

Global Hyperconnectivity--The next big thing is already here, argues Thomas L. Friedman:

It's P.Q. and C.Q. as Much as I.Q.

By [THOMAS L. FRIEDMAN](#)

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President Obama's first term was absorbed by dealing with the Great Recession. I hope that in his second term he'll be able to devote more attention to the **Great Inflection**.

Dealing with the Great Recession was largely about “Yes *We* Can” — about government, about what we can and must do “together” to shore up the safety nets and institutions that undergird our society and economy. Obama's Inaugural Address was a full-throated defense of that “public” side of the unique public-private partnership that makes America great. But, if we're to sustain the kind of public institutions and safety nets that we're used to, it will require a lot more growth by the private side (not just more taxes), a lot more entrepreneurship, a lot more start-ups and a lot more individual risk-taking — things the president rarely speaks about. And it will all have to happen in the context of the Great Inflection.

What do I mean by the Great Inflection? I mean something very big happened in the last decade.

The world went from connected to **hyperconnected in a way that is impacting every job, industry and school, but was largely disguised by post-9/11 and the Great Recession. In 2004, I wrote a book, called *The World Is Flat*, about how the world was getting digitally connected so more people could compete, connect and collaborate from anywhere. When I wrote that book, Facebook, Twitter, cloud computing, LinkedIn, 4G wireless, ultra-high-speed bandwidth, big data, Skype, system-on-a-chip (SOC) circuits, iPhones, iPods, iPads and cellphone apps didn't exist, or were in their infancy.**

Today, not only do all these things exist, but, in combination, they've taken us from connected to hyperconnected. Now, notes Craig Mundie, one of Microsoft's top technologists, not just elites, but virtually everyone everywhere has, or will have soon, access to a hand-held computer/cellphone, which can be activated by voice or touch, connected via the cloud to infinite applications and storage, so they can work, invent, entertain, collaborate and learn for less money than ever before. Alas, though, every boss now also has cheaper, easier, faster access to more above-average software, automation, robotics, cheap labor and cheap genius than ever before. That means the old average is over. Everyone who wants a job now must demonstrate how they can add value better than the new alternatives.

When the world gets this hyperconnected, adds Mundie, the speed with which every job and industry changes also goes into hypermode. “In the old days,” he said, “it was assumed that your educational foundation would last your whole lifetime. That is no longer true.” Because of the way every industry — from health care to manufacturing to

education — is now being transformed by cheap, fast, connected computing power, the skill required for every decent job is rising as is the necessity of lifelong learning. More and more things you know and tools you use “are being made obsolete faster,” added Mundie. It’s as if every aspect of our lives is now being driven by Moore’s Law. This is exacerbating our unemployment problem.

In their terrific book, *[Race Against the Machine: How the Digital Revolution Is Accelerating Innovation, Driving Productivity, and Irreversibly Transforming Employment and the Economy](#)*, Erik Brynjolfsson and Andrew McAfee of the Massachusetts Institute of Technology note that for the last two centuries it happened that productivity, median income and employment all tracked each other nicely. “So most economists have had this feeling that if you just boost productivity, the pie grows, and, in the long run, everything else takes care of itself,” explained Brynjolfsson in an interview. “But there is no economic law that says technological progress has to benefit everyone. It’s entirely possible for the pie to get bigger and some people to get a smaller slice.”

Indeed, when the digital revolution gets so cheap, fast, connected and ubiquitous you see this in three ways, Brynjolfsson added: those with more education start to earn much more than those without it, those with the capital to buy and operate machines earn much more than those who can just offer their labor, and those with superstar skills, who can reach global markets, earn much more than those with just slightly less talent.

Put it all together, he added, and you can understand, why the Great Recession took the biggest bite out of employment but is not the only thing affecting job loss today: why we have record productivity, wealth and innovation, yet median incomes are falling, inequality is rising and high unemployment remains persistent.

How to adapt? It will require more individual initiative. We know that it will be vital to have more of the “right” education than less, that you will need to develop skills that are complementary to technology rather than ones that can be easily replaced by it and that we need everyone to be innovating new products and services to employ the people who are being liberated from routine work by automation and software. The winners won’t just be those with more I.Q. It will also be those with more P.Q. (passion quotient) and C.Q. (curiosity quotient) to leverage all the new digital tools to not just find a job, but to invent one or reinvent one, and to not just learn but to relearn for [several] lifetime[s].

Government can and must help, but the president needs to explain that this won’t just be an era of “Yes *We* Can.” It will also be an era of “Yes *You* Can” and “Yes *You* Must.”

Comment:

- William Dufort
- Montreal

NYT Pick

Mr Friedman,

This column is textbook right. But, it's also off the reality chart.

The average I.Q. is always 100. Even if the average person's I.Q. is still 100, today's average person is much more knowledgeable than yesterday's. So stop pretending we can

somehow "jump the line" and get more people to beat the average. There will always be half the population that is below the average, as always. But in a normal society, they shouldn't be considered to be a problem, like you seem to imply in a few of your latest columns.

Yes, it would be nice if everybody had a College education in a field that grows the economy. But it's not going to happen, ever.

So, we have to get real. Your easy, so to speak, solution is not possible. So we have to figure out a way to build a society that will take on the challenges of the 21st century without leaving behind half the population. That's what society is all about. Your vision excludes the bottom half of the of the population. Sorry, but that vision looks an awful lot like Mitt Romney's 47% declaration! We expect more of you, Mr Friedman. How do we get more than just the brightest to be part of the middle class. That, Mr Friedman, is the question.

- [Jan. 30, 2013 at 4:50 a.m](#)

- Bruce Rozenblit
- Kansas City

NYT Pick

Here is a great example about what Mr. Friedman is talking about.

The following transitions all happened in about 2 years.

I love radio. Listen most of the day. Then HD radio came on line so I bought an HD radio and stopped listening to my regular radio. Don't need to buy regular radios any more.

Then I discovered Internet radio. I can listen to any station from anywhere in the world. Put the HD radio in the closet. Don't need to buy HD radios any more.

Then I discovered an app for my iPad that lets me use it as an Internet radio. Put the Internet radio in the closet. Don't need to buy Internet radios any more.

With a small software app, and using an iPad or other smart phone as a hardware platform, several generations of radio receivers are rendered obsolete about as soon as their batteries wear out. All the people that made them are out of a job.

The people that make the iPads will soon lose their jobs too as robots will replace them in a few years. All that will be left will be the designers and software engineers. Manufactures will be mostly staffed with a few creative types, a few hardware and lots of software engineers.

This is scary but it is reality. I don't know what people are supposed to do. The cycle of production and consumption will soon not be able to sustain economies. I liken this economic transition to the dinosaur die off 60 million years ago. Except, we don't know what's going to come out the other end.

- [Jan. 30, 2013 at 4:55 a.m.](#)