

IN BRIEF


Students make algorithm to predict GOT deaths

BERLIN
Spoiler alert - Computer science students at the Technical University of Munich have developed an application that scours the internet for data on the *Game of Thrones* series, and uses an algorithm to predict which characters are most likely to survive. The results? Daenerys Targaryen has the highest chance of survival, and Bronn is the most likely to die next. **AP**


Bezos upbeat on Amazon Go physical stores

WASHINGTON
Amazon Chief Executive Jeff Bezos said on Thursday he sees a bright future for the company's cashierless retail stores. Mr. Bezos was upbeat about the prospects for Amazon Go, the stores where customers use an app to check out, with purchases scanned in the store and billed electronically. **AFP**


Disney streaming service set for November launch

LOS ANGELES
Disney has announced that its highly anticipated streaming service would launch in the U.S. on November 12. The company said the viewers would be able to watch its content on Disney+ after paying a subscription fee of ₹6.99 per month. **PTI**

NASA's 'twins study' highlights effects of spaceflight on body

It will guide future biomedical space research and help plan a safer Mars trip

AGENCE FRANCE-PRESSE
WASHINGTON

A NASA study of a U.S. astronaut who spent a year in space while his twin brother remained on the earth is providing insights into the effects of spaceflight on the human body, researchers said on Thursday.

U.S. astronaut Scott Kelly spent a year on the International Space Station while his identical twin Mark Kelly, also a former NASA astronaut, stayed on the ground.

The researchers who carried out the "NASA Twins Study" found that most of the changes to Mr. Scott's body during his time in space returned to normal within months of his return to the earth — although not all of them. The findings, published in the journal *Science*, were encouraging to scientists and engineers envisioning interplanetary travel such as an eventual trip



Scott Kelly, right, and his twin brother Mark Kelly. **REUTERS**

to Mars, a mission that could last two to three years.

Comprehensive study

"The study is the most comprehensive review of the response of the human body to spaceflight ever conducted," said Dr Susan Bailey of Colorado State University.

Dr Steven Platts, deputy chief scientist of NASA's Human Research Program, said it will "guide future biomedical space research and allow

us to have a safer journey to and from Mars."

Using Mr. Mark as a baseline, 84 researchers at 12 universities documented the molecular, cognitive and physiological effects of Mr. Scott's year in space.

Mr. Scott, 50, spent 340 consecutive days on the ISS — from March 27, 2015 to March 1, 2016.

Dr Michael Snyder of Stanford University said there are "thousands of gene

and molecular changes that occur as someone goes in space. Virtually all of those returned to normal (in Scott) by six months," Mr. Snyder said.

"Our main findings in Mr. Scott were that the carotid artery wall became thicker early in flight and remained so throughout the mission," Dr. Stuart Lee of NASA's Johnson Space Center said.

Mr. Mark did not have any such thickening.

Mr. Scott lost 7% of his body mass during his time on the ISS, possibly due to poorer nutrition in space and a lack of exercise, while Mr. Mark gained about 4%.

In one test, flu vaccination delivered a similar immune response in them.

Cognitive tests before, during and after the flight found that Mr. Scott's cognitive performance declined post-flight in terms of speed and accuracy.

In S. Korea, babies born one day can be 2-year-olds the next

The country has world's most unusual age-calculating system

ASSOCIATED PRESS
DAEJEON

Just two hours after Lee Dong Kil's daughter was born on New Year's Eve, the clock struck midnight, 2019 was ushered in, and the infant became 2-years-old. She wasn't alone, though it happened for her quicker than most: every baby born in South Korea last year became 2 on January 1.

According to one of the world's most unusual age-calculating systems, South Korean babies become 1 on the day of their birth and then get an additional year tacked on when the calendar hits January 1. A lawmaker is working now to overturn the centuries-old tradition amid complaints that it's an anachronistic, time-wasting custom.

Ancient calendar

For parents whose babies are born in December, it can be especially painful. One hour after his daughter's birth in the central city of Daejeon at 10 p.m. on Dec. 31 last year, Mr. Lee posted the news on social media. His friends immediately showered him with congratulatory messages.

"An hour later, when the New Year began, they phoned me again to say congratulations for my baby becoming 2-years-old," said Mr. Lee, who is 32 internationally but 34 in South Korea. "I thought, 'Ah, right. She's now 2 years old, though it's been only two hours since she was born. What the heck!'"

The origins of this age reckoning system aren't clear. Being 1 upon birth may be linked to the time babies spend in their mothers' wombs or to an ancient



Beat the clock: Just two hours after Lee Yoon Seol was born on New Year's Eve, she turned 2 years old. **AP**

Asian numerical system that didn't have the concept of zero.

Becoming a year older on January 1? That's even harder to explain.

It could be that ancient Koreans cared a lot about the year in which they were born in the Chinese 60-year cycle, but, without regular calendars, didn't care much about the specific day they were born; so they mostly ignored the day of their birth and instead marked another year of age on the day of the Lunar New Year, according to senior curator Jung Yonhak at the National Folk Museum of Korea.

North Korean twist

This may have then shifted to the solar New Year on January 1 as the South began embracing the Western calendar. North Korea uses the Western age calculating system, but they have a twist: they follow their own calendar that's based on the birth of national founder and president-for-life Kim Il Sung.

The year of your birth is still incredibly important in South Korea, and lumps those linked children togeth-

er for life.

Other Asian countries, including Japan and Vietnam, abandoned the Chinese-style age system amid an influx of Western culture. Officially, South Korea has used Western-style calculations since the early 1960s. But its citizens still embrace the old-fashioned system.

Some South Koreans still worry that the practice makes their nation look odd on the international stage.

Ahn Chang-gun, from the southeastern city of Gimhae, said he felt "empty" when his first child became 2 on January 1, 2013, about two weeks after his wife delivered him after eight years of marriage. "He was this precious baby that we finally had, but I felt that all of a sudden two years had just gone by and yet I hadn't done anything for my baby," said Ms. Ahn.

In January, lawmaker Hwang Ju-hong tabled a bill aimed at requiring the government to put international ages in official documents and encouraging general citizens to go with their international ages in everyday life.

5G-linked cows show future of milking

Device recognises the animals, opens the gate to lead them to designated teats

REUTERS
SHEPTON MALLET

They may look like regular cows, but a herd of Friesian dairy cattle at a British farm are internet pioneers and they are enjoying the benefits of 5G connectivity before you.

Cisco Systems Inc, which is developing network infrastructure for the emerging technology, has set up 5G testbeds to trial wireless and mobile connectivity in three rural locations in U.K.

5G promises super-fast connections, which is poised



They wear a collar that controls the milking system. **GETTY IMAGES/ISTOCKPHOTO**

transform the way we live our lives, enabling everything from self-driving cars to augmented-reality glasses

and downloading a feature-length film to your phone in seconds.

For the cows, among the 5G-connected gadgets they are wearing is a collar that controls a robotic milking system.

When the cow feels ready to be milked it will approach machine gates that will automatically open. The device recognises the individual to precisely latch on to its teats for milking, while the cow munches on a food reward.

At the government-funded Agricultural Engineering

Precision Innovation Centre (Agri-EPI Centre) in Shepton Mallet, around 50 of the 180-strong herd is fitted with the 5G smart collars and health-monitoring ear tags.

The gadgets do not harm the cows and the monitoring allows handlers to see any signs of distress.

"We can connect every cow, we can connect every animal on this farm," Cisco's Nick Chrissos said.

"That's what 5G can do for farming — really unleash the power that we have within this farm."

An ode to martyrs of Jallianwala Bagh

Nanak Singh's poem *Khooni Vaisakhi* will be launched by his grandson today

KALLOL BHATTACHERJEE
NEW DELHI

One of the first poems written in protest after the Jallianwala Bagh massacre of 1919 is being republished to mark the centenary of the tragedy that galvanised the movement for Indian independence.

Khooni Vaisakhi, a classic work of protest poetry by the late Nanak Singh, was translated by his grandson Navdeep Suri, who is India's Ambassador to the UAE. Nanak Singh, one of the most notable Punjabi writers of his generation and among the prominent reformist writers of 20th century from Pakistan.

The long poem written in Gurmukhi was banned and was missing for decades. Giani Zail Singh, Home Minister in the last Indira Gand-



The martyrs' well at Jallianwala Bagh in Amritsar. The year 2019 marks 100 years of the massacre. **PTI**

hi government, restored the book to the family.

Mr. Suri was 12 when his grandfather passed away. "It is from my grandmother that we heard how he was among the witnesses to the massacre and how he lost his hearing as the bullets landed around him, killing his friends," said Mr. Suri, who

will formally launch the book on Saturday.

The Jallianwala Bagh massacre took place on 13 April, 1919, when a rally consisting of Sikhs, Muslims and Hindus, gathered for a stir against the draconian Rowlatt Act. The firing that killed hundreds left Nanak Singh, 22, buried under a pile of

corpses. Though Nanak Singh lived till 1971, he rarely discussed the incident with his family.

He was a self-taught rebel and joined the freedom movement. *Khooni Vaisakhi* was banned and its copies confiscated in 1923. The translated edition of the poem also contains an essay by journalist Justin Rowlett, great-grandson of Sidney Rowlett, author of the Rowlatt Act. The piece of legislation suspended all the civil liberties and imposed restrictions on the press. In a personal piece in the book, Justin Rowlett recounted how the massacre became a "turning point" in the freedom struggle. He said that he remains "appalled" that his great-grandfather was honoured with a Knighthood for authoring the law.

Wonder world



Breaking new ground: The 40-m-high Rain Vortex, the world's tallest indoor waterfall, is seen from inside the 'Jewel' at Changi Airport in Singapore. **REUTERS**

Chinese arm wrestling yanks hard for recognition

It is gaining an arm hold with fan associations in 100 cities

AGENCE FRANCE-PRESSE
SHANGHAI

Muscles bulging and veins popping, two Chinese arm wrestlers lock eyes and then their hands, until the referee shouts "Go!"

Already considered a serious sport in many parts of the world, arm wrestling has generally been viewed in China as a testosterone showdown between inebriated bar patrons.

But it is gaining an arm hold with fan associations in more than 100 Chinese cities, said Ye Ming, founder of Shanghai Arm Wrestling.

More than 100 competitors took part in the recent 7th Shanghai Arm Wrestling Open, which calls itself the first in China carried out under the auspices of the Pro-



Changing perception: Participants competing in the 7th Shanghai Arm Wrestling Open in Shanghai. **AFP**

fessional Armwrestling League's international ranking system. "Arm wrestling is a way to shake hands and communicate face-to-face," said Mr. Ye, a top-ranked left-hander.

While China lags the U.S., Japan and Europe, it is the fastest-growing country in terms of participation, he said. The bespectacled 37-year-old is an unlikely champion.

Scientists insert human brain genes into monkeys

AGENCE FRANCE-PRESSE
HONG KONG

Chinese scientists have implanted human brain genes into monkeys, in a study on evolution of human intelligence.

Researchers inserted human versions of MCPHI, a gene that scientists believe plays a role in the development of the human brain, into 11 rhesus monkeys.

They found the monkeys' brains — like those of humans — took longer to develop, and the animals performed better in tests of short-term memory as well as reaction time compared to wild monkeys. However, the monkeys did not grow bigger brains than the control group.

The test, the latest in a series of experiments in China to have fuelled medical ethics debates, has already drawn ethical concerns, and



The Chinese experiments have fuelled medical ethics debates. **AFP**

comparisons with dystopian sci-fi *Planet of the Apes*.

It was conducted by researchers at the Kunming Institute of Zoology and the Chinese Academy of Sciences, along with researchers at the University of North Carolina, U.S. The study was published in Beijing-based *National Science Review*.

Shah Rukh Khan pays tribute to director of *Fauji*, his first TV show

Raj Kumar Kapoor's show chronicled training of commandos

PRESS TRUST OF INDIA
MUMBAI

Superstar Shah Rukh Khan has paid tributes to director Colonel Raj Kumar Kapoor, the man who gave the actor his first break on television in *Fauji*.

The family of Colonel Kapoor announced on Thursday that the veteran director died earlier this week. His last rites were performed at the Lodhi crematorium in Delhi.

Colonel Kapoor was best known for the 1989 show *Fauji*, which chronicled the training of an Indian Army commando regiment.

Sharing a throwback photo with Colonel Kapoor on Twitter, Shah Rukh said the director played an important role in making a "Fauji



Shah Rukh Khan with Colonel Raj Kumar Kapoor. **TWITTER**

out of a boy".

"He loved me so much. Encouraged me. And today if I am used to being molly-coddled on sets it's because of this man who made a *Fauji* out of a boy, like his own.

Will miss you Sir... always. May you find peace in your new mission," he said.

According to reports, Colonel Kapoor passed away due to age-related issues, aged 87.