



## A clear misfire

The decision to sack the FBI chief calls into question Trump's use of presidential powers

President Donald Trump's decision to fire James Comey as the director of the Federal Bureau of Investigation at a time when the agency is expanding a probe into the possible collusion between Mr. Trump's campaign team and Moscow could well be a turning point in a scandal that is engulfing his administration. No incumbent of the White House since Richard Nixon has fired a top law enforcement official probing the President or his close aides. Nixon's decision to sack the special prosecutor investigating the Watergate scandal backfired, unleashing a chain of events that led to his eventual resignation. The reason Mr. Trump has given for ousting Mr. Comey is hardly convincing. The administration accuses Mr. Comey of having been unfair to Hillary Clinton, Mr. Trump's Democratic opponent, in an investigation concerning her private email server while serving as Secretary of State, and of incompetence. To be sure, Mr. Comey's handling of the Clinton case was very controversial and had triggered sharp criticism, especially from the Democrats. She said that Mr. Comey's public statement just days before the November 2016 election that the FBI had reopened the probe into the server issue cost her many votes. The irony is that Mr. Trump had then appreciated Mr. Comey's "guts". So now when he cites Mr. Comey's handling of the Clinton server probe as the reason to get rid of him, naturally it finds few takers.

On the other side, available facts suggest that the investigation into the Russia scandal was closing in on Mr. Trump's associates and that the White House has had little control over Mr. Comey's FBI. Earlier, Mr. Comey confirmed to Congress that the Bureau was conducting a "criminal investigation" into any links between the Trump campaign and the Russian government. Mr. Trump has already lost Michael Flynn, his original pick for National Security Adviser, from the Cabinet. Jeff Sessions, his Attorney General, has recused himself from the Russia probe, given his past ties to Moscow. Other Trump associates, such as Paul Manafort, Carter Page and Roger Stone, also face accusations in the scandal. Besides, as the American media reported, Mr. Comey had asked the Justice Department for more resources for the investigation. But what he got was a dismissal letter from the President. This reinforces the perception that Mr. Trump was wary of the investigation and that he fired Mr. Comey to stop, or at least disrupt, the process. He now has the opportunity to choose the next FBI chief, who will oversee the probe going forward. But the political storm his action has triggered in Washington and the growing calls for an independent investigation into the entire 'Russia' scandal suggest that Mr. Trump has overplayed his hand – both ethically and tactically. The Comey firing has, in fact, taken him closer to Russia, which he had tried so hard over the past three months to distance himself from.

## TB timelines

The transmission cycle of the drug-resistant strain must be broken aggressively

Nearly two months after the Health Ministry set the ambitious target of working towards elimination of tuberculosis by 2025, a study published in *The Lancet* indicates that India's TB crisis is set to snowball by 2040 when one in 10 cases could be drug-resistant – both multidrug-resistant TB (or MDR-TB, resistant to more than one of the first-line drugs) and extensively drug-resistant TB (or XDR-TB, also resistant to fluoroquinolones and at least one of the second-line injectable drugs). What is even more alarming is the projection that the increased number of drug-resistant cases will come from direct transmission from infected people to others rather than by strains acquiring resistance to TB drugs during treatment due to inadequate treatment or discontinuation of treatment midway. The study found that "most incident" MDR cases are "not caused" by acquired drug resistance, which will become a "decreasing cause" of drug-resistant TB. The increased availability of drugs to fight drug-sensitive TB has led to the emergence of MDR-TB strains. With an increasing number of MDR-TB cases, there has been a shift in the way people get infected with drug-resistant TB – from strains acquiring drug resistance during treatment to direct transmission of MDR-TB strains from an infected person. The same trend is seen in the case of XDR-TB too. As a result, in high MDR-TB burden countries such as India, improved treatment outcomes in people might only reduce and not eliminate drug-resistant TB. Till 2015, only about 93,000 people with MDR-TB had been diagnosed and put on treatment.

The study, based on a mathematical model to forecast how TB is likely to progress in the four most-affected countries (Russia, the Philippines, South Africa, India), suggests that new MDR-TB cases a year in India will touch 12.4% by 2040, up from 7.9% in 2000. With respect to XDR-TB, the incident cases will rise to 8.9%, from 0.9% in 2000. In 2015, the four countries accounted for about 40% (more than 230,000) of all drug-resistant TB cases in the world. Besides targeting early diagnosis and treatment of those with the disease, India's TB control programme has identified enhanced interventions to break the transmission cycle of the bacteria in the community. Contact screening of family members and preventive treatment of all children below the age of five who have not developed the disease are already a part of the Revised National Tuberculosis Control Programme, but rarely done. Another important strategy that has to be adopted is making drug-susceptibility testing universal and mandatory. Developing more accurate, cheaper and effective diagnostic tests and improved treatment regimens that are less expensive and of shorter duration will also go a long way in winning the war against the disease.

# New technology and old religion

Augmented reality is upending the interface between physical reality and human desire to shape our universe



SUNDAR SARUKKAI

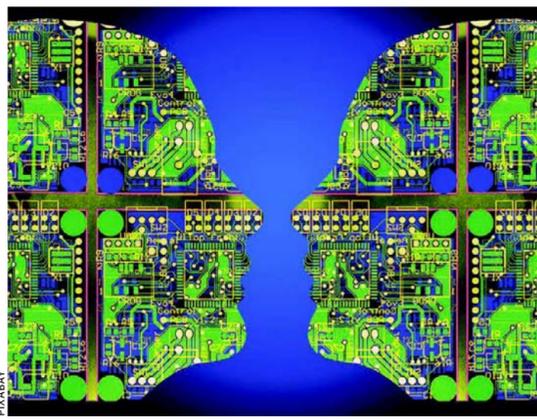
The Oracle has spoken. His vision will soon become your personal gadget. In the latest F8 annual global developer conference last month, the CEO of Facebook, Mark Zuckerberg, announced his vision of new technologies. He wants to change our lives by changing the way we perceive, engage and experience the real world around us. He wants to create augmented reality to spice up the mundane reality of our everyday world such as using an app to fill a cereal bowl with images of tiny swimming sharks.

Augmented reality is like this. It begins with dissatisfaction with the way the world appears before us. It panders to the worst of our human desires when it creates a world which is special to each one of us as if the world should be amenable to our desires rather than the other way around.

### A familiar lure

However, Mr. Zuckerberg's vision is not really new. This vision is presented as if it is something new and radical but there is much in this new technological imagination that should remind us of old religious imaginations.

Mr. Zuckerberg wants us to "think about how many of the things around us don't actually need to be physical". His vision of a world suspicious of materiality points to technology's attempt to always go beyond the real which is present in front of us. This view of technology is closely related to the old religious imaginations, suggesting that the more digital, technological we get, the more religious we will become. Is it only an



accident that religiosity and new-age gurus have increased in the digital age?

If this suggestion sounds absurd, consider the following. Like religion, this new technology begins with a suspicion of the real physical world, always searching for something more than the world outside us. Both technology and religion do so by choosing the physical body as the fulcrum of all problems of the physical. They use selective ideas of liberation and freedom as an escape from the physical.

Both these domains raise fundamental questions about the autonomy of human action: do we lose our autonomy to God in the same way that we lose it to the digital gadgets? Both use magic and spectacle as a way to attract us towards them. Both of them create a sense of protection and comfort, and create forms of dependencies towards them. Finally, not to forget another common strategy to promote both these domains: the question of cost.

Religion is cheap for all that it promises us. Zuckerberg has learnt this lesson well: he sells his vision

by claiming that a \$500 TV can be a \$1 app in the future with the use of his technology. But what really is the problem with the physical? Why is the idea of the physical a problem for the digital technologists as also for the religious imagination?

### Human and divine

There is a marked difference between the human world and the world of the divine. A crucial aspect of this difference is defined by the physicality of human beings. We are all embodied creatures, occupy space and consume physical produce. Our body is the first model of the physical, and this body is also the problem for many notions of liberation.

The body is a problem because the physical, by definition, is always an entity that is constrained and bound by laws. The body is a physical body in that it cannot do certain things because of its physicality. Liberation is firstly a liberation from the physical world. Heaven is not constrained by any of the factors that characterises the physical world. Gods and angels fly when we cannot. They are not re-

strained by the constraints of space and time. Gods are not like us. They are immaterial, omnipresent, eternal, a spirit, a consciousness. God is the first example of a digital world where there is no constraint due to physicality. That is also the reason why the notion of God was deeply correlated with mathematics in the Western tradition. Geometry was thought to embody the omnipresence, and arithmetic the eternality, of God. Isaac Newton was among those who subscribed to this fundamental relation between these two non-physical domains.

Augmented reality takes this one step further and is actually the logical end to the imagination of science and technology. Science describes the world in its own way, but the aim of science does not lie in a mere description.

The fundamental aim of science is to use this description and do something to the world which it describes. Science is as much about using the knowledge of nature in order to control and harness it. However, there is a more important aim of science: to ultimately create nature.

For science, it is not enough to merely know how things are or why they act the way they do, but it is more essential to know how to recreate not just this world but "better" ones. The ultimate aim of science is to be God; cloning, BT foods, artificial intelligence and augmented reality are just the first faltering steps on this journey.

Religion and Mr. Zuckerberg have one more thing in common. They depend on the fact that human individuals are perpetually unhappy with themselves and their world. Religion offers solace through another world, a world of the divine. Mr. Zuckerberg wants to create this world of the divine in his digital toys. He wants to change the world rather than ask us to change our individual selves.

The domain of Gods was differ-

ent from that of the humans, and so liberation meant leaving this place and going to the beyond. However, augmented reality is not about this form of liberation. It wants to create a heaven outside each of our doors, or at least outside each of our smartphones.

### Not socially shared

Augmented reality is narcissistic and self-centred unlike religion in general. Religions are always social. They are practised socially and are composed of social rituals. But this new technological make-believe world which each one of us can create according to our desires and fantasies is not socially shared. It insulates and creates an individual who can only end up being socially delusional.

It is the digital world, ephemeral, unlocated, seemingly free and floating, that beckons as the way out of the constraints of the human world. This new technology mimics all that the old religion had to give in order to create a delusion of a new religion. Like all religions, it too forgets that the digital and the ephemeral are always based on a foundation of the material, just like human life is always based on a foundation of loss and death.

What Mr. Zuckerberg is showing us is only the glitz, and not the wires and the black boxes that are behind it which make all this possible. But eventually he is not responsible for what he creates. It is we, the suffering, burdened physical humans who go to him for the satiation of our desires. We are puppets in the hands of the digital masters and we have gone beyond the point of even asking whether we know what we are doing or what we are getting into. We are already in the land of the new religion.

Sundar Sarukkai is professor of philosophy at the National Institute of Advanced Studies, Bengaluru

# What's in a generic name?

The core issues are affordable access to medicines and their rational prescription and use

GEORGE THOMAS  
S. SRINIVASAN

The Medical Council of India (MCI) issued a circular on April 21 drawing attention to clause 1.5 of its regulations regarding the professional conduct of doctors: "Every physician should prescribe drugs with generic names legibly and preferably in capital letters and he/she shall ensure that there is a rational prescription of drugs." Further, the circular said, "For any doctor found violating clause 1.5 of Ethics Regulation, suitable disciplinary action would be taken by the concerned SMC/MCI."

This has caused considerable unease among medical professionals. It appears that the MCI has responded to the statement by the Prime Minister on April 17 that the government intended to ensure that doctors prescribe medicines by generic names only.

Nearly all drugs have three types of names, the International Union of Pure and Applied Chemistry (IUPAC), the non-proprietary or generic, most commonly the International Non-proprietary Name (INN) administered by the World Health Organisation (WHO), and

the brand name. Some countries, such as the U.S., Britain and Japan, have their own generic names or approved names.

Once patents have expired, companies other than the original manufacturer can produce and sell the drug. This usually results in significant reduction in costs. These off-patent drugs are called generics internationally. However, the term 'generic' has a different meaning in India's pharma trade. Medicines marketed exclusively with INN names are called generics or generic medicine.

The WHO advocates generic prescribing as part of an overall strategy to ensure rational medical treatment and prescribing tailored to local conditions. In India, there are many barriers to rational prescribing. For example, there are a bewildering number of fixed-dose combinations (FDCs), the vast majority of which have no therapeutic justification. These FDCs account for about 45% of the market (about ₹45,000 crore). The British National Formulary lists very few FDCs whereas in India there are thousands.

Of the total domestic pharmaceutical formulations, a market of



over ₹1 lakh crore, generic medicines, as understood by the pharma trade, account for not more than 10%, or ₹10,000 crore. Therefore, even if a doctor prescribes a drug by generic name, the patient will generally end up buying a branded product.

### A misinformed debate

It simply shifts the focus of promotional activities to the pharmacists. It is well known that different companies offer different trade margins. There is the moral hazard that pharmacists will dispense the brand which offers them the biggest margin. The current diktat

by the MCI therefore will not reduce prices for the consumer.

Some commentators argue that brand names ensure quality and many doctors believe this. This belief is ill-founded. The recent quality survey by the government found 26 of 32 samples from a particular plant of a prominent multinational drug company to be not of standard quality (NSQ). The most effective way to maintain quality is to have periodic testing and stringent disincentives for poor quality. The best insurance for good quality is good regulation.

Some argue that bioavailability and bioequivalence (BA and BE) of generics may not be equal to the original brand. Bioavailability refers to the rate and extent to which the active ingredient of the drug present becomes available at the site of action of the drug. In order for a new generic drug to be licensed, it has to be bioequivalent to the reference drug.

It means that BA of the generic drug is similar to that of the reference drug. Of the approximately 800 useful drugs known to modern medicine, bioequivalence is really only important for a few drugs with low solubility and high

or low permeability, so the debate about BA and BE is somewhat misinformed.

The present pronouncements by government spokespersons on drug pricing, and concomitant actions by the MCI, appear to put the onus of all the problems in this sector on the medical profession whereas successive governments have taken very few initiatives to reduce drug costs and promote manufacture of only rational medicines. The current method of price control legitimises margins of up to 4000% over the cost of the product.

The core issues are affordable access to medicines and their rational prescription and use. These objectives require an enlarged list of essential and life-saving medicines under price control, elimination of all irrational FDCs, no brands for drugs off patent, and briefer officially approved names to make it easier for doctors to prescribe generics including the rational FDCs.

George Thomas is an orthopaedic surgeon at St. Isabel's Hospital, Chennai. S. Srinivasan is with LOCOST, Vadodara, and the All India Drug Action Network

## LETTERS TO THE EDITOR

Letters emailed to letters@thehindu.co.in must carry the full postal address and the full name or the name with initials.

### Death of a soldier

The abduction and murder of Army officer Lt. Ummer Fayaz by suspected militants should serve as a "watershed moment" in the history of the Kashmir Valley ("Army officer on leave abducted, killed in Shopian," May 11). The officer was neither posted in Kashmir nor had participated in any anti-terror operation but had gone there to attend a wedding. In this movement of grief, the nation stands in solidarity with the bereaved family,

RAMESH G. JETHWANI,  
Bengaluru

It is undoubtedly clear that this dastardly act has been perpetrated by the Pakistan-backed militants. It also reflects that these terrorists continue to monitor proceedings in the Valley. The level of their insanity is such that they don't even hesitate to kill a person who is from their State. The time has come for the Central government to move ahead and deal with our

neighbour with an iron hand.

SHATAYU SAHAL,  
Umnao, Uttar Pradesh

### ICJ route

With diplomatic efforts to make Pakistan see reason not succeeding and the international community failing to put pressure on the country, India naturally had no option but to approach the International Court of Justice (ICJ) ("Recourse to ICJ carefully considered," May 11). However, the ICJ order is non-binding and there is always a strong possibility that India's move to approach the court will lead to Pakistan mimicking this strategy and attempting to internationalise the Kashmir issue.

K.S. JAYATHEERTHA,  
Bengaluru

### Recalcitrant judge

The gag orders issued by the Supreme Court to the media not to publish anything said by Justice Karman exposes the woefully inadequate disciplinary and

administrative powers in the hands of the Chief Justice of India (CJI) to act against other judges. Perhaps those who framed the Constitution did not foresee such a scenario. Justice Karman, fully aware of the inadequacy of such rules and procedures, resorted to his own pronouncements, bringing down the reputation of the judiciary. The Constitution Bench headed by CJI, which handed down the order on Justice Karman, has been cautious in dealing with the case. However, there is now a necessity for empowering the CJI with greater administrative and disciplinary powers to act against other judges. Impeachment, a lengthy and complex procedure to remove a judge, should only be a last resort.

SURYANARAYANAN S.,  
Chennai

### Armenian genocide

Tayyip Erdogan and his ruling party AKP representing the interests of an emerging

middle class, which finds its moral righteousness in Islam and builds its legitimacy on erstwhile impressive economic achievements. The last factor forced Mr. Erdogan to keep the focus on the economic agenda during his India visit.

Being a regional player in West Asia, Turkey is undoubtedly on the geopolitical radar of India. However, since losing the role of a bulwark against the former Soviet Union, Turkey has won some influence in the Muslim world by asserting Ankara's independence from the West. And as a result, Turkish aspirations to be a major regional power have caused serious difficulties of balancing Mr. Erdogan's role within NATO. Armenia's accusation of massacre of Armenians during World War I is not unilateral. Despite Turkey's aggressive policy of denial, the fact of the Armenian genocide by the Ottoman government has been documented, recognised,

and affirmed in the form of laws, resolutions, and statements by many states and international organisations. As of 2017, governments and parliaments of 29 countries, including Brazil, Canada, France, Germany and Russia, as well as 45 states out of 50 of the United States, have recognised the tragedy as a genocide. The arrival of the Vice President of India in Yerevan on April 24, Armenian Genocide Remembrance Day, and his visit to Armenian Genocide Memorial as a first order of

business on the very next day, was by no means a coincidence. Vice President Ansari reiterated the position of his predecessor Bhairon Singh Shekhawat, who also attended the Memorial in 2005. Armenians around the world are grateful to Mr. Ansari for honouring the memory of 1.5 million victims of the Genocide.

ARMEN MARTIROSYAN,  
AMBASSADOR,  
REPUBLIC OF ARMENIA,  
New Delhi

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### CORRECTIONS & CLARIFICATIONS:

>>The last paragraph of the report, "Court issues warrant against Sudhakaran" (May 11, 2017, some editions), read: "Taking up another case filed against AIADMK (PTA) leader T.T.V. Dhinakaran, the ACMM expressed..." It should have been AIADMK (A).

>>Misspelling: In the front-page report headlined "Emmanuel Macron to be France's youngest President" (May 8, 2017), there was a reference to a company name – *Sopra Steria*. It should have been *Sopra Steria*.

It is the policy of The Hindu to correct significant errors as soon as possible. Please specify the edition (place of publication), date and page. The Readers' Editor's office can be contacted by Telephone: +91-44-28418297/28576300 (11 a.m. to 5 p.m., Monday to Friday); Fax: +91-44-28552963; E-mail: readerseditor@thehindu.co.in; Mail: Readers' Editor, The Hindu, Kastur Buildings, 859 & 860 Anna Salai, Chennai 600 002, India. All communication must carry the full postal address and telephone number. No personal visits. The Terms of Reference for the Readers' Editor are on www.thehindu.com