India and a Multi-Polar World

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Introduction

The coming of AI has presented the ideal strategic opportunity for India to rise in the global ranking of nations in significance, influence, power and GDP. It is at moments in time like this when a historic inflexion is taking place, the chaos that it begets can be capitalized upon by nations. For this we need to be discerning, well prepared with executable and well-funded plans with systems to tap the best ideas from the intelligent people of the most populous nation in the world. We need to know how and what to change in our economy, industries and also in our mind set.

Factors causing the inflexion

The inflexion is created by rapid and uncontrollable growth of AI and certain technologies including the resources needed to materialize them like rare earths. Let us collectively call these as Inflexion Contributing Technologies (ICT).

AI is being driven and controlled by large private companies. Even the US government Department of Defence which commissions AI projects are unaware of the hidden levers that the private players like Google and Meta build into AI products. That is why we see employees at all levels resigning, disillusioned with the dishonesty and subterfuge of the company's executive management and Board. Needless to say, ICT is a new force exacerbating existing financial and resource sanctions on many nations. These happenings portend a dangerous future for common people of all nations.

Even more power has shifted from Governments to giant global technology corporations. Nations possessing advanced technology MNCs wielding ICT command an increasing power over decision making impacting nations on the global stage. ICT has been deployed in their advanced weapon systems. They are weaponizing ICT for negotiations and for setting international trade tariffs. Denial of ICT is taking place as per whims and fancies of those in power. By not possessing ICT, a nation is greatly disadvantaged and forced to depend on and

align with those that possess it. These developments are creating an emerging bipolar world in the last few years since the war in Ukraine the resolution of which is not in sight.

It is not denial of ICT alone; it is far more. Citizens of non-ICT nations are forced to use the ICT products of other leading nations. Due to the growing use of LLMs of Open AI, Google and others daily by citizens, their data, intentions, research and development status and plans are tracked, captured in real time and analysed by the world's most powerful AI systems. AI being integrated into everyday use apps like Microsoft Word introduces a much higher level of risk even for the ordinary individual let alone Government, Defence and Research and Development organizations which are at much greater risk. The migration of office products to the cloud increases the level of risks significantly.

In such a scenario, where is the element of secrecy or confidentiality for a large nation like India? We will lose every battle before it begins. We will not be able to fight a winnable war. The recent blocking of its MS Office products by Microsoft used by Nayara Energy demonstrates the dire consequences of such dependence. The US has been battling China to get control of Tik-Tok a short video application with a highly innovative rating algorithm. The reason is again to safeguard the data of its citizens and not letting it fall into the hands of the Chinese people or losing control of the social media platform which has the potential for uncontrollable uprising against the state or others due to its great popularity among the masses.

AI is finding its way into all weapon systems. Drones have emerged as the most destructive weapon in the recent wars with the capability to destroy advanced battle tanks and even fighter aircraft. In operation Sindhoor the crucial importance of seamless flow of target data linking satellites, ground early warning radars, ground weapon systems, aircraft radars, drones and missiles in flight India has been revealed. The immense value of having dedicated national satellite communication frequencies has been validated during this operation. ICT is driving the capabilities of armed forces equipment to much higher levels and changing the game.

Are our civilizational strengths sufficient?

Both India and China were historically "nations of traders," in that trade was a fundamental and crucial component of their economies. Additionally, both were primarily agrarian societies with massive populations and large internal markets.

China got her opportunity to grow into a superpower easily under Deng Xiaoping and his friendship with Henry Kissinger during the Presidency of Nixon. The US decided to transfer technology and invest heavily in China for its cheap labour and large market. In this process, China has grown out of the trader only mindset graduating into to product, technology and capital-intensive manufacturing nation.

The same cannot be said for India. In India, although our software industry is large it is focussed entirely on services and not products. Products call for innovation and capital-intensive models which our businessmen have shied away from particularly in technology. We may be good at manufacturing steel and aluminium but those are commodities today. We need to grow out of

the trader mind-set by promoting fundamental scientific research, innovation, engineering, production and commercialization.

This process starts with a higher risk-taking and capital investment mindset. America is not coming to our aid. We should do it ourselves if we want to become one of the three superpowers soon. We are not limited by intelligence and academic qualifications of our workforce which has been responsible for building most of Silicon Valley's leading technology companies for the last 55 years.

The complexities of ICT demand the best inputs from the most knowledgeable and capable in the nation. They are not found in government alone but across the nation's corporations, academia and experienced citizens. The aggregation of these inputs is a fundamental need which the government has the responsibility to drive.

India should not be without any alternatives and at the receiving end of such treatment by the other superpowers. What can we do for preventing this? Fortunately, a lot.

A comprehensive global strategy to address the current geo-political situation is at the heart of the solution. This includes addressing of the central ICT concerns which we should focus on. A change in the attitudes of private Indian business leaders and entrepreneurs calling for more private capital investment which allows India to embrace high value product-based business models is essential to the strategy's success.

A Strategic plan for powering India into a superpower

New collaborative group of nations called Multi-Polar World (MPW)

In geopolitics, it is not practical or possible for nations to stand alone. Leverage in the UN and in trade negotiations works from the power of votes. India should focus all its energies into building its own coalition of African, Asian littoral, Middle East and other smaller countries in the spirit of true win-win partnership. The central theme of this new group is to build a truly **Multi-Polar World (MPW)**. MPW sales proposition should stem from our national philosophy of "live and let live, non-aggression and collaboration", backed up by the power to defend our interests and enforce joint agreements. Our historical culture for thousands of years of tolerance and peaceful co-existence and our policy for the last 75 years after independence, one of non-alignment will be very helpful to build MPW into a reality. We should allow MPW members to invest financially in our technologies and enterprises or even by contributing resources which we are short of. We can offer them shareholder status in our enterprises in a controlled manner. Such alignments will enable us to seek minerals, oils and other resources we need. It is important for the partners to perceive India as a nation that practices the peaceful co-existence and live and let live policy as against the unipolar designs of today's world leaders.

Technology Plan

Research and Development

R&D expenditure as a percentage of GDP reveals the true status of a nation on the value-building scale. The US is at 3.43% (2022), Japan 3.70 (2023), China 2.68 (2024 preliminary), UK 2.77 (2022), France 2.23 (2022) and India 0.64 (2020-21). The near trader status of India is apparent. From a deeper look it is private sector which is not investing in capital expenditure and R&D. While private sector investment in R& D constitutes more than 70% of total R&D expenditure in advanced countries, the percentage in India is only 36%. Our R&D investment is also largely in applied sciences rather than basic sciences. The latter is what creates the greatest value addition for the nation. The Indian R&D expenditure percentage has remained stagnant for two decades. Our strengths are in services of our large intelligent and educated population. Our manpower strengths need to be diverted from lower risk services into basic sciences R&D, manufacturing, chip design and technology research which will result in a higher GDP growth dividend for India. It will also entail greater capital investments into R&D which will show its results in the longer term. Government policies which encourage the change in investment attitude from entrepreneurs is called for.

AI and Software security

India needs to develop our own LLMs from scratch. It is not sufficient to build solutions on top of foreign LLMs for the reasons explained. Data security measures are difficult to enforce, monitor and can be easily bypassed. We also need to identify critical applications like email and office applications which should be indigenised due to the danger posed by AI deployment by OEMs within the office products. A single powerful AI query run from an appropriate root server can result in the wiping away of a major competitive advantage we have built up.

AI used within office applications provides the power to scan and monitor every document and email in real time triggering generation of alerts and summaries to be exported automatically from cloud servers of the service provider to designated intelligence gathering servers of the OEM for onward transmission to the nation's government. This is indeed very dangerous, and we need to evaluate the steps to take to protect our data from snooping by AI led electronic intelligence.

Once indigenous applications are available, they will be embraced by Indian citizens. Ever since the Bhim UPI application has become available, the author has switched to using it along with many friends and colleagues. We have the biggest population in the world and once the broader benefits of using national high quality software products becomes known to Indians, we will embrace it willingly. The decision on which software products need to be replicated by Indian software companies needs to be debated with NASSCOM and other industry bodies. This is one of the most important steps of countering intelligence gathering and data theft. Steps like these will weaken the power of superpowers having ICT capabilities to demand alignment with them in addition to providing genuine security for the data of our citizens and our government.

Internet Security

We are dependent of the global internet where the security of the DNS and the DNS Root Server System is a critical operational need. Targeted Root server cyberattacks can disable the internet

or parts of it for India unless mirrored root servers exist within India. CERT-IN is negotiating for mirroring of all 13 root servers in India with ICANN. This step should be completed successfully.

An extreme case for Cybersecurity calls for a national internet which is delinked from the global internet. If we truly wish to be a non-aligned nation and with a full defensive posture, we should also build a national closed loop internet at an appropriate time. This will enable Indian businesses and enterprises to operate domestically even during a catastrophic non-availability of the global internet due to failures, hacking and also during a worst-case scenario where ICANN is bull dozed to working for the current root host nations the US, Japan, Netherlands and Sweden.

Data Centers

This is moving well in India with Reliance committing to build the world's largest AI-driven data center in Jamnagar, India. The facility will have an enormous capacity of three gigawatts, designed to support the growing demand for artificial intelligence (AI) services with investments between 20 and 30 Bn US dollars. Data Centers are essential to keep Indians data within the country a primary requirement in the times of ICT explained above.

Semiconductor chip manufacturing capability

The denial of the latest versions of Nvidia's GPU chips to China imposed by the White House are born out of the fear of handing over greatest computing power to another nation enabling that nation taking an unassailable lead in AI development. Another reason for banning advanced AI and telecom chips is the genuine fear of hidden data capture capabilities of these chips and its transmission to the supplier nation. The capability of hidden trap doors for entry and exit through hacking is another fear.

Without doubt one of the best policy initiatives being pursued by India is its Semiconductor Manufacturing Mission. This will make us self-sufficient. We should sell our latest versions chips to MPW partners only. The reason is to encourage the growth of MPW philosophy across the world and attract other nations to join the group. Selling our chips and technology to nations aligned to the unipolar world would dilute our commitment to MPW. It is necessary to be fully committed to certain policies such as this limitation in export policy to allow the broader strategy of MPW to become successful over the medium term. It should be appreciated that the success of the MPW strategy implementation far overrides GDP growth targets in the initial three years or the medium term.

Defence Technologies

In the last few years, there has been a great deal of improvement in our in house manufactured defence technology capabilities. Nevertheless, building our own gas turbines for ships, aircraft engines, advanced avionics and weapon control systems are essential capabilities that we cannot do without. The good news is that African and Asian littoral countries would be an ideal market for our defence products exports. In Nigeria and West Africa, companies like Maruti, Tata and Bajaj have made deep inroads providing us the market knowledge required to operate in these countries.

Capital Eco-systems and Financial management

One of the reasons for the technology successes of the Silicon Valley is its robust Venture Capital eco-system. Banks like SVB are essential to finance private enterprise investments and inculcating higher risk-taking attitudes of entrepreneurs in India. The transition from the trader mentality to one of "creator" and "innovator" is the fundamental attitudinal change required. A focussed effort to create venture financing including inviting financial investors from friendly countries within the MPW is essential.

Capital account convertibility issues need attention to allow adequate free flow of foreign capital into and out of the country while adhering to our financial policies on capital account management.

Along with capital generation and management, it is essential to build world class capability for speedy and fair arbitration and business litigation resolution like Singapore, so that our Multi-Polar World partners can depend on our legal systems in full confidence.

One of the most important results from such an MPW grouping is that since we are the founder and the largest country, India will be able to use the INR for payments within the group. The formation of an MPW basket of currencies and the monitoring of other exchange rate impacting national parameters of MPW member states will lead to fair exchange rate determination on a real time basis between the INR and MPW nation currencies. Such an arrangement will release us slowly but surely from overdependence on the US Dollar. A real-time financial payment system on the lines of SWIFT must be operationalised for the MPW group.

Energy

For the past many decades, our oil import bills have been the cause of large current account deficits which have dragged down our GDP growth and our nation's credit ratings. We are also currently facing a back-breaking trade tariff backlash due to purchase of Russian oil which we need for daily consumption. Successive governments have struggled with the problem of importing oil and keeping prices under control for our 1.35 billion citizens.

We should take up the R&D to develop **hydrogen fusion power as a national project as part of project "Atmanirbhar Bharat".** There is no reason whatsoever why we cannot solve the **fundamental scientific research** for Hydrogen fusion solution before any other country. A challenge should be thrown open for all Indian research institutions. This would indeed be a befitting challenge for India to solve. The gains which ensue would catapult our per capita GDP upwards and the cost of goods would drop drastically; spending power will increase making every Indian's life comfortable.

The intelligence exists in our people, after all ISRO has demonstrated this with Chandrayan 2 and it is Indians who are majorly responsible for America's Silicon Valley's growth and Indian CEOs are steering MNCs across the world. Solar power and Electric vehicles are but interim solutions.

Platform based governance

The elimination of corruption cannot be overemphasized in importance as it represents the character of a nation's people. How can a nation be great when its people are not great? Practically the more paise of every INR spent that flows into the project is a welcome change.

Corruption at the lowest level and upwards to the maximum extent possible must be eradicated. The introduction of technology platform-based governance, automated monitoring of defaulters and automated penalty imposition and collection ensure the elimination of manual interaction which is the place at which low level corruption takes place. The elimination of low- and mid-level corruption will inspire the Indian population to become more honest in their dealings bringing in a cultural change in thinking. Judicial involvement and recourse should be made redundant for common traffic and other petty crimes.

Conclusion

The formation of the MPW and each of the other measures described in this article is a practical path for India to move forward to become one of the top three superpowers. History creating foundational projects are called for establishing leadership of the MPW.

With the adoption of the strategic plan explained in this article and its sincere execution, there is no doubt that we will match and exceed targets. It is the lack of vision and appropriate plan, hesitant execution along with a reticence to do what it takes (in our case to invest into long gestation projects) that is holding up our unparalleled growth.

This is not the time to take baby steps. Our desires must be far-sighted, bold and challenging enough for the world's biggest democracy, only then can we become a superpower for which we are well poised and already rolling on the runway.

There are some who believe and write that India's ancient civilisational culture alone (as against the US young 250-year-old feudal, hegemonistic and technological culture) can carry us to our rightful place in the comity of nations. In essence they predict that the effect of technology is ephemeral and can be overcome easily. They imply that the civilizational learning will enable us to checkmate the threats and advanced technologies of nations like the US. This is fanciful imagination on their part. Such an approach fails to realistically weigh ICT wrought capabilities which are upon us, the power it bestows to lead other nations, the GDP enhancing productivity benefits, the ability to threaten other nations which fail to align with their selfish motives and most importantly the ability to use our own data to checkmate us before our momentum builds up. Those nations which do not change in ICT times and keep pace with technology are not destined to become superpowers. It is a choice that India should make right now.

About the Author

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