

Speech by Shri Rajeev Chandrasekhar, MP
at
India-Japan-U.S. Trilateral Conference
October 28-29, 2018 Tokyo, Japan

Thank you for having me over to speak today.

I have been involved in Technology most of my adult life and last 12 years in a very unexpected but satisfying time in Politics and Public Life. Expectedly as an Entrepreneur turned public servant, my focus has been on areas that I have some experience in and I am passionate about

So, Democracy, Economy and Technology are what I am focused on and so its these topics that I speak about.

Sustaining Democratic Leadership in Science and Technology

The biggest changes to the global order - Post the Cold war as we know have been taking place over the last two decades.

On the back of a global trade – some countries have emerged as global power houses – its economic aggression influencing not just economy and trade but also wide ranging and sweeping geo political and security issues impacting most nations of the world.

And at the same time this was happening, another phenomenon has unfolded – technology and the Internet. This has created another wave of tectonic and disruptive change across the board – in Business, Economy, in Governance and in Citizenship.

I for one personally welcome this relook at the current global trade regime – which when created assumed an open transparent free and fair-Trade regime that created global competitiveness and in turn competitive economies. Instead it is opaque and has created benefits for those nations and economies that remain opaque and non-transparent and are moving real technology and manufacturing economies for the most part away from the open, democratic nations to others who are not. I have no problem with winners and losers in global economy, but I do have a problem as I believe most people do – when the winners are increasingly those that also seem to represent risks to Global order – be it rogue states, nuclear proliferation, terrorism, etc.

This is a topic that while may seem politically incorrect and not subtle – I believe needs a detailed debate and discussion over. The recent US government response are an interesting

starting point for this debate. There is a point of view that the response to what we have created over the last 2 decades is too little too late. But let's have that discussion and debate.

But I will leave that issue to just that passing reference and focus an equally urgent issue. An issue that can still have a coordinated response from the World's Democracies even now – That is about the future about Technology because Technology and Intellectual Property of the World is potentially under threat.

Let's start with this - There isn't a man or woman on this planet that will not acknowledge that disruptive changes that are a result of the Internet and associated technologies – changing business models, Economies of Nations, Governance and Democracies and in turn the power of those that control these technologies.

Let me take you back to 2012 – There was at that time an attempt to get the Global Internet to be regulated by a group of bureaucrats under the UN. A move that was being backed by countries like China and Saudi Arabia (no doubt paragons of free speech) and interestingly to which India was also party to. The cover for this was the ostensible US domination over the Internet through ICANN. I single handedly and very noisily forced the then Indian Government to stop backing this and so the whole exercise collapsed. But it opened my eyes to the almost total abrogation of Democracies to the responsibility and strategic objective of steering the future of Technology.

I bring this up to highlight the importance of the future of the Internet and need for the Critical technologies to remain outside the influence or control of non-democracies. The Internet was built out in the 80s and 90s as a giant collaborative effort involving thousands and millions of minds all over the world. That in itself ensured it was open and not controlled by any one entity even though it started as a US DARPA project as DarpaNet. I was involved in those early days in the software that went into those hub servers as an Indian Engineer working in the US on a student visa. That was how open and collaborative it was.

Fast forward to today, that idealism and openness has created huge opportunities but also huge threat and risk. The Internet in the last decade and half has evolved into a space where big commercial interests, State and political interests, Criminal elements and Consumers and Citizens are all colliding in an unregulated environment that is also being mis-used by some nation states. The awareness of criminal risks was laid out after 9/11 and then the Silk route takedown by the FBI. But the increasing direct threat to democracy through Fake news and risk of Terror on the Internet are now beginning to wake up nations and security leaderships. The threats are amped up by the fact that tech platforms and entities like Facebook and Google were regulated very weakly as Technology companies instead of what they are increasingly

morphing into it - which is powerful intermediaries to the Internet that can be misused very easily by those that want to.

Cyber threats are no longer from individual hackers in dark dingy basements. Threats are real and backed or from state backed enterprises as we have all seen. Governments in the US, Japan and in India are not doing enough in the strategic direction of Internet and Technologies – and more often than not the agenda is being set by large players like Facebook, Google etc. that have a vested interest in playing good boy with large markets like China. The flip side of this is that Technology is also the biggest creator of economic activity and jobs and that's another good reason for also protecting that.

The threats to democracies and countries with open societies are real and represent clear and present dangers. There is rock solid justification for the need for Technology and its control to vest largely with democracies and open societies. Nations must work together especially US, Japan and India on shaping policy and regulatory approach that will decide the future of the Internet and make it a safe productive. There are many issues around the Internet - Issues like Net neutrality, Privacy, Cyber Security, Cyber-crime etc. are issues that are screaming for a global Co-ordinated policy response. (Eg handsets with apps that are broadcasting data covertly back to vendors)

Technology is off course not just the Internet and Future is Technology. Those that control technology control the world. May sound like hyperbole. But it's not.

Let me reiterate I do not believe that there should be a world of Technology haves and have-nots. That is not the point I am arguing – I am arguing that while a spirit of competition of innovation is a good thing, we as democracies must argue that these capabilities and innovation must be built through real work and not through illegal proliferation, technology thefts and other unfair practices. Some nations have shot up the Technology leaderboard through a shameless practice of technology theft and proliferation ranging from Computing to Semiconductors to Aerospace and Engineering.

Need for a Trilateral Technology Forum/Alliance among the US, Japan and India

While without doubt, the internet which is been such a big disruptor in last decade, there are coming Technologies that will also bring major disruption – some sitting on the internet and some offline. The emerging technologies of AI, IoT, Machine Learning, Encryption ,5G etc. are going to redefine economy, commerce, jobs and Governance. So, it is vital that the leadership of these emerging technologies does not vest with closed systems and regimes.

Democracies have had a classic way of approaching innovation. Allow best of private talent collaborate and build technologies and products in a free for all contest loosely referred to as Free Market. May the best guy win is our current thinking. But this free market is leaky, and our three nations can and must do more to be relevant in coming decade.

Japan has its own legacy in technology. US has been at the forefront of technology and innovation. India has played a vital role in in being a global back office and has legitimate ambitions in the space for Innovation and Technology. The best talent in strategic Technology thinking and execution in the world are in these three countries.

We have a strategic common interest in ensuring that coming Economic opportunities and standards in technologies like Artificial Intelligence, Machine Learning, Future of the Internet – has to be open and inclusive and safe for all those who use it. And so, for each of our Entrepreneurship in technology to be successful it needs a common strategy and goal to ensure the open, democratic ownership or influence on future of Technology.

Perhaps there has to be a fresh look on how we manage understandings and alliances which have been for long driven by bureaucrats and politicians. The values of democracy, innovation, access to tech are best driven by young entrepreneurs of the three nations for whom future means a lot more than traditional bureaucrats and politicians. Maybe we need a Trilateral Technology Forum/Alliance between the US, Japan and India which can facilitate people-to-people and entrepreneur-to-entrepreneur relationship building and cooperation.

Case study on AI: What is China doing on AI?

China is running away with the AI game but it important for the future technology standards to be set collectively by democratic nations like the US, India and Japan rather than totalitarian states.

The biggest and most aggressive investors in internet today are Chinese. We must ask ourselves why all big entrepreneurs of today are either coming from China or backed by China?

Between 2010 and 2014, the United States lodged more AI related patent applications than any other country in the world (15,317), nearly twice that of second-place China. However, China is currently making an integrated and government backed push to become global leader in AI by 2030. In the view of a recent *New York Times* article, China is approaching AI like the U.S. did the groundbreaking 1969 Apollo 11 lunar mission.

China's AI push is a decidedly multisectoral endeavor. By enabling government policies and fiscal backing, the private sector is instrumental in this effort. According to a CB Insights report, 48 percent of global equity funding for AI in 2017 went to China, compared to 38 percent for the United States.

Home to tech behemoths like Google, Microsoft, IBM and Apple, the United States is where the bulk of AI innovation has taken place. However, there are growing indications that China, with its own army of tech heavy hitters such as Alibaba, Tencent, and Baidu, is moving rapidly to close the gap. For one, the Asian economic giant has all the ingredients it needs to upstage Silicon Valley: generous government coffers, large population, a thriving research community and a society eager for technological change. Its investment in AI, chips and electric cars combined has been estimated at \$300 billion.

In line with its 2030 vision, the government of Tianjin, a city a couple of hours from Beijing, plans to build a \$5 billion fund to support the A.I. development. Money being no object, China is also building a giant \$2.1 billion technology park to facilitate A.I. innovation. In a red-hot market for tech, China's AI start-ups can raise funds with relative ease.

Investors poured \$4.5 billion into more than 200 Chinese A.I. companies between 2012 and 2017, according to a white paper produced by Kai-Fu Lee, a former Google and Microsoft executive who now leads a venture-capital firm, Sinovation Ventures.

China's goal is to foster a \$1 trillion A.I. industry by 2030. Last month Chinese A.I. start-up SenseTime raised \$600 million in a deal led by Alibaba, reported as the largest-ever in the A.I. space. The deal gave SenseTime an implied valuation in some reports of more than \$3 billion, or even as high as \$4.5 billion.

Conclusion

The future of Technology and where it resides will determine the Geo political picture of the world, just as much as access to trade lanes or Trade agreements or Security feet on the ground. The future should be one where our democracies inspire the growth of a peaceful community of nations that work openly and transparently with each other and working together will ensure that. In a nutshell – The Internet and other Technologies will rapidly evolve and disrupt. However, it is for the democratic countries of the world to ensure their influence - on the nature and direction of that disruption works to strengthen democracies and peoples and not the other way around. The proliferation and outright illegal Technology proliferation is making some countries gain unfair advantages due to lack of openness and weak legal systems. I say again – lets wake up to this real challenge and respond jointly.