

## IN BRIEF



## Scarlett Johansson may take political plunge

LOS ANGELES  
Actor Scarlett Johansson says she will not rule out the possibility of her entering politics in the future. The 34-year-old actor is one of the most politically active Hollywood celebrities. "I think the greatest way to effect change is in local politics. Maybe at some point in the distant future I will feel that calling, but I just haven't," she told Variety. PTI



## Darth Vader costume may go for \$2 mn at auction

LOS ANGELES  
A man who made appearances as Darth Vader at film premieres will sell a costume created in 1979 by the Star Wars design team at an auction of classic movie memorabilia next month, auction house Bonhams said. The 17-piece ensemble includes the villain's black mask, boots, a pair of capes and a cod piece, said the auctioneers, who estimated it could sell for between \$1 million and \$2 million. REUTERS



## Pope donates \$5,00,000 to help Mexico migrants

VATICAN CITY  
Pope Francis has donated 500,000 dollars to help migrants in Mexico, offering assistance to local projects that provide food, lodging and basic necessities. The funds will be distributed among 27 projects. AP



## Avengers: Endgame conquers the world

NEW YORK  
Superhero movie *Avengers: Endgame* has shattered the record for biggest opening weekend with an estimated \$350 million in ticket sales in the U.S. and \$1.2 billion globally. It obliterated the previous record of \$640.5 million set globally by *Avengers: Infinity War*. AP

## Lego Braille bricks may give blind literacy a needed lift

Advocates say the product can transform reading for visually impaired children

SARAH MERVOSH

A new effort is under way to help blind and visually impaired children more naturally learn to read Braille, a system based on different configurations of six small, raised dots that blind people read with their fingertips. And it is coming in the form of a favorite childhood toy: Lego bricks.

This week, the Lego Foundation, which is funded by the Lego Group, the Danish toy company that makes the blocks, announced a new project that will repurpose the usual knobs atop the bricks as Braille dots. And because the blocks will also be stamped with the corresponding written letter, number or punctuation symbol, they can be played with by blind and sighted children alike.

The project, called Lego Braille Bricks, is in a pilot phase and is expected to be released in partnership with schools and associations for the blind in 2020.

"When they get Lego in



New feel: Lego bricks featuring the shapes of Braille dots and the corresponding letter, number or punctuation symbol. •NYT

their hands, it's intuitive for them," said Diana Ringe Krogh, who is overseeing the project for the Lego Foundation.

**Learning through play**  
"They learn Braille almost without noticing that they are learning. It is really a learning-through-play approach."

Advocates say the product could transform reading for blind and visually impaired children, making the expe-

rience of learning Braille more inclusive and helping to combat what has been called a "Braille literacy crisis."

Though the research is limited, some estimates suggest that just 10 percent of blind children in the United States learn to read Braille, even though Braille literacy is associated with better job outcomes for adults. In 2017, less than half of American adults with visual impairments were employed, ac-

ording to a disability report by Cornell University.

Braille, once widely taught in schools for the blind, has fallen by the wayside since the 1970s, when the law began requiring public schools to offer equal education to children with disabilities.

Blind students were able to join their sighted peers in the classroom, but traditional schools, biased toward sight and facing a lack of specialised teachers, often pushed children with any sight at all to rely on magnified print.

And an explosion of accessible technologies, including audiobooks, apps and screen readers, has strengthened reliance on audio, which advocates say cannot effectively teach critical skills like spelling and grammar, let alone complicated math.

"Audio can give you information, but it can't give you literacy," said Chris Danielson, a spokesman for the National Federation of the Blind. NY TIMES

## Why Christina Koch will stay on the ISS for 11 months

NASA wants to study the effects of spaceflight on a woman

INDO-ASIAN NEWS SERVICE  
WASHINGTON

Astronaut Christina Koch will set a record for the longest single spaceflight by a woman when she completes her 11-month-long mission aboard the International Space Station (ISS) in February 2020. Her long stay on the ISS has to do with NASA's preparation of human missions to the moon and Mars.

Ms. Koch's mission will provide researchers the opportunity to observe effects of long-duration spaceflight on a woman, NASA said. Her planned mission duration will be just shy of the longest single spaceflight by a NASA astronaut — 340 days set by former astronaut Scott Kelly during his one-year mission in 2015-16.

## Lack of data

The mission became necessary as the majority of data available is on male astronauts. But male and female bodies respond differently, and health conditions occur at different rates in male and female populations.

With this mission, re-



Christina Koch

searchers hope to better understand astronaut adaptability over long periods of space exposure and better support the development of effective countermeasures to maintain crew health.

NASA last month accepted a challenge from the Donald Trump administration to return humans to the moon by 2024, four years ahead of the U.S. space agency's earlier set target.

"This time, when we go to the moon, we will stay. And then we will use what we learn on the moon to take the next giant leap—sending astronauts to Mars," NASA Administrator Jim Bridenstine had said then.

Ms. Koch's stay on the

space station will eclipse the previous mark set by Peggy Whitson of 288 days on Expeditions 50 through 52 in 2016-17, NASA said.

Ms. Koch arrived on board the space station on March 14, beginning scientific research activities as part of the Expedition 59 crew. "It's an honour to follow in Peggy's footsteps," Ms. Koch was quoted as saying by NASA.

Meanwhile, NASA's Human Research Programme continues to lay the groundwork for future one-year missions on the space station and has selected 25 proposals to investigate biological, physiological, and behavioural adaptations to spaceflight. With information gained from the selected studies during future missions, NASA said it aims to address five hazards of human space travel — space radiation, isolation and confinement, distance from Earth, gravity fields (or lack thereof), and hostile/closed environments that pose great risks to the human mind and body in space.

## 500-year-old well found in Kartarpur

PRESS TRUST OF INDIA  
LAHORE

A 500-year-old well, believed to have been built during the lifetime of the founder of Sikhism Guru Nanak Dev, has been discovered at the enclosure of a gurdwara on the Kartarpur corridor, which will facilitate easy passage of Sikh pilgrims to the historic Gurdwara Darbar Sahib in Pakistan.

The 20-foot well, made of small red bricks, was discovered while digging the enclosure of Gurdwara Dera Sahib Kartarpur, some 125 km from Lahore, on the Kartarpur corridor, caretaker of the gurdwara, Sardar Gobind Singh, told reporters. It will be opened to the visitors after restoration, he said.

"The well (Khu sahib) is a boon for the Sikh pilgrims who would flock to the place on Baisakhi and other occasions and take away its sweet water. The water of the well had healing quality," Mr. Singh said.

## Diaper duty



Going green: Parents changing diapers of their babies as part of an environmental event 'The Great Cloth Diaper Change' in Bengaluru on Sunday. The event held worldwide aims to promote the use of eco-friendly diapers. •V. SREENIVASA MURTHY

## Five unpublished works of Ray to be unveiled in 2020

Include essays and illustrations

PRESS TRUST OF INDIA  
KOLKATA

Fans and followers of Satyajit Ray are an excited lot, as five unpublished works of the film maestro and author are set to see the light of day from 2020 onwards.

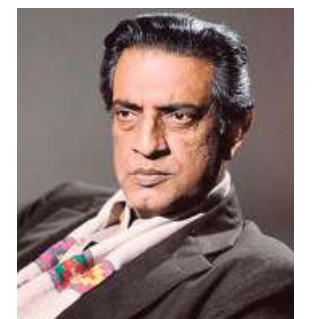
The titles mainly comprise unpublished essays and illustrations, a senior official of a publishing house said.

"Translations of Ray's *Tarini Khuro* and many of his illustrated works, which remain unseen till date, are also among them," he said. 'Tarini Khuro' is a fictional character by Ray.

The works will be published by Penguin Random House India under the aegis of The Penguin Ray Library.

"The Penguin Ray Library will give his works a unique look. The new titles will be presented in a special layout with quintessential aesthetics inspired by Ray's sensibilities," the official said.

As an author, Ray had



Satyajit Ray

created immensely popular characters in detective sleuth 'Feluda' and scientist 'Professor Shonku'

Ray, the recipient of 32 national film awards and several other international honours — including an Honorary Oscar in 1992 — also penned numerous short stories and novels. "I really can't wait for 2020 now. Ray's *Pather Panchali* actually inspired me to read the original novel written by Bibhutibhusan Nairwita Bandyopadhyay," said Nairwita Bandyopadhyay, a Professor and an avid reader.

## Comfort food leads to more weight gain during stress: study

The brain produces a molecule which stimulates eating

PRESS TRUST OF INDIA  
MELBOURNE

Indulging in high-calorie 'comfort' foods when you are stressed can lead to more weight gain than usual, scientists say.

Researchers from the Garvan Institute of Medical Research in Australia discovered a molecular pathway in the brain, controlled by insulin, which drives the additional weight gain.

Using an animal model, the team showed that a high-calorie diet when combined with stress resulted in more weight gain than the same diet caused in a stress-free environment.

"This study indicates that we have to be much more conscious about what we're eating when we're stressed," said Herbert Herzog, who led the study.

To understand what controls this 'stress eating', the team investigated different areas of the brain in mice. While food intake is mainly controlled by a part of the brain called the hypothalamus, another part of the brain — the amygdala — processes emotional responses, including anxiety.

"Our study showed that when stressed over an ex-



tended period and high calorie food was available, mice became obese more quickly than those that consumed the same high fat food in a stress-free environment," said Kenny Chi Kin Ip, lead author of the study published in the journal *Cell Metabolism*.

At the centre of this weight gain, the scientists discovered, was a molecule called NPY, which the brain produces naturally in response to stress to stimulate eating in humans as well as mice. "We discovered that when we switched off the production of NPY in the amygdala weight gain was reduced. Without NPY, the weight gain on a high-fat diet with stress was the same as weight gain in the stress-free environment," said Mr. Ip. "This shows a clear link between stress, obesity and NPY," he said.

To understand what

might control the NPY boost under stress, the scientists analysed the nerve cells that produced NPY in the amygdala and found they had receptors, or 'docking stations', for insulin — one of the hormones which control our food intake.

Under normal conditions, the body produces insulin just after a meal, which helps cells absorb glucose from the blood and sends a 'stop eating' signal to the hypothalamus feeding centre of the brain. The scientists discovered that chronic stress alone raised the blood insulin levels only slightly, but in combination with a high-calorie diet, the insulin levels were 10 times higher than mice that were stress-free and received a normal diet.

The study showed that these prolonged, high levels of insulin in the amygdala caused the nerve cells to become desensitised to insulin, which stopped them from detecting insulin altogether. In turn, these desensitised nerve cells boosted their NPY levels, which both promoted eating and reduced the bodies' normal response to burn energy through heat.

## Social media fraud rose 43% in 2018: report

INDO-ASIAN NEWS SERVICE  
SAN FRANCISCO

In a sign that platforms like Facebook and WhatsApp are emerging as new public square for criminal deception, a study has found that social media fraud increased 43% in 2018.

The results suggest that cybercriminals are increasingly relying on Facebook, Instagram, WhatsApp and other legitimate social media and messaging platforms to communicate with each other and sell stolen identities, credit card numbers and other ill-gotten gains.

Given the ease of use, absence of fees and other benefits of these platforms, continuation of this trend in 2019 should come as no surprise, said the whitepaper 'Current State of Cybercrime — 2019', released by RSA Security.

According to the researchers, fraud in the mobile channel has grown significantly over the past several years, with 70% of artifice originating in the mobile channel in 2018. In particular, fraud from mobile apps increased 680% between 2015 and 2018, said the study, adding that the use of rogue mobile applications to defraud consumers was on the rise.

## A school fills its seats with grandmoms

As the birth rate plummets in S. Korea, rural schools are running out of children

CHOE SANG-HUN  
GANGJIN COUNTY

Every morning on her way to school, Hwang Wol-geum, a first grader, rides the same yellow bus as three of her family members: One is a kindergarten, another a third grader, and the other a fifth grader.

Ms. Hwang is 70 — and her schoolmates are her grandchildren.

Illiterate all her life, she remembers hiding behind a tree and weeping as she saw her friends trot off to school six decades ago. While other village children learned to read and write, she stayed home, tending pigs, collecting firewood and looking after younger siblings. She later raised six children of her own, sending all of them to high school or college. Yet it always pained her that she couldn't do what other mothers did.

"Writing letters to my children, that's what I dreamed of the most," Ms. Hwang said.

Help came unexpectedly this year from the local school that was running out of school-age children and was desperate to fill its classrooms with students.

South Korea's birthrate has been plummeting in recent decades, falling to less than one child per woman



Literary drive: Hwang Wol-geum, left corner, participating in a school trip with other grandmothers. •NYT

last year, one of the lowest in the world.

The hardest hit areas are rural counties, where babies have become an increasingly rare sight as young couples migrated en masse to big cities for better paying jobs.

Like other rural schools, Daegu Elementary in Hwang's district has seen its students dwindle. When Ms. Hwang's youngest son, Chae Kyong-deok, 42, attended it in the 1980s, it had 90 students in each grade. Now, the school has only 22 students in total, including one student each in its fourth and fifth grade classes.

This year, the worst calamity of all struck the district. "We went around villages looking for just one precious kid to enroll as a first grader,"

said the principal Lee Juyoung. "There was none."

So Mr. Lee and local residents, desperate to save the 96-year-old school, came up with an idea: How about enrolling older villagers who wanted to learn to read and write?

Ms. Hwang and seven other women, aged 56 to 80, stepped forward, with at least four others asking to be enrolled next year.

For younger people who want to stay in the area, the future of their town depended on keeping the school alive.

"Who would start a family here if there were no school?" asked Noh Soon-ah, 40, whose husband — one of Ms. Hwang's sons — quit his job in an auto parts factory in a big city and resettled his

family here five years ago to succeed his parents' farming business. "Children are what brings laughter and vitality to a town."

The local education office warmed to the idea, and Ms. Hwang started attending classes last month.

Like many first graders on their first day, Ms. Hwang cried. But these were tears of joy.

"I couldn't believe this was actually happening to me," she said. "Carrying a school bag has always been my dream."

In the first grade classroom, Ms. Hwang and two other grandmothers toiled laboriously, determined to learn to read and write.

Pencil in hand, they chanted the 14 consonants and 10 vowels of the Korean alphabet as their teacher, Jo Yoon-jeong, 24, wrote them one by one on the white board. They took dictation on words like "aunt," "fisherman" and "raccoon" with their slow and crooked penmanship.

Between writing exercises, Jo turned on an upbeat song, "There Is Nothing Wrong With My Age!" and led a dance routine for the giggling grandmothers to follow.

"School is so much fun," Ms. Hwang said. NY TIMES