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**Op-Ed Columnist** 

## A Million Manhattan Projects

By THOMAS L. FRIEDMAN Published: May 24, 2006



Thomas Friedman.

So we're toast, right?

I mean, that's pretty much the pervasive global assumption these days: The 19th century belonged to England, the 20th century belonged to America, and the 21st century will belong to China. Tell your kids to study Mandarin.

I'm second to none in worrying about U.S. education and industry meeting the challenge of a rising China and India. But after a year traveling all over America talking to educators and innovators, I am not yet ready to cede the 21st century to China. No, not yet.

You see, my grandma back in Minnesota had a saying that went like this: "Never cede a century to a country that censors Google."

It was just a little thing my grandma had — she never believed that the future would belong to a country that limited its people's ability to discover knowledge. Censoring Google is a proxy for a lot of bad government heavy-handedness and censorship that hinders innovation.

Now it's true that America's two major political parties are lost, and Washington is brain-dead. But precisely because we have this incredibly flexible, open, unrestricted, competitive economy — where we don't censor anything — what you find when visiting U.S. innovation hubs is that no one is waiting for Washington to declare the next big Manhattan Project, for, say, energy independence. American innovators are growing their own.

Not a day goes by now that I don't get a letter from some start-up that wants me to write about how it is turning trash, corn, sugar, coal, manure, hydrogen, waves, wood chips, wind, sunlight or switch grass into power. I recently visited SRI International, near Stanford, where scientists are working on the critical problem of how to get more electric power out of batteries. Last week, I was in Pasadena to visit Idealab, whose founder, Bill Gross, couldn't wait to take me up to his roof to show off his Sunflower solar system, which tracks the sun with small mirrors and concentrates its rays onto a single silicon pod. It now helps to power his whole office.

A few days later I interviewed the Silicon Valley venture capitalist Gary Morgenthaler, whose firm has invested in quantum-dot-based thin films for solar panels and has looked at one start-up that is bioengineering algae to produce oil. I ended the week at the Greentech Innovation Network in San Francisco, which brought together dozens of clean-power innovators to swap ideas. The meeting was organized by Kleiner Perkins, the venture firm that helped start Google and now backs an array of energy start-ups.

Bill Gross, of Idealab, said: "The price of fossil fuel goes up enough, and look what happens. With no government regulation, investment and innovation in the energy space takes off with more talent and focus than any government program. It's a 'distributed' Manhattan Project that attracts the smartest, most ideal people for the task, and the capital is efficiently allocated to those teams."

But have no illusions, said K. R. Sridhar, whose company, IonAmerica, is developing solid oxide fuel cells: if we want to see these alternatives move from little start-ups to large-scale commercial ventures, "we need to really get the price mechanism right."

When you're talking oil, you can't just say, "Let the free market work," because there is no free market in oil: the producers have a cartel, and governments — like ours — subsidize oil, so we don't pay the full cost.

If the government would just do a couple of things, the energy start-ups we're seeing today would turn into real products, Mr. Sridhar said. One, the government should institute a carbon tax or gasoline tax that would ensure that the price of gasoline never fell below \$3.50 to \$4 a gallon, which would make a host of new technologies competitive. Second, the government should set high goals for mileage and CO2 emissions for its own vehicle fleet, as well as high goals for eco-friendly, low-energy electricity generation for every government building — and then promise to be the first customer for whatever company reaches those high goals.

"The federal government is the single largest consumer of energy in the country," Mr. Sridhar said. "It's time for the government to lead by example and flex a little consumer muscle. It's time for government to use its buying power when buying power."

The major industrial country that gets the greenest the fastest, with the smartest technologies — that's the country that will lead the 21st century. We've got the innovators; we've got the venture capitalists. If only we had the government that would create the right market conditions and then get out of the way.