



Google privacy tools to limit online tracking
Google is set to roll out a dashboard-like function in its Chrome browser to offer users more control in fending off tracking cookies, the *Wall Street Journal* reported on Monday. Cookies are text files that follow users and are used by advertisers to target consumers while they browse internet. REUTERS



Ronaldo takes on aliens in comic book series
MILAN
Cristiano Ronaldo may be known more for his superhuman scoring skills but the Portuguese star has now created a comic book series where he turns into a superhero. The Juventus forward has released his *Striker Force 7* series, posting a link on Twitter. AFP



Jeopardy! host Trebek gets Emmy Award
LOS ANGELES
Alex Trebek got a standing ovation as he accepted an Emmy Award as host of *Jeopardy!* and immediately set the audience at ease, even as he alluded to his cancer diagnosis. Mr. Trebek, 78, announced in March he has advanced pancreatic cancer.

It's a boy! Meghan, Harry welcome their first child

The royal birth has triggered betting over baby names with 'James', 'Arthur' and 'Philip' leading the list

AGENCE FRANCE-PRESSE
WINDSOR

Prince Harry and Meghan, Duchess of Sussex, broke with custom yet again on Monday with the announcement of the birth of their first child.

News of the birth was released on Instagram – a first in royal history – in a post on their @sussexroyal account with the couple's crest and the simple phrase: "It's a BOY!"

Later, Prince Harry told



Just arrived! A file photo of Prince Harry and Meghan. ■AP

reporters that the mother and baby were "doing incredibly well".

"I am very excited to an-

nounce that Meghan and myself had a little boy early this morning – a very healthy boy," a beaming Harry said.

Buckingham Palace said the boy, seventh in line to the throne, was born at 0426 GMT, weighing seven pounds and three ounces (3.26 kg).

Queen Elizabeth II, Prince Charles and Prince William were among the members of the royal family to have been informed and "are delighted with the news," it added.

Meanwhile, the royal birth has triggered betting over different baby names. "James", "Arthur", "Phi-

lip" and "Albert" led the list of bookmakers' favourites on Monday.

Prince Harry said the name would be revealed later this week.

Royal names in Britain are normally chosen from a relatively restricted pool of those used by past royals. However, since their baby is only seventh in line to the throne and therefore unlikely to ever become king, the couple may have more freedom to make their own choice.

Is Europe too harsh on tech giants?

New rules are leading to accusations of censorship & providing governments with ways to stifle dissent

ADAM SATARIANO
LONDON

In Spain, activists were convicted for social media posts that violated an expanded anti-terrorism law. The Twitter accounts of German citizens were blocked because of rules enacted last year that prohibit hate speech. And a Dutch court determined Google must remove search results about a doctor punished for poor performance, in compliance with a privacy law.

Heralded as the world's toughest watchdog of Silicon Valley technology giants, Europe has clamped down on violent content, hate speech and misinformation online through a thicket of new laws and regulations over the last five years. Now there are questions about whether the region is going too far, with the rules leading to accusations of censorship and potentially providing cover to



New battleground: Facebook CEO Mark Zuckerberg speaking at a conference in San Jose, California, on April 30. ■AFP

some governments to stifle dissent.

The unintended consequences may be compounded as European governments pursue more laws and policies to restrict what communication can be shared online. Last month, Britain proposed appointing an internet regulator who would be empowered to block websites it considers harmful. The European Union is separately debating a law that would require tech compa-

nies to quickly remove terrorist-related content online.

With the growing body of European legislation, "there will be a lower standard for protection of freedom of expression," said David Kaye, a University of California, Irvine, law professor who the United Nations appointed to spotlight government efforts to restrict free speech. He added that Europe's rules erode what had been a shared belief among the United States and other West-

ern democracies to avoid censoring social media posts, YouTube videos, discussion forums and other internet content.

Individual freedom

The debate in Europe illustrates the difficulties that governments face as they try to regulate the most corrosive material on the internet without choking off individual expression.

In Sri Lanka, authorities shut off access to social media sites after coordinated terrorist attacks last month left hundreds dead. New Zealand and Australia have put forward restrictions on tech companies after the March massacre of 50 people at two mosques in New Zealand, where the accused gunman used social media to amplify his message. Singapore has also proposed a law to curtail false or misleading information, which critics

warned could be used to silence dissent.

Tech companies themselves are asking for more regulation, rather than delegating enforcement responsibility to their platforms. Mark Zuckerberg, Facebook's Chief Executive Officer, invited Congress in March to set rules for the social network. On Thursday, Facebook added to the censorship debate when it proactively barred several extremists, including InfoWars founder Alex Jones, from its platform.

Dimitris Avramopoulos, a European Commissioner pushing for stricter oversight of the internet, said government intervention was an appropriate response to how social media was being used to glorify terrorism, manipulate elections and spread hateful ideologies. "The new battleground is the internet," he said. NY TIMES

Pakistani popcorn seller builds his own plane

Learnt it from TV clips, online blueprints



Dreams take wing: Muhammad Fayyaz sitting in his plane at his residence in Tabur village in Pakistan. ■AFP

AGENCE FRANCE-PRESSE
TABUR

The engine is from a road-cutter, the wings are burlap, the wheels are borrowed from a rickshaw: a popcorn seller has caught the attention of the Pakistan Air Force by building his own plane.

The tale of Muhammad Fayyaz has captured the hearts of many in a nation where millions, just like him, have limited access to education and are fighting for opportunities.

"I was literally in the air. I couldn't feel anything else," Mr. Fayyaz said of his first flight in a machine he learned to build mainly from viewing TV clips and online blueprints.

Pakistan has been thrilled before by stories of scientific prodigies plucked from obscurity before – notably, that of the engineer who said in 2012 that he had invented a car that could run on water – a story that was later debunked by scientists.

But Mr. Fayyaz insists he flew and his claim is being taken seriously by the Air Force, whose representa-

tives have now visited him multiple times, even issuing a certificate to commend his work, he revealed.

The 32-year-old said he had dreamed of joining the air force as a child, but his father died while he was in still in school, forcing him to drop out at the eighth grade and do odd jobs to feed his mother and his five younger siblings.

As an adult, his passion for flying remained undiminished, so he took a wild gamble on a new dream.

By day he worked as a popcorn seller, by night as a security guard, saving every rupee he could.

He sold a piece of family land, and took out a 50,000 rupee (\$350) loan, which he is still paying off.

Mr. Fayyaz claims his friends helped him to block a small road which he used as a runway for that first flight attempt in February.

The plane reached 120 kph before taking off, Ameer Hussain, a witness, said.

"It was between two and two and half feet off the ground," he said. "It flew for 2-3 km before landing."

Feast of God



Harvest in plenty: Women prepare traditional cakes for a ritual in honour of the pagan god Yurya, who is believed to protect their harvest. Locals use this day to pray for a good harvest in the village of Pogost, Belarus. ■REUTERS

Scientists carry out genetic study on people of Lakshadweep Islands

Ancestry largely derived from South Asia, with minor influences from elsewhere

V. GEETANATH
HYDERABAD

Lakshadweep is an archipelago of 36 islands, scattered over approximately 78,000 square km of the Arabian Sea, 200-440 kms off the south-western coast of India, with a population of approximately 65,000. However, the genetic composition of the first human settlement of this archipelago is not clear.

The islands were known to sailors since ancient times and historical documents say that the spread of Buddhism to these islands happened during 6th century B.C. and Islam was spread by in 661 A.D. by Arabians. Cholas ruled the islands in 11th century, Portuguese in 16th century, Ali Rajahs in 17th, Tipu Sultan in 18th before

the British Raj of 19th century.

Genetic studies done on the people of the archipelago by a team led by K. Thangaraj at CSIR-Centre for Cellular and Molecular Biology (CCMB), for the first time, have shown that a majority of human ancestry in Lakshadweep is largely derived from South Asia with minor influences from East and West Eurasia. And, there was no evidence of early human migration through the Lakshadweep islands.

Early migration

"The islands are located between Africa and southwestern part of India. Through our earlier studies we know that early human migration from Africa to Andaman and

Australia happened through western coast of India. So, we presumed that Lakshadweep Islands might have played a major role in early human migration and expected the presence of genetic signatures of ancient people, such as Andamanese and Australian aboriginals," said Dr. Thangaraj, chief scientist at CCMB and a lead author of the study.

DNA samples were analysed, of 557 individuals from eight major islands for mitochondrial DNA, and 166 individuals for Y chromosome markers. "We found a strong founder effect for both paternal and maternal lineages – a sign that the island population had limited genetic mixing", said M. S. Mustak, first author of the

study and associate professor of Department of Applied Zoology, Mangalore University. The authors have studied the major islands of Agatti, Andorth, Bitra, Chetlat, Kadmat, Kalpeni, Kiltan and Minicoy of Lakshadweep and demonstrated a close genetic link of Lakshadweep islanders with people from Maldives, Sri Lanka and India.

"Even after regular historic interactions with people from different regions of the world, it is extremely interesting that we could see only limited number of founders," said Gyaneshwer Chaubey, another author and professor at Banaras Hindu University. The study was published in *Scientific Reports* on Monday.

Stress buster serotonin may help treat neurological decline

Researchers at TIFR say the chemical can impact the manner in which neurons grapple with stress and affect ageing

R. PRASAD
CHENNAI

In a surprising discovery, researchers at the Tata Institute of Fundamental Research (TIFR), Mumbai, have found a novel function for serotonin (a chemical that signals between neurons). The recent discovery establishes that serotonin is involved in the generation of new mitochondria (the powerhouse of the cell) in neurons, increased cellular respiration and fuel (ATP) in the cell. Serotonin's newly identified function has been studied in mice and rats. If found to be true in humans, which is likely to be the case, it may have important medical implications.

"We cultured neurons and looked at the effects after adding serotonin, and found really unexpected results. We knew we had stumbled on something very interesting. These finds were confirmed and validated



(From left) Vidita Vaidya, Ashok Vaidya, Sashaina Fanibunda, and Ullas Kolthur-Seetharam. ■SPECIAL ARRANGEMENT

through extensive experiments," Prof. Vaidya recalls. The results of the study were published in the journal *Proceedings of the National Academy of Sciences (PNAS)*.

Underlying mechanism

At the level of an organism, serotonin is known to be involved in coping with stress. However, the underlying mechanism of its neuro-protective role was unknown. The team, jointly led by Vidita A. Vaidya and Ullas Kolthur-Seetharam from TIFR, in collaboration with Ashok Vai-

dya from Kasturba Health Society, provides insight into how serotonin generates more mitochondria, thereby giving neurons the capacity to produce more energy and the ability to cope with stress better.

More than three decades ago researchers had speculated that serotonin could have antioxidant-like effects. But this was not experimentally proved. "We found that serotonin reduces reactive oxygen species, thus providing neuroprotection against cellular stress. Serotonin can

impact the manner in which neurons grapple with stress and affect the trajectory of ageing," said Prof. Vaidya.

Neuronal loss is a major cause of neurodegenerative diseases such as in Alzheimer's and Parkinson's. Abnormal mitochondrial functions are known to cause or contribute to neuronal death. The new findings raise the possibility that serotonin signalling could be used to prevent mitochondrial abnormalities and neuronal loss.

Unlike other cells, neurons are not generated continuously and so identifying factors that increase mitochondrial health is key to prevent ageing-associated neurological diseases.

Experimental proof

"Neurons exposed to serotonin not only produced more fuel (ATP), even the efficiency of mitochondrial output in these neurons was higher," said Prof. Kolthur-Seeth-

aram, joint senior author of the paper. This was seen in experiments done both in tissue culture and rats/mice.

Neurons have 14 receptors for serotonin, but only when serotonin binds to a specific receptor (5-HT_{2A}), does it activate SIRT1 (a key longevity factor/gene) that produces new mitochondria and more ATP in neurons.

"Under in vitro conditions, neurons treated with a drug to block the 5-HT_{2A} receptor as well as neurons that lacked the receptor abolished all the beneficial effects of serotonin on mitochondria. Further, in rats, activating the receptor using a drug enhanced the mitochondrial function," said Dr. Sashaina Fanibunda.

Using mutant mice that did not have the SIRT1 protein in the cortex, stimulating the 5-HT_{2A} receptor did not lead to enhanced mitochondrial function.

Injecting serotonin direct-

ly into the brain of rats led to direct increase in mitochondria number and ATP levels. Beneficial effects of serotonin were seen by genetically increasing it in the brain of 13-to-15-month-old mice.

"With age, levels of serotonin, SIRT1 and mitochondria go down; the function of mitochondria also goes down. Thus supplying more serotonin could restore mitochondrial functions even in old mice," said Prof. Kolthur-Seetharam.

"This study paves way for further research into designing therapeutic interventions by combined activation of serotonin and SIRT1 either through pharmacological approaches or coupling approved drugs that activate serotonin signalling with dietary interventions like calorie restriction. This may help tackle mood disorders and age-associated neurological decline," said Prof. Kolthur-Seetharam.

Avengers blasts past Titanic to all-time No. 2

It crossed the \$2 bn mark in record time



Karen Gillan, left, and Don Cheadle in a scene from *Avengers: Endgame*. ■AP

AGENCE FRANCE-PRESSE
LOS ANGELES

Disney and Marvel's *Avengers: Endgame* has stormed into historic territory, earning \$2.19 billion worldwide in less than two weeks to become the No. 2 film of all time, industry watcher Exhibitor Relations has reported.

That exalted number, which includes the film's estimated take of \$145.8 million this three-day weekend

in North America, pushes the superhero blockbuster past *Star Wars: The Force Awakens*, which netted \$2.07 billion, and even *Titanic* (\$2.18 billion).

Only *Avatar* (\$2.79 billion) has done better. Yet the latest *Avengers* franchise hit its record total in just 11 days, taking in a stunning \$575.8 million in China alone.

Hollywood analysts predict a long run for *Avengers*.