Another Sputnik moment for the US?

Out of the Box

Tony Chan Fan-cheong is president of the Hong Kong University of Science and Technology. He has spent his life pursuing his dreams relating to teaching and research, and has unique views on education, scientific and technological development, and nurturing the young.

IN THE ESCALATING trade and technology war between the United States and China, we have been hearing mostly from politicians. What are the views from technology leaders? One hopes that those views would at least have the benefit of being based on technical knowledge and less on political rhetoric. It’d provide a much needed alternative perspective of this “tech war.” But so far, this has been missing.

Few would doubt the claim that the Massachusetts Institute of Technology is among the top, if not the top, technological research institution in the United States. It has been reported that if you take the market value of companies founded and run by its living alumni, it’d rank as the 11th largest economy in the world.

What does MIT think about the US-China tech war? In the August 8 edition of the New York Times, MIT president Rafael Reif wrote an article titled China’s Challenge Is America’s Opportunity.

He opened by sidestepping the political issues involved in the claim that China takes advantage of the global trading system by giving “tax breaks to its companies to boost their exports, restricts access to its markets, forces foreign companies to transfer their technology to Chinese companies, steals intellectual property and pursues industrial espionage.”

These are claims repeatedly made by the US government against China.

Reif says that while “decisive action is needed to stop these practices … it would be a mistake to think that an aggressive defense alone will somehow prevent China’s technological success – or ensure America’s own.” In other words, a political and confrontational approach would not stop China’s technological rise.

Contrary to some views in the West, he says that “China is not an innovation also-ran” but is “advancing aggressively to assert technological supremacy in critical fields of science and technology.”

He mentioned examples in quantum computing, 5G technology, high speed rail, mobile payment and face/voice recognition” as areas in which China has already made major advances. China is also “supporting start-ups and recruiting talent from around the world” and “quickly bringing innovation to market.” He tips it to become “the world’s most advanced technological nation … in not much more than a decade.”

On the other hand, Reif says that the United States has “tremendous assets:” great universities, an entrepreneurial culture, intellectual freedom and being a magnet for global talent.

However, “there is nothing automatic about the United States’ continuing world dominance in technology. He recommends that the country “should double down on our strengths” to ensure that it remain so.

He credits America’s response to Sputnik in the 1950s as the last time it responded to external competition and came out on top, and that it “can do it again.” He recommends “stable, targeted, multiyear federal research funding, better industry-university-government partnerships, programs to develop homegrown talent, and a welcoming immigration system to attract global talent.” He ended by saying “If all we do … is to double-lock all our doors … we will lock ourselves into mediocrity.”

I have several reactions to Reif’s piece. He is a personal friend and we are contemporaries – both PhD students at Stanford in 1970’s. First, I give him credit for having the courage to write such an article under the current political climate in the United States.

Second, as the president of MIT, he, probably more than anyone else, speaks with credibility and authority when it comes to the country’s technological future.

Third, his comment on immigration probably stems from his personal experience of being a student from Venezuela who became MIT’s president.

Fourth, as an American myself, I fully agree with his recommendations. In fact, I had written more or less the same in this very column, including the reference to Sputnik, in my article A tech cold war is brewing.

I read the piece on a trip to study the innovation and entrepreneurship ecosystem in Shenzhen.

There, I found tremendous energy, confidence, optimism and the spirit of “anything is possible.”

Most of the people I met were under 35. Nobody mentioned the trade/tech war – they seemed too busy building their own future!

Tony Chan with MIT president Rafael Reif, left, and provost Martin Schmidt.