CORONAVIRUS OUTBREAK

# S Korea winning the fight using big data and AI

South Korea is fighting the novel coronavirus (COVID-19) by relying on its technological forte. The country has an advanced digital platform for big-data mining, along with artificial intelligence (AI) and Koreans are leading the technological front, with Samsung competing closely with Apple.

Utilising big-data analysis, AIpowered advance warning systems, and intensive observation methodology, South Korea has already managed to bring the coronavirus situation in the country under control in a short time.

government-run big-data platform stores information of all citizens and resident foreign nationals and integrates all government organisations, hospitals, financial services, mobile operators, and other services into it.

South Korea is using the analysis, information and references provided by this integrated data -- all different real-time responses and information produced by the platform are promptly conveyed to people with different AÍbased applications.

Whenever someone is tested positive for COVID-19, all the people in the vicinity are provided with the infected person's travel details, activities, and commute maps for the previous two weeks through mobile notifications sent as a push system.

Government-run health services receive information on the person's contacts, making it easier to track those whom s/he had met during that time, and bring them under observation and medical tests. AI ensures prompt execution of all these steps. Hospitals, ambulance services, mobile test labs -all rely on IT sector and technology to deliver prompt and efficient services.

South Korea also introduced drivethrough coronavirus testing, in which a person drives his car inside a mobile testing lab, get his samples collected while sitting inside the vehicle, and gets test results within a few minutes.

If found to be infected, they are immediately isolated and taken to specialised treatment facilities. Many such drive-through labs are operational, being run with 5G facilities provided by mobile operators.

Those driving on the road are notified of the nearest drive-through lab where they may undergo medical tests.

If any infected person lived or worked at a large building, temporary medical centres are set up there to provide medical tests to all residents.

AI data analysis informs government about possible clusters of the virus, or areas with most risk, thus enabling prompt medical services and mobilising awareness initiatives in those areas.

The government has implemented AIbased regulation and process design to ensure supply and distribution of masks and other preventive items. Each person has to use their ID cards to buy two masks at a time from nearby medicinestores. Even though several weeks have passed since the outbreak began in the country, there was not any noticeable hike in the price of daily essentials such as rice, oil, baby-food, etc.

"The ease of availability of data has enabled South Korea to define or decide or take initiative on the relevant aspects. Many countries do not have such elaborate digital data platform or sufficient technological prowess and logistics," said a Bangladeshi expatriate living in Korea.

In an address to the nation, South Korean premier Chung Sye-kyun has stressed the need to stay alert without becoming panicked, mentioning that everyone is under risk of being infected.

Mentioning that the number of coronavirus patients are coming down in South Korea and the government has managed to bring the situation under control, the premier also announced that the government offices will be run digitally with the officials and staff working from home, as an added

The author is founder and CEO of Ticon System Ltd, and has been involved in South Korea's IT sector.

## Countries bolster virus defences

Trump yesterday said he had taken a coronavirus test, as the White House began protectively checking the temperature of anyone coming cost -- financial markets endured into close contact with him or Vice President Mike Pence.

Appearing at a White House news conference where he attempted again to provide guidance and assurance to worried Americans, Trump said he had yet to receive the results of his

resident was seen Friday shaking hands all round as he gathered his coronavirus response team at the White House -- a practice he yesterday said owed to long-time habit as a politician but which he said would have to change.

European nations meanwhile ramped up border controls, with foreigners forbidden from crossing into Russia from Norway and Poland. Denmark and the Czech Republic also announced stringent restrictions.

Squares and streets from Milan to Madrid were deserted as government calls to stay at home were heeded by most -- some Italians took to singing to each other from their windows to beat the social isolation, others

organised rounds of applause. Meanwhile, India yesterday declared the coronavirus outbreak in the country a "notified disaster".

In a brief two-page press release this evening the government said money from each state's Disaster Response Fund (SDRF) would be used for temporary accommodation and supply of food, water and medical care for patients and people in quarantine

There are 83 confirmed COVID-19 cases in India, with at least two deaths linked to the virus. On Friday, Health Ministry officials said a further 4,000 potential cases had been identified through contract tracing and were being tracked.

India's West Bengal yesterday said all educational institutions will remain shut till March 31. However, board exams will continue as per schedule, they said.

The World Health Organization (WHO) confirmed Europe as the epicentre of the pandemic on Friday after a dramatic slump in new cases in China, where the virus first emerged in December last year.

China registered just a handful of new infections yesterday and most of the country's more than 80,000 confirmed patients have already recovered.

Attention instead has shifted to Spain, which has more than 5,753 cases (183 deaths) and Italy with more

than 21,157 cases (1,441 deaths). Iran too confirmed another huge jump yesterday to almost 13,000 cases, making it the world's third worst-affected country from a virus that has infected 151,760 people globally and killed 5,764.

Another hotspot France has

reported 3,661 cases and 79 deaths. The human cost is rapidly being matched by the economic a rollercoaster ride all week with spectacular losses triggered by fears of a global recession followed by huge gains after government spending

Companies announced drastic measures to help tackle the virus --US tech giant Apple closed all of its Sowa Rigpa and Homoeopathy) issued Contrary to medical advice, the stores outside China until March 27, a directive to the general public stating, with CEO Tim Cook saying he had learnt from steps taken in China.

British Airways meanwhile became the latest global firm to hint at drastic action to come, with CEO Alex Cruz telling staff to expect job losses.

Airlines have cancelled thousands of flights worldwide as COVID-19 decimates demand and countries, including the US ramp up travel restrictions, and several firms have hinted that bailouts could be required.

As economies reel and finance experts mull the impact, governments are also facing up to the public health dilemmas posed by the virus -- whether to try to stamp it out entirely with drastic restrictions or try to manage its spread.

British officials have argued for trying to flatten the curve, managing the outbreak to push the peak of the crisis to summer when hospitals will be able to cope better.

They argue this will help create "herd immunity", though experts are divided over whether there is evidence to support the theory.

"We don't know enough about the science of this virus, it hasn't been in our population for long enough," said the WHO's Margaret Harris.

Britain had resisted imposing any wide restrictions, but the media reported vesterday that a ban on large gatherings would come into force from next weekend. The legislation could see the cancellation of events such as the Wimbledon tennis tournament and the Glastonbury music festival, due to begin at the end

Most other governments in affected regions have already begun to take drastic action.

Philippines Yesterday, introduced a night-time curfew in Manila, Saudi Arabia became the latest country to ban international flights and New Zealand said international travellers would have to self-isolate on

Africa has so far been spared the worst of the illness but Rwanda declared its first case yesterday in a sign of the widening global spread.

Also widening was the impact on the sporting calendar, with football seasons curtailed, Formula One races

postponed and cricket tours called off. Japan was forced to deny claims that the Tokyo Olympics could be called off as well, after Trump said "maybe they postpone it for a year".



Shoppers queue for checking out after almost emptying shelves at a supermarket in London yesterday, as consumers worry about product shortages, leading to the stockpiling of household products due to the outbreak of the novel coronavirus.

## Corona quacks run amok

the least -- if only garlic could cure coronavirus, one wonders why countries are having to reorient their entire health systems to try and contain the virus.

This has become such a wide-spread message that WHO has since then had to officially debunk this too -- meaning this "cure" will not be doing anything other than subjecting one to a foultasting drink.

But "cures" continue to crop up. A photo circulated widely shows a banner by a homeopathy hall in Purana Paltan claiming to have found a prevention for coronavirus. "Nothing to fear anymore! Preventive medication of coronavirus made according to homeopathic medicine science can be found at Sekandar Homeo Hall!" reads the sign.

So The Daily Star called the number provided. One Dr Abdullah picked up and informed, "Yes, we have preventive medicine for coronavirus. You can buy it for Tk 50 each." The establishment also reportedly treats those afraid of getting married, tumours of any and every type, and hypersexual disorder.

He is not the only one. Indian politicians have openly been claiming that cow urine and dung are useful to fight against coronavirus. Alcohol-free hand sanitisers made of cow urine are now available on Amazon India.

It is to be noted that the only hand sanitisers suggested for use are those with over 60 percent alcohol.

There's more. On January 29 this year, India's Ministry of AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha, "The Group of Experts inter-alia has

Shambolic

The returnees were allowed to

go home because they showed no

symptom of a coronavirus infection,

DG of Directorate General of Health

Services Prof Abul Kalam Azad told

former adviser to WHO's southeast

Asia region, said, "Who will make

sure they would remain properly

quarantined at home on their own?

Even though they seem to be in good

health, the signs of an infection may

appear later. They may pose a threat

that no one would be there to make

sure the people were properly "self-

self-quarantine must stay inside a

room with an attached bathroom.

Anyone delivering food to the person

must not go closer than six feet to the

He added that it was highly likely

Muzaherul also said a person in

Contacted, Prof Muzaherul Huq,

denouncing the authorities.

reporters at the scene.

to entire communities.

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recommended that homoeopathy Buddhists, the people killing the medicine Arsenicum album 30 could be taken as prophylactic medicine against coronavirus infections." Arsenicum album is a highly diluted solution of arsenic trioxide.

Meanwhile, several religious leaders have been quick to jump on the bandwagon, and have been delivering sermons regarding the prevention and cure of coronavirus across the country.

In a YouTube video with 4.8 million views, titled "New information leaked about coronavirus that China could not keep secret", a religious leader addressing a congregation in Trishal, Mymensingh described an interview taken of the virus in the land of dreams.

"Mamun Maruf from Italy told me about this dream of his. Let me tell you, as the qiyamat draws closer the dreams of Muslims will not lie," the preacher started the story with this disclaimer.

"He had fallen asleep around half past midnight, when this coronavirus which looks like a kodom phooll came in front of him. When did you come to this planet?' the man asked the virus. 'We came on October 23, 2019 when three Chinese soldiers raped and killed a Chinese Muslim woman named Ayesha'," he described.

"Then there was a command that the corona army go attack China," he concluded.

Up until this point, the sermon might have come across as ridiculous communal turn.

population. "We will mostly kill the cure too?

Muslims.

"Those who say their prayers, do their ablutions, emit a glow which humans can't see but viruses can. They will not be attacked by the virus."

The crowd responded with loud praise for the Creator -- a reminder that racism against certain communities have drastically risen along with the spread of coronavirus.

In a follow-up video taken during another suchsession, he spoke at length about a follow-up interview taken with coronavirus in dreamland, where the virus apparently relayed the message that if people shun Indian television and cinema channels, they will not get coronavirus. The listeners made loud noises of acquiescence.

The story does not stop there -- in yet another follow-up video taken during a session in Daudkandi, Cumilla, the preacher said an antidote to coronavirus has been discovered and it involves the meat of pigeons and spiders and must be concocted by a pious man.

"The formula for this is 1.q7 + 6 13. Seven drops taken over seven days will cure those affected," he said. confident in his conviction. The crowd once again cheered in amazement.

that the new coronavirus came from Wuhan's wildlife market. Among many other sellers, the market catered -- but then his tirade took a sinister, to Chinese traditional medicine practitioners. Faith in pseudoscience

At one stage of the demonstrations,

New infections in Italy soared

some 40 to 45 people started pushing

the gate of the hajj camp and police

Friday by more than 2,500 and virus-

related deaths made their biggest

single-day jump there, increasing by

country identified its first virus

In the three weeks since the

had to jostle with them.

STAR REPORT

A newborn has tested positive for coronavirus in the UK, making the baby possibly one of the youngest cases in the country, UK's local media The child's mother, who was

Newborn contracts

coronavirus in UK

taken to a north London hospital days before the birth with suspected pneumonia, has also caught the virus, according to The Guardian. The NHS Trust confirmed that

two patients tested positive for coronavirus and also requested staff who were in close contact with them during the treatment to self-isolate. It is not yet known whether the child contracted the disease in the

womb or was infected during birth. The Sun, which first revealed the case, reported that the baby was still being treated at the hospital but the mother has been transferred to a specialist infections hospital, reports The Guardian.

### Saarc leaders

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example to the world, and contribute It has been reported by media to a healthier planet," he tweeted.

The move was welcomed by every member nations including Pakistan.

Saarc has failed to hold any summit after 2014 due to tussle between India and Pakistan. The He went on to predict that and superstitions may have led to last summit, which was scheduled coronavirus relayed the message that the advent of coronavirus -- will it to take place in Pakistan's Islamabad it will kill one-seventh of the world's dominate the field of prevention and in 2016, was cancelled due to India's withdrawal from it. The move came after the 2016 Pathankot attack in Indian Kashmir. India accused Pakistan of orchestrating it.

> Bangladesh State Minister for Foreign Affairs, Shahriar Alam, said that Prime Minister Sheikh Hasina welcomes the proposal and looks forward to a constructive dialogue with the Saarc leaders and others who already consented to discuss way forward at this testing time for the region and the world.

> Maldives President Ibrahim Mohamed Solih thanked Modi for taking the initiative and pledged full

> Nepal's Prime Minister KP Sharma Oli said his government is ready to work closely with Saarc member states to protect the people of the region from the deadly disease.

> Thanking the Indian PM for his leadership, Bhutanese PM Lotay Tshering said the region must come together to face the crisis.

> "Smaller economies are hit harder, so we must coordinate. With your (Narendra Modi) leadership, I have no doubt we will see immediate and impactful outcome. Looking forward to the video conference," he added.

> Pakistan also responded positively to Modi's proposal, saying it was ready to participate in the conference, acknowledging that coordinated efforts were needed to minimise the threat posed by the deadly virus.

> have communicated that SAPM (special assistant to Pakistani prime minister) on health (Zafar Mirza) will be available to participate in the video conference of Saarcmember countries on the issue," Pakistan Foreign Office Spokesperson Aisha Farooqui said in a tweet on Friday.

> Sri Lankan President Gotabaya Rajapaksa said he is ready to join the discussion and share Sri Lankan's learnings and best practices and to learn from other Saarc members.

> "Let's unite in solidarity during these trying times and keep our citizens safe."As of now, India has recorded 83 cases, the maximum number of coronavirus cases in the eight members Saarc nations. It is followed by Pakistan (20), Maldives (8), Afghanistan (7), Bangladesh (5), Sri Lanka (2), and Nepal and Bhutan one each.

was supposed to be the quarantine centre for the 142, many expats said some had managed to flee while the law enforcers and officials were struggling to quell the protesting Jahirul, a doctor at the health desk

of Hazrat Shahjalal International Airport, said "These passengers do not seem to have coronavirus symptoms for now, but the virus could be in incubation in their body. In that case, the symptoms may appear a week and others may get infected."

At the hajj camp yesterday, this correspondent saw at least 30 to 40 passengers chanting slogans while others shook hands with their friends and family members at the gate.

Asked why they wanted to go home immediately ignoring the risks, a man said, "We have been here for five hours. But no doctor or official came to test or examine us.

children aged between six and 11 outbreak.

cluster, Italy has reached a total of 17,600 confirmed cases -- the largest outbreak after China -- with 1,266 The Italian government has

At the hajj camp yesterday, which with me. They have not eaten in 24

hours."

ordered an unprecedented lockdown, ordering businesses to close and restricting people's movement.

On Friday, the World Health Organization warned that Europe has now become the epicentre for the pandemic, reporting more daily cases A woman said, "I have three than China did at the height of its

# more cases confirmed

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quarantined".

positive today [yesterday] and are now at a hospital." She said more information would be disclosed today.

Earlier in the day, at another press conference, the IEDCR director said the third person, out of the three reported coronavirus cases in Bangladesh, was found to be free of

the virus in the latest tests. "We'll conduct another test after 24 hours to confirm if the person has fully recovered," she said.

Meanwhile, nine people were kept isolated and four others institutionally quarantined at different hospitals after they showed symptoms of novel coronavirus, said the IEDCR. On March 8, the IEDCR had

announced that three people, including two Italy-returnees, were detected with the virus. Two days later, IEDCR tested them again and found two of them to be

free of the COVID-19 infection.

confirmed it. One of the two recovered people

was also allowed to go home.

The IEDCR tested the third person again on Friday. 'We want to give you good news --

the third person was found negative to corona infection in yesterday's [Friday] test," said Flora. The IEDCR director said they

would carry out another test. "If the

test result comes negative, we'll let him go." The IEDCR tested 24 more people in the last 24 hours till 12:30pm yesterday and has so far tested 221 people for the virus, which was declared a global pandemic by the

**BRIEFING** At the briefing, Abdul Momen said the government suspended on-arrival visas for all countries for two weeks from today to keep Bangladeshis safe.

He said passengers would not after China.

After a follow-up test, the institute be allowed to enter Bangladesh from any European country, except England, until March 31.

> He said they would observe the overall situation in the next two

The foreign minister also said all decisions are taken in the interest of

He reminded journalists that the government even cut short the March 17 mega event on the birth centenary of Father of the Nation Bangabandhu Sheikh Mujibur Rahman.

"We must protect our people," Momen said adding that four of those found infected with coronavirus came from abroad while the other contracted the virus from her husband.

the people of Bangladesh.

Meanwhile, airport sources said

around 150 Bangladeshi expatriates are scheduled to arrive at the Dhaka airport today from Italy, which is the worst coronavirus affected country