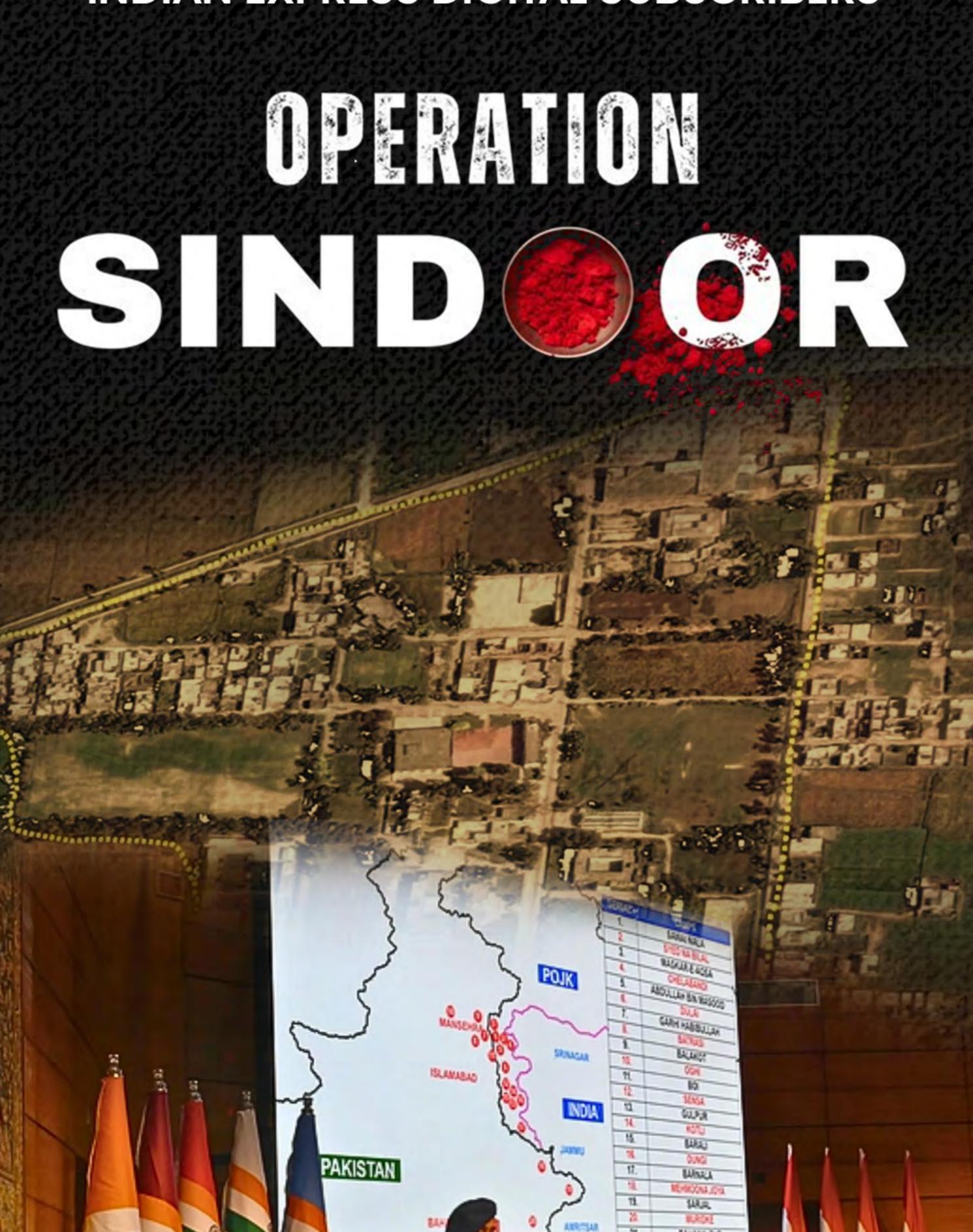
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Cover Story

In our cover story this month, we explore how 03 India's Integrated Air Command and Control System (IACCS) is transforming air defence. Deployed during Operation Sindoor, this network integrates data from all air defence assets to detect, identify, intercept, and destroy hostile intruders.

From the Sports Section

Virat Kohli retires: Quitting before England Test series is a judicious 'well left'. It is another grim reminder of aging — the fittest too can get jaded, the driven too slow down and even Kings call it a day.

Long Reads

How Andaman and Nicobar Islands came to embrace a unique linguistic identity and take pride in it

Masculinity is being defined by teens through bullying, cyber crime and self-harm. What is pulling the youth into such toxicity and what can parents do?

From the Tech Section

The ongoing antitrust trials against Google and Meta have revealed that the success of the iPhone, Google Search, and Facebook may be numbered — and that each of these hit products, which once changed the course of tech, could soon be replaced.

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COVER STORY

How India's air defence shield works: Inside the IACCS command system

Amrita Nayak Dutta



This picture of the IACCS was shown at the media briefing on Operation Sindoor by the Indian armed forces.

A the media briefing on Operation Sindoor, military officers displayed a picture of the Integrated Air Command and Control System (IACCS) node of the Indian Air Force (IAF).

The picture showed more than two dozen IAF personnel gathered before a large screen that displayed a consolidated real-time feed produced by India's air defence assets that were deployed towards creating an impenetrable shield against incoming aerial threats from Pakistan during the military conflict of the past week.

Capable air defence systems that protect against enemy air strikes are vital to a nation's defensive infrastructure. Air defence systems use a complex system of radar, control centres, defensive fighter jets, and ground-based air defence missile, artillery, and electronic warfare systems to neutralise a range of threats from the sky, including enemy aircraft, drones, and missiles.

Developed by the public sector aerospace and defence electronics company Bharat Electronics Limited (BEL), IACCS is an automated command and control system that integrates data from all air defence assets, including ground-based radar, airborne sensors, civilian radar, communication nodes, and the various command and control centres of the IAF.

The availability of the consolidated dataset, along with real-time updates, provides military commanders at multiple levels with a comprehensive picture and overall situational awareness during air operations, so that they can respond to a wide range of aerial threats.

The total battlefield picture enables central control and decentralised execution at various levels. By reducing reaction time, it allows military commanders to make early decisions on identification and assessment of threats, and to direct air defence assets to carry out kills.

The overlapping radar and radio data coverage of the IACCS helps in effective airspace management and reduces redundancy.

The Army's Akashteer

The Indian Army has a similar air defence control and reporting system called Akashteer, which connects the units of its air defence.

Akashteer too has been developed by BEL, with which the Ministry of Defence signed a Rs 1,982 crore contract in March 2023, according to an official release issued at the time. Akashteer would enable the monitoring of low-level airspace over battle areas, and effectively control ground based air defence weapon systems, the release said.

Akashteer operates at a comparatively small scale at present. It is in the process of being integrated with IACCS for effective coordination between the Army and Air Force air defence operations.

Multilayered Umbrella

The air defence assets of the Indian military are deployed in a multi-layered system.

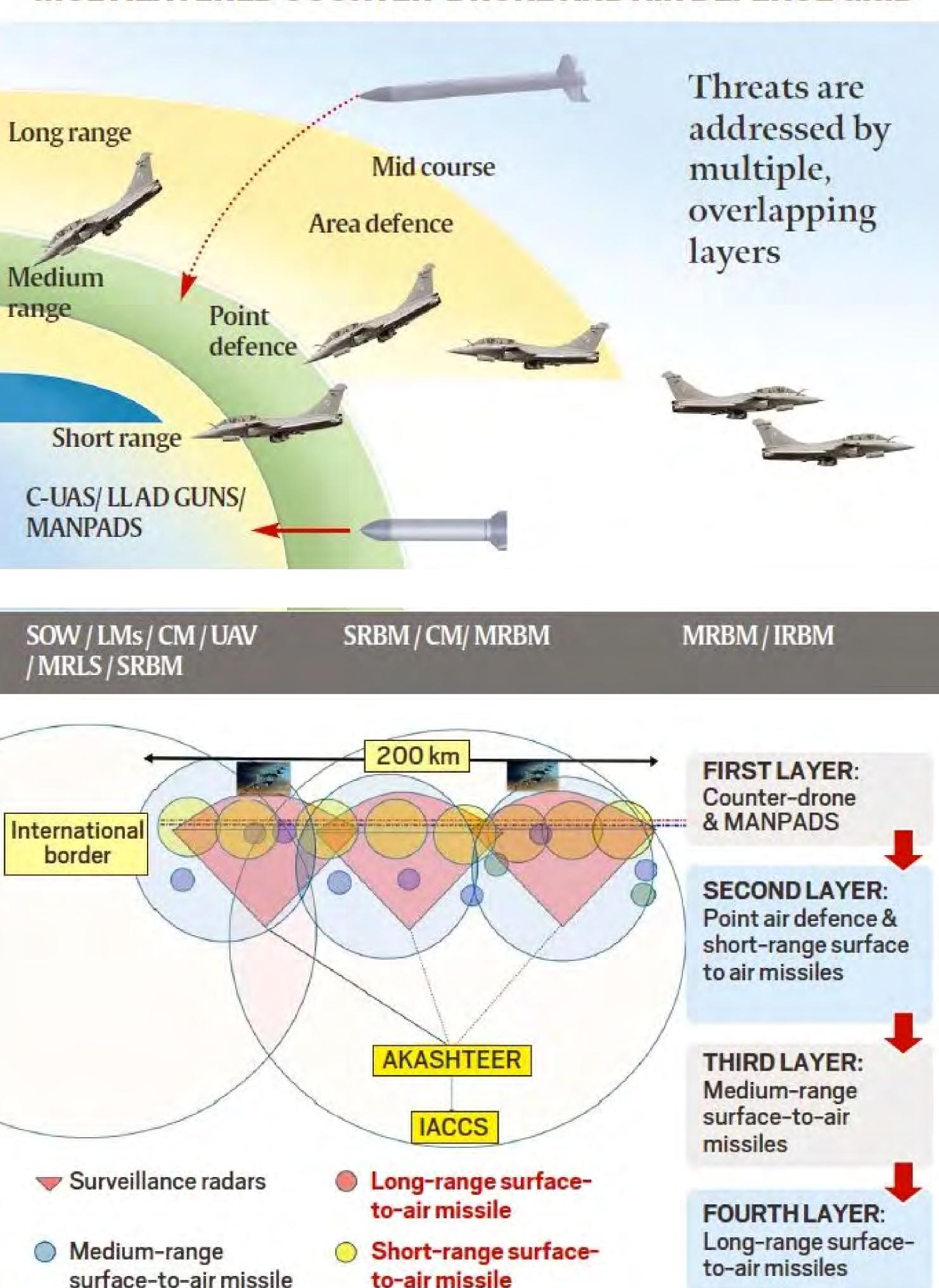
Point defence comprises low-level air defence guns and shoulder-fired weapons, while area defence comprises fighter aircraft and longrange missiles.

A range of surveillance radar forms part of the air defence grid. The modern radars of the IAF—both ground radar and the air-based AWACS (Airborne Warning and Control System) and AEW&C (Airborne Early Warning & Control) System— are networked into the IACCS. These radars play a key role in the detection,

X/@MIB India

identification, interception and destruction of hostile intruders.

MULTILAYERED COUNTER-DRONE AND AIR DEFENCE GRID



In their presentation, the military officers explained the four layers of the Indian air defence umbrella. The first layer comprised counterdrone systems and MANPADS (Man-Portable

Counter-drone & MANPADS

Air Defence Systems), while the second and third layers comprised point air defence, short-range surface-to-air missiles and medium-range surface-to-air missiles respectively. The fourth layer of the grid comprised long-range surface-to-air missiles.

IACCS in future

Over the past several years, the IAF has significantly enhanced its air defence efforts across all sensitive bases, by increasing the presence of radars and Surface to Air Guided Weapon (SAGW) systems, all of which have been integrated into the IACCS network.

As modern warfare grows more complex, systems such as the IACCS will help achieve the critical integration of all air defence assets to ensure coordinated responses from air defence platforms across the three Services.

It will also fully incorporate emerging and cuttingedge technologies such as artificial intelligence for the analysis of various threats in the future, officials said.



How Operation Sindoor demonstrates capabilities of

Made in India defence technology

 Sushant Kulkarni, Amitabh Sinha, and Amrita Nayak Dutta



Akash missile launcher on show during the 2023 Republic Day parade. (AP)

Besides achieving its immediate military objectives, Operation Sindoor gave a convincing demonstration of the superiority of India's defence capabilities over Pakistan.

While the spectacular success of India's multilayered air defence system, which neutralised almost every incoming missile and drone, has been the most-talked about, an array of other systems and technologies, many of them homegrown, have performed admirably to provide a decisive edge to the Indian military.

Thus far, India has not disclosed the details of the platforms, weapons, sensors, and radars used

during Op Sindoor. The Indian Express spoke to a few serving and retired officials and scientists to identify some technological elements that stood out during the four-day operation.

These experts, most of whom spoke on the condition of anonymity, attributed the success of Op Sindoor to years of investment and research in space technologies, aeronautics, avionics, missile development, and weaponry.

Guidance and navigation

A remarkable feature of Op Sindoor was the precision with which India hit its targets, many of which lay deep inside Pakistan. Not only was this crucial to achieve the military objective of destroying terrorist bases, it also established to the world that India was behaving responsibly, with every effort made to minimise collateral damage.

In the early hours of May 7, when India struck nine terrorist training camps inside Pakistan and Pakistan-occupied Kashmir, the missiles hit their targets with pin-point accuracy: specific buildings within a compound were struck, without harming nearby structures. Similar precision was achieved on the night of May 10, when India hit at least eight important air bases inside Pakistan.

What made such precision possible was the use of extremely sophisticated navigation and guidance systems, involving both ground and

space assets.

"The impeccable guidance and navigation technologies were one of the key highlights (of Op Sindoor) The level of precision that was achieved is the best that anyone elsewhere can get," said a retired director of a Defence Research and Development Organisation (DRDO) facility who has worked extensively on missile technologies.

He added: "This kind of capability is the result of years of indigenous research in the DRDO, ISRO (Indian Space Research Organisation), and other institutions. We have had our share of failures and setbacks during this time".

For instance, the Brahmos supersonic cruise missiles that were likely used, "have state of the art guidance systems that have been developed over the years," the retired official said.

India's indigenous navigation and guidance system depends on the NavIC (Navigation with Indian Constellation) system of satellites, which is complemented by an array of very high-resolution earth observation satellites.

The Cartosat, RISAT, and EOS series of satellites keep a round-the-clock watch on the subcontinent, and provide vital information and imagery that are useful to the military. Some of these satellites can identify or differentiate between objects as small as 25 to 30 cm in size. NavIC is said to achieve positional accuracy of 10 to 20 cm.

As a result, these assets make it possible for Indian weapons to achieve a sub-metre targeting precision, which was seemingly achieved during Op Sindoor. And Indian scientists are constantly working to further improve these capabilities. "Guidance and navigation" was one of the 75 technology priority areas identified after DRDO's Anusandhan Chintan Shivir (research deliberation conclave) in June 2023.

Lethality and destructive power

The complete destruction of the targeted terrorist hideouts, and the large craters visible in satellite images of struck Pakistani air bases, have been instrumental in convincing the world about the immense damage India perpetrated on Pakistan. Not only were Indian weapons precise, they were also very lethal.

"The lethality and reliability of weapons systems used points to the excellent performance of propulsion systems, warheads, and fuses," said another former director of a DRDO laboratory. He added: "Thanks to the Integrated Guided Missile Development Programme spearheaded by Dr A P J Abdul Kalam, the propulsion and warhead technologies have become a strength of the DRDO."

Scientists continue to grow India's capabilities in this field as well.

"The futuristic research on these fronts continues with work on deep penetration warheads, green

explosives, and other technologies. Then there are the indigenously developed Directed Energy Weapons, or DEWs, which use highly-focused energy beams, like laser, to damage, disable or destroy targets. I am not sure but it is very likely that these technologies were used in the operations against the incoming drones," he said.

In March 2022, the Defence Ministry had identified DEW as one of the 18 crucial sectors for industry-led development. DRDO had also displayed the laser-based DEW in the Republic Day Parade this year.

India's indigenous radars and air defence

The Russian S-400 system has come in for a lot of praise in recent days. Prime Minister Narendra Modi himself acknowledged its importance by posing next to an

S-400 launcher during his visit to the Adampur Air Force Station on Tuesday.

That said, India's air defence comprises an array of different radar and weapons systems which work in tandem, and were successful in neutralising almost every Pakistani attack. The radars used included indigenously-developed Rajendra radars, Rohini 3D medium-range surveillance radars, 3D low-level lightweight radars, and low-level transportable radars (LLTR).

"The indigenous radars played a crucial role on the battlefield, and for all services. The entire air defence system, tracking of adversary drones, tracking the movement of enemy airborne assets was only possible because of these state of the art technologies," said a DRDO scientist who is a serving head of a defence laboratory.

"There is a lot of ongoing research on radar technology at the DRDO including AI tools for radars, reconfigurable intelligent surfaces for cognitive technologies, better signal processing tools, foliage penetration radars, and stealth detection radars," he said.

Indian air defence system included newly-inducted SAMAR (Surface to Air Missile for Assured Retaliation) systems that can intercept a range of low-flying aerial targets up to a range of 12 km, and the Akash short-to-medium range surface-to-air missile systems.

Moreover, the original Bofors anti-aircraft guns, which are currently being upgraded, are learnt to have been used to shoot down incoming drones in Jammu and Kashmir. The indigenous upgradation of these guns includes the addition of radar, electro-optical sensors, and auto-tracking systems. These upgraded guns have also been deployed close to the LAC.

Unmanned vehicles

This was the first India-Pakistan conflict in which drones and other unmanned systems played such

an important role.

While Indian drones penetrated deep into Pakistani airspace, inflicting damage on strategic targets in cities like Lahore, Pakistani drone swarms were far less effective.

Abhay Pashilkar, director of the Bengalurubased National Aerospace Laboratories (NAL), a CSIR facility, said the future of warfare will increasingly be fought using unmanned systems on the frontline backed by human-operated systems. India thus needs to acquire and master a new set of technologies in which different combinations of manned and unmanned systems would work as a team, he said.

"In the last few years, we have developed good capabilities in drone technologies for a variety of functions. We have to work with different users, the industry and academia to build up manufacturing capacities that can produce these machines in the required time frames. We also need to secure supply chains for raw materials, because a lot of these are still being imported," he said.



BrahMos: the 'fire and forget', stealthy cruise missile India likely used against Pakistan

- Sushant Kulkarni



A Brahmos system is being exhibited at the Republic Day Parade in New Delhi. (Express Photo/Tashi Tobgyal)

Since it was first tested successfully on June 12, 2001, the BrahMos supersonic cruise missile was likely used for the first time in a combat situation during Operation Sindoor.

It is learnt that as part of retaliatory precision strikes on Pakistani military bases early Saturday (May 10), the Indian armed forces also used missiles like the HAMMER (Highly Agile Modular Munition Extended Range), an airto-surface precision-guided munition, and the SCALP, an air-launched cruise missile.

On Sunday, Defence Minister Rajnath Singh virtually inaugurated a BrahMos Integration

and Testing Facility Centre in Lucknow, saying the missile was a confluence of the top defence technologies of India and Russia. He hailed the missile as "not just one of the world's fastest supersonic cruise missiles, but a message of the strength of the Indian Armed Forces, a message of deterrence to adversaries, and a message of the nation's unwavering commitment to safeguarding its borders."

BrahMos is considered an extremely versatile 'fire and forget' type missile, which has proved its capabilities across its land-based, ship-based, air-launched and submarine-based versions. Here is its story.

How and why was the BrahMos developed?

From the 1980s, India's Integrated Guided Missile Development Programme (IGMDP), with Dr APJ Abdul Kalam as its central figure, began developing the Agni series of nuclear-capable ballistic missiles. The programme also delivered several other versatile missiles, including the surface-to-air missile Akash, surface-to-surface short-range ballistic missile Prithvi and antitank guided missile Nag.

In the 1990s, India's policy makers felt the need for equipping the armed forces with cruise missiles — a category of guided missiles that traverse the majority of their flight path at almost constant speed to deliver warheads with high precision.

They differ from ballistic missiles, which take a parabolic ballistic trajectory to deliver warheads over long distances. The need for cruise missiles was further underlined by their successful use during the 1991 Gulf War.

After initial talks with Russia, an Inter-Governmental Agreement was signed in Moscow in February 1998 by Dr Kalam, who then headed the Defence Research and Development Organisation (DRDO), and N V Mikhailov, Russia's Deputy Defence Minister.

The agreement led to the formation of BrahMos Aerospace, a joint venture between the DRDO and Russia's NPO Mashinostroyenia (NPOM). BrahMos is an amalgamation of the names of the Brahmaputra and Moskva rivers. The entity was set up with a mandate to design, develop, and manufacture a supersonic, high-precision cruise missile and its variants.

India holds a 50.5 per cent share and Russia the other 49.5 per cent share in the joint venture. The first successful test of the missile was conducted on June 12, 2001, from the specially designed land-based launcher at the Integrated Test Range, off the Chandipur coast of Odisha.

What is the anatomy of a BrahMos missile?

BrahMos is a two-stage missile with a solid propellant booster engine.

Its first stage brings the missile to a supersonic speed, greater than the speed of sound, and it then gets separated. The second stage of the liquid ramjet then fires and thrusts the missile to three times the speed of sound in its cruise phase. A liquid ramjet is an air-breathing jet engine that uses liquid fuel, which is injected into the high-speed airstream and ignited to produce thrust.

In general, 'fire and forget' missiles are guided weapons that require no further input or control after being launched. What brings the added element of stealth to BrahMos is its extremely low radar cross-section (RCS) because of its compact design and use of special materials. It can achieve a cruising altitude of 15 kilometres and a terminal altitude as low as 10 metres to hit any target.

Cruise missiles, like the BrahMos, come under the category known as the "stand-off range weapons", which are fired from a range sufficient to allow the attacker to evade defensive fire from the adversary. These weapons are in the arsenal of most major militaries in the world.

The versions of the BrahMos that are currently being tested at an extended range can hit targets at upto 350 kilometres, as compared to its original range of 290 kilometres. Even higher ranges of upto 800 kilometres, and hypersonic speed or five times the speed of sound, are said to be on the cards. Compared to subsonic cruise missiles, the BrahMos has three times the speed, 2.5

times the flight range and a higher seeker range, leading to higher accuracy and nine times more kinetic energy.

The many variants of BrahMos

Following the first successful launch at the Chandipur test range, the BrahMos was inducted into the Navy in 2005, into the Indian Army in 2007 and the first successful flight with IAF's Sukhoi-30 MKI fighter in 2017. While land, air, sea and submarine are broader classifications of the missile, numerous versions with extended ranges and evolving sensing capabilities have been tested and deployed over the last 24 years.

1. Ship-based variant: The naval version can be fired vertically or inclined, and from both moving and static naval platforms. It has been successful time and again in sea-to-sea and sea-to-land modes.

From ships, the BrahMos can be launched as a single unit or in a salvo of upto eight, separated by two-and-a-half-second-long intervals. These salvos can hit and destroy a group of frigates having modern missile defence systems. BrahMos is a 'prime strike weapon' for such targets and significantly increases the capability of engaging naval surface targets at long ranges.

The Indian Navy began inducting BrahMos on its frontline warships from 2005, and it can hit sea-based targets beyond the radar horizon. Indian Navy's guided missile destroyer INS Rajput was the first ship to deploy a BrahMos

and it has since been deployed on other warships.

2. The land-based system: The land-based BrahMos Complex has four to six mobile autonomous launchers. Each launcher has three missiles on board that can be fired almost simultaneously on three different targets and in different configurations. Multiple units of BrahMos systems have been deployed along India's land borders.

The land attack version of the BrahMos, with a capability of cruising at 2.8 Mach speed. Following upgrades, it can hit targets at a range of upto 400 kilometres with precision. The development of advanced versions of a range above 1,000 kilometres and speed upto 5 Mach is said to be in store.

The ground systems of BrahMos come with an air-conditioned cabin with Nuclear, Biological and Chemical (NBC) protection. The land attack version of the BrahMos was operationalised in the Indian Army in 2007.

The missiles have been deployed in three different configurations — Block I with precision hitting capability, Block II with supersonic deep-dive and target discrimination capability, and Block III with mountain warfare capability.

3. The air-launched version: The BrahMos Air Launched Cruise Missile (ALCM) is the heaviest missile to arm India's frontline fighter jet, the Sukhoi-30 MKI. In November 2017, BrahMos was successfully flight-tested for the first time from the IAF frontline fighter aircraft

against a sea-based target in the Bay of Bengal and has since been successfully tested multiple times.

In tests conducted in 2019, BrahMos ALCM validated its land attack and anti-ship capability from large, stand-off ranges by day or night and in all weather conditions.

BrahMos-equipped Sukhoi-30s, which have a range of 1,500 kilometres at a stretch without mid-air refuelling, are considered a crucial deterrence for the adversaries both along land borders and in the strategically important Indian Ocean Region.

- 4. The submarine-launched version: This version can be launched from around 50 meters below the surface of the water. The canisterstored missile is launched vertically from the pressure hull of a submarine and uses different settings for underwater and out-of-the-water flights. This version was first successfully tested in March 2013 from a submerged platform off the coast of Visakhapatnam.
- 5. The futuristic BrahMos-NG: Development is underway for a futuristic version of the BrahMos, known as the BrahMos-NG (Next Generation), primarily for air and naval applications. This version will have reduced dimensions and weight, next generation stealth features, greater effectiveness against Electronic countercountermeasure (ECCM), higher versatility for underwater combat and launch capability from a torpedo tube.



Terror, treaties, and civilisations: Indus through the centuries

- Nikita Mohta



Photo credit: Wikimedia Commons

On April 22, a terrorist attack in Pahalgam, Kashmir, left 26 civilians dead. The shock rippled through New Delhi. In response, the Indian government announced a series of diplomatic measures, including the suspension of the Indus Waters Treaty (IWT), a landmark yet fragile agreement between two nuclear-armed nations.

This isn't the first time the IWT, signed in 1960 under the auspices of the World Bank, has been drawn into political turmoil. The 2008 Mumbai terror attacks, the 2016 Uri terror attack, and the 2019 Pulwama terror attack all reignited debate around the treaty, with India using it as a strategic lever, a calculated warning shot across the border. Despite these tensions, the treaty

has endured for 65 years, weathering wars and diplomatic standoffs.

Why does a river lie at the heart of one of the world's most dangerous rivalries? To understand that, we must go beyond the border drawn in 1947 and dive into the deeper, tangled roots of history.

Whispers of an ancient river

The Indus River Basin spans four countries: Pakistan, India, China, and Afghanistan. As Sadiq Khan, associate scientist, University Corporation for Atmospheric Research, US, and Thomas Adams III, an expert in hydrology, note in *Indus River Basin: Water Security and Sustainability*, Pakistan holds the largest share of the basin at 61%, followed by India with 29%, and China and Afghanistan with 8%.

Geologically, the Indus is among Asia's oldest rivers. It likely began forming during the early Eocene Epoch, shaped by the tectonic uplift of the Tibetan Plateau following the collision of the Indian and Asian continental plates. This set the stage for one of humanity's earliest and most advanced civilisations: the Indus Valley Civilisation (c. 3000-1500 BCE).

At its height, the Indus Valley Civilisation, contemporary with Mesopotamia, Egypt, and China's Yellow River basin, was the largest of the ancient urban cultures, spanning over 1,500 kilometres.



A water reservoir at Dholavira, , a site of the Indus Valley Civilisation. (Wikimedia Commons)

Over the next two millennia, the Indus region became a crossroads for conquest, culture, and exchange. In 326 BCE, Alexander the Great crossed the river, and after his departure, Chandragupta Maurya unified the region under the Mauryan Empire. In the early 8th century, Muhammad bin Qasim's invasion brought significant political and religious shifts to the area.

Further upriver, in Kashmir, the 9th-century Hindu king Avantivarman (855–883 CE) utilised the Indus and its tributaries to stabilise and grow his kingdom. Centuries later, Mohammad bin Tughlaq introduced water harvesting and double cropping to further boost agricultural output.

Uttam Kumar Sinha, Senior Fellow at the Manohar Parrikar Institute for Defence Studies and Analyses, points out that in Vedic times, the Indus Basin was known as the Sapt Sindhu,

or "land of seven rivers," which included the Saraswati. The Rigveda's Book 6 describes the Saraswati as "surpassing in majesty and might of all other rivers." By Book 10, Sinha notes, the Indus had emerged as the dominant river. "During this period, the rivers of the Indus region were referred to by various names: the Indus as Sindhu, the Chenab as Asikni, the Jhelum as Vitasta, the Ravi as Purushni, the Sutlej as Shutudri, and the Beas as Vipas," he tells indianexpress.com.

Canals of control

Since the late 19th century, the Indus River Basin has undergone one of the most dramatic irrigation transformations in modern history, beginning under British colonial rule. "The Mughals enhanced irrigation knowledge, while the British expanded canal systems in the 19th century, viewing control over the trans-Indus region as key to imperial power, economic gain, and strategic security," says Sinha.

The British built extensive canal networks and established colonies in Punjab to boost agriculture. British engineers harnessed the river's power, culminating in the 1915 Triple Canal Project, which connected major tributaries through link canals.

"But it wasn't just about expanding agriculture," says Sinha. "The British also introduced a series

of barrages and dams to control the river's flow." These structures not only reduced flooding and ensured reliable irrigation but also altered the river's natural course, forever reshaping its relationship with the land.

After Independence in 1947, India and Pakistan inherited this vast, interlinked irrigation system. Both nations relied heavily on the Indus to support their agriculture-based economies, but Partition left no formal framework for managing the river's waters. This lack of agreement led to disputes over access and control. As tensions escalated, the World Bank stepped in to mediate in 1951, ultimately proposing a territorial compromise: India would control the eastern tributaries (Ravi, Beas, and Sutlej), while Pakistan would retain control of the Indus mainstem and the western tributaries (Indus, Jhelum, and Chenab).

Historian David Gilmartin notes, "Intensification of water use in fact lay at the heart of the treaty's logic." To implement this vision, India built the Bhakra Dam in 1963, while Pakistan, with support from the World Bank and other international donors, launched the expansive Indus Basin Project, anchored by the Tarbela Dam, completed in 1977.

However, Dr Nilanjan Ghosh, Vice President of Development Studies at the Observer Research Foundation (ORF), argues that the treaty was not equitable for two key reasons. First, the

Western rivers carried about 99-100 billion cubic meters of water, while the Eastern rivers had only 39-40 billion cubic meters. Second, the treaty did not account for emerging environmental challenges, such as climate change, a factor that has become increasingly important in regions like the Himalayas and the Kushu area.

While Ghosh credits India as the upper riparian state, with upholding the IWT, historian and nonresident senior fellow at Carnegie India, Srinath Raghavan, argues that the treaty reflects only "minimal levels of cooperation." He contends that it divides the six rivers — allocating the western rivers to Pakistan and the eastern rivers to India — effectively sidestepping the need for joint development.

The climate crisis

The Indus River Basin, home to nearly 300 million people, is under growing pressure from climate change, population growth, and rising water demand. Gilmartin highlights one of the river's most striking features: its extreme seasonality, with 50% of its annual flow occurring between July and September when snowmelt combines with monsoon rains.

As 80% of its flow comes from glaciers, the basin is especially vulnerable to climate-induced glacial melt. "In the short term, this means more floods.

In the long term, it means less water in summer, just when it's needed most," explains Sinha. He notes that Pakistan, where the Indus supports 90% of agriculture, is particularly vulnerable, as water availability has dropped below critical levels, with irrigation losses exceeding 50% in some areas. "Food and water insecurity are deepening."

Author of An Environmental History of India, Michael H Fisher, adds, "Almost all the water in Pakistan flows from other countries, particularly India and Afghanistan, meaning control is not in Pakistan's hands. With melting glaciers and irregular monsoons, Pakistan no longer controls the diminishing Indus flow."

Gilmartin concurs: "India has the upper hand on this issue. It's not just because India is bigger and stronger, but India can theoretically stop the water whenever it wants. In fact, India had stopped water on April 1, 1948, disrupting major canals flowing into Pakistan's Punjab."

However, Ghosh points out that the issues at hand go beyond upstream diversions. "There is already sectoral conflict between crop production and fisheries, and this has become part of the transboundary issue. Transboundary is not just water crossing international boundaries," he argues.

Citing a comparable case, Gilmartin points out that India, like Pakistan, faces similar challenges with its rivers, such as the Brahmaputra. "China, being the upstream riparian in this case, has been constructing dams on the Brahmaputra for a decade, potentially diverting water that could affect the Bengal Delta and Bangladesh." However, Fisher stresses that while the Brahmaputra flowing from China into northeastern India is crucial for India, the Indus holds far greater significance for Pakistan.

As Raghavan states, "Environmental diplomacy will be an essential part of our engagement with neighbours. Climate change will require coordination between countries. The climate crisis will, in fact, become a far greater concern than terrorism."

Hope persists, as water has the potential to foster cooperation just as much as it can fuel conflict. Sinha emphasises this point, noting that many shared rivers around the world, such as the Nile, Mekong, and Danube, have prompted nations to pursue negotiation rather than confrontation. "Since 805 AD, more than 3,600 international water treaties have been signed, many forged during times of political tension," he concludes.



Virat Kohli retires: He never gave up until one day he did

Sandeep Dwivedi



Whis Test career, Virat Kohli followed suit and announced his retirement from the longest format. Was he quick to read the room after the abrupt end to Rohit's Test innings? With talk of Shubman Gill's coronation at 25, did he sense palace intrigue and a subtle signal to him? Or was it the case of the 36-year-old father of two and an undisputed batting great no longer having that famous drive to deal with the demons in the head that mess with muscle memory?

Days before the team for the England tour was to be announced, Kohli shared his decision with the world on Instagram: "There's something deeply personal about playing in whites. The quiet grind, the long days, the small moments that no one sees but that stay with you forever... As I step away from this format, it's not easy

— but it feels right. I've given it everything I had... I'll always look back at my Test career with a smile."

The post had Frank Sinatra singing his 'I did it my way' song in the background, reminding that a career of 123 Tests which brought a little less than 10,000 runs too might not be totally fulfilling. "Regrets, I've had a few, But then again, too few to mention. I did what I had to do," goes the song's lyrics.

Though, of late, Kohli had been finding it tough to do what he had to. In that context, this England tour miss is actually a judicious 'well left'. It is a grim reminder of the reality of ageing. Kohli still has a gym-sculpted body and is Bolt between wickets. But the fittest too can get jaded, the driven too slow down, and even Kings call it a day.

Kohli has retired, but hasn't given up. He never does, it's just that every great story has an end. Once he signs up for a cause, he never backs out. That was the original narrative around the Delhi boy when he first hit the headlines as an 18-year-old in his debut first-class season.

It was an incredibly cold December day in 2006 when he landed at the Feroze Shah Kotla (now the Arun Jaitley Stadium) in a Delhi Ranji Trophy jersey hours after his father died. In the dressing room, he broke down but quickly splashed his eyes with water to play a match-saving knock. He left early and lit his father's pyre.

It was after the sun had set on the toughest day of his life that he would tell his elder brother: "I am going to play this game at the highest level and there is nothing that can distract me from doing that." Kohli didn't just play at the highest level but will finish as one of the greatest the game has seen. With ODIs still interesting to him, he can further glorify his legend.

From his under-19 days, he never doubted himself or let intimidation overwhelm or undermine him. In the initial rounds of the 2008 Under-19 World Cup in Malaysia, he would swagger around the team hotel. Once when a tall well-built England player crossed him and gave him a look of disapproval, Kohli raised his eyebrows: "Why you staring?" The English boy blinked and sheepishly snuck away. "Arrey, inko dikhana padta hai (One needs to show these guys) who's the boss," he would say.

By the end of the tournament, he would make sure that the other teams conceded he was the boss. The junior India triumph would be followed by his graduation to the senior team and a phase when he lost focus. By his own confession, Kohli got caught in leading the 'cool life' — partying, eating unhealthy and taking cricket for granted.

Realising that he was drifting from his goal, he would take the challenge of being his old self. He changed his routine and diet. He starved. "One night I was so hungry that I had thoughts of chewing up the bedsheet," he had once said. The linen was spared nor was the room service

approached, but Kohli's resolve didn't break. The will to take the tough road remained unbreakable.

That would be the recurring theme of the Virat Kohli story. In 2014, he was in a freefall on the England tour. He thought he had forgotten how to bat and would not get his touch back. He couldn't sleep. Later, he would figure out that he was dealing with depression. Kohli would reach out to Sachin Tendulkar and that would start his rehabilitation. Once he ironed out the flaws, trusted his game, he got back his purpose in life.

Runs would flow, he would get proclaimed as cricket's GOAT, but fame and fortune would bring bigger challenges. It is around the Covid-19 period that Kohli would face existential issues.

When the world called him King Kohli, Superman, Chasemaster, he was confused about his own identity. "With your professional identity, somewhere you start losing perspective as a human being," he would articulate. To live up to the hype around him, Kohli would say that he would "fake his intensity". The world wanted him to be the scowly Kohli even when he wasn't in a mood to be that. He would share these anxieties with the world after he would return from a rare cricket break, something he had never done in his life.

Even on his return, Kohli would find it tough to meet the staggering standards he had set for himself. From January 2022 to January 2025, he would score just three Test hundreds. None

memorable, nor with gravitas. Kohli, the Test batsman, was wilting but he wasn't giving up. He would train hard, even take philosophical inputs from spiritual gurus. He kept exploring, kept trying to keep the promise he had made to his brother.

Recently during the IPL, he had spoken about how the meaning of cricket had changed for him. "You start with wanting to hit the ball and later, you go through this whole journey of being someone and dealing with expectations. But then finally again, you reach a point... and say I am here to hit the ball," he had said in an RCB podcast in the middle of his dream IPL run.

He seemed to be enjoying "hitting the ball" but going to England would again mean "being someone and dealing with expectations". All his career he had been in a constant fight with odds and winning it. Now finally, it seems, he had enough.

On that magical April night in 2011, after India's World Cup win at the Wankhede Stadium, Kohli, after carrying Tendulkar on his shoulder on a victory lap, had come up with a memorable quote. "Tendulkar has carried the burden of the nation for 21 years, it was time we carried him," he said. In years to come, Kohli would go on to do a Tendulkar, be a legend after two decades of high-level batting. Now that it is time to bid him goodbye, carry him on the shoulders, it is for others to do a Kohli.



LONG READS

Caste: How a Spanish word, carried by the Portuguese, came to describe social order in India

Nikita Mohta



The Portuguese in India (An illustration)

During the Parliamentary proceedings in 2013, Indian-origin Bhikhu Parekh, a Member of the House of Lords in the United Kingdom, remarked: "How do you define caste? Sociologists have tried for 200 years, ever since the Portuguese invented the word caste. It is not an English but a Portuguese word; when they came to India, they found that we were classified in a certain way and called it caste. In India, caste is very much in flux thanks to globalisation, urbanisation and so on, and in Britain it is even more so. Castes are therefore difficult not only

to define but to distinguish."

The word 'caste' is often used to describe India's unique social system, but the term did not come from India. So how did a foreign word come to describe such a central element of Indian society?

'Casta': a colonial inheritance

In India, caste is seen as an ancient Hindu social system based on the concepts of varna (class), karma (action), and dharma (duty), as described in the legal text Manusmriti. The varna system divided society into four main groups—Brahmins, Kshatriyas, Vaishyas, and Shudras—with the "untouchables" placed outside and below this hierarchy.

Despite its deep roots in Indian tradition, the modern understanding and usage of the word "caste" came through European intervention. As sociologist Surinder S Jodhka notes in Caste: Oxford India Short Introductions (2012), the term "caste" is the English translation of the Spanish word casta, meaning "race". Portuguese traders, who arrived on India's west coast in the 15th century, were the first to use the term in relation to Indian society. Anthropologist Morton Klass points out that there is no exact equivalent for "caste" in Indian languages.

The Portuguese played important roles as interpreters, sailors, and clerks. Their language,

according to historian Sumit Guha in Beyond Caste: Identity and Power in South Asia, Past and Present (2013), "became a major lingua franca in the Asian seas." Through the Portuguese lingua franca, Westerners began to understand and describe Indian society, with the British taking the lead.

To understand the impact of this European framing, it is useful to look at the origins of casta in Iberian thought (from the eastern and southern coasts of what is now Spain and Portugal). Spain and Portugal led early European overseas expansion and started the Atlantic slave trade in the 15th and 16th centuries. Guha explains that casta originally meant a pure bloodline or species. When applied to people, it described a social order based on biological parenthood, where keeping a group pure and noble depended on the chastity of its women. Iberian explorers used this idea to classify the groups they encountered during colonial expansion in the Americas and Asia, seeing them as biologically different and ranked.

This way of thinking echoed some Indian ideas. In a parallel to the Indic concept of jati, Guha notes that certain occupations—like executioners and tanners—were believed to "stain" the character of those who performed them and their descendants due to their association with death. These concerns were central to the Indian caste system, "though in it fear of the contamination

of body substance by impure food or touch was much more prominent," Guha adds. As Iberian empires expanded, casta increasingly came to mean people of mixed descent and took on negative meanings.

Guha also points out that Spanish American laws in the 18th century banned intermarriage between high and low-status groups—similar to what Sanskrit texts called varṇa-saṁkara (mixing of castes). The Portuguese, who were the first Europeans to engage with Indian society, "were evolving a system of ethnic and social stratification by biological ancestry" and so, as Guha argues, they assumed Indian jatis were also designed to preserve "purity of blood."

Given their leading role in the Atlantic slave trade, he says, it is not surprising that Spain and Portugal were also early developers of Western racial ideologies. British historian Charles Boxer remarked: "Attitudes and convictions formed as the Iberian mariners, missionaries and men-at-arms spread around the globe lasted for centuries, and are still with us in varying degrees. Race prejudice and black slavery were for centuries inseparable."



How Andaman and Nicobar Islands came to embrace a unique linguistic identity and take pride in it

-Adrija Roychowdhury



The tribals of Andaman and Nicobar Islands. (Wikimedia Commons)

For 26-year-old Lephay, her mother tongue is mostly an idea lost in time, one that was spoken long ago by her grandparents. The only traces that have been passed on to her include basic phrases such as 'give me water', 'give me food', and so on. The Great Andamanese, her mother tongue, is a near-extinct language family today, with fewer than 10 speakers alive. As their native language vanishes swiftly, what has come to take its place is Hindi, which has connected the tribal and non-tribal inhabitants

of the Andaman and Nicobar Islands.

Lephay – indigenous Andamanese people do not traditionally have surnames – grew up in the capital, Port Blair, where her parents had first moved for work from Strait Island when she was still a child. All her life, she has spoken Hindi. Married to a local Bengali man, she says that they communicate with each other in Hindi. "It is the only language I know," Lephay says, adding that even though she went to an English-medium school, she struggles to speak the language. "But everyone here speaks only in Hindi," she claims, a curious ring in her voice.

The proliferation of Hindi in Andaman and Nicobar, say scholars, is a product of the long history of migration and settlement of multiple Indian communities in the islands. "It is a mini-India," says linguist Anvita Abbi, a leading authority on the languages of Andaman and Nicobar. She recalls that when she first visited the islands in the early 2000s, she was surprised to see that almost all state languages were spoken in Andaman.

"There is a large Bengali-speaking community, a Malayalam-speaking community, Telugu, Tamil, and many more," says Abbi. At home, they speak their native languages, she says, but once outside, Hindi is what they choose to communicate in. "Hindi is our national language. They speak very proudly," says Abbi. "The kind of love for Hindi I see in Andaman is something I didn't even see in the Hindi heartland," she observes.

History of migration

Scholars have long speculated about the precise origins of the inhabitants of the Andaman and Nicobar Islands. While one theory contends that the islands have experienced continuous occupation for at least the past 2,200 years, there are others who have claimed that the ancestors of the archipelago's current inhabitants reached there approximately 35,000 years ago.

As noted by anthropologist Sita Venkateswar in her article, 'The Andaman Islanders' (1999), "The Andaman Islanders followed the traditional way of life of these people – one of semi-nomadic hunter-gatherer-fishers – well into the 19th century, when the British colonists arrived and began to take over the islands."

Sprawled like an arc on the Bay of Bengal, the 572 islands of Andaman and Nicobar have historically held a lot of strategic importance. They are located at a key position along the trade routes on the eastern portion of the Indian Ocean. They formed a perfect base to strike upon the East Coast of India or, for that matter, anywhere in Southeast Asia. Moreover, the harbours of Port Blair and Nancowry were perfectly situated to replenish the water supply of ships passing along these routes, or to provide timely information regarding weather and storms in the Bay of Bengal. Consequently, these islands were a source of great interest to both Asians as well as the European powers. Venkateswar in her book, 'Development and Ethnocide: Colonial Practices in the Andaman

Islands' (2005), notes that "the islands and its inhabitants had long been a subject of European fascination and dread." Very little was known about the inhabitants except the myth that they were barbarous, cruel cannibals, an account that had been kept alive by several foreign travellers' tales.

Given its strategic importance, it was the Danish East India Company which first attempted to colonise the islands in 1755. The Nicobar Islands were turned into a Danish colony, first named New Denmark and later as Frederick's Islands. With the Dutch consolidating power in the East Indies, their presence in the Andaman Islands became crucial for the British to control trade networks in the region.

In 1788-89, the British government in Bengal sought to establish a penal colony in the Andaman Islands. After an initial survey carried out by Lieutenant Robert Hyde Colebrook and Lieutenant Archibald Blair, the penal settlement was established in September 1789 on the South-East bay of South Andaman, now known as Port Blair. In 1792, the settlement was shifted further northwards, considering the superior strategic location. However, this new settlement proved to be extremely unhealthy, resulting in high mortality rates among inmates, and was soon abandoned by 1796. Venkateswar, in her book, notes that even these seven years of "British and convict presence on the islands" are likely to have had a long and insidious impact on the islanders.

About 60 years later, when the 1857 Sepoy Mutiny broke out, the British were convinced that they had to reinstate the strategic base in the Andaman Islands. "The Mutiny brought up the question of accommodating thousands of mutineers sentenced to life imprisonment. Indian historians writing about this period imply that the sole motive of settling up a penal colony in the Andaman Islands was to transport mutineers to a place where they pose no political threat to the British," notes Venkateswar.

However, she points to other British records which maintain that long before the mutiny, the conduct of the Andamanese "had made it imperative that the islands should be occupied, and friendly relations established with the Aborigines", and that this would have been done sooner, had the mutiny not broken out. Thereafter, a permanent settlement in the form of a penal colony was established in 1858.

The islands remained in British control until the Independence of India, when it was transferred to the Government of India and installed as a Union Territory. In the years before Independence, several of the most radical and active freedom fighters, including Vinayak Damodar Savarkar, Barindra Kumar Ghosh, and Batukeshwar Dutt, were incarcerated at the cellular jail in Port Blair. When they were released during Independence, they were received amid much publicity and celebration by the press, even though very little attention was given to the aboriginal Andaman Islanders.

Immediately after the Partition, the Andaman Islands were chosen as a place for resettling displaced Hindu families from East Pakistan. Accordingly, large tracts of land in South and Middle Andaman were allotted to thousands of Partition refugees, often coming into conflict with local Jarawa territories. Consequently, there exists at present in Andaman, a very large community of Bengali speakers.

Yet another wave of a large influx of settlers from mainland India happened in the 1960s and 70s when comprehensive schemes were established for the development of the islands. "Almost 30,000 hectares of forest was cleared by the early seventies for settler villages, most of it encroaching on the territories of the remaining Onge groups (a tribal community in the Andaman islands)," writes Venkateswar.

The construction of roads, government offices, private industries, a harbour, a sub-naval base, an agriculture farm, and a helipad, all contributed towards bringing in more settlers from mainland India, consequently pushing the tribal community into smaller pockets in the north and southern parts of the island.

Abbi points out a community called 'Ranchi' in the islands. "They are called so since they were brought from Ranchi in Jharkhand to combat with the local Jarawas when the Andaman Trunk Road was being made," she explains. The Jarawas would frequently attack the construction workers for invading their solace, and the rationale of

the government at the time was that since the tribals from Jharkhand resembled the Andaman tribals, they could match up to them.

Among the other communities settled in the islands, linguist G N Devy provides the example of the Bhantu, a sub-group of the Sansi tribe, originally from Central and North-Western states of India, who were moved to the Andaman as prisoners. "However, after their jail term, they settled down there along with their families," he explains.

There also happens to exist a community of Burmese who are descendants of those who had settled in the Andaman during the Second World War, when the islands came under Japanese control for a brief moment. One can find echoes of this historical episode in the traces of the Burmese Karen language being spoken in the island till date, explains Devy. "One can say that the Andaman language landscape reflects the history of South Asia," he says.

The emergence of Andamanese Hindi

The subsequent waves of migration to the Andamans had a significant impact on the local population. At present, only four tribes live on the islands – the Great Andamanese, the Onge, the Jarawa and the Sentinelese. Scholars say that at one point some 12 distinct linguistic and separate territorial groups inhabited the islands.

Among the four existing tribes, the Great

Andamanese are nearing extinction. Abbi says that when she first visited the islands at the turn of the millennium, there were only 10 speakers of Great Andamanese left. Today, there are only three or four, she says. "And even they have almost forgotten their language and call me when they need to find out how a certain phrase is spoken in their language."

The Great Andamanese, reveals Abbi, is a mixture of tribal languages such as Jero, Sare, Bo, and Khora – all languages of North Andaman. Abbi's research concluded that the Great Andamanese were effectively isolated for thousands of years, during which time their languages evolved without discernible influence from other cultures. She also argues that the Great Andamanese constitutes a sixth language family, separate from all other language families in South Asia.

Scholars argue that the disappearance of the Great Andamanese is a product of the tribe coming into contact with the outside world. Abbi, in a research paper published in 2023, explains that when the British established the penal colony in the Andaman in the 19th century, the Great Andamanese resisted the invaders, but were no match for the guns and cannons that the Europeans brought. Even more fatal were the many diseases they were suddenly exposed to, and to which they had no immunity.

Is the language nearing extinction on account of the incursion of new languages brought by the multiple waves of migration? Devy says

no. He believes that a language dies when the people who speak it get eliminated. "When new languages arrive, they might also enrich existing languages," says Devy. He gives the example of the arrival of English in India, which he says, did not amount to Hindi disappearing. "Rather, Hindi has been enriched by borrowing new words from English," he argues.

Why then did a similar pattern of enrichment not happen in the case of the Great Andamanese language? Devy explains that the Andamanese had been completely isolated from the outside world for centuries, and since the time they met with outsiders, first with the British colonisers and later the Indian government, it was always in the context of a relationship of conflict. Consequently, their language never found an environment that was conducive to its growth.

Abbi suggests that even when the Great Andamanese language is on the brink of extinction, the other tribal languages of the islands, such as those of the Jarawas and the Onges, have been retained through intergenerational transfer. This, she says, is mostly because both these tribes have remained largely away and secluded from the other resettled population in the Andaman. "It is only very recently that some of the male members of these two tribes have started communicating in Hindi," she says. About the six languages of the Nicobar Islands, Abbi says that they too are well and alive, mainly passed on through oral traditions in homes.

When the Andaman and Nicobar Islands came under the Republic of India in 1947, Hindi was established as the primary language in schools. "However, because there were speakers of so many different languages on the islands, they created their own version of Hindi with a lot of local flavour," adds Devy.

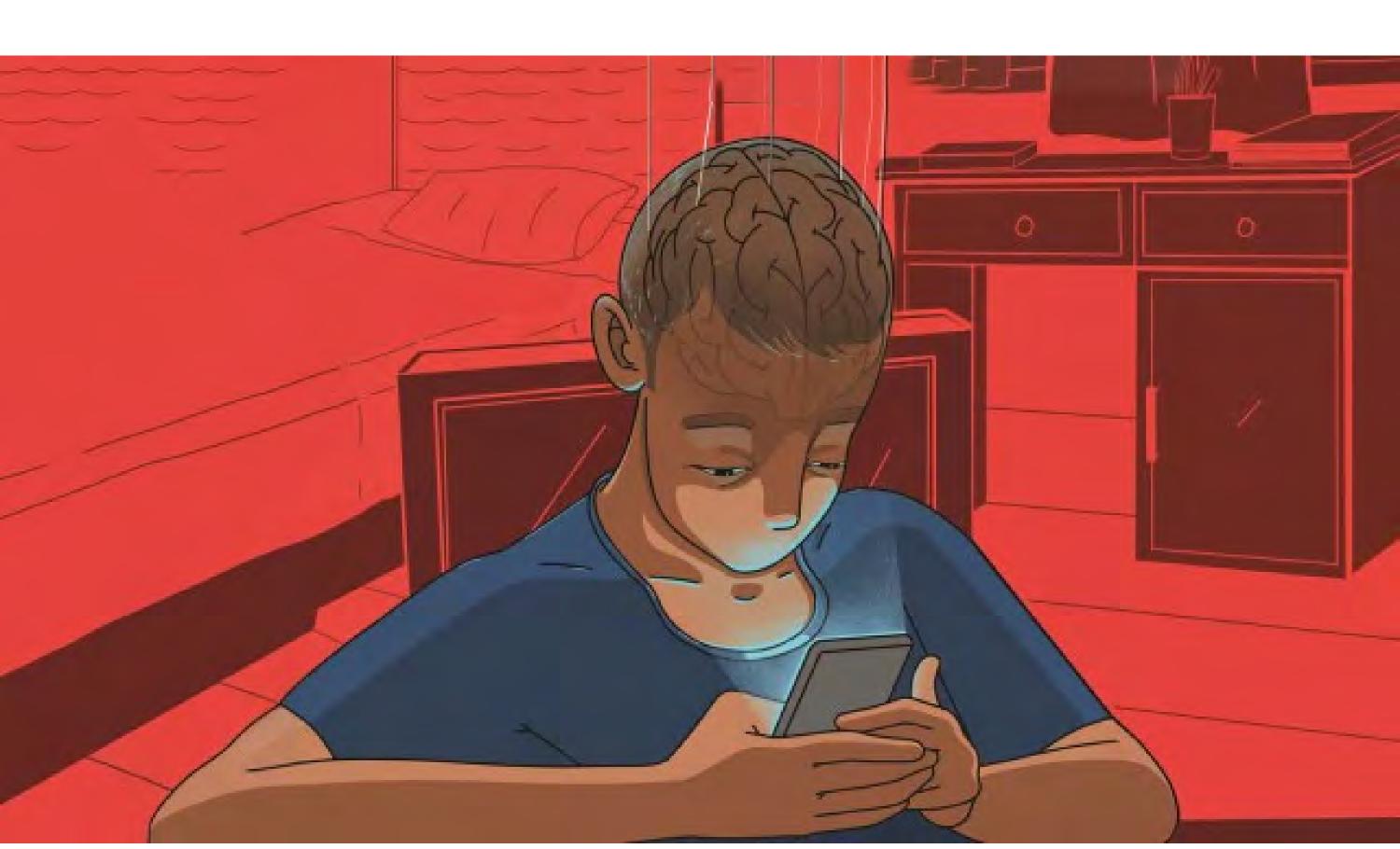
The Andamanese Hindi, says Abbi, has some special characteristics. "It does not have any gender agreement or number agreement," she says. "Andamanese Hindi is the main language of communication. The entire archipelago speaks it and is very proud of it. Even when I am in Andaman, I switch to Andamanese Hindi and can no longer speak the Hindi I use in New Delhi," says Abbi.

The proliferation of Andamanese Hindi is perhaps the most significant byproduct of the decades of efforts towards settling on the islands without attempting to engage with the local Andamanese languages. Devy sums it up perfectly when he says, "The entire Andaman and Nicobar Islands have been transmitted because there was no possibility of translation."



The Adolescence Effect: How teen boys are getting sucked into the manosphere

- Rinku Ghosh



The influence of aggressive male role models is dangerous when young boys are raised in an environment that reinforces gender norms and traditional power structure (Illustration: Komal)

Student, 16: Aren't you worried that I could break into your file system that you protect with your password, steal your records? For two years, the cops couldn't catch me. This time a silly error got me here. But I have sent fake bomb threats over email to at least 25 to 30 schools. The internet is my playground. I can own it anytime I want.

Dolly, psychologist at Juvenile Justice Board II, Delhi: Alright.

Student: Just alright! I could hack into your wifi, phone, bank accounts you know.

Dolly: No. Not much in the account anyway. But

why do you enjoy scaring people? (Handing him a Rubik's cube).

Student: Because nobody sees me.

Dolly: I am seeing you now, the boy who can dare the internet. So why did you send fake bomb threats to schools?

Student: Because I hate the school system, exams and marks. I hate taking tests because I don't write them well, score low. Yet everybody, my parents even, talk to me only about my scores... to them my rank is the only achievement. They don't care about me. They don't understand that I can do other things. Now they are here because I took down the school system itself with one email. That's power, not marks. Now, are you scared or do you still like me as a child? Would you want to see me again?

This boy is no Jamie from the Netflix series Adolescence, though this conversation seems eerily close to a scene from it. Dolly has been witness to many such sessions with misunderstood and maladjusted teens in her line of work.

"This 16-year-old was from a privileged south Delhi background, his parents lavishing him with comfort and the latest devices, the latest gaming laptop and iPhone 16 ProMax. They thought their child was a nerd, who had no interest in mainstream education, and would hardly look at what he was doing with his devices. But they would push him on test scores, saying only that

would guarantee him an entry to a good college and scholarship. Rather than working on his exam phobia, they unwittingly pushed him to it," she says.

That's why the 16-year-old would email bomb threats to schools before exams or before a parentteacher meeting, disrupting the system to draw attention to his alternative vision of looking at the world. Isolated, this introvert found hacking to be his tool for rebellion. He signed up for online tutorials on the dark web, which require specialised software and configurations, such as the Tor browser, to access. This allows users to hide their identity and location from others and law enforcement. "He told me that although his physicality would be unseen, the world would see his work. And when you get drawn into the seeming permissiveness of communication in the dark web, you do not realise when an impressionable teen can fall for every negative emotion as a form of self-defence. So there is no sense of guilt at all," says Dolly.

This is the foundation of toxic masculinity, where young people with low self-worth find a community of like-minded but anonymous people in chatrooms on the dark web. They are indoctrinated and radicalised to develop a beehive mentality and justify their hitback crimes and aggression as a rite of passage into manhood, and, by extension, control. They have free access to extreme physical and sexual violence carried out by other young people and indulge in copycat behaviour in their real lives. "Social media,

influencers and peer loyalties are propagating extreme ideologies among young minds. There's a reason why this happens. The pre-frontal cortex of the human brain — the one that's responsible for decision-making, reasoning, impulse control and self-expression — keeps developing in boys till they turn 20. Till then their emotions guide them. Besides, their growth hormones kick in, making them prone to aggression, especially when their peer dominance is questioned," says Urvashi Musale, child and teen behavioural psychologist and founder of Proparent, Mumbai. For British influencers like Andrew Tate, who are now demigods of subversion, the ideology is just about building an online constituency and clicks they can monetise. Teen boys are just lamb to the slaughter. Welcome to the manosphere!



A scene from Adolescence: Jamie and his counsellor

'That girl made me do it'

Musale describes a case where a 14-year-old boy, initially docile, became a bully after becoming frustrated with his crush not acknowledging him.

He started bullying her online, using hate speech and slut-shaming tactics to get her attention. "He said she always talks to boys with better looks and cars. 'I am average and my parents aren't rich. I'm not the boy every girl likes but I have become the boy everyone hates.' That insecurity had turned him into the school bully," she says.

His behaviour was exacerbated by the messaging he found on social media, where influencers provided negative validation for his insecurity. This led the boy down a path of radicalisation and misdirected anger towards women, a pattern often seen in communities like incels (involuntary celibates), who believe women are responsible for their social rejection. "Frustrated by their lack of sexual experiences, they believe that women are to blame as they use their sexual privilege to reject men at whim. For example, he got toxic advisories like 'Don't open the door for a girl, they don't deserve it,' or 'If you are rude to them, they will come after you,' "says Musale, who worked with the boy's parents first before addressing his condition.

Musale worked with them to improve communication. They avoided labelling the sessions as "counselling" to reduce stigma, focussing instead on building trust and connection. Applying reverse psychology, the boy's mother told him she needed expert help to understand him better and resolve conflicts. Days later, the boy opened up to his mother, asking her if she would sing with him. She was taken aback by her son's hidden talent. He told her, "You never

knew I sing or what my favourite songs are." Now they share playlists with each other and do an impromptu jam over the weekend.

"Bullying is a cry from your child that they are stuck somewhere, seeking validation from their closest. So find that vacuum," urges Musale. The boy's parents now try to make it home halfan-hour earlier than before, his father shares story links from social media with him and alerts him about its economy, including how influencers make money by pushing negative emotions and polarities that do not exist in the real world. "Without mentioning manosphere in conversations, he listed the pros and cons of following any idol or handle. He said how he signed up for many communities himself but had unfollowed them because they were more destructive than engaging. That got the boy to question the content makers of the posts he was following and he began discussing them with his father. As the family talked and shared their lives more, the influencer hold on his psyche diminished," says Musale, who believes family engagement works in 90 per cent of cases in weaning teen boys away from influencers. Parents tend to judge everything from their own upbringing without realising they are no longer the sole influencers in their children's lives and that they can be completely deranged as they feed on nonsensical things. "Instead of censoring, just get into their world of content, neutralise triggers," adds Musale.

She also talks about preparing girls who often

fall prey to boys radicalised in the manosphere. One of her patients, a 14-year-old girl, fell prey online to a 19-year-old boy, who raped her. "She was a victim of 'grooming', when older boys convince younger girls that they are ready to have a relationship, wear down their boundaries, sexually exploit them, share their sensitive information and trap them. She was so smitten that she sent him nude pictures and let him into the house when her parents were away. Yet the boy had just used her to make his girlfriend, a classmate at his college, jealous," says the counsellor.

'I didn't do it, believe me'

Dolly's toughest case involved a group of teenage boys from a south Delhi school who sexually assaulted a girl student in a car, away from the cameras installed in the campus, but denied the act when confronted. "The medical evidence said otherwise, the video footage showed them entering the car but all they said was that they were trying to 'help' the girl with water and juices as she had fainted in the heat. They were not guilty about crossing the line but worried their detention would affect their approval among peers and be interpreted as being weak," she says. Also, a lot of lying comes from their understanding that juveniles can never be prosecuted for crimes the same way as adults. But the provocation for extreme behaviour, for both privileged and other kids, is their unfiltered access to social media, pornography and peer pressure. "It's almost like a dare, you see something, you enact it,

you experiment and challenge your friends to do it to absolve your sense of regret. In one of the sexual offence cases, one of my 15-year-old suspects admitted, 'Humne ganda kaam kiya hai, par maine akele kuch nahin kiya (I have done something wrong, but I didn't do it alone).' His friends had challenged his masculinity and he didn't want to look meek," says Dolly.

One of her success stories has been of a 15-yearold who did petty thefts for drug money. "The first three sessions he tested me, asking me to recall his case details. I did that to build trust. Then he bragged about his immense fan following on Instagram, ranting how the world was anti-man. Listening to him without judgment or opinion, he gradually admitted to his isolation and his mother's dismissal of him as a good-for-nothing. But ranting on Instagram had helped him monetise his likes, so he kept spouting views he didn't believe in. He chose drugs to escape the fog in his mind," says Dolly. Noticing him doodling, the therapist asked him to sketch something. She made him draw for three sessions. "At the end of it, he came to the sessions voluntarily and even signed up for art classes," she adds.

Copycat Syndrome

The influence of aggressive male role models is particularly dangerous when young boys are raised in an environment that reinforces gender norms and traditional power structures. "Even in modern nuclear structures, the man gets the best seat at the table and is seen as the

decision-maker. The social media content just validates these implicit codes. And because we expect boys to toughen up, this unspoken rule of manning up means that they cannot verbalise their emotions. But they have to come out at some point. That's why they resort to violence. This, too, they emulate from news videos," says Dr Alisha Laljee, Mumbai-based psychologist and school educator.

Self-worth benchmarks are very poor for young boys. Which is why a simple "no" from a girl can seem like societal rejection. "A boy who destroyed a girl's reputation in school told me in our session, 'I asked her out on a date. She could have met me, seen how the date went and then rejected me. Why did she dismiss me in front of my friends?' That's how fragile his ego was," she says.

Then there's the cult of "looksmaxxing," a trending advisory that helps young boys "maximise" their appearance and look like Greek gods to get social acceptance. Looksmaxxing may appear harmless, encouraging self-care, exercise and healthy eating. But then it degenerates into a body obsession so severe that teens get into steroid use, hair transplants, plastic surgery for removing ribs, a sculpted waist and lengthening limbs for extra height in extreme cases. "Some resort to self-harm measures like 'bone-smashing' where they hit their jaws with blunt objects to re-shape them, assuming bones adapt to stresses. I am seeing many young boys with body scars. Out of 10 boys, eight will take pictures of self-

injury and share them in online communities as proof of bravado," says Dr Laljee.

Dismantle this echo chamber

Extreme ideologies and misconceptions proliferate easily online because everybody feels secure in an echo chamber instead of taking care of their social skill deficits. Dr Mimansa Tanwar, clinical psychologist at Fortis Healthcare, is working on a module of teenparent communication. "Parents today need to have conversations beyond academia and ask boys about their social and cultural life. They do not know how to navigate the challenges of the digital world and need help processing and filtering these influences. While teachers take care of primarily academics, this is a gap that parents need to fill," she says.

She even suggests that parents and teachers get a crash course in media literacy themselves to help young people understand that social media is all about creating a perception, a peer-driven sameness, rather than celebrating one's individuality. "That's why there have to be daily conversations at home on everything, from news to Taylor Swift. Children learn from healthy relationships in a physical environment faster than they do on a tablet," says Dr Tanwar.



Why time is running out for iPhone, Google Search and Facebook

-Anuj Bhatia



If someone asks you about the common thread among the iPhone, Google Search, and Facebook, it's that all three have changed the tech landscape, and have lasted far longer than the average product. The iPhone debuted in 2007, Google in 1998, and Facebook in 2004. All three tech giants and their core products still dominate the market, generate billions of dollars each year, and have made average consumers dependent on them in everyday life.

But in recent weeks, the ongoing antitrust trials against Google and Meta have revealed that the success of the iPhone, Google Search, and Facebook may be numbered—and that each

of these hit products, which once changed the course of tech, could soon be replaced.

Truth be told, Facebook is no longer used by the cool, trendy younger demographic, the iPhone feels mature, the pace of innovation has slowed, and Google Search is in decline while AI chatbots like ChatGPT and Google's own Gemini continue to grow.

'Incumbents have a hard time'



The original iPhone started the mobile revolution, bringing Google Search and Facebook to millions of users. (Express Photo/Anuj Bhatia)

Eddy Cue, Senior Vice President, Services, Apple, said last week that the iPhone could follow the same path as the iPod within the next 10 years. Apple is one of the few tech companies that typically avoids making forward-looking statements, but seeing Cue admit that the iPhone

won't be around forever is a clear sign that Cupertino is already thinking beyond its most profitable product, which generates more than half of its revenue.

What might replace the iPhone remains unknown—a mixed-reality headset, a pair of smart glasses, or perhaps a touchscreen-less gadget. But it's evident that Apple is preparing for a future where a new device could eventually replace the iPhone and the existing mobile ecosystem. Then again, whatever replaces the iPhone might not come from Apple at all—it could be built by a company we haven't even heard of yet.

"Incumbents have a hard time... we're not an oil company, we're not toothpaste — these are things that are going to last forever... you may not need an iPhone 10 years from now," Cue said while testifying in the Google vs Department of Justice antitrust case, according to Bloomberg.

Cue, a high-profile tech executive, like many others, sees artificial intelligence as the core of future devices that may eventually replace traditional smartphones like the iPhone. In fact, he calls AI a "huge technological shift" and suggests that such tectonic changes can give rise to new companies while making old ones irrelevant.

"When I got to Silicon Valley," he said, "all the best companies or the most successful companies"

- mentioning HP, Sun Microsystems, and Intel
- "either don't exist today or are significantly smaller and much less impactful."



Apple is still searching for the next big thing after the iPhone, and in recent years. (Express Photo/Anuj Bhatia)

Cue didn't mean that the iPhone is going away right now — not at all. Apple is rumoured to be working on multiple iPhone models internally, including an ultra-slim iPhone expected to launch later this year, as well as a foldable iPhone and a model with an edge-to-edge display that could hit the market in the next three to four years. However, one cannot deny that the iPhone is built on ageing technology. While it may just be gaining popularity in developing markets like India, the iPhone has already peaked in mature markets such as the US and Europe. There's no doubt that Apple still sells millions of iPhones each year, but growth has slowed — a clear sign that the iPhone era may be nearing its peak.

Google vs AI search engines

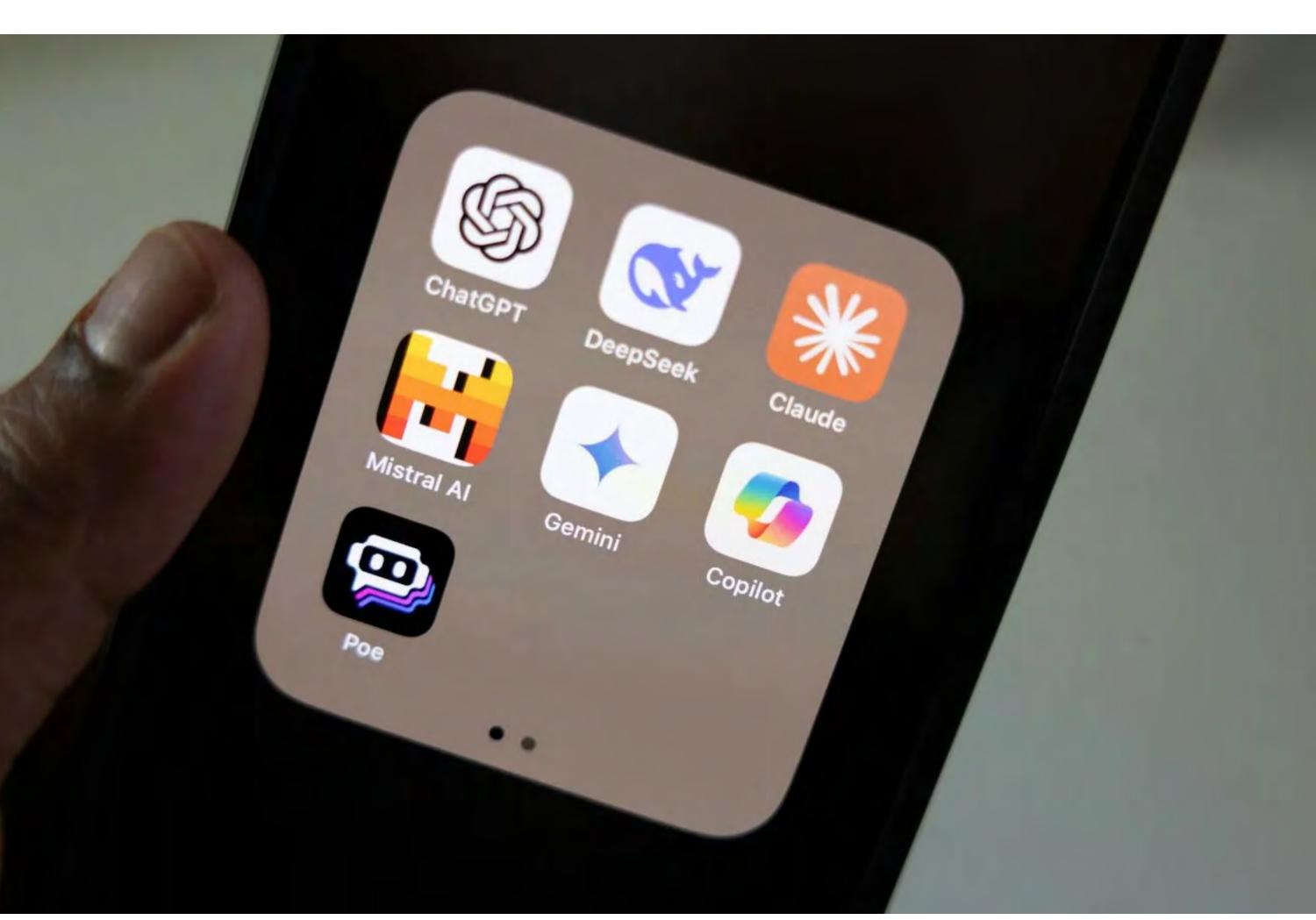
But the iPhone isn't the only product headed for maturity; Google Search is another service we may not need to rely on in the future. The reason? The increasing adoption of OpenAI's ChatGPT, Google Gemini, and Perplexity.

Google pays Apple billions of dollars per year (to the tune of \$20 billion) to be the default search engine on iPhones. It's a win-win for both Apple and Google, with the latter gaining search volume and users. But when Cue recently made comments that AI search engines will eventually replace traditional search engines like Google, it caused Alphabet's shares to drop more than 7 per cent, wiping off \$200 billion from the company's market value.

Google Search is still the default way people search the Internet, powered by its proprietary 'Knowledge Graph' database — and there is currently no true alternative to it. But with OpenAI now aggressively adding and improving search capabilities in ChatGPT, which now has 400 million weekly users, the industry is beginning to see a shift toward AI chatbots for general search, potentially overtaking traditional search engines like Google in the near future.

Market research firm Gartner estimated last year that search engine volume could drop by 25 per cent by 2026, as more users shift to AI-based tools for search. Google currently controls

90 per cent of the search market, and search engine optimisation (SEO) remains central to how websites boost their visibility on the platform. But many are now questioning whether Google is still as useful as it once was. Ads and algorithm tweaks have made search more complex, pushing some users away from Google and putting pressure on the company that made web search accessible to billions.



AI Chatbots continue to see increasing engament, signalling change in consumer behaviour. (Express Photo)

Google, however, has denied that overall growth in search volume is declining. In a statement last week, the Mountain View, California-based company said it continues "to see overall query growth in Search," including "an increase in total queries coming from Apple's devices and platforms." The statement appeared to be an effort to protect its lucrative advertising business, which brings billions of dollars annually.

Zuckerberg's admission

Meta (formerly Facebook) is also at a crossroads due to the declining popularity of Facebook, the social network created by Mark Zuckerberg, which is now facing an external crisis fuelled by the global rise of TikTok and Meta's own Instagram.

"The amount that people are sharing with friends on Facebook, especially, has been declining," Zuckerberg said in April during an antitrust lawsuit brought by the Federal Trade Commission. "Even the amount of new friends that people add ... I think has been declining. But I don't know the exact numbers."

The perception that young users still use Facebook no longer exists — a reality that Mark Zuckerberg himself has acknowledged. But the question remains: if not Facebook, where are users flocking to? The answer is TikTok and Instagram. Ironically, TikTok is not a traditional social network; it's an app, which has taken the world by storm, which hosts short-form user videos and is owned by the Chinese company ByteDance.

Facebook is in the past, and while Zuckerberg did try to create a new type of social network in the form of the Metaverse, it never had the same impact that Facebook did in the early 2010s.

Next big players

All three tech giants, Apple, Google, and Meta, are still figuring out what will replace their star products. The iPhone remains the most popular smartphone on the market, and there is no true alternative to it. Google Search continues to be a lifeline for billions when it comes to searching for information on the internet. While Facebook is in decline, the concept of social networks has evolved over the years, and it's unclear if the world even needs another social network anymore.

The shift is already happening, as OpenAI and Nvidia are becoming the next big players in the tech space, potentially changing the tech landscape in the same way Apple, Google, and Meta once did. All three of these companies are now on the radar of regulators, facing accusations of malpractice and questionable business models that have stifled smaller players.

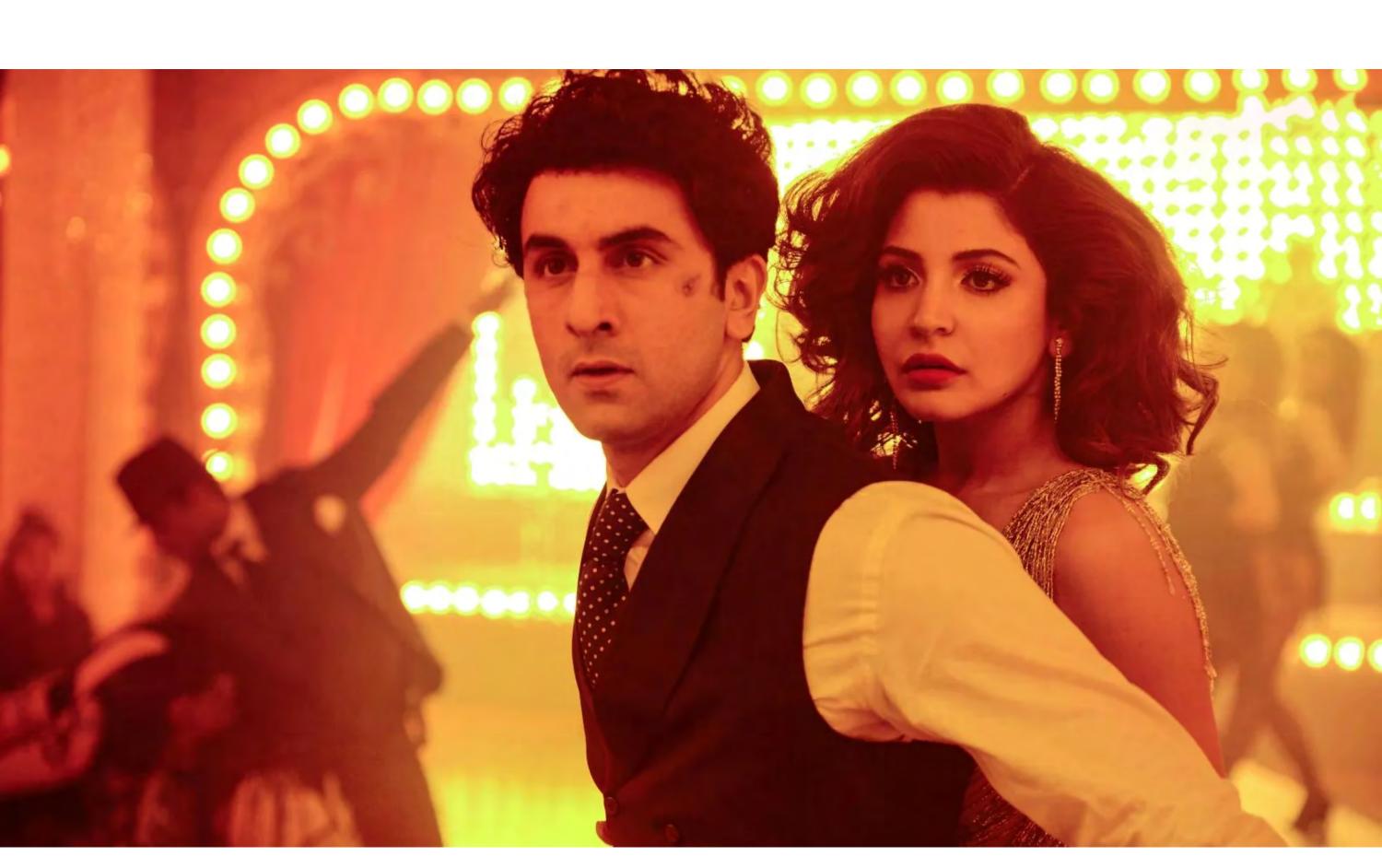
But as technology constantly evolves and consumer behaviour shifts, with emerging technologies like AI becoming the frontrunners, Silicon Valley is ready for a makeover.



10 years of Bombay Velvet:

Anurag Kashyap's messy love letter to cinema that was never understood

-Anas Arif



Bombay Velvet, they say, is a film Anurag Kashyap could not have made, and yet, he did. There's a sense of dissonance, as if the director's name is attached, but his voice is missing. It bears no trace of his fire, none of the reckless pulse or crooked charm his characters breathe into screen-light. It moves without purpose, uncertain of its tone, unclear in its intent, an unfamiliar confusion for a filmmaker usually so sure of what he wants to say, and how. The humour feels misplaced, and the tragedy remains emotionally inert. And perhaps the cruellest irony: that a filmmaker known to bend genre to

his will chose his most costly venture to make the most ordinary tale, a gangster saga draped in clichés, set in a city still being born, told in a way we've heard too many times before.

But what if the lens through which we've viewed Bombay Velvet has always been misaligned? What if the fault isn't Kashyap's, but ours: for expecting a mirror, and resenting the unfamiliar reflection? We came searching for the filmmaker we knew, and turned restless when he did not arrive. What if Bombay Velvet was never meant to fit the mold we had prepared for it? What if its true ambition was not to rebel against genre, but to embrace it, fully, deliberately, so that an arthouse filmmaker could leap across boundaries, using convention as scaffolding to build something that aspired to soar? Perhaps its essence lies not in pure originality, but in the boldness of its borrowings — the way it collages pieces of pop culture, noir cinema, jazz-soaked melancholy, and pulp fiction into a breathing, stylised pastiche. Not derivative, but reverent. Not a replica, but a remix. And perhaps, most of all, Bombay Velvet is not the misstep of an influential auteur, but the fever dream of a devoted cinephile. A love letter, messy and opulent, from someone who's watched too many films and wanted, just once, to make one that holds them all.

In that sense, Bombay Velvet, which turned 10

today, may well be the truest Kashyap film. Not because it bears his name, but because beneath its glossy surface lies the voice of someone who once fell helplessly in love with cinema, not as a master, but as a wide-eyed student, intoxicated by its possibilities. It may appear un-Kashyaplike to some, but that's only if one looks for the usual signatures. Look closer, and you'll see them: hidden in the fever-dream pacing, in the cuts that echo Scorsese, in the sly winks directed at those who know what it means to fall for the celluloid. The film doesn't move aimlessly, its purpose lies in precision, in getting every homage right, in recreating an entire era not just in visuals, but in spirit. The humour arrives not where one expects it, but when it startles. The tragedy is not in the film, but in its reception, that an audience conditioned to see Kashyap a certain way failed to see the work for what it truly was. And the sharpest irony? That this so-called generic tale was not a failure of imagination, but a deliberate act of concealment. The ambition was never absent, it was simply camouflaged, tucked beneath the folds of familiar tropes, made palatable in form so that its spirit could dare to stretch further.

Many believed the film was interested in tracing how Bombay transformed from an industrial city into a financial hub. Many saw it as Kashyap's homage to the city that never stops dreaming. But they were largely mistaken. *Bombay Velvet*

was never about Bombay. It was about the films that have always told us what cities like Bombay are — gritty, glittering, full of longing. From the outset, we meet Rosie Noronha (Anushka Sharma), a singer styled after Geeta Dutt, performing in a club that echoes the Star Club from Guru Dutt's Baazi. Even Johnny Balraj (Ranbir Kapoor) seems born of the Dev Anand mythos: a man chasing the dream of becoming a 'big shot,' whatever the cost. And as the narrative deepens, so does the homage. The film becomes a hall of mirrors, reflecting the great city films that came before. Fragments of Hollywood and Hindi film collide: Coppola's shadows stretch alongside Sergio Leone's wide shots; Ram Aur Shyam fuses with Scarface from 1932.

This unabashed cinephilia reaches its crescendo when Johnny, in a moment that feels both surreal and inevitable, watches The Roaring Twenties, and decides he too must be someone of consequence. Critics questioned the plausibility: a small-time gangster, with no command of English, sitting through a Cagney classic in 1960s Bombay? But they missed the point. Kashyap isn't concerned with narrative probability or conventional diegesis. From its first frame, *Bombay Velvet* declares itself a film not bound by realism but ruled by reverie. After all, in a world, where films bleed into life, and life is just another scene waiting to be lit.

This is not to say the film loses sight of its characters. Amid the cinephilic storm, the tangled history drawn from Gyan Prakash's Mumbai Fables, and Amit Trivedi's seminal jazz soundtrack, Kashyap stays with Johnny and Rosie. Their love becomes the greatest casualty of the city's corruption and conspiracy. Even the geography subtly begins to symbolise their fate. Rosie flees an abusive teacher in Goa, and comes to Bombay to make big. So, like her homeland, she is beautiful, violated, and yearning to break free. Bombay, too, dreams of swelling into a richer, grander metropolis — a thirst reflected in Johnny, a small man chasing a vast destiny. Both he and the city hunger for transformation; both fight for it also, and both, in the end, lose.

In a meta stroke, Karan Johar is cast as the film's antagonist, a media mogul who builds a jazz club, dazzling on the surface but hollow within, reserved only for the privileged and the well-placed. It sparkles with taste, style, and spectacle, but behind the velvet curtains lies a shadowy enterprise. It's hard not to see a deeper thread running through this. Perhaps Kashyap, without accusation, is holding up a mirror to the industry he's long stood adjacent to. Perhaps this is his way of saying that Bollywood, too, is a club—charmed and guarded, where even if someone like him masters the grammar of commercial cinema, he is still seen as an interloper, expected to fail, and popularly celebrated once he does.

In that sense, it's only fitting, there is an imagery that the film continually returns to — Johnny's relentless return to the fighting cage, where he faces off with a mighty opponent, Japani. But Johnny does not enter the ring to win. He enters to lose, to externalise his pain. If one looks deeper, Kashyap, too, becomes a standin for Johnny. A filmmaker fighting his way from the fringes of arthouse cinema into the big league of Bollywood. Despite his struggles, despite the fight, he stops short of achieving the hero's triumph. The fighter pulling him down could be anyone: the studios that cut his vision down to fit commercial moulds, the censor board that, as Kashyap himself has acknowledged, heavily censored Bombay Velvet into something lesser, or perhaps even the audience, cheering, unknowingly, for him to break through, to teach Bollywood a lesson in filmmaking. But what they don't realise is that Kashyap isn't here to teach or to make a leap. He's here to use everything, resources, money, ambition, to create the boldest, most uncompromising statement he can. He's here to give back to cinema, the very force that brought him to this moment. We might expect him to be the rebel, as he so often is. But in Bombay Velvet, he reveals himself, instead, as the romantic.



Agatha Christie is back—but would she approve of this AI seance?

-Aishwarya Khosla

In 1926, Agatha Christie vanished for eleven days, sparking a nationwide manhunt and endless speculation. Nearly a century later, she has "returned"—not in flesh and blood, but through artificial intelligence. The BBC's latest project, Agatha Christie On Writing, has resurrected the Queen of Crime as a digital tutor, igniting a fierce debate over whether it this is a loving tribute, or AI taken too far.

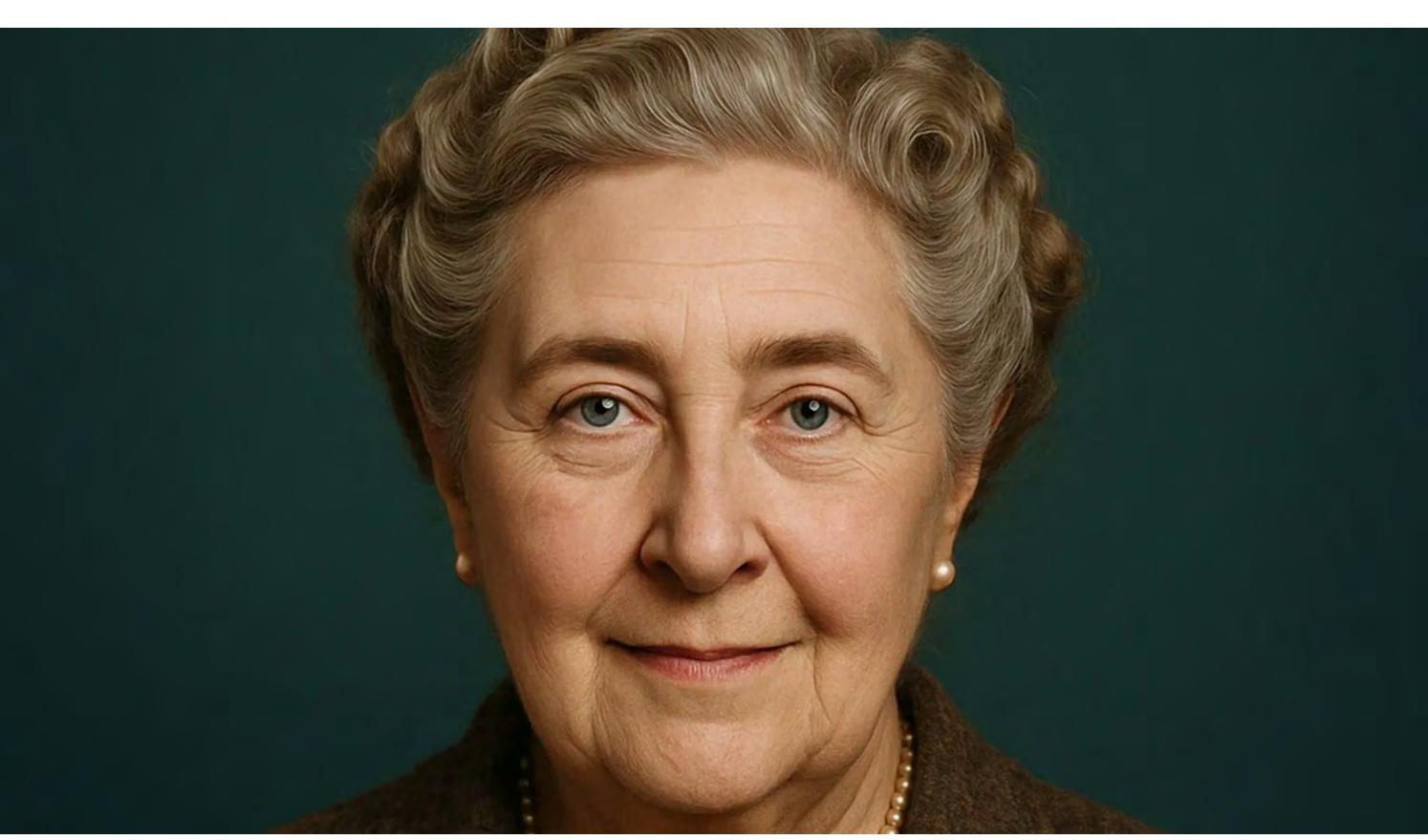


Image of Agatha Christie generated using OpenAI.

The shy author hated the spotlight

The controversy largely stems from the fact that Christie was notoriously private. She avoided interviews, shunned author photos, and once was turned away at the door of her own play's premiere party because she was too shy to identify herself.

"My chief dislikes are crowds, loud noises, and cinemas," she once confessed. Despite her reallife reticence, she crafted some of fiction's most audacious detectives: the flamboyant Hercule Poirot ("an egocentric creep," she called him) and the unflappable Miss Marple.

Now, the woman who spent a lifetime dodging publicity is back in the limelight. Whether against her will or with her blessings, depends on whom you ask.

The BBC's AI séance

BBC Maestro, the corporation's answer to MasterClass, has collaborated with Christie's estate to create a writing course "taught" by the late author. Using AI-enhanced recordings, archival footage, and an actress (Vivien Keene) chosen for her biometric resemblance, the project stitches together a simulacrum of Christie—her voice, her mannerisms, even her piercing gaze.

James Prichard, Christie's great-grandson and head of Agatha Christie Ltd, admits he was initially skeptical. "But the script they came up with simply blew my brain away," he said at the launch event. The BBC insists the course was crafted "with incredible care and the utmost respect," drawing from Christie's own words.

Literary miracle or an AI ethics nightmare?

Critics aren't convinced. Taking to Twitter, writer Gabriela Houston, wrote, "BBC is now

selling a "Masterclass" in writing, presented by an AI avatar of Agatha Christie. Ghoulish, unethical and just deeply troubling. Shocked the estate approved this."

The BBC has clarified that Christie's estate approved every step, and the AI was fed only her authentic writings. Michael Levine, CEO of BBC Maestro, in a May 2 interview to Mashable India rejected the "deepfake" label, calling it a "respectful tribute."

Yet, as AI reshapes creative industries, ethical lines blur. If Christie couldn't consent, does her family's approval suffice? And what happens when this technology is applied to other late artists—Tolkein? Shakespeare? Austen? Poe?

The wider ethical battle: Artists vs AI

Christie's digital resurrection arrives amid a growing revolt from artists against unchecked AI exploitation. Over 400 British creatives—including Sir Elton John, Dua Lipa, Sir Ian McKellen, Kate Bush, and Nobel Prize-winning author Kazuo Ishiguro—have signed an open letter demanding stronger copyright protections from AI firms.

They are concerned that their voices, likenesses, and works are being harvested without permission to train AI models, effectively forcing them to "give away" their art to tech giants. As Ishiguro, in a May 10 interview to the BBC, put it: "Why is it just and fair — why is it sensible — to alter our time-honoured copyright laws to

advantage mammoth corporations at the expense of individual writers, musicians, film-makers and artists?"

The artists are pushing for an amendment to the UK's Data Bill that would force AI developers to disclose when they use copyrighted material.

In February, musicians including Annie Lennox and Damon Albarn released a silent album in protest. Now, with Christie's AI revival, the question grows louder: Who controls an artist's legacy? Their heirs, corporations, or the algorithms scraping their work?

AI and the ghosts of artists past

This isn't the first AI resurrection—Peter Cushing's Grand Moff Tarkin was digitally revived in Rogue One, and Michael Parkinson's voice was recreated posthumously for a podcast. But Christie's case is unique as she's not a character, but a real woman whose life was marked by a fierce desire for privacy.

Fans see an unprecedented opportunity to learn from a literary legend, while detractors see a slippery slope where AI reanimates the dead for profit. One can imagine that Christie, who once wrote, "The best time for planning a book is while you're doing the dishes," might have found the entire spectacle absurd. Or perhaps, in true Christie fashion, she'd have plotted the perfect twist—one where the real mystery isn't how she returned, but why.



Why content creator Misha Agrawal's tragic death is a desperate call for change in the creator economy

Swarupa Tripathy



Last month, a tragic incident laid bare the mental toll of social media fame. Misha Agrawal, a popular content creator, died by suicide on April 24, days before her 25th birthday. The reason? A steady loss of followers on social media.

While her family initially kept the cause private, her sister Mukta Agrawal later revealed on Instagram that Misha had been battling depression triggered by a decline in her follower count. "My little baby sister had built her world around Instagram and her followers, with a single goal of reaching 1 million followers and gaining loving fans. When her followers started decreasing, she became distraught and felt worthless. Since

April, she has been deeply depressed, often hugging me and crying, saying, Jijja, what will I do if my followers decrease? "My career will be over," wrote Mukta on Misha's official Instagram account.

Mukta also shared that Misha had set screenshots of her follower counts as her phone wallpaper. "Instagram is not a real world and followers are not real love," she wrote, urging others to look beyond metrics.

Misha's story is an extreme but alarming illustration of a growing crisis within the creator economy, one where mental health is increasingly at risk as young people build their identities and livelihoods around digital validation.

Business creator Nitin Joshi called "emotional calibration" his biggest challenge. "Showing up with the same energy—whether you're celebrated, ignored, or hated—is the hardest part," he said.

Fashion and beauty creator Sana Ghauri echoed this sentiment. "Some days, I'm dealing with breakouts, anxiety, or just feeling low but the algorithm doesn't care, right? You start questioning whether people will still engage if you're not glowing or creating daily. And let's not even talk about comparison. It's easy to feel like you're not doing enough when your feed is full of curated perfection," she said.

Sejal Bhalke, an emerging creator said, "I knew there would be hate comments or people judging my appearance, but initially, since my

follower count was small, the response was mostly positive." Things flipped when one of her videos went viral. "Suddenly, there were hate comments, judgements about how I looked, and of course, some support too. Now, I don't read comments at all. I post and go offline," she said.

Patterns in creator mental health

Clinical psychologist Nishita Srivastava from Lissun, a mental health platform, has observed a concerning pattern in clients who work in content creation. "Creators experience a 'high' – on getting 'likes' or appreciation in some form – that triggers a reward pathway similar to what people experience during substance use."

The problem, Srivastava noted, is what happens when that initial high fades: "After some time, when the initial high dies, one might aim for more and more to achieve that same pleasure one felt initially. This might lead to frustration and desperation to be validated by others. In the long run, this leads to the individual's self-esteem and current mood being completely dependent on how well their content is doing on the social platforms," she said.

Algorithm anxiety and the nervous system

The unpredictable nature of social media algorithms creates what experts call "algorithm anxiety"—a state of constant hypervigilance that takes a physical toll on creators. "Anything that is uncertain or is out of our control gives us

anxiety; and this holds true for content creators as well. One never knows what might be the next viral reel or what might make one become and stay relevant," said Srivastava.

Psychologist Raashi Gurnani said she has seen a "significant rise in clients who work as content creators or are deeply embedded in the social media space." Many of them present with symptoms of chronic anxiety, burnout, and identity confusion. "A common psychological pattern is emotional dysregulation triggered by inconsistent online feedback—what they often describe as 'the algorithm's mood swings.' These individuals live in a constant state of performance, where their self-concept becomes heavily enmeshed with audience reception," she said.

Industry pressures and client expectations

The pressure on creators isn't just internal; it often comes from brands and clients obsessed with metrics. Mohit Ghate, co-founder at Wit & Chai Group, acknowledged this reality: "Absolutely, the client expectations around numbers like follower count, reach, and engagement often reduce creators to mere distribution channels, when in reality, they are storytellers and culture shapers."

While Ghate recognised the business necessity of tracking metrics — "especially for justifying ROI, as agencies have to justify effort vs benefit ratio" — he argued that "the obsession with vanity numbers can be deeply flawed."

Sheetal Sharma, founder and director of Supreme Support Consultants, a PR and influencer marketing agency, sees similar pressures. She said, "The fixation on high performance, number of followers, and virality places huge pressure on creators to keep going nonstop. It makes them feel they can't spare an 'off' week."

The glamourisation of creator life

Many industry insiders worry that the glamourised portrayal of influencer life misleads young people about the emotional costs of the profession.

"Influencer life is usually idealised — everything from travel to gifts, popularity, and adventure. But it's not seen the behind the scenes of endless takes for one perfect video, content strategy, worry, or loneliness. And for young creatives entering into this space with no boundaries and support systems, this can be perilous," said Sharma.

Piyush Agrawal, co-founder of CREATE, an influencer marketing and talent management agency, agreed: "The truth is, it requires a thick skin and a strong work ethic to sustain in this field. While the rewards are high, the effort and pressure to consistently deliver are just as intense."

The struggle to show vulnerability

Despite increasing awareness about mental health, many creators feel they can't openly discuss their struggles online.

"There's always pressure to appear 'fine.' Because

in the creator economy, vulnerability has a shelf life — and performance has a premium," explained Joshi. "You're rewarded more for a motivational quote than for admitting weakness. Authenticity is encouraged — but only if it's viral, polished, and packaged with trending audio."

Ghauri shared a similar sentiment: "As a creator, there's this unspoken pressure to always seem okay – put together, thriving, glowing. But the truth is, I have my low days too. Talking about mental health publicly still feels vulnerable, like people might judge or think I'm being 'too much'."

Coping mechanisms and finding balance

Bhalke has developed her own methods for managing the emotional impact of social media. "You'll laugh at this, but whenever I post a video, I literally switch off my internet and disappear until the next morning. It's like I've trained my mind to believe that if I don't watch the views, the video might actually perform better."

Srivastava recommended specific strategies for content creators to protect their mental wellbeing. "Building movement: One might want to discover activities outside social media that keep them physically active and in touch with their authentic self. This could include activities like sports, gardening or pottery. Taking time off social media: Going for a digital detox or having days where you try to limit social media usage

might be a great idea, especially for individuals who spend a lot of time online," she said.

Industry solutions and agency support

Some agencies are beginning to recognise the need for better mental health support for creators. Ghate shared how his agency approaches burnout: "What helps, even if it doesn't eliminate the pressure, is allowing creators the space to approach content in their voice and style. It acts like a safety valve, a small release in an otherwise high-pressure system. While it doesn't erase burnout, it certainly humanises the process."

Agrawal stressed financial discipline as a path to greater autonomy. "When you're financially stable, you have the freedom to choose work that truly aligns with you and say no to what doesn't. That autonomy helps reduce the pressure," he said.

Sharma believes the industry culture is slowly shifting. "Increasingly more brands are now recognising the power of authenticity and lasting impact compared to continuous outputs. As a studio, we're proponents for the well-being of creators and actively promote direct discussion with brands on realistic requirements and sustainable release timelines," she said.



When Bombay was a feast:

A budget gourmet's guide

Rajyasree Sen



My memories of most cities, towns and countries I've visited are inextricably linked to the food I've savoured there — the pillowy flatbread/bazlama in Istanbul, much like naan but better; the grilled meats and big fat oysters in Johannesburg; the golden coconuts of Sri Lanka. But rarely have I come across a city that allowed me to eat as well, and as affordably, as Bombay did, and as Mumbai still does.

I moved to Bombay just as I turned 22 for my post-graduation. I had no idea I was stepping into a food paradise for those living on a shoestring budget. This was at a time we could only afford a plate of chicken – though we were never quite sure it was chicken – hakka noodles for Rs 40

from the MAFCO stall next to college on Warden Road.

If you want a true taste of Mumbai's eclectic food scene without burning a hole in your wallet, here's what I recommend — including a few misses along the way.

Mumbai is truly street food heaven. The city's vast local train network has spawned countless fast-food stalls and vans catering to people perpetually on the move. While I'm a die-hard fan of *phuchka* and *jhal muri* in Calcutta, I strongly recommend trying *bhel puri* here — puffed rice mixed with chopped onions, coriander, nuts, crushed *papdi*, *bhujia*, all of which is mixed through with a spicy green chutney and a sweet imli (tamarind) one. It's a meal in a paper cone, available everywhere from beaches to stations and outside colleges, layered with textures which would make even Ottolenghi proud.

For something more substantial, head to one of the many Irani cafés scattered across the city. With their checkered glass-topped tablecloths, fans whirring above your head and elderly, doddering waiters, these places offer a mood. I used to love the *keema pao* – spicy, bhunoed mutton mince cooked with onions and tomatoes, scooped up with buttered Mumbai *pao*, and washed down with a chilled soda.

Speaking of *pao*, I remember being locked out of my cousin's home in Prabhadevi in my first month in the city. She said she would take an

hour to return. While I waited for her, I made a meal of the freshly made hot, spicy *pau bhaji* from a stall below her building. The buns were cut in half, slathered with butter, and heated on a giant *tawa*. The *bhaji* – mashed vegetables mixed with spices – were cooking on another part of the tawa. This was slapped onto a steel plate, with a squeeze of lime followed by a dollop of butter smacked onto the *bhaji* which melted into a pool of high taste and calories for your consumption. I had found pure comfort food for the soul.

Bombay was also the first place I saw dosas being made on open carts. Right outside Sophia College stood a vendor. I had never seen dosa made in this manner; the dosas you got in Calcutta were made in small, clean South Indian establishments. The Mysore masala dosa, flavoured with half a slab of butter, gave us enough energy to travel to Bhayander and back after a full day of college, and still not be tired.

My greatest culinary discovery in Bombay, something I still go back for, is Maharastrian and Malwani seafood. As a Bengali, I believed no one could cook fish as well and in as much variety as us. But the Maharashtrians proved me wrong. The variety and affordability of seafood in spotless restaurants such as Highway Gomantak, Sahiba, Sindhudurg, and the more upscale Gajalee were revelations. One favourite was Soul Fry in Bandra for its fiery seafood, followed by a walk to Gondola for a cooling caramel custard. Malwani curries had tangy

coconut bases — never overpowering, just thick enough — and the cuisine featured fish roe, shark, rawas, surmai, pomfret, bangda, crabs, and teesriya/clams masala. If you love seafood, Mumbai is the place for you. The oddity for me as a Bengali was that fish was eaten with roti and not with rice, but I stuck to what I knew.

There were local cult favourites, too. Crystal at Chowpatty, where the advertising crowd hung out, though I was disappointed to be served *rajma chawal* and *gobhi ki sabzi*. Naturals for its luscious fruit-topped ice creams. Café Noorani, with its unique take on Mughlai food – the chicken tikka biryani, a delicious mash-up of tandoori tikka and pulao. Colaba's Café Leopold and Mondegar, where beer flowed freely, and you could gorge on steak, chips and chilli beef. And Café Churchill, which is quieter, but with generous burgers and sizzlers, is still a crowdpleaser.

I still go back to Leopold and Mondegar. I make a ritual stop at Gajalee each time I return to what's now Mumbai. And I'm always relieved to find that my memories of delicious food from simpler times weren't just sentimentality. The food really is that good.

For me, the taste of Bombay is a little hot, a little messy, but full of warmth, spice and unforgettable flavour.



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