Who is winning the tech war?

Perhaps there is no winner between Beijing and Washington

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Huawei, China's electronics giant, went from being the world's second-largest smartphone maker to "essentially dead," stated the BBC, quoting a Chinese policy research analyst in January this year.

Just seven months later, in August, the company released its Mate 60 Pro flagship phone, which is powered by the 7-nanometre Kirin 9000S chip manufactured by China's Semiconductor Manufacturing International Corporation (SMIC). Before this, the most advanced chip SMIC was known to be capable of making had a 14-nanometre design. It was a stunning show of defiance of the Washington-led sanctions against Beijing.

To put the nanometre metric in perspective, a strand of human hair is about 50,000 to 100,000 nanometres wide. And the most advanced chip makers, such as Taiwan's TSMC, can make 2-nanometre chips. The thinner the chip, the faster it is. These advanced chips run sophisticated artificial intelligence (AI) algorithms in cutting-edge products such as fighter jets, missiles, satellites, and supercomputers. One crucial aim of the Washington-led tech war is preventing Beijing from making advanced chips by blocking technology from the West, for instance, the Extreme Ultraviolet (EUV) lithography machine from the Netherlands' ASML. But as SMIC moved to the 7-nanometre domain, sanctions don't seem to be working.

However, jumping to the conclusion that China is fast catching up in chip and other critical technologies will be an oversimplification of a complex phenomenon. The Australian Strategic Policy Institute tracks 44 critical technologies foundational for economies, societies, national security, energy production, health, and climate security. Its research reveals that China has built the foundations to become the world's leading science and technology superpower through high-impact research across several critical and emerging technology domains.

Beijing is striding ahead, no doubt. Its AI strategy came out in 2017, while the US adopted an AI document in 2021. Then, blindsiding everyone, China tested a new orbital bombardment system in 2021 that could potentially evade Washington's missile defence system.

But then there are other sides of the story. Beijing is pumping billions of dollars to become the global AI leader by 2030. Its scientists are publishing more AI-related scientific papers than anyone else. Still, it was the US' Google, Microsoft, and OpenAI consortium that has made an AI chatbot while the Chinese counterparts are playing catch-up. This simple example illustrates the case that technological advancement entails a combination of many related things, including basic research, a conducive ecosystem for innovation and business, talent, and a solid motivational drive.
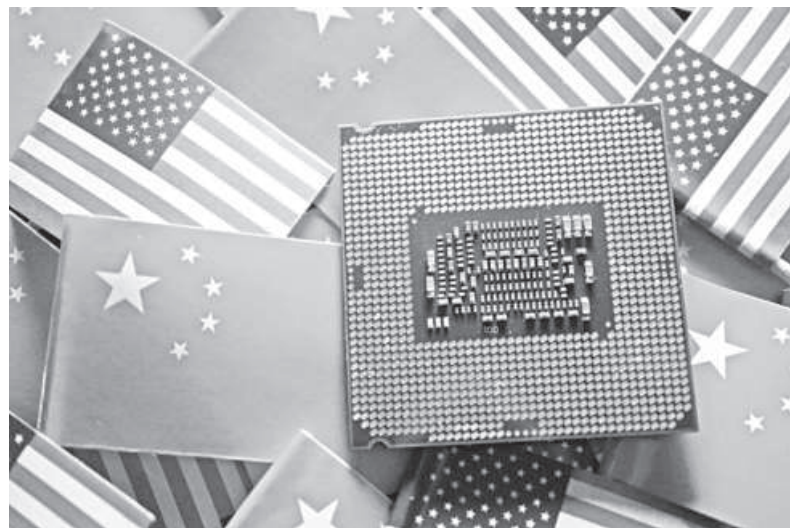
The West has a foundational advantage. Its vibrant and liberal democracies often supercharge innovation and productivity by facilitating decentralisation, experimentation, failure, and iteration. The number of scientific papers or the first landing on the dark side of the moon (China made history by doing so in 2016) is not as significant as a combined metric of many related phenomena for measuring technological progress.

That's not to say that China lacks innovativeness, as the Shenzhen case may explain. Until the 1980s, just over the border from Hong Kong, it was a sleepy fishing village with fewer than 100,000 inhabitants. Today, it's a sprawling metropolis of high-rises, and home to 12.5 million residents where many tech titans are conducting research on and making almost everything related to AI, robotics, 5G, 6G, surveillance technology, and much more, effectively becoming China's answer to Silicon Valley. Anything that costs several thousand dollars elsewhere is on offer for a few hundred in Shenzhen, that too within arm's reach. Critical research programmes are, of course, the domain of state-owned universities and institutes

related to the People's Liberation Army. But even with a centralised governance structure and a command economy, China can blindside the US in this epic battle for tech supremacy, as it has done on so many occasions. In the long term, its leading research position may put China in a dominant role not just in current technological development but in future technologies that don't yet exist.

Then there are Chinese characteristics, as the Berlin-based Mercator Institute for China Studies points out. Beijing's leadership has adopted technology as the strategic high ground in Sino-US competition and the "biggest geopolitical challenge of the 21st century" in bilateral relations. Historically, it has a far-sighted vision and is adept at playing long games, which it has demonstrated on several occasions, such as gaining membership at the United Nations Security Council in 1971, securing a foothold in Afghanistan after the messy departure of the British, Russians, and Americans, and dealing with human rights issues at the world stage. As an ascending superpower, it can afford the time to keep playing such a game in the current tech rivalry.

But is there any winner at all? Or, even more importantly, who will be the greatest loser? As it turns out, the entire world, everyone, is a casualty of this superpower rivalry that is fragmenting the world. A recent IMF blog says: "A fragmented world is likely to be a poorer one." Two percent of global GDP will disappear, mainly from emerging markets and developing economies.

Closing each other's markets will send companies to bankruptcy, erasing millions of jobs. This phenomenon will spread worldwide like a chain reaction, making everything costlier and everyone poorer. In a world where an innovation economy is crucial to progress and shared prosperity, fragmentation will only increase misery.

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ILLUSTRATION PICTURE: **REUTERS**

PHOTO: **MD ATA ISLAM KHAN MOJLISH**

What's Real, really?

KNOT SO TRUE

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"it is the reflection of a profound reality; it masks and denatures a profound reality; it masks the absence of a profound reality; it has no relation to any reality whatsoever: it is its own pure simulacrum."
– Jean Baudrillard, in *Simulacra and Simulation*

Here's a confession to start with.

I made gigantic paper flowers the other day, faking the real in size and texture, and hosted a dinner for close friends – making it a point to establish that in spite of all the fakes in the world, bonds of friendship were real.

I also tried downloading Zao, the Chinese app that helps the user create deep-fakes, and I failed. Zao can only be downloaded on a Chinese phone. So I tried the app Face Swap instead, superimposing my grandson's eyebrows and lips on my face and ended up being embarrassed by my poor faking skills.

Indeed, I am deeply intrigued by fakes. We have fake products, fake visuals, fake statistics, fake writings, fake lists, and even fake relationships that make this world go around...

It was July 2023. I spotted a Van Gogh in my hotel room. I had difficulty believing that the hotel would have an original Van Gogh. So, I took the painting off the wall, looked at the certificate at the back along with extensive scribbles in German and took pictures. It was only today, right before I started this piece, that I reached out to a friend who helped me with translation. Much to my utter surprise, it was real and a high-end reproduction of the Van Gogh museum with an acknowledgement at the back thanking a Mr Pajes for sending it. That was the closest call that I have had with not-really-fakes thus far.

Think about the stunning deep-fake of Audrey Hepburn in a commercial for Galaxy chocolate twenty years after her death. Thanks to the advancement of computer-generated imagery that made her look real. The unreal Audrey sits in a bus, then descends while taking the hat off the bus driver's head, puts it on the handsome young man's hair and slips into the backseat of the car and has her chocolate. Throughout the ad, one gets happy watching "it," the resurrected Audrey, and not "her."

As for politics, post-Brexit and during the time when the US elected Trump as president, the real was having a hard time. Had it not been for the infamous "£350 million a week for the NHS" advertisement on a bus prompting a Leave vote during the UK Brexit campaign, the UK would possibly still be in the EU. Had it not been for the fake news stories receiving 8.7 million engagements while "true" mainstream media stories only received 7.3 million hits, Trump probably would have had a tough time coming to power.

With our own election fever settling in and rattling our senses, one is subjected to endless YouTube suggestions, which also include really badly edited and failed fakes, with a few opinion gurus (dis)gracing the videos. In most of them, some propagate victory way before it's won; some cry foul way ahead of time. What should one actually side with or believe?

In this case, if one were to believe philosophers, then one would have to resort to Baudrillard, who believed and wrote *The Gulf War Did Not Take Place* in 1991. Did the US actually masquerade a war that caused minimum casualties and Iraq had little or no deaths to report? For Baudrillard, the French philosopher, it wasn't a war; it was a series of misrepresented copies of what never existed; it was a simulacra. Going by him, one would have to believe that the real was replaced by mere images. There is truth in there. Look at all the fictional superheroes that have popped up in the last 50 years. Starting from Superman, Batman, down to

Lassie, we have had generations of followers being inspired by them. In the absence of real heroes in society, what else can humanity do other than learn from the imaginary? Think about Disneyland and its hyperreality, a magnification of the non-existent, where all the characters have a bigger claim over the real, than what our perception of reality leads us to believe.

Maybe true heroes are truly rare to come by and maybe the era of the real is close to being over. Ahead of our elections, in all the doctored videos that flood our social media trails from all the political parties in and out of power, one can't really blame when voices are imitated, faces faked and constructed to match those of real people, with scandals getting millions of hits. Who do we blame, really? Would there have been any curiosity, any story if the content weren't partly true?

While we blame the scandal-mongers for fake news, in reality, power and media have been walking hand-in-hand forever. Fakes have been an integral part of many governments. For example, way back in 1944-45, the Nazis produced a film that made the concentration camps look like paradise. The Jewish inmates themselves were actors and film directors, while a Prague newsreel company, Aktualita, filmed the whole set-up. Luckily, there's no copy of the film today, but there is substantial evidence to indicate that it was a scheme of a massive governmental deception.

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On the other hand, in today's day and age, in spite of desperate governments like North Korea banning and censoring content, most North Koreans watch foreign content on DVDs. Instead of watching "Dear Leader," most of them continue watching Titanic, James Bond movies, and even US wrestling matches.

However, it also remains absolutely necessary for a society to escape the viral waves of invasive information, containing aggressive advertising or simply fake news, that's manufactured to dominate the power discourse in order to gain control.

But while we watch all that we watch on social media, let us also remember that, in spite of the Real remaining intensely vulnerable to propaganda and the power of the state, a Lie will never replace the Truth. In fact, the sheer transitory nature of power is shallow and lacks the resilience of the Real. So, every time we generously press the "like" button on social media platforms, let us be conscious of the warnings of Arendt, the political theorist: "Persuasion and violence can destroy truth, but they cannot replace it."

I am watching a family of five on the next table. It's a lazy weekend brunch. At least, that's the spirit. Every family member has a phone in their hand. All are screen-struck, intensely absorbed in some artificial prompt, rhetoric, or a sales pitch of eternal bliss. Point is, can we really afford a simulated dystopia? That's another question for another column, another day.