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Patrick Mendis: Decoding the dragon



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Goodbye RCEP: Does India fear competition?



Strategic flexibility during global flux



Van Zuidam: The future of security



M.K. Narayanan: Securing the cyberspace



Dr. A Paulraj: Cloud-5G-AI and Industry 4.0

I Decoding the dragon: A historical perspective



Xi Jinping, President, People's Republic of China

Dr Patrick Mendis, a Sri Lankan-born American diplomat scholar, who is a distinguished visiting professor of global affairs at the National Chengchi University and a senior fellow of the Taiwan Centre for Security Studies in Taipei delivered a talk on “The Belt and Road Initiative and the Indo-Pacific Strategy- Understanding China and its Vision, Mission, and Challenges” during the 62nd Roundtable of Synergia Foundation.

Background

The rise of a world power is a seismic event which affects the security and economics of its region and beyond. In this context, China makes an interesting study.

Dr Patrick Mendis, as a professor of history and war studies having an active interest in both mainland China and in Taiwan, is uniquely placed to explain the larger geopolitical and historical aspirations of China. He relates China’s power projecting ambitions to its linkages with the golden period of Imperial China, the Tang and the Ming Dynasties.

Analysis

Despite its communist credo, the Chinese leadership is deeply immersed in its Buddhist past and ensconced in Confucius philosophy. To decipher the Chinese way of thinking—a clear understanding of the linkages of modern-day China of Xi Jinping to the Tang and Ming dynasties is imperative.

No two countries have the same perspective of BRI. Americans have called it the ‘Chinese Marshall Plan’, linking it to their own efforts to reconstruct Germany and Japan after the destruction of World War II. But Chinese strongly refute this saying that they are not in the business of re-construction after wanton destruction but are only building upon what is existing. For China’s suspicious neighbours, BRI is a sinister ‘string of pearls’ - a series of military bases on its vulnerable periphery to extend Chinese military power and strategic outreach to match the Americans in the Indo Pacific.

China advocates BRI supposedly to strengthen its land and maritime trade. Dr Mendis says that there is a far greater strategic motivation than just “peaceful trade”. “History has all the answers as to what Xi Jing Ping is attempting. China is experiencing a cultural revival which is shaping the Chinese national consciousness that is very different from what the world perceives China to be. BRI is the Chinese Dream and to understand it, we need a closer look at Chinese culture,” opines Dr Mendis.

The BRI has two strategies- The Silk Road Economic Belt (which is actually a land route going westwards from Xian to Rotterdam) and the 21st Century Maritime Silk Road (which is, in reality, a sea route connecting the Pacific or the East China Sea to the Indian Ocean or the West China Sea). Both replicate the Eastern and the Western routes taken by Chinese traders and scholars during the Tang and Ming Dynasties, called the golden period of Chinese history. In sum, Chinese, who see themselves as “sons of heaven” are trying to regain their world dominance which they consider their rightful legacy. Therefore, when President Xi says, “The trend of history is in our favour”, he is making an extremely symbolic statement with respect to China’s conduct towards other countries.

Buddhism runs deep in Chinese psyche being the catalyst that integrated Daoism and Confucianism. Chinese attraction to South Asia is also linked to Buddhism- India being the birthplace of the religion and Sri Lanka as a staunch Buddhist nation faithful continuously for centuries and the depository of its holiest relic, the tooth of Buddha.

“At any time of the day, if you turn on the television, in China, you are likely to see a programme called the ‘Journey to the West’” says, Dr Mendis. The ‘west’ referred to here, is India. The programme is based on an old folk tale that follows the journey of a Buddhist Monk to the West along with his faithful friends, one among who is the Monkey God (similar to Hanuman). This story corresponds to the age of the Ming Dynasty, a much-venerated period of Chinese history.

BRI aims at the spread of Chinese influence through trade and commerce. It is creating linkages with all the countries along the two routes, showers them with investments and infra and ultimately secures an alliance which is respectful to China. This was the model followed in ancient China, when monks travelled far and wide along with

Dr Patrick Mendis,
Distinguished Visiting
Professor of Global
Affairs, National Chengchi
University

“China wants the national consciousness to be linked to its proud heritage, despite the obliteration of the past by Mao Zedong who villainised Confucius. China is seeking a national consciousness for a country that is not homogenous.”

merchants, using the excellent Chinese skill with astral navigation. “The Chinese believe themselves to be the sons of Heaven belonging to the middle kingdom. Their expansionist policy is propelled by this idea. They believe that the exchange of gifts will make other races bow down to them” explained Dr Mendis.

The Chinese want the national consciousness of their citizens to be linked to this proud heritage, despite the obliteration of the past by Mao Zedong who villainised Confucius. China is seeking a national consciousness for a country that is not homogenous.



Lotus Tower in Colombo, Sri Lanka, the tallest self-supporting structure in S Asia built with Chinese funding

Having travelled across the length and breadth of the country, Dr Mendis found that each province was different. The Eastern part was more populous and prosperous with a Han domination. The West is sparsely populated, impoverished and inhabited by restive minorities like the Uighurs and the Tibetans. China wishes to anchor its present identity with its glorious past to integrate its large population. To do this it needs an inclusive indigenous narrative. The Tang and Ming Dynasties, the glorious Middle Kingdoms, provides this ancient linkage to its past to instil a sense of pride in the present generation. It also suits the Han majority as these were both Han kingdoms.

The Tang Dynasty (618-906) is considered a golden age of Chinese arts and culture. Tang China attracted an international reputation that spilt out of its cities and, through the practice of Buddhism, spread its culture across much of Asia. It was cosmopolitan and had a prosperous trade. The Chinese had leveraged their

maritime capabilities and were far ahead of their European counterparts in voyaging, because of advancements in astronomy, they were capable of expert navigation.

The Ming Dynasty (1368-1644) of the Han people, was yet another glorious time for China. It was during their reign, that China was the largest economy of the world, there were unprecedented developments in architecture, painting, literature, medicine and the arts. Admiral Zheng made his seven expeditions in the Indian Ocean to South East Asia and Saudi Arabia.

Doubts are being raised whether China can bear the financial burden of the BRI. Laying such doubts to rest, Dr Mendis said, “China earns around 200 million dollars from US debt servicing in a day alone”. So, it has deep enough pockets to dole out to small countries. It also finances the huge infra projects without stressing the Chinese economy. These infrastructure and huge loan amounts are the modern equivalents of “the exchange of gifts to make the other races bow down to them” or the ‘tributary system’. The fact that most of the construction activity is outsourced to Chinese companies also helps.

The tributary system was practised mostly in the Ming and Qing dynasties and was a loose network of trade and foreign relations which included military force, diplomacy and ritual. The lesser partner countries acknowledged the superiority of the Chinese Emperor and sent envoys and gifts. It enabled China to carry out peaceful trade in the entire region without having to prove itself being the suzerain through military means time and again.

“Who rules East Europe commands the Heartland; Who rules the Heartland commands the World-Island; who rules the World-Island commands the world.” Dr Mendis says that these words of Sir Mackinder, the English academic and politician, are music to the ears of Chinese Strategists. Earlier Soviet Russia, with its huge landmass, was considered the apt contender for the Heartland theory-now it is the Chinese who claim it as their legacy.

China is acutely aware of its lack of maritime power to control the ‘East Sea’ or Pacific and the ‘West Sea’ or the Indian Ocean. They need a strong blue-water navy and military bases dominating the major sea routes. To rectify this, they have a hugely ambitious naval construction plan to turn out aircraft carriers and other ships. Also, strategically located islands like Taiwan, Sri Lanka and the archipelagos in the South China Sea, are being seen as future ‘unsinkable aircraft carriers’. With the militarization of the South China Sea, the US Navy has been pushed further east into the Pacific. China has built and is managing the Gwadar port off the Arabian sea in Pakistan and the Hambantota port is on a 99 years lease.

Finding strategic agility amid geopolitical uncertainty

Geopolitical uncertainty is on the rise, fuelled by volatile oil and gas prices, shifting Middle East alliances, Brexit shock to the EU the insular policies of Trump administration and the nationalistic rise of opposition to free trade. China’s ascendancy is disturbing global power equilibrium. During the Synergia Conclave 2019, a panel comprising **Uzi Arad**, Former National Security Advisor (NSA) Israel, **Shivshankar Menon**, Former NSA and Foreign Secretary, India and **Krishan Srinivasan**, Former Foreign Secretary, India tried to gaze at the crystal ball to make sense out of the geopolitical uncertainties facing the world.

Background

While on the economic front, there is optimism surrounding global and demographic growth in emerging countries, particularly in the Asia-Pacific

region, the political outlook is far gloomier. Experts warn of a potentially conflict-ridden, multipolar world order where international institutions could play a more limited role. Uncertainty is on the rise as tensions among citizens around the world are raising questions about the relationship that exists between governments and themselves. The social understanding between society and their governments is unraveling as people are demanding increasing levels of security and prosperity.



(left to right) Uzi Arad, Former National Security Advisor Israel; Shivshankar Menon, Former NSA and Foreign Secretary, India; Krishan Srinivasan, Former Foreign Secretary, India

Meanwhile, a more limited presence of the US on the global stage is creating gaps for authoritarian powers like China. In addition, a heightened risk of conflict is arising between nations competing for regional power status like India and Pakistan or Iran and Saudi Arabia.

Analysis

The panel covered a wide canvas highlighting how countries big and small are faced with populist parties which have belied predictions to continue to make political hay despite falling quality of life. In this context the example of France, Brazil and Philippines was cited where leaders have been advocating anti-environment and openly being racial yet achieving electoral success. It appears that the common man has abandoned mainstream political parties with a liberal centrist outlook as they feel they have failed them.

Bulk of the global population is a disillusioned lot. Globalisation has not been a happy story for all strata of society--1% of the population saw a rise of 138% in their income- while bulk, especially lost jobs. Leaders today use immigration and minority issues to lobby with the public and are apparently succeeding. The face of civil society protests is also undergoing a change, leading to uncertainty in government as how to deal with them without being accused of human rights violence. Exploiting the full power of internet, protesters 'manipulate' chaos in peaceful protests producing Molotov cocktails and other devices to incite law enforcement agencies. Therefore, in democracies this leads to the question whether liberty can be unlimited and unrestrained? Most states feel the urge to curb it.

The US, for all its blemishes, did perform a stabilising role at the global level. Under Trump Administration, this is being replaced by a populist isolationist foreign policy. Thus, an equilibrium between the nations of the world to prevent chaos rose, thanks to US, after the bloodletting of World War 2, is being threatened with abandoned, to the detriment of mankind.

Today, the China-US face-off dominates all geostrategic discussions. US considers China's rise as an affront to its position and has clearly displayed its intentions to curb it, irrespective of its implications for the world at large. China without doubt is the new rising power. The panel felt that despite the criticism, BRI is on the path of succeeding even though US and India and many other important countries have stayed out of it. Chinese have set 10 milestones for themselves to achieve by 2025 to include such high tech fields like robotics, quantum engineering, AI and ICT and they are well on their way to achieve all of them.

It was the panels conclusion that major conventional war are unlikely , although minor ongoing skirmishes will continue. Notwithstanding that, unpredictable incidents can spiral out of control sucking in major powers into a conflict – North Korea being a prime contender for this honour. However, Big powers will continue to meddle in local conflicts with their proxies.

Terrorism has become a catch-all cause to justify all ailments including lack of governance, This has been compounded by declining quality of national leadership who are on record making strategic interventions using ludicrous logic. The intelligence agencies are playing a larger role under such leadership and now they have technological means to collect information of “ all the people, all the time, at all the places”.

There has been a clearly discernible shift in global power, largely due to globalisation. Most of the growth has taken place in Asia and some feel that the centre of gravity is shifting to Asia, powered largely by China and to some extent by India. Traditional power centres in the West have to come to terms with this reality, eventually.

Assessment

- The consensus of the panel was rather foreboding as they were unanimous in their opinion that the future is far more uncertain than what is commonly understood. In fact, no clear solution is visible on the horizon from which we can take solace.
- Multilateralism, not isolation is the answer to China's rise. By putting them in a corner, the situation is only being exacerbated which will only harm the entire human kind.
- India will not be able to achieve a big player status as long as its leadership in South Asia is questioned and not universally accepted. China, through Pakistan has succeeded in tethering India to South Asia.
- Rise of new authoritarians in almost all great powers across the world is a worrying trend. There is tendency to distort the facts and what is achievable- as growth declines, leaders' promises are getting bigger. The world desperately needs mature and sagacious political leaders who can grow above narrow electoral gains.

Future of security ecosystems: dealing with the unseen and unforeseen

Rutger Van Zuidam, Founder and CEO, Odyssey took the Synergia Conclave 2019 on a journey along the 'curve', beyond any one's imagination^

Background

The Treaty of Westphalia enshrined the principles of sovereignty which also find a mention in the UN Charter. However, the entire concept of sovereignty is under challenge by the rush of globalisation and trans national crime. Block chain technology is itself unmindful of the concept of boundaries and sovereign states.

The perception of security is undergoing transformation- from “for the public” to “with the public”. The big government alone cannot ensure security. In an increasingly complex world, top down linear approaches seem unable to cope with today's challenges which are borderless, have multitude of stakeholders and can't be solved by “throwing money at it”. Governments must act beyond making new laws, policies, technology or allocating more resources. New ways to collaborate, establish relationships and build communities will determine the outcomes that will impact generations to come.

Odyssey, the blockchain company of Rutger Van Zuidam, has a unique approach to world's problems. The company seeks insights from its years of work by over 3000 participants who went beyond the curve and looked at how to organise security in



Rutger Van Zuidam, Founder and CEO, Odyssey

our global society for the 21st century. They tried to find out what was the role down to the individual level and the actions as these will determine the outcomes that will impact generations to come.

Analysis

Challenges cannot be solved by one organisation or any one country as no one can hold all the critical information. Workable solutions have to be worked out by a multitude of stake holders brought together on one platform. Solutions arrived in such a manner belong to all and thus have universal acceptance.

Rugger Van Zuidam raised the pertinent question as to what is the curve that we are trying to look beyond? He explained it with the example of the Hubble Telescope which took an iconic picture through a single exposure of 15 days which showed 400 galaxies with billions of stars in each. How many of these stars are supporting life? That is the kind of deep look that human mind needs to get at real problems confronting us now and in the future. The implications of imagining comes from



our aspirations. The focus of Odyssey, his company is to build a secure future with mass participation.

The challenges are so complex that one organization and /or one industry cannot find an ideal solution. Collaboration and cooperation of information is the key to secure our future. Complexity involves ecological divide, social divide and spiritual divides. There is always a huge gap between those who are suffering with a peculiar problem and those who can find a solution to those problems. Who Will bring them both on a common platform?

Counterfeit goods plague the world today and can have catastrophic consequences. The supply chain integrity is based on ethics and this is something that cannot be controlled in today's day and time. For example, a fake smart phone with poor quality

fake battery is carried in the hold of an airliner, it puts the life of all passengers at risk as the battery can explode any time. Most products are sold by a third party and the intermediaries are not aware of the genuineness of the item. There are limits to manage the supply chain. With blockchain one can prove, the route or process from end to end and fight counterfeiting of goods. The idea of an "Virtual Twin" emerged from one of these blockchain projects which is a very effective way of unmasking fakes as any individual can compare the fake with its "Virtual Twin" on the web.

Emergence of the third generation of web is a collaborative layout that allows global massive scale delivery. The way we think about a problem is the uniqueness of dealing the complexities, rather than sticking to traditional methods which will only give traditional solutions. Cost of production decreases if worked in an ecosystem which the collaboration enables. The impact rises beyond the organization and that is how complexities are handled.

He elaborated on this logic with a project which was undertaken by his company. A pilot study was undertaken in Europe on how solar energy can be generated atop a roof. The mass collaboration to solve the problem included government agencies, private entities and competitive organizations. Hackathons by over 1500 people were conducted to find solutions.

Block chain comes in where transactions and settlements are done. A bank is not required for the same. Public and institutional trust are key factors-an open AI model without proprietorship, checks the data source, a certified authority legitimizes the process and it is all from open source.

Assessment

- The future challenges are so complex and so much beyond our imagination, the solutions we seek must not be traditional ones arrived at using old methods. Towards this end, block chain has the potential to change the way problems are studied and solved. The danger lies in narrow economic interests and fear of losing a position of advantage which deter national leaders and wealthy corporations to share their solutions and methodologies on an open domain.
- In today's world everything is being done in silos- money is with few, data is money and is jealously guarded, individual and organisational expertise too is hidden in silos. So the dilemma is how to select the right solution and how to scale it.
- Challenges cannot be solved by one organisation, one country, no one can hold all critical information. Multitude of stake holders should be encouraged and supported.

Securing the cyberspace: Mission impossible?



As digital work environment permeates business, governance, military and critical infrastructure, long established security protocols and perimeters will be challenged. MK Narayanan, Former National Security Advisor to GOI & Governor of West Bengal gave a befitting start to the Synergia Conclave 2019 by giving his insightful views on this important aspect of the future.

Background

Signalling a dire warning, MK Narayanan, Former National Security Advisor to GOI & Governor of West Bengal, explained how technology has turned nation-states highly vulnerable to a number of security threats. And things are only about to get worse. While disclaiming that he was no "prophet of doom"

his endeavour was only to highlight the challenges so that these could be deliberated upon.

Analysis

Having been intimately associated with the raising of India's intelligence apparatus from the ashes of India's humiliating 1962 debacle, MK Narayanan based his predictions for the future on his past experience when India was learning the navigate through the labyrinth of intelligence mazes.

21st century, has been unique in the sense it gave rise to new leadership styles with personalised authoritarianism, giving short shrift to ideologies and ideas. This makes the world a difficult place and forecasting its future even more so. This century did not witness the birth of any new political ideas or ideologies and the



ideological vacuum has been taken over by nationalists. No new political ideas or ideologies were born in this century and the resulting vacuum has been occupied by nationalists. Therefore, "if the present is in turmoil, then the future is even more uncertain."

Economic power and big military budgets have failed to provide fool-proof security-US being the prime example. This inarguable world leader of military power has been struggling to impose its will in many parts especially in its own backyard-Venezuela- and East Asia. China as well, while it has been able to allure smaller nations with economic promises of BRI, has not been able to negate the influence of larger countries like India and Japan, in Asia. The larger world faces challenges from the imminent death of globalisation and a looming economic downturn, making the future bleak and demanding radical changes in security.

Human Security as a complete concept is being challenged by IT, biotech, nano tech and cyber technology. Since an all-out global war in today's world has a terrible cost to mankind, we expect them to be confined to the cyber world. Conventional conflicts will not vanish entirely but will be more like regional flashpoints, especially in West and North West Asia and South Asia.

While traditional nuclear powers have developed many safeguards to prevent a nuclear exchange, the real danger of nuclear warfighting stems from rogue nuclear states like North Korea and Iran which if pushed to a corner by the world could be tempted to use their nuclear arsenal as a last ditch stand. However, the quintessential nightmare of every security agency is non state actors getting their hands on a nuclear device.

Weaponization of outer space is no longer a concept but a reality and has surpassed nuclear proliferation as the major threat. Advanced satellite systems fitted with laser weapons are evolving, both India and China have conducted kinetic kills in outer space and US and Russian are in advance stage for space deployment of weapons platform.

"Digital era has profoundly changed our operating environment. Big data technology is proving as much an enemy as a friend." The internet is tempting users

to trade privacy for entertainment and distraction, thus opening its doors to cyber criminality. Data has become the new gold lode and its sheer size makes its value in terms of financial gains far more than that of fossil fuel. Hence, the need to secure it. The issue which is increasingly causing concern and lending itself to conflict is relationship between privacy of the individual and the security needs of the state. A balance has to be found between these two contradicting requirements and cast iron procedures set to ensure equilibrium. Limits have to be discussed, analysed and then once set, they have to be obeyed to bring order in the system. One thing, however, is clear that no individual can claim unbridled privacy in this connected cyber space.

The nature of cyber-attacks have been rapidly transforming from attacks on IT infrastructure to attacks on operational technology infrastructure. Artificial intelligence by itself cannot be relied upon to provide all-encompassing solutions to cyber problems as badly designed AI can itself be the cause of many more problems.

Non-state actors have in particular gained considerable expertise in exploiting the Dark Net to unleash internet enabled terrorism. There are specific examples of terrorist acts being planned, coordinated and controlled from the anonymity of the web- from identification of target, identification of perpetrators, selection of weapon and its availability from within common items of daily use- all this achieved from the safety of safe houses without risking the crossing of borders.

Physical topography, like the mighty Himalayas which guarded national sovereignty are no longer relevant as digital world tunnels incessantly through our networks. Military technology sphere has become ultra-destructive and AI assisted weapons have the potential to upset balance of power. US-China-Russia are in a mad rush to win this cyber arms race with immense advantages accruing to the winner. Crypto algorithms securing our critical systems will be unravelled in a flash by quantum computing and hyper realistic images created by these computers will make veracity of truth itself a scarce resource. No password or biometric will survive their scrutiny.

There is now a vital need to have increasingly innovated exploitation of technology to come up with solutions for many of the challenges likely to come up. The new era calls for new partnerships, and solutions that empower people and embraces diversity. He noted, "I am a little concerned that many experts claim to know how to meet these challenges. Don't be content with the quantum of knowledge that you possess."

There are serious ethical concerns as AI can be programmed to deliberately create filters based on ethnic / racial/ religious profiles and implement decisions based on these filters which may be difficult to otherwise rationalise or understand.

He ended his session with the fervent hope that the extensive talent and expertise at the Synergia Conclave would be able to come up with solutions to some of the challenges that have been raised. "The 4th Industrial Revolution requires matching 4th generation skills", was his advice to the distinguished gathering.

Assessment

- The cyberspace, always too complex to be given an impenetrable shield, its mushrooming with sophisticated yet vulnerable systems has given new challenges to the cyber warrior to defend. In fact, advent of Quantum Computers will turn the entire concept of Digital Security on its head as the threats would multiply exponentially.
- Architecture for cloud based computing are completely different from the existing systems, as is data sciences. They render known defences, protocols and procedures ineffective. Defending this new technology base also requires a totally fresh approach unburdened by pre-conceived notions of past successes. Take for example the way businesses have leveraged data and analytics to drive profit while keeping costs down. Therefore, cybersecurity today has become a business imperative rather than merely an IT requirement.
- These developments are driving change in the cybersecurity space and those who do not recognise them, are going to be caught unprepared.

RCEP & India: Dodging competition?



In a surprise move, Indian 'Act East' policy did a volte-face when India opted out of the Regional Comprehensive Economic Partnership (RCEP) raising questions about the competitiveness of Indian industry.

Background

In a world being bifurcated into trade zones to protect regional commercial interests, the ASEAN was the solitary such bloc in Asia Pacific. But its 10 members are relatively small economies that are struggling to find markets for their increasing surplus manufactured goods. RCEP was launched in 2012 to bridge the gap between ASEAN and the five most large economies of Asia Pacific- China, Japan, Australia, South Korea, New Zealand and India. China, being the largest manufacturer would stand to gain the most by lowering tariffs and other trade barriers. RCEP is being projected as the world's largest trading bloc with a market of 3.4 billion people, almost 50% of world population and GDP totalling \$49.5 trillion.

Usually, trade deals are signed by junior ministers or functionaries and seldom by Indian Prime Minister who are reluctant to put their political imprimatur on trade treaties, let alone be in personal attendance for the ratification of one. That Prime Minister Narendra Modi chose to travel to Bangkok in the hope of achieving a breakthrough and eventually put his signature on the RCEP is illustrative of the importance he assigned it. India's last-minute decision to walk away from the talking table—reportedly taken by the PM himself—was a surprise.

Analysis

The RCEP had many detractors in the Indian Industry who warned of being swamped by a deluge of cheap foreign imports in manufacturing and agri products. The weak opposition was also ready to use it to embarrass the government just before more of the impending assembly elections. It is not surprising that the walkout has found a great deal of domestic support, which cuts across the political divide between the left and the right. Even Modi's sharpest critics and political adversaries, have welcomed it. So has an overwhelming section of Indian industry, farmers organisations, and economists aligned to RSS.

Despite opening up its markets in a limited manner, India's rejection of RCEP is in keeping with its image cultivated over the past fifty or so years, as a sovereignty-hawk and fierce protector of its self-interests. The only dissenting voice was a small band of pro-free-market economists and analysts.

The Indian government felt that RCEP was not giving a good deal on tariffs, and little upside for our strengths in the services sector. A reluctance to reduce its own tariffs, while seeking greater services market access from other countries has pretty much been India's position on all trade deals, not just RCEP.

The reluctance to take the final plunge in joining an FTA, is a symptom of Indian Industry's deep-seated fear of competition and is a reality check for a country that

aspires to become an economic powerhouse with a 5 trillion economy by 2024. Despite 30 years since economic liberalization, Indian economy by and large, and its agriculture and industry specifically are far short of the levels of efficiency required to be competitive at international levels. It is primarily India's large domestic consumption that keeps it attractive for global capital.

The fears of the Indian farmers and industrialists are very real. In the absence of tariff protection, inevitably, the country is swamped by cheaper imports that local manufacturers just cannot match whether on price or quality. We already have a serious debit trade balance in all our bilateral trade- almost \$ 58 billion with China In 2018. As a member of the ASEAN free trade agreement, India runs a deficit with almost every member country. Therefore, India an already reluctant trader and instinctively protectionist may have developed a further distaste for FTAs given the ever-widening deficit with its eastern trading partners.

The only silver lining in the whole episode is the possibility of this move being viewed as being in congruence with the US perspective on RCEP which the US has viewed as a bloc dominated by China. Trump administration has been urging Asian nations to stay away from Chinese infrastructure loans and 5G technology. Some in India hope that the US approval of India staying out of Chinese sphere of influence will result in faster ironing out of the wrinkles in the US India trade talks including the GSP issue. However, there is a catch- if India cites a large trade deficit as a reason to walk away from RCEP, it needs to bear in mind that it enjoys a trade surplus when it comes to the US and European Union. There are already rumblings in US and EU against India's protectionist measures. The same logic can be applied by our Western trade partners if we harp too much on this issue.

Assessment

- The inability of the domestic industry to stand up to world-class competition despite being protected for over five decades, calls for serious introspection on India's part on the success and sustainability of much-vaunted schemes such as 'Make In India', and at a larger geostrategic level its "Act-East" policy
- Given all this, where is India headed? If India wants to push its Make in India agenda but without integrating with the global supply chain, there will be little incentive for foreign brands to set up manufacturing in India. Also, by staying out of a regional trade pact, India runs the risk of missing out on trade with those inside RCEP which represents about a third of the global GDP.
- RCEP is not a completely lost opportunity as China has said that India is welcome back whenever it feels comfortable. There are other trade deals to be inked for India. But the key issue here is one of competitiveness. Can the Indian government swallow the bitter pill and gird up for more economic reforms? While the recent cuts bring India's corporate tax regime closer to that of South East Asia, business is still harder to conduct in India.

5G-AI-Cloud-Industry 4.0: Opportunities and challenges



Dr Paul Raj, Professor Emeritus, Stanford University, and telecom inventor

Most experts agree that the advent of Artificial Intelligence, smart platforms, 5G and the Internet of Things are likely to change the nature of the world and usher in new vulnerabilities and threats. This was the nature of problem that Dr Paul Raj, Professor Emeritus, Stanford University, deliberated upon during the Synergia Conclave- 2019.

Background

'Intelligent Connectivity' riding on the superhighway of 5G will enable a congruence of mobile edge computing, IoT, AI, automation, robotics, VR, etc. will in turn accelerate machine learning, lead to even greater automation and improved decision-making. But concurrently, a new set of vulnerabilities and risks arise. Therefore, cyber infrastructures under design must close these vulnerabilities.

Analysis

5G, which comes on top of 2G (basic phones), 3G (features phone) and 4G (smart & high specs phones) will offer a significant faster form of connectivity. More than just mobile phones, 5G will be supporting other verticals such as industry 4.0, smart manufacturing, intelligent vehicles, intelligent transportation and more. Countries will have to get these verticals aligned in order to successfully introduce 5G. 5G is trying to change the nature of wireless and improve it with enhanced mob broadband, ultra-reliability and low latency. The problem with present day systems is their latency that is not compatible with smart cars, sensitive machinery and smart drones.

Dr Paulraj warned that countries that lag behind in deploying 5 G stand to lose. He described how, "China has already begun deploying 5G in a big way and the United States has also started the roll out. However, in 5G, China will be ahead of United States and that is a cause of concern for Washington". By 2020 China would have completed massive deployment of 5G. China and US are following slightly different

technological paths as a result of which the US rollout is slower by almost 2-3 years. This shows the progress made by China as it was US that led in 4G. Chinese and South Korean smart phone companies have already introduced their 5G phones in the market but no US mobile company has yet started any sale of 5G devices.

China has displayed its ability to absorb the latest technology before its peers. For example application of artificial intelligence (AI) is much wider in China than anywhere else even though the big ideas regarding this technology came from United States and partly from Europe.

AI is "highly transformative and often worrisome." Not only will it change the way we work and live, it may start replacing human beings in certain jobs. The loss of jobs would be one of the big problems that AI might usher in the near future. While previous industrial revolutions too may have resulted in the decrease of low skilled jobs but they concurrently created new high-skilled jobs. However, this may not be the case with AI.

There are many vulnerabilities when it comes to cyber security. Some of them are in Border Gateway Protocol, Domain Name Servers, Certificate Authority and more. "Industry 4.0 will bring lots of vulnerabilities and that is a cause for concern," Dr Paulraj said. He also said that 5G will inherit 4G vulnerabilities. Additionally, he said that "IoT devices are going to be very easy to penetrate, very insecure and we will have to somehow deal with it."

Today we do not have solutions for all vulnerabilities in cyberspace. Perhaps, as they evolve, we will be able to create systems to manage them. What can be done with immediate effect is to cybersecurity protocols and practices from individuals to enterprises to governments to mitigate the damage from cybersecurity breaches which are bound to take place.

He left the audience with a final thought - "Unfortunately the bad guys are winning and it is going to get a lot worse before it gets better."

Assessment

- 5G may revolutionise the way we look at the congruence of internet and mobile telephoning as this revolution will not be confined merely to buying a better smart phone. It would involve a complete change of life style and upgradation of our entire ecosystem to exploit the immense power of this super highway.
- A world enamoured with high technology neglects its social impact on the less fortunate members of the society. AI and 5G along with machine learning will render humans redundant in many professions, especially those that demand repetitive manual work. States must prepare alternate opportunities for such persons to avoid social disruptions.
- Unless, the new technology creates greater overall prosperity whose fruits can be enjoyed by all, there will be greater turmoil and distress in the world. The policy makers must heed this timely warning of Dr Paulraj.

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Editor - Christina George

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Address

34, Vittal Mallya Road,
Bengaluru, Karnataka 560001,
India
Tel : +91 80 4197 1000
Email : info@synergiagroup.in



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