. Countries like India and China still have a lot of tariff barriers and non-tariff barriers, not to mention Japan, and we really need to be busting open those markets as well. We want to increase aggregate demand everywhere. Just as Indians don't want to be told by us, “Say, wait a minute. You want us to buy your Microsoft and your Coca-Cola, but you don't want to send us any of your jobs.” We don't want to be in the position of saying to India, “Hey, you guys want our jobs, but you don't want to buy our Microsoft and our Coca-Cola, or our E-Trade or our Merrill Lynch.” I think part of this, the result of what I call the “flattening of the world,” is that there is going to have to be an equalization of trade barriers, which is to say they're all going to have to come down because the politics is going to shift. The political pressures, as they come from white collar workers, both in India and China, is really going to force, I think, the trade barriers to come down.

Chanda: Now, what is interesting, though, is that the number of Indian students in the United States is now at a record high. And they are the same students that are learning things here and going back home to be then doing work for American companies who are outsourcing jobs.

Friedman: But I want them to stay. See, I have a real simple motto in life, Nayan - Our Indians will beat India's Indians any day. Our Chinese will beat China's Chinese any day. Our Japanese will beat Japan's Japanese any day. Our Europeans - you know there are 400,000 Europeans in Silicon Valley - tech workers. Why are they there and not in Europe? Because of the culture of innovation there. So as long we keep that, ours will beat theirs any day. But I want to have a system where we can cream off the intellectual first round draft choices from around the world, bring them here, and I want to keep them here. Because I think they are a wonderful enrichment for our stew.

Chanda: That requires changing the immigration policy, which is now very restrictive.

Friedman: Exactly.

Chanda: So, there are a lot of changes that are required by this new Globalization 3.0.

Friedman: Yes, absolutely.

Chanda: And people are still unaware as to what the requirements are.
Friedman: Absolutely. That's just the beginning of it, Nayan. The outsourcing thing is like the canary in the coal mine. And what is chirping is, “You're in a new world, you're in a new world.” That's what it is telling us.

Chanda: Great. Tom, thanks so much.

Friedman: My pleasure.

Nayan Chanda is editor of YaleGlobal Online. A video of this interview can be found here.

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In his previous book, "The Lexus and the Olive Tree," New York Times foreign affairs columnist and author Thomas L. Friedman wrote about this shrinking world. Discussing his recent book, "The World Is Flat," with Nayan Chanda, editor of YaleGlobal Online, Friedman observes that not only has the world shrunk to a tiny size thanks to a communication revolution, it has even been flattened. A full transcript of their conversation follows.

"Wake Up and Face the Flat Earth" – Thomas L. Friedman

In an interview, columnist and author Thomas L. Friedman says globalization has outpaced its critics

YaleGlobal, 18 April 2005

Nayan Chanda:

We have Tom Friedman with us this afternoon, to talk about his new book, The World Is Flat. This book is third in a series he has been writing about globalization. Your first book, which was a kind of landmark, was Lexus and the Olive Tree. Since the publication of that book, how has the world changed? What is the most important change you've seen?

Tom Friedman:

Nayan Chanda:

Reading the book, one gets the impression that you took a dive into the innards of globalization and came out with some amazing tales of how things are happening behind the scenes that we don't see. Could tell a little bit about what main things you saw, the main forces changing the globalized world today?

Tom Friedman:

You know, you've got it exactly right, Nayan, in that I'm doing this book, I didn't really read a bunch of other books, I really dove into the companies themselves who were spearheading this process. And the book, in that sense, is very
inductive. You know, I looked at what companies were doing and then tried to tease out the general patterns.

… Secondly, I really dove into some key companies that are now globalizing and are really the source for understanding globalization. Wal-Mart, UPS – these are companies we don't traditionally think of as being goldmines of insights into globalization, but in fact if you understand what's going on inside these companies, you can get an amazing view of the flattening of the global playing field and the forces that are doing it.

Nayan Chanda:

Both these companies you mention, they do not produce anything. They agglomerate or repackage others' products. So in this agglomeration or repackaging, how are they tapping the resources from this flat world. How does it happen?

Tom Friedman:

Well, in the case of Wal-Mart, Wal-Mart's great innovation, as you say, is that Wal-Mart doesn't make anything. But what they do is draw products from all over the world and get them into stores at incredibly low prices. How do they do that? Through a global supply chain that has been designed down to the last atom of efficiency. So as you take an item off the shelf in New Haven, Connecticut, another of that item will immediately be made of that item in Xianjin, China. So there's perfect knowledge and transparency throughout that supply chain.

In the case of UPS, they've designed a global delivery system that allows them to deliver their products with that same efficiency; they are so efficient that they literally have a phenomena at UPS called "end-of-runway services." Think about that: "end of runway services." What do they do? Right before your product gets shipped, right at the end of the runway (almost literally – it's in the hangar, it's not literally at the end of the runway, but it could be at the end of the runway), they'll attach something; they'll attach a new lens to your camera, they'll add a special logo to your tennis shoes, they'll design it just for you, and they'll slap that on at the end of the runway. That's how efficient these systems have become. And of course, when you put them all together, you get a very flat global playing field.

Nayan Chanda:

Now of course, there have been a lot of criticisms of the business model of Wal-Mart, because it is driven by the single motive: maximizing profits for shareholders. And in the process, of course, they give products at a cheap price to the consumers. But people are complaining that this model leaves the workers out of the equation – workers not just in the United States, but perhaps also from
China or anywhere else where they are procuring it from. So, is this a good model to promote?

Tom Friedman:

Well, Wal-Mart to me, Nayan, really demonstrates one of the phenomens of a flat world. I would call it “multiple-identity disorder.” Now let me explain. I have to tell you, the consumer in me loves Wal-Mart. Wow, you can go there and get really quality goods at really low prices. And not just me, someone who's maybe an upper-income person. Some lower-income people are stretching their dollars further because of Wal-Mart. That's a big deal. The shareholder in me, Nayan, loves Wal-Mart. Let's assume I have it in my 401k somewhere. Wow, that stock's been a monster, so the shareholder in me loves Wal-Mart. The citizen in me, Nayan, hates Wal-Mart, because they only cover some 40 percent of their employees with health care, while Costco, their main competitor, charges a little bit more, but covers over 90 percent of their employees with health care. And when a Wal-Mart employee that doesn't have health care gets sick, what do they do? They go to the emergency ward at general hospital, and you know what happens then. Then we tax-payers pay their health care. And the neighbor in me, Nayan, is very disturbed about Wal-Mart. Disturbed about stories about how they've discriminated against women, disturbed about stories that they've locked employees into their stores overnight, disturbed about how they pay some of their employees. So when it comes to Wal-Mart, Nayan, I've got multiple identity disorder, because the shareholder and the consumer in me feels one thing, and the citizen and the neighbor in me feel something quite different.

Now the best way to understand Wal-Mart is to go to Bentonville, Arkansas. Because Bentonville, Arkansas – I mean, this is L'il Abner country, this is Beverly Hillbilly-land, this is the end of the world. Okay, now think about it. This little podunk town produces the biggest company in America and the most dynamic retailer in the world. Well, how did they do it? Well, there's no mother of invention like necessity. And there was Sam Walton, he wanted to get low prices. And so Sam Walton was an early adopter, this Beverly Hillbilly, this hick, L'il Abner down there in northwest Arkansas, was the first to computerize, the first to use wireless, the first to really deploy RFID [radio frequency identification tag], on which Wal-Mart is really pioneering from the retail end.

So Wal-Mart, basically, precisely because they were in the middle of nowhere, Wal-Mart beat their customers for two reasons: because they are one mean, tough company, number one, and because, number two, they adopted and adapted faster to new technology than any other retailer in the world. And you've got to give them credit for that. You've got to worry about and be troubled by some of the brutal side of their business practices. But at the end of the day, the Beverly Hillbillies out-innovated all their competitors.

Nayan Chanda:
How do you resolve the dissonance you have between the citizen in you and the consumer in you?

Tom Friedman:

I think we have to resolve that through social activism. I really support consumer activism that will say to Wal-Mart, that we as neighbors and consumers will say to Wal-Mart, "I love your low prices, but you know what? We're ready to spend five cents more, and we're ready to give you that five cents if you'll use two of those five cents to cover more of your employees with health care." That, to me, is where citizen activism really has to come into play.

Nayan Chanda:

Talking about citizen activism, one of the themes of your book is, because of this flattening of the world, it's harder to challenge from below, and the top-down structure is flattening into horizontal corporate positions. Now, these people who are being left behind, left out of this flattening process, how do they challenge the hierarchy? How do they join the flat world?

Tom Friedman:

... The thing you wanted to understand about the flattening of the world is, it enables the big to act really small. Think about Wal-Mart. With RFID technology, they can tell you when Hispanics like to buy milk, as opposed to, you know, [when] other anglos prefer to buy milk as opposed to [when] African-Americans prefer to buy milk. Because they know their store is in predominantly Hispanic neighborhoods, black neighborhoods, or white neighborhoods. They know, they can actually trace, at a micro-level, they can act so small, Nayan, it's scary. The other side of it, though, is that the small can act really big in the flat world. TomandNayan.com, we can go out and be publishers, and if we get a following, man, we can act really big.

Nayan Chanda:

Now, I think you have a very nice story about JetBlue airlines and their agents, who are housewives in Salt Lake City. Now, these people could join the flat world because they have some skills and they have this infrastructure. So, the question is, to have the right skills and the right infrastructure. And what role do you think private companies, governments, or foreign aid has to play in creating this?

Tom Friedman: Well, let's start with, what is the mix of assets you need to thrive in a flat world? Money, jobs, and opportunity in the flat world will go to the countries with the best infrastructure, the best education system that produces the most educated work force, the most investor-friendly laws, and the best environment. You put those four things together: quality of environment that
attracts knowledgeable people, investment laws that encourage entrepreneurship, education, and infrastructure. So that's really where, in a flat world, the money is going to go.

And I don't really believe much in foreign aid because I think, at the end of the day, that's not how countries grow and get rich. But to the extent that you are going to give foreign aid, it should be to inspire, encourage, and help develop one of those four pillars for whatever developing country you're dealing with. But I do believe in trade, not aid. I think that axiom still applies, even more so in a flat world.

Nayan Chanda:

One of the few views that have come out of your book, the criticisms seem to be that in your flat world, the poorest of the countries, like Africa, don't really figure. So why are you leaving Africa behind in your discussion of the flat world?

Tom Friedman:

I have a chapter in the book called "The Un-Flat World," in which I talk about the countries that are still the majority that still aren't flat. You know, the job of the analyst is really to identify a trend, just when it reaches the tipping point, but before anyone else sees it. And that's what I've aspired to do in this book. And the trend is this flattening process, which I think has reached this tipping point, as evidenced by the degree that China and India – we're talking about 1/3 of the planet, basically – have been able to use and exploit this platform.

But I fully recognize that although it's reached the tipping point, there are still a lot of people who are not part of it. Africa is not part of it because it hasn't learned to globalize. It doesn't have those four things: the quality infrastructure, the quality education, the quality environment, and the quality investment laws. That's why it's not participating. Our job, as citizens of the planet, let alone as citizens of the wealthiest country in the world, is to help create the tools and conditions for places like Africa to be part of it. But for anyone to say that just because they aren't apart of it, doesn't mean that a new trend isn't aborning – would be ludicrous to suggest.

… Nayan Chanda:

Another point that becomes clear in your book is the role of the individual. And these individuals, who are either part of the flat world or outside of the flat world, are not geographically confined to one area. In the United States, you have a lot of people who are not a part of the flat world. And at the same time, these people have political power, influence. How can these people's influence be not destructive?
Tom Friedman:

It's a problem actually. The flat world is a friend of Infosys and of Al-Qaeda. It's a friend of IBM and of Islamic jihad. Because these networks go both ways. And one thing we know about the bad guys: They're early adopters. Criminals, terrorists – very early adopters. The person who understands supply chains almost as well as Sam Walton, is Osama Bin Laden. We have an issue there with the most frustrated and dangerous elements of the world using this flat planet in order to advance their goals, to recruit over the internet, to inspire over the internet, and to transfer orders and raise money over the internet. So they're using the flat world as much as anybody else.

Our job is to try to soak up those tools, so that we can use these collaborative tools in a more constructive way. But I have no doubt the flat world is a friend of both Infosys and Al-Qaeda.

Nayan Chanda:

Another element which is interesting compared to "Lexus and the Olive Tree," is that olive trees have not disappeared; olive trees still have strong roots. So how do nationalism and a flat world intersect?

Tom Friedman:

That's a good question. I really tried to develop that idea beyond Lexus. You know in Lexus I wrote that no two countries would fight a war so long as they both had McDonald's. And I was really trying to give an example of how when a country gets a middle class big enough to sustain a McDonald's network, they generally want to focus on economic development. That is a sort of tipping point, rather than fighting wars.

In "Flat World," I take that theory one step further into what I call the "Dell Theory" – you know, Dell Computers. The Dell Theory says that no two countries that are part of the same global supply chain will ever fight a war as long as they're each still part of that supply chain. Now, the big test case is China and Taiwan. Both are suppliers of the main parts of computers. If they go to war, don't try to order a computer this month because you'll have a real problem.

Nayan Chanda:

Dell computers are built with parts from...

Tom Friedman:

From about 400 different parts, but there's probably 30-40 key parts. And what Dell actually did was trace all the key parts in my laptop that I wrote this book
with. So, Dell basically traced the parts that went into the laptop that finished the book. And what you see when you look at the supply chain, it runs along coastal China, through Taiwan, on through Japan, up through Malaysia, parts of the Philippines, parts of Thailand. So, all these countries are part of this supply chain.

Do I think this guarantees that there won't be a war? No, I understand olive trees; people will do crazy things over their olive trees. But here's what I predict: If you do go to war and you're part of one these supply-chains, whatever price you think you're going to pay, you're going to pay ten times more. Once you lose your spot in the supply chain because you've gone to war, the supply chain doesn't come back real soon. They're not going to. Fool me once, shame on you; fool me twice, shame on me. That's why you really risk a lot. And that's why these supply chains now really mean a lot. They're the new restraints. They're not shackles; people will still do crazy things.

But what I'm trying to suggest is this: From an analytical point of view, the drama that's unfolding, in terms of the lexus and the olive tree today, is the intersection of our traditional olive tree urges – nationalism, ethnicity, religion, identity – interacting now with a flat world, interacting with Dell Computer and its supply chain. Maybe the olive tree issues will win and completely smash that – or not. Maybe Dell Computers will win.

Nayan Chanda:

From the United States, it seems that the olive tree is simply turning away, is not wanting to confront the issue of the flat world. There is barely a discussion in political circles or in media circles. How do you explain that, and what can one do about it?

Tom Friedman:

I think there are four factors; it's a kind of "perfect storm" that's come together that people aren't really talking about the flattening of the world, and the impact that it's having on our country, the opportunity it's raising, and the challenges it's posing. First of all, there's 9/11, which completely distracted everyone – including myself – from this. Number two, there's the dot-com bust. A lot of very silly people equated globalization with the dot-com boom. And they thought it was all just about sizzle. And so when the bust came along, all these people said that globalization was over because the dot.com boom was over. Well, actually a flat world drove globalization to a whole new stratosphere. And the third factor is Enron. Enron made all CEOs guilty until proven innocent. As a result, people weren't interacting with them. Even this administration, slavishly conservative and pro-Republican, didn't want to be seen with too many CEOs.
Fourth is what's going on in the world of academia and basically the anti-
globalization movement – which is basically dead today – because China and
India have embraced this process and this project. I would argue that the anti-
globalization movement and the people who have been its intellectual leaders,
have been kind of dining out on the carcass of Globalization 2.0. And they're kind
of like jackals that have been eating and picking away at this carcass all these
years. They're all still talking about the IMF and the World Bank and conditionality
– as if globalization is all about what the IMF and World Bank impose and force
on the developing world. Well when the world is flat, there's a lot more
globalization that's about pull. This is people in the developing world – in China,
Russia, India, Brazil – wanting to pull down these opportunities.

Look at what happened in your native country, Nayan, with intellectual property
law. The story that we imposed all this on India from the WTO. Well there's no
question that we did want India to have intellectual property protection to protect
our products. No question about that. But what it turned out was that a lot of
Indians wanted it as well because they become innovators themselves. They are
now plug-and-playing in this world and they want the intellectual property
protections for their innovations.

So the result of these four things, the academic community has not caught up
with this debate. You really have to role up your sleeves and do research and
rethink the whole subject. That takes a lot of work. The press core is just lazy
and, with the exception of things like YaleGlobal, really hasn't taken a look at
what's going on. And the public has been distracted, confused, and in many ways
made stupid by politicians who don't want to think about this either. So for all
these reasons, right when we've reach this incredible inflection point – the world
is getting flat, which I believe this is the equivalent of Gutenberg and the printing
press – nobody is talking about it.

Nayan Chanda:

So do you think the politicians will wake up someday?

Tom Friedman:

Oh, they'll wake up someday. It'll take a crisis of some sort though. They'll wake
up the way you or I wake up if someone hits us over the head with a two-by-four.
There is a crisis. We're not producing in this country, in America, enough young
people going into science and technology and engineering – the fields that are
going to be essential for entrepreneurship and innovation in the 21st Century. So
we're at a crisis – it's a quiet crisis, as Shirley Ann Jackson from the Rensselaer
Polytechnical Institute says. If we don't do something about it, then in 10 to 15
years from now this quiet crisis will be a very big crisis. And that's why my friend
Paul Romer at Stanford says – and I totally agree with him – is a crisis is a
terrible thing to waste. And right now we're wasting this crisis.

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